

Tekla PowerFab 2023i

Product Guide

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1 Tekla PowerFab release notes

Welcome to Tekla PowerFab 2023i!

Tekla PowerFab introduces functionalities that provide you an enhanced overview of the costs and actuals in the projects along with other improvements in estimating. The change management functionalities introduced in the 2023 release have further been enhanced and allow you to manage your estimates more easily.

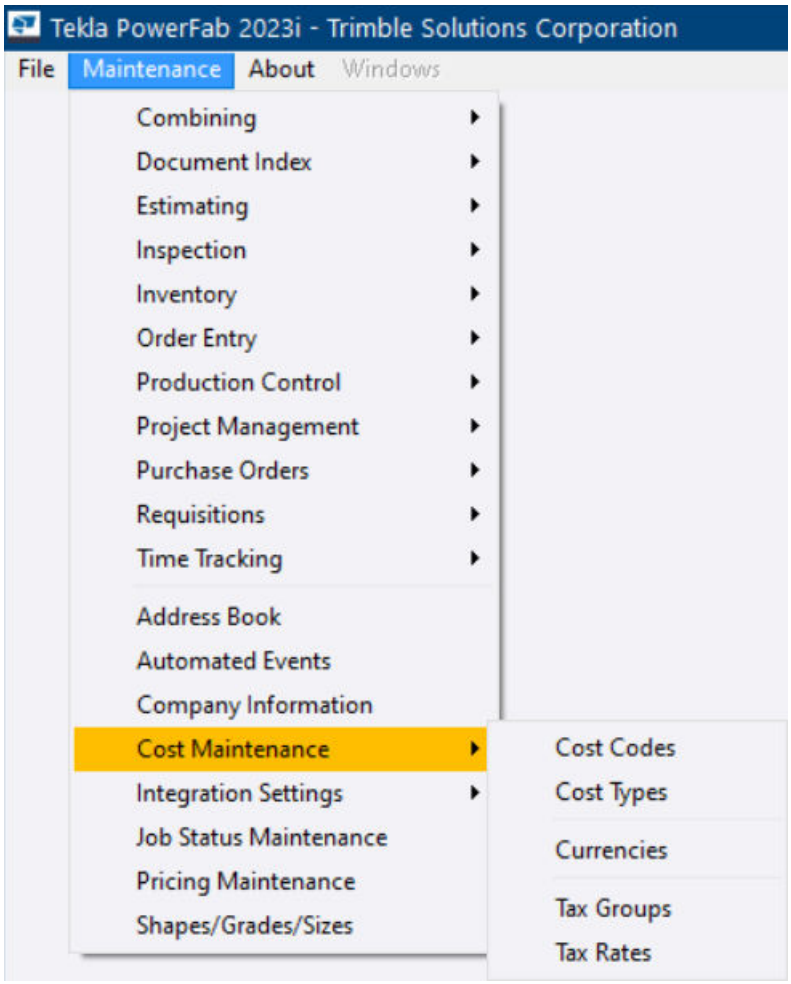
A new filtering view is available in the mobile tool Tekla PowerFab Go.

This Product Guide has also undergone some major updates and structural changes. For more information on changes in general, see Revision history for Tekla PowerFab (page 1252).

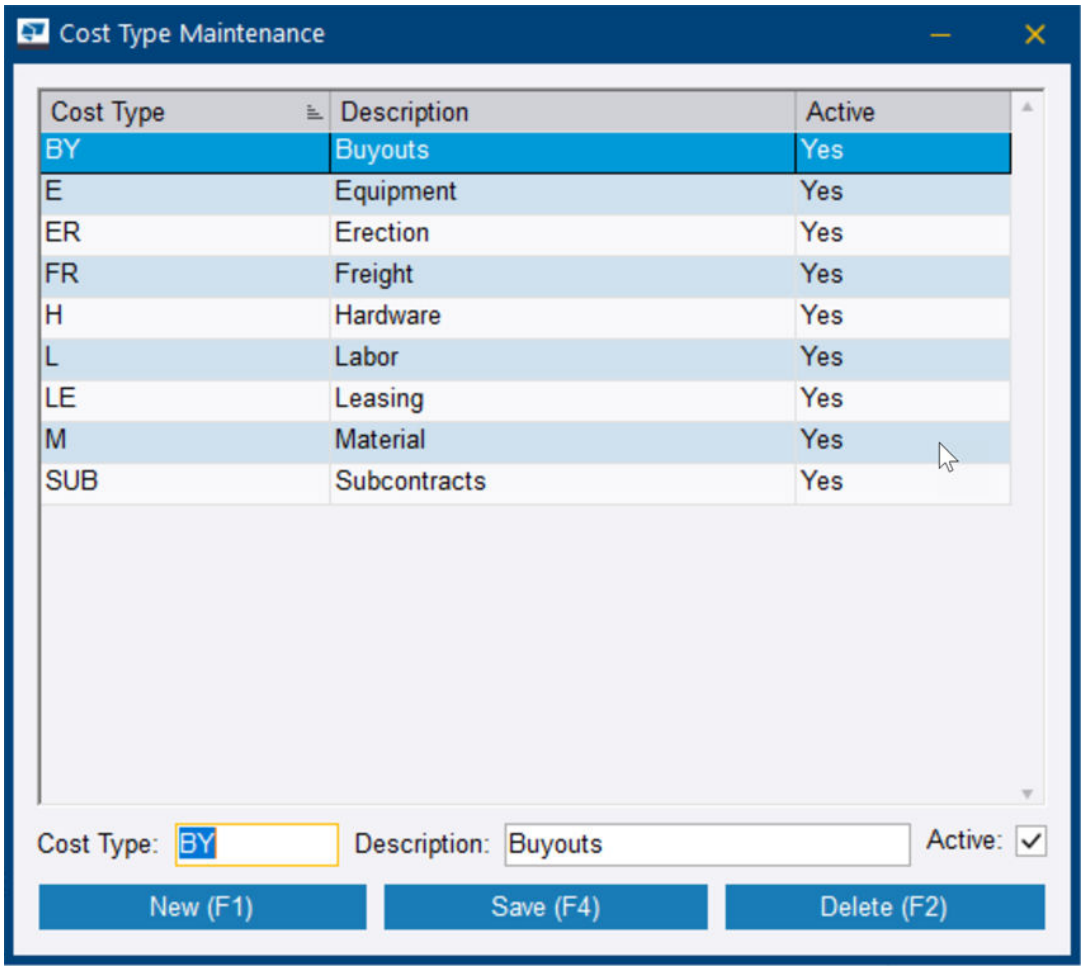
1.1 Estimating cost structure

Tekla PowerFab now allows to use a similar cost structure between **Estimating** and the estimate data that is read by Trimble Viewpoint and some other accounting systems. This provides you with an structure that you can easily compare with what you have in your accounting systems.

In **Maintenance** --> **Cost Maintenance**, you can now find the cost code and the cost type libraries that you can define based on your company's accounting practice.

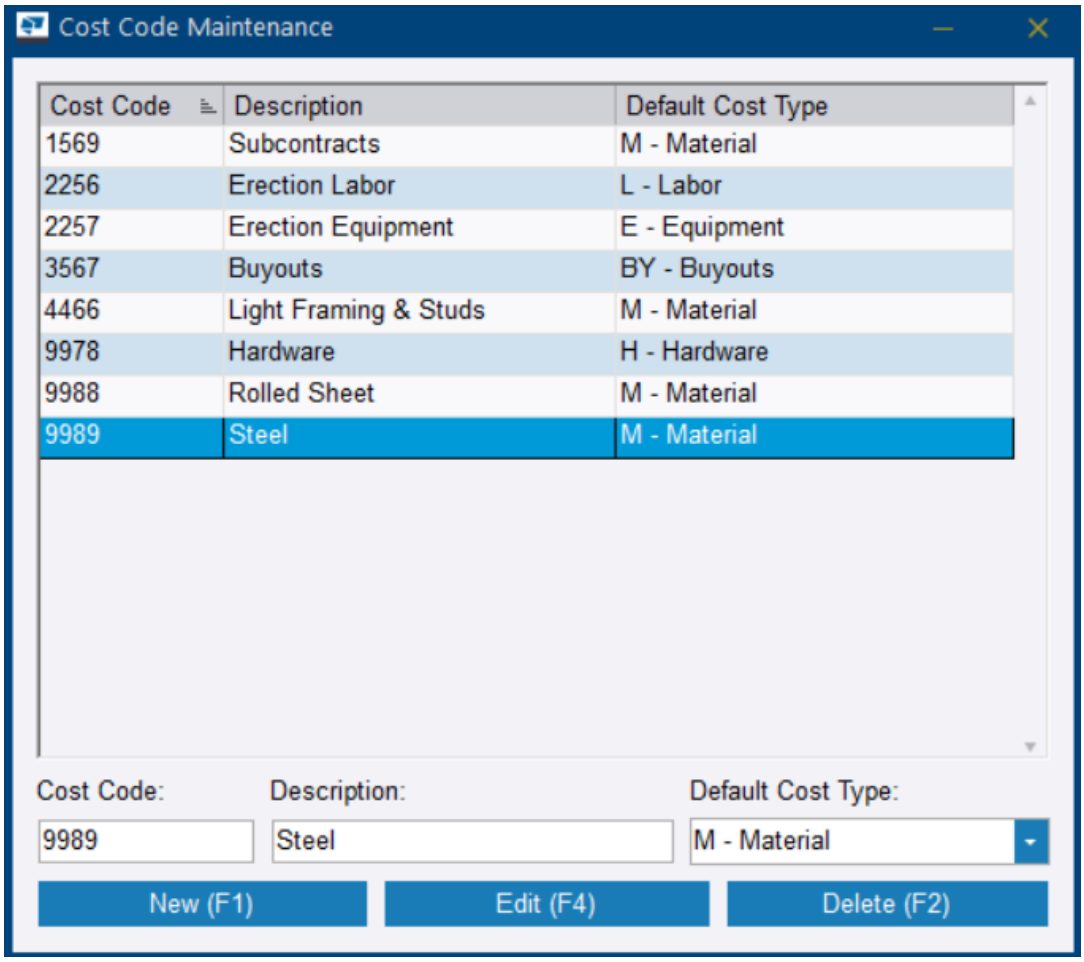


In the **Cost Type** dialog box, you can create your own cost type library. If you have an old cost type that you cannot delete because it has been used in old jobs but you do not want use it anymore, you can deactivate it by deselecting the **Active** checkbox.



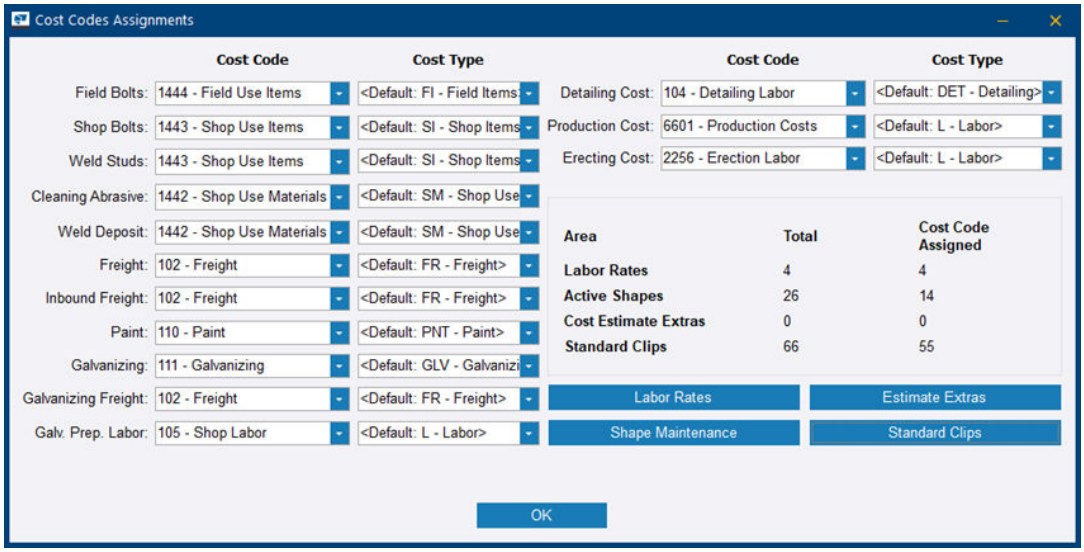
For more information, see Manage cost types (page 225).

The cost code library has been updated to enable linking cost codes with cost types.



For more information, see Manage cost codes (page 227).

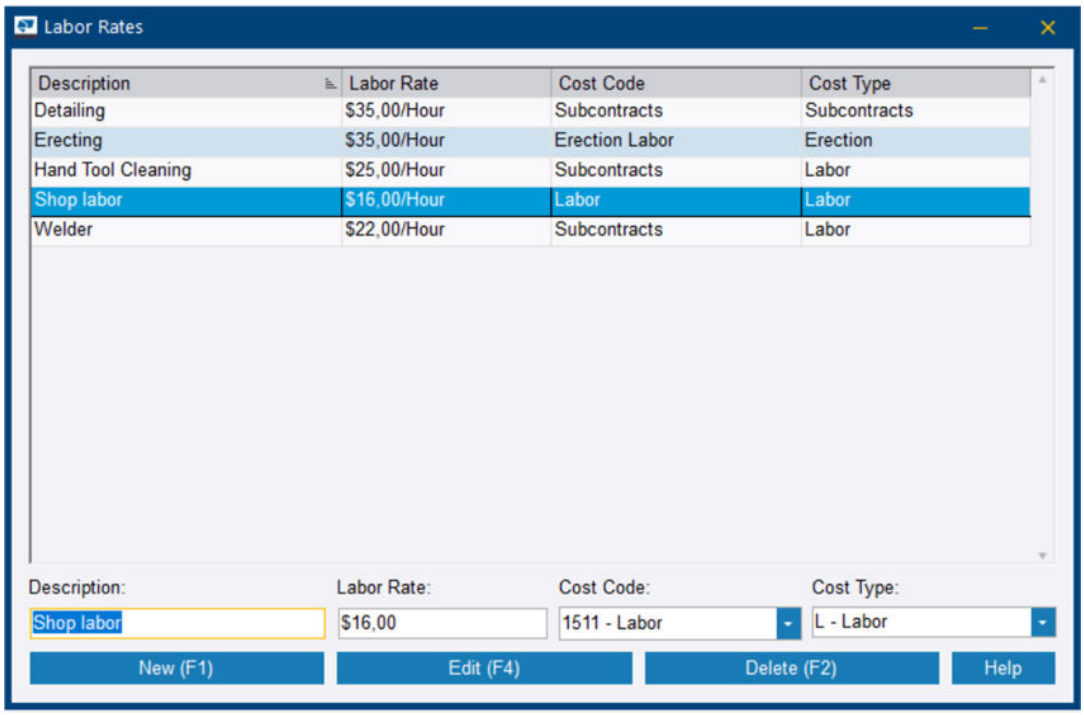
You can access, view, assign, and adjust cost code and cost types across all areas within Tekla PowerFab from a single interface accessed via **Maintenance** --> **Estimating** --> **Fabricator Information**.



For more information, see Assign and view default cost codes and cost types (page 495).

You can now also apply a specific cost code and cost type to each labor rate, estimate extras, shape maintenance, and standard clips.

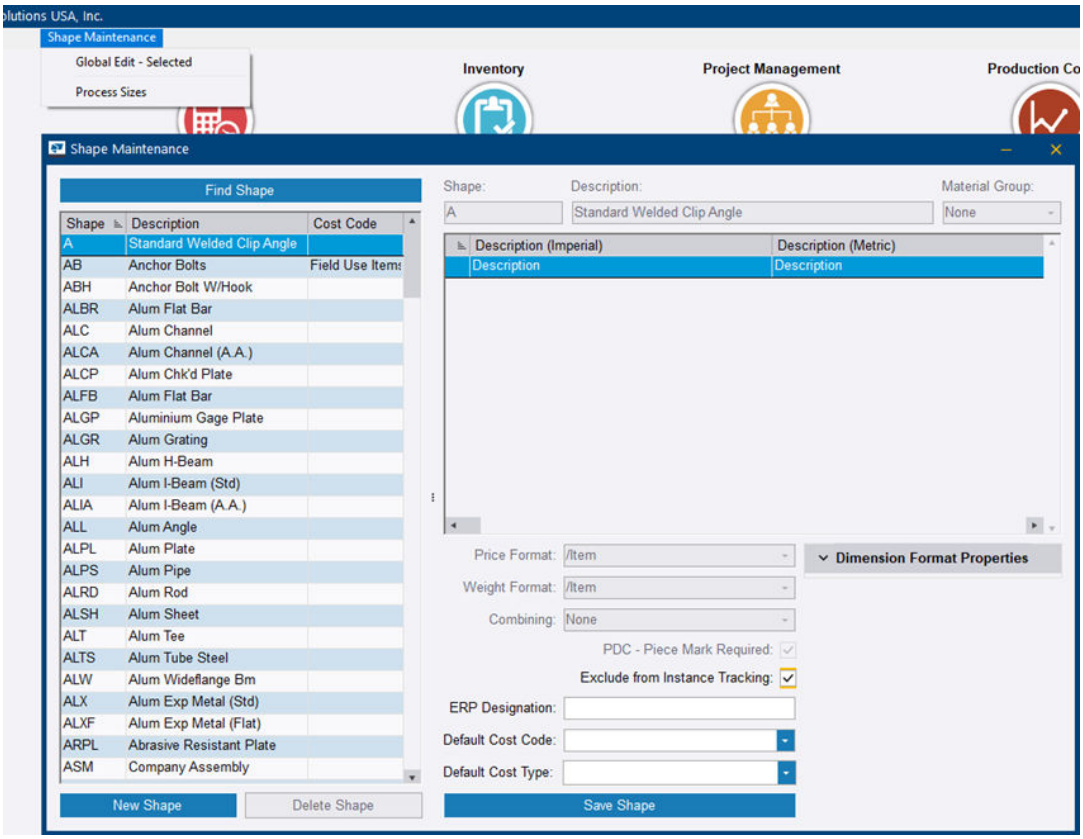
Example - Cost codes and cost types for labor rates:



For more information, see Create and modify labor rates (page 490).

In **Shape Maintenance**, you can select your defined default cost codes and cost types for a shape.

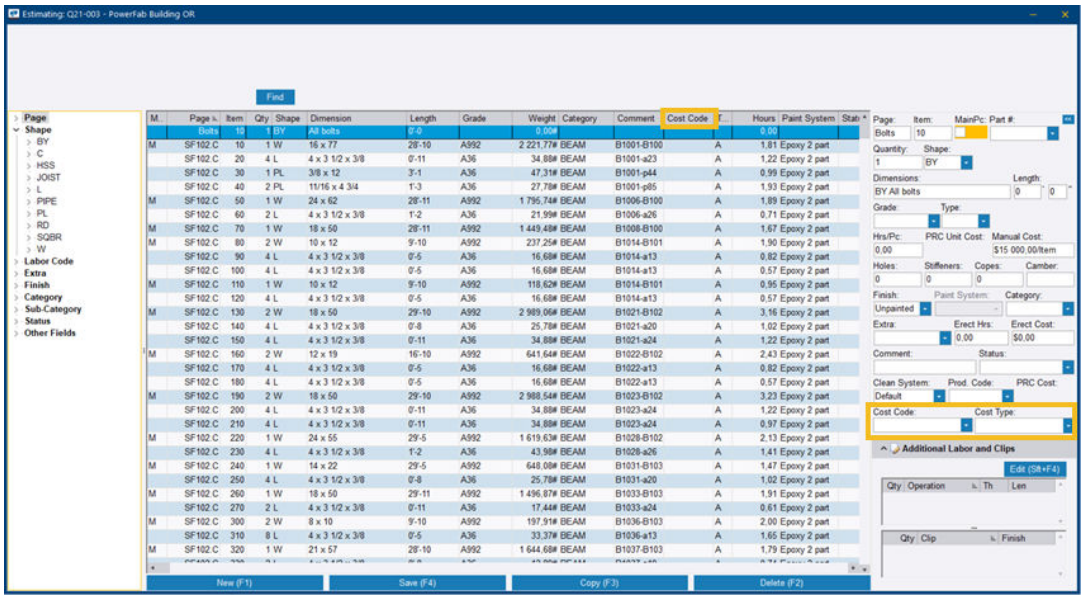
You can also apply changes to multiple items at once using **Global Edit - Selected**.



For more information, see the following:

- Add, modify, and delete shapes (page 304)
- Apply a cost code and cost type to a material type (page 339)

Once a cost code and cost type have been defined, you can select and apply these to your estimate items. You can also add cost code and cost type columns to view in the display area.

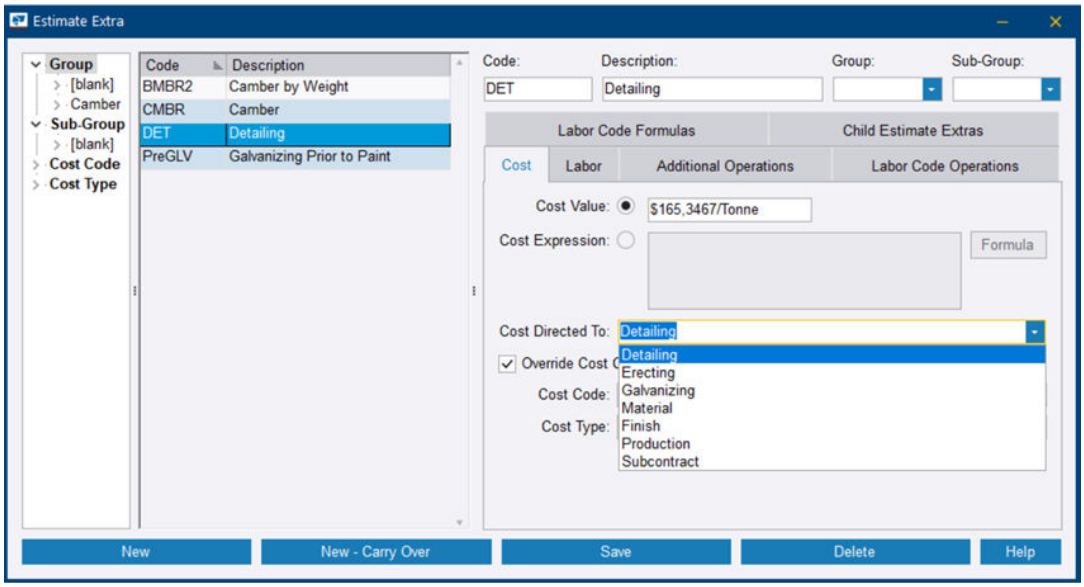


For more information, see the following:

- Assign a cost code and cost type to an estimate item (page 543)
- Assign a cost code and cost type to multiple estimate items (page 544)
- Customize the layout of a dialog box (page 131)

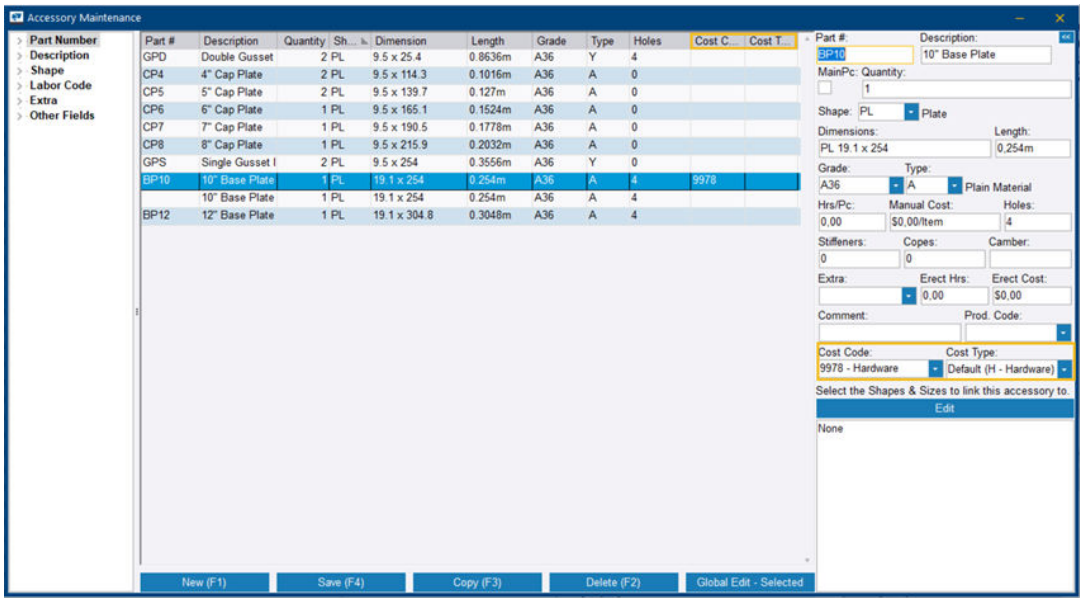
New cost functionality has also been added to **Estimate Extras**, where you can define cost code and cost type. The following new values have been added to the **Cost Directed To** list:

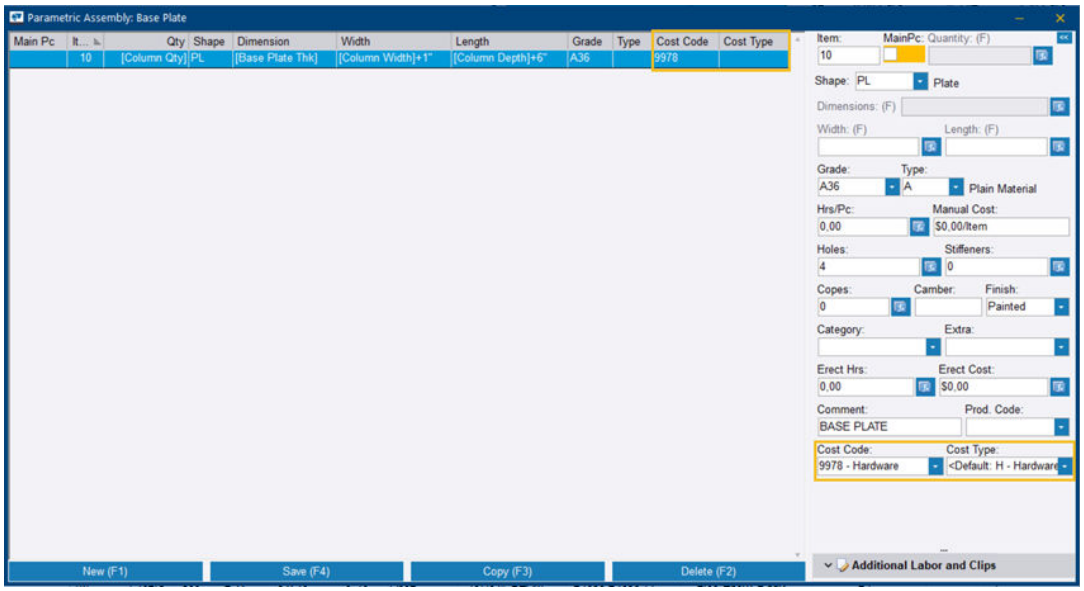
- **Finish**
- **Production**
- **Subcontract**

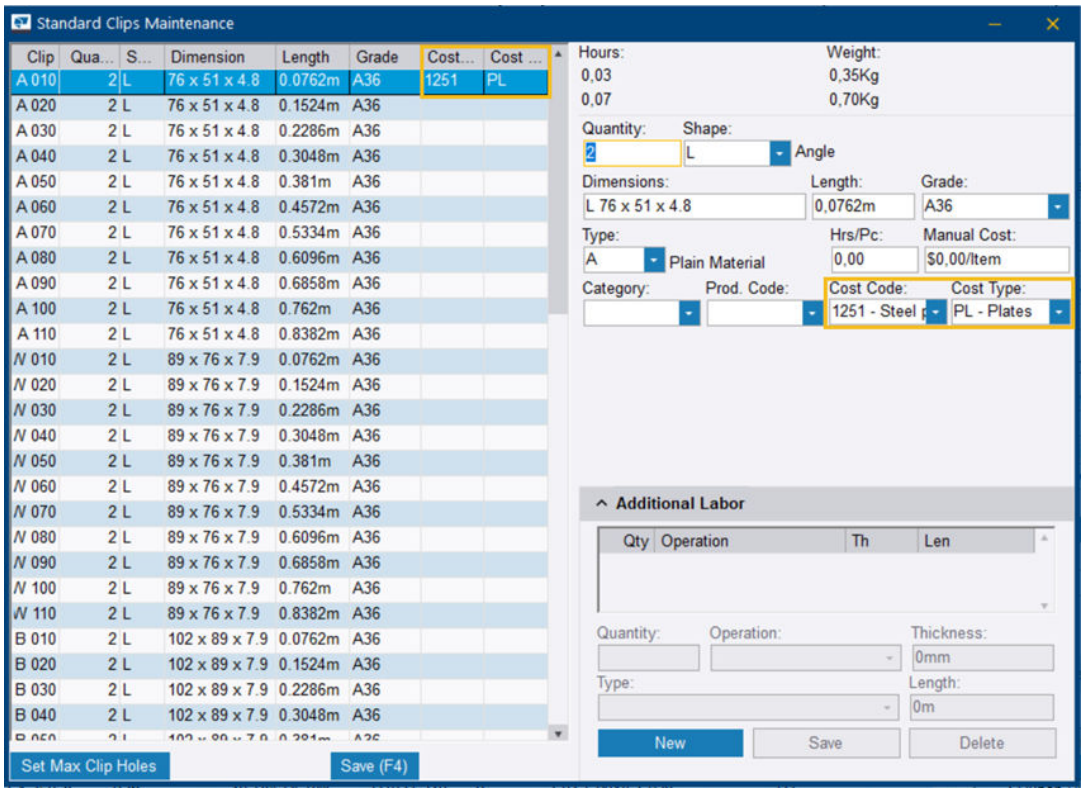


For more information, see Create estimate extras (page 457).

You can now also apply cost codes and cost types to accessories in **Accessory Maintenance**, to parametric assemblies in **Parametric Assembly Maintenance**, and to standard clips in **Standard Clips Maintenance**, and customize the display area to show the codes.







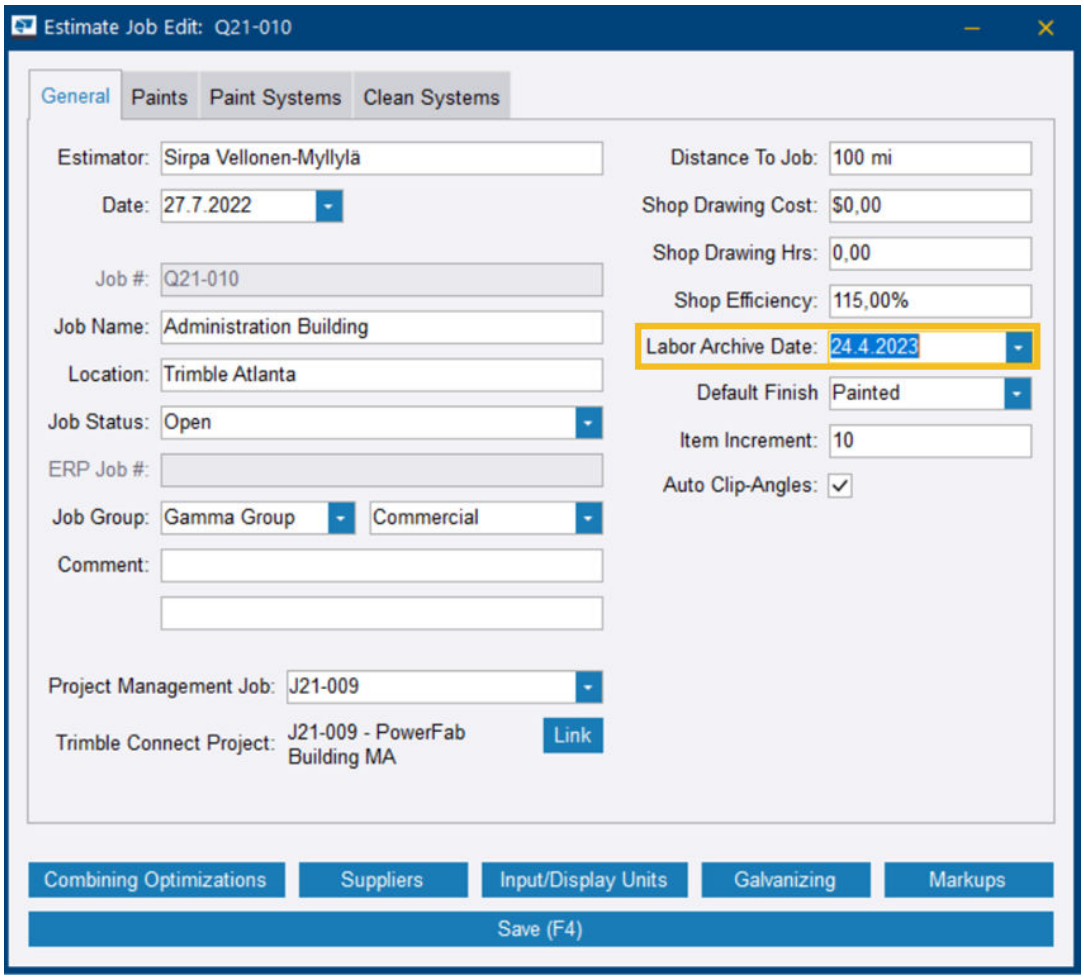
For more information, see the following:

- Manage accessories (page 412)
- Create and manage parametric assemblies (page 421)
- Manage standard clips (page 474)

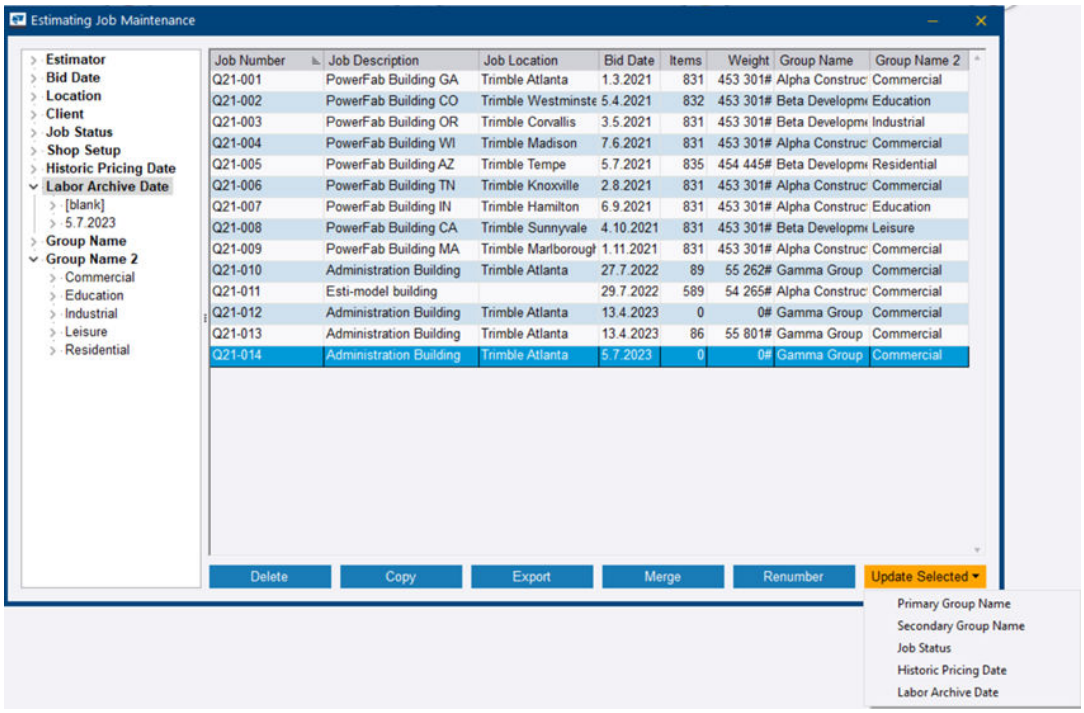
1.2 Labor information archive date

In Tekla PowerFab, it is now possible to define a labor archive date that holds the labor-related calculations that have been set up in **Maintenance** --> **Estimating**, such as **Burn**, **Drill**, **Punch**, **Weld**, **Labor Standards**, and **Labor Operations**.

This creates a very safe way to work. It also provides a possibility to recalculate estimate labor to past or actual configurations.



You can also apply a default labor archive date to your estimates from the **Estimating Job Maintenance** dialog box.



See also the following:

- Create an estimating job (page 509)
- Manage estimating jobs (page 406)
- Set labor archive date (page 411)

1.3 Inventory cost code by consumption

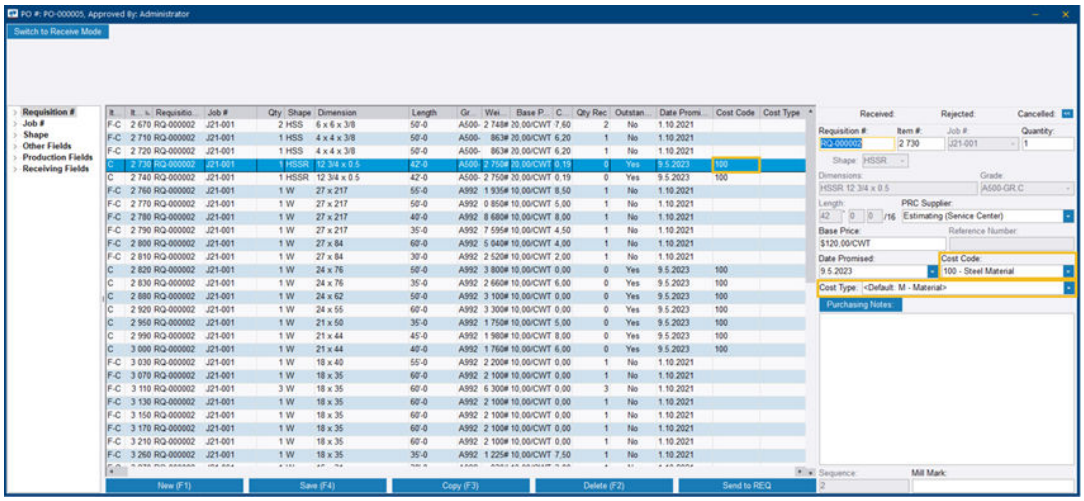
You can now assign cost codes and cost types to pay categories both as default values for all jobs or for an individual job. They can then be assigned to the appropriate bill of material.

This acts as an additional layer of how material costs can defined, charged and tracked within the production control job.

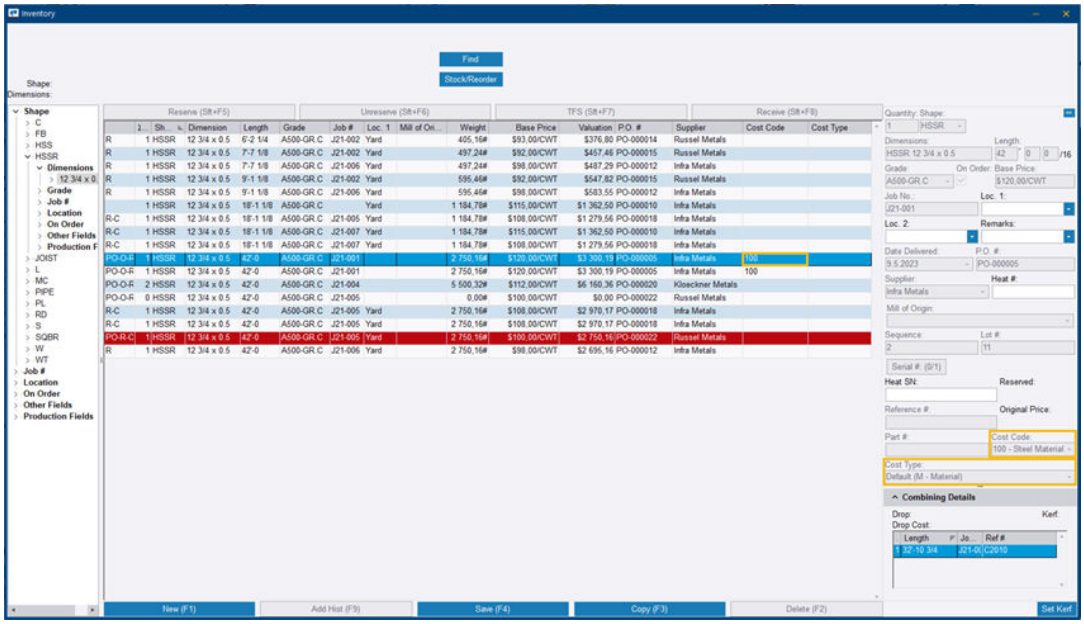
Note that if you do not assign a pay category, the production control bill of material is charged with the default cost code and cost type.

For instructions, see Define default pay categories for Production Control (page 861) and Define pay categories for a production control job (page 923).

After you have created a cost code and cost type, you can select them in a requisition and purchase order.



When you have defined a cost code and cost type in a requisition or purchase order, this information is carried over to the Inventory module.



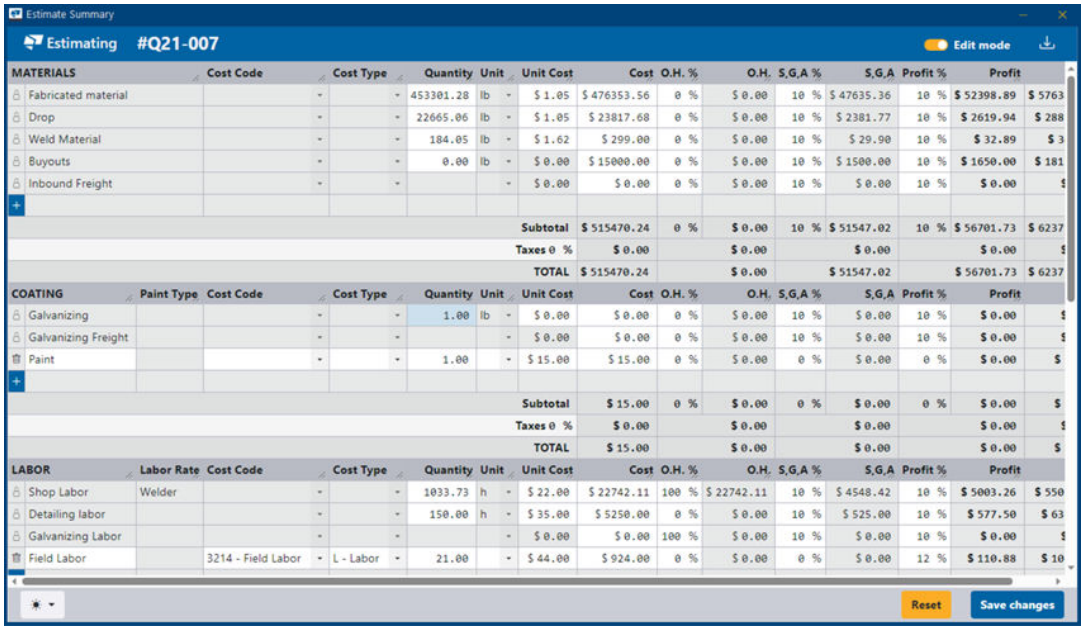
1.4 Live estimate summary

Tekla PowerFab now contains a live summary interface that allows you to see the planned and actual estimates, to input and modify items, and to fully control your final results without leaving the estimate job. The summary displays the real-time valuees in the estimate.

NOTE • Estimate summary is available only to customers that have a Tekla PowerFab Go license.

- The Administrator must add the user's **PowerFab Go Site Address** in **File --> Administration**.
- The user must have a Tekla PowerFab subscription.

Previously, you had to create a **Summary information - To Excel** report to view the final estimate results. Now you can get insights about job costing more easily as the final estimate results are available live in the estimate job in Tekla PowerFab.



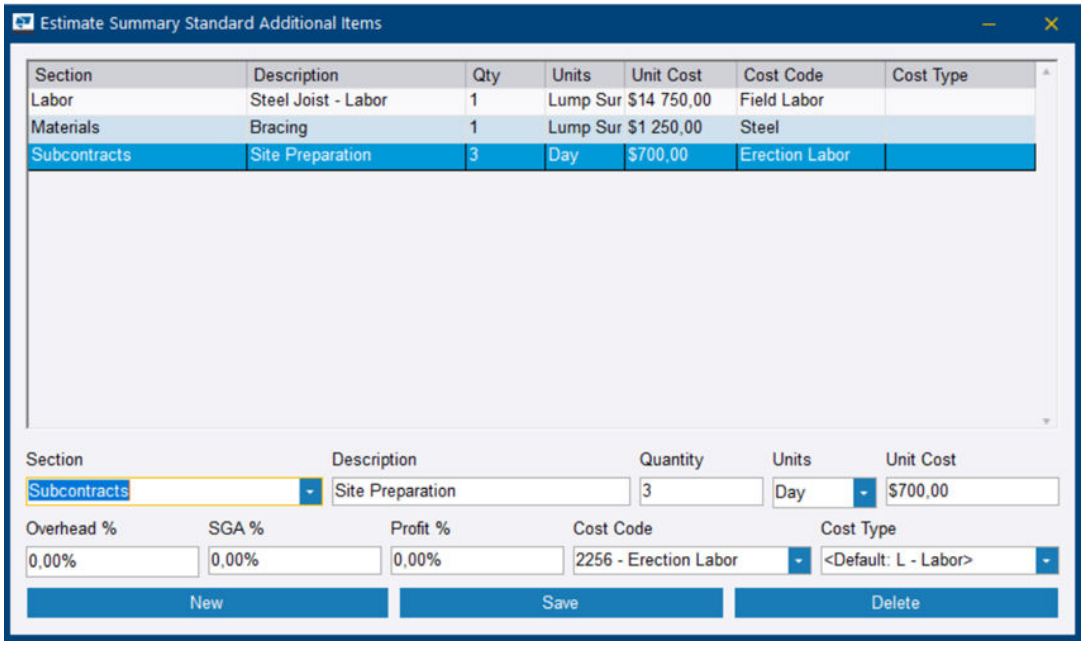
MATERIALS	Cost Code	Cost Type	Quantity	Unit	Unit Cost	Cost	O.H. %	O.H.	S,G,A %	S,G,A	Profit %	Profit	
Fabricated material			453301.28	lb	$ 1.05	$ 476353.56	0 %	$ 0.00	10 %	$ 47635.36	10 %	$ 52398.89	$ 5763
Drop			22665.06	lb	$ 1.05	$ 23817.68	0 %	$ 0.00	10 %	$ 2381.77	10 %	$ 2619.94	$ 288
Weld Material			184.05	lb	$ 1.62	$ 299.00	0 %	$ 0.00	10 %	$ 29.90	10 %	$ 32.89	$ 3
Buyouts			0.00	lb	$ 0.00	$ 15000.00	0 %	$ 0.00	10 %	$ 1500.00	10 %	$ 1650.00	$ 181
Inbound Freight					$ 0.00	$ 0.00	0 %	$ 0.00	10 %	$ 0.00	10 %	$ 0.00	$
					Subtotal	$ 515470.24	0 %	$ 0.00	10 %	$ 51547.02	10 %	$ 56701.73	$ 6237
					Taxes 0 %	$ 0.00		$ 0.00		$ 0.00		$ 0.00	$
					TOTAL	$ 515470.24		$ 0.00		$ 51547.02		$ 56701.73	$ 6237

COATING	Paint Type	Cost Code	Cost Type	Quantity	Unit	Unit Cost	Cost	O.H. %	O.H.	S,G,A %	S,G,A	Profit %	Profit	
Galvanizing				1.00	lb	$ 0.00	$ 0.00	0 %	$ 0.00	10 %	$ 0.00	10 %	$ 0.00	$
Galvanizing Freight						$ 0.00	$ 0.00	0 %	$ 0.00	10 %	$ 0.00	10 %	$ 0.00	$
Paint				1.00		$ 15.00	$ 15.00	0 %	$ 0.00	0 %	$ 0.00	0 %	$ 0.00	$
						Subtotal	$ 15.00	0 %	$ 0.00	0 %	$ 0.00	0 %	$ 0.00	$
						Taxes 0 %	$ 0.00		$ 0.00		$ 0.00		$ 0.00	$
						TOTAL	$ 15.00		$ 0.00		$ 0.00		$ 0.00	$

LABOR	Labor Rate	Cost Code	Cost Type	Quantity	Unit	Unit Cost	Cost	O.H. %	O.H.	S,G,A %	S,G,A	Profit %	Profit	
Shop Labor	Welder			1033.73	h	$ 22.00	$ 22742.11	100 %	$ 22742.11	10 %	$ 4548.42	10 %	$ 5003.26	$ 550
Detailing labor				150.00	h	$ 35.00	$ 5250.00	0 %	$ 0.00	10 %	$ 525.00	10 %	$ 577.50	$ 63
Galvanizing Labor						$ 0.00	$ 0.00	100 %	$ 0.00	10 %	$ 0.00	10 %	$ 0.00	$
Field Labor		3214 - Field Labor	L - Labor	21.00		$ 44.00	$ 924.00	0 %	$ 0.00	0 %	$ 0.00	12 %	$ 110.88	$ 10

While in the summary, you can add and modify data that affect the final numbers. You can group the data more efficiently than before and, in addition to a summary that corresponds to the old **Summary information - To Excel** report, you can also view the summary by cost codes and cost types. The summary report allows you to recalculate and lock prices.

You can add and specify commonly used items and services in **Estimate Summary Additional Items**.



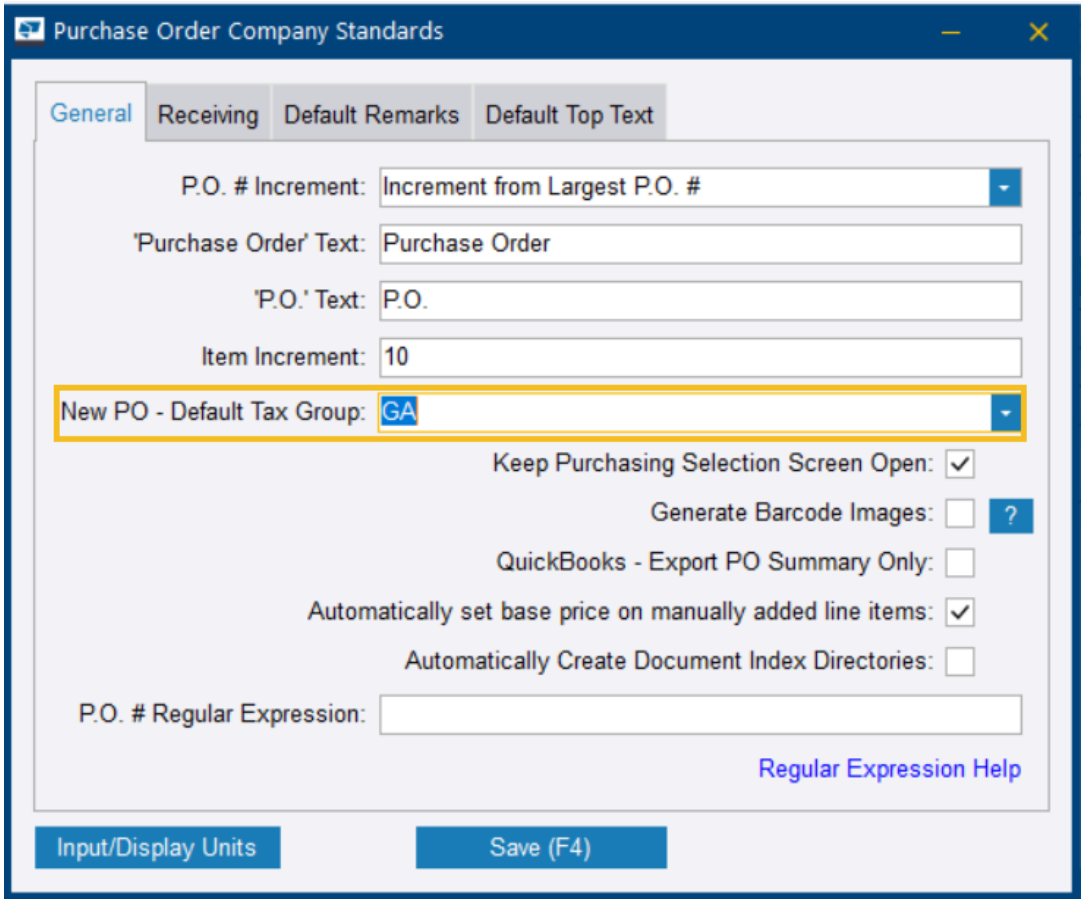
For more information, see Estimate summary (page 535).

1.5 Default tax code for purchasing

You can now set a default tax code for purchase orders instead of having to remember to set it manually on each new purchase order

Once you have created tax rates and tax groups in **Maintenance**, you can select a tax group as the default value.

On the **General** tab of the **Purchase Order Company Standards**, you can now use the new **Default Tax Group** option to select which tax group should be automatically applied to all new purchase orders.



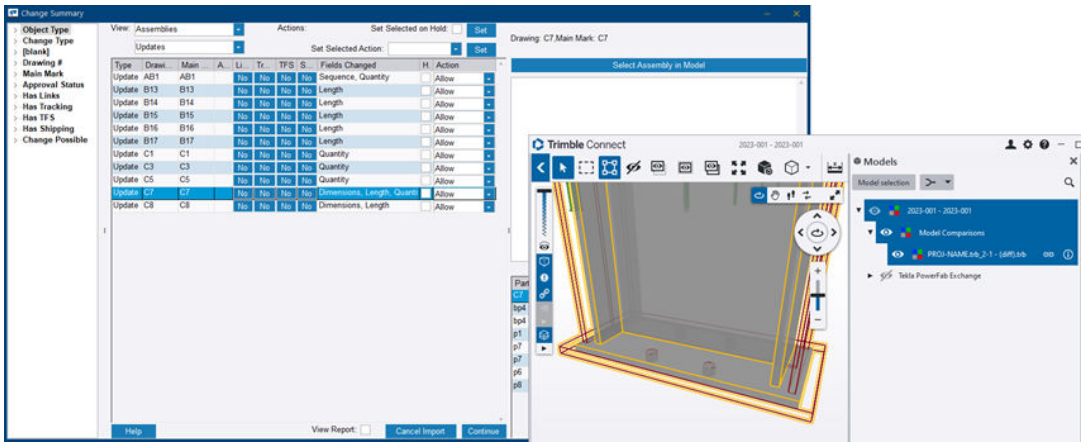
Once saved, all new purchase orders will have the default tax group automatically applied on the **Financial** tab. This can be still edited as required to ensure the correct tax group is selected for the specific purchase order.

For more information, see the following:

- Define company standard settings for purchase orders (page 1077)
- Create a purchase order (page 1135)
- Manage taxes (page 229)

1.6 Change management (comparison to model)

The change management features introduced in Tekla PowerFab 2023 are now followed by further enhancements. You can now visualize the changes within the project via Trimble Connect.

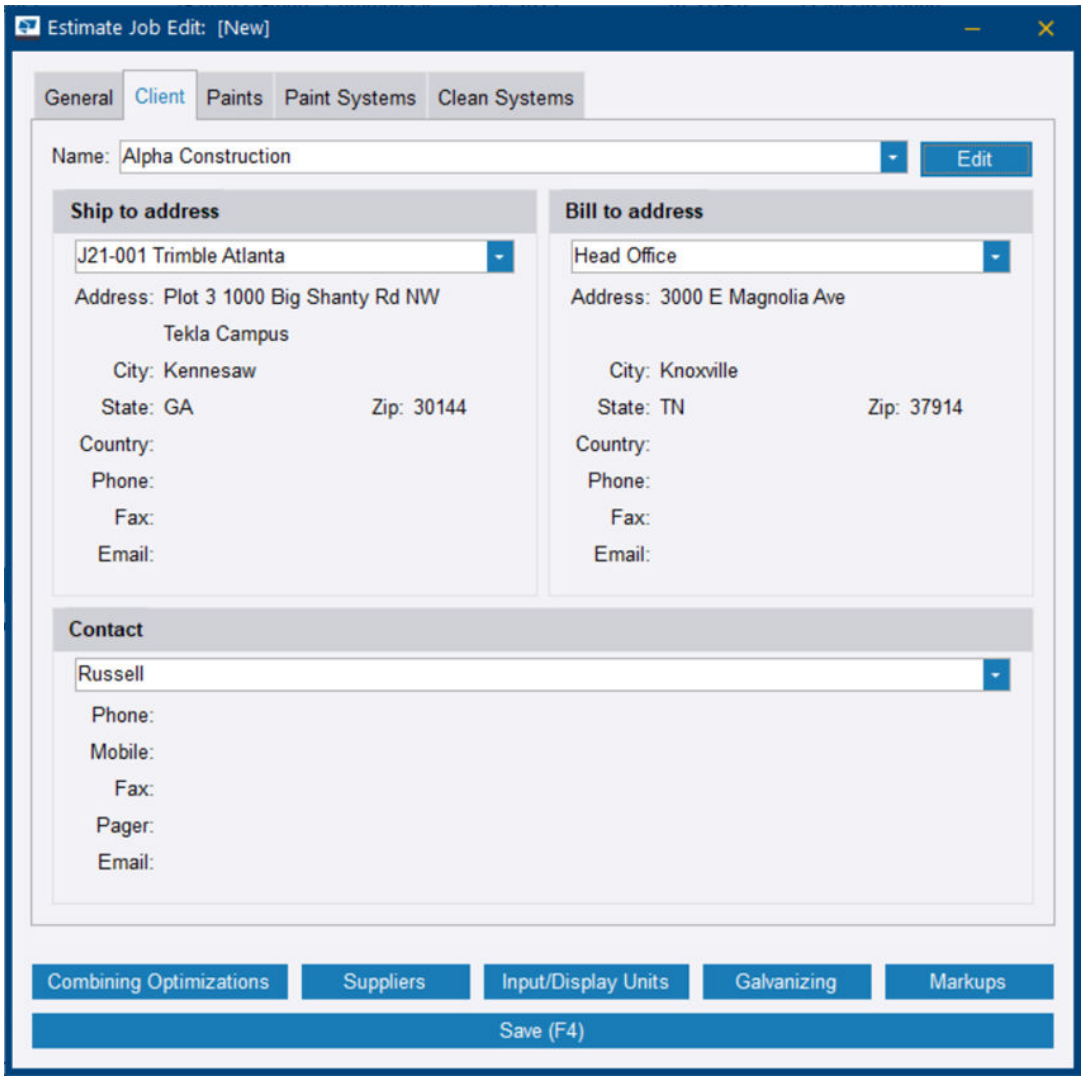


For more information, see Manage changes to a production control job (page 938).

1.7 Add client to an estimate job

As an estimator, you now have the ability to record the client and primary contact for each estimate, which will make it easier to find and update estimates. It also provides an extra layer of intelligence for future estimating dashboards where you will be able to identify win rate by client, for example.

When adding or editing an estimate job, you can select the client and the primary contact from the address book.



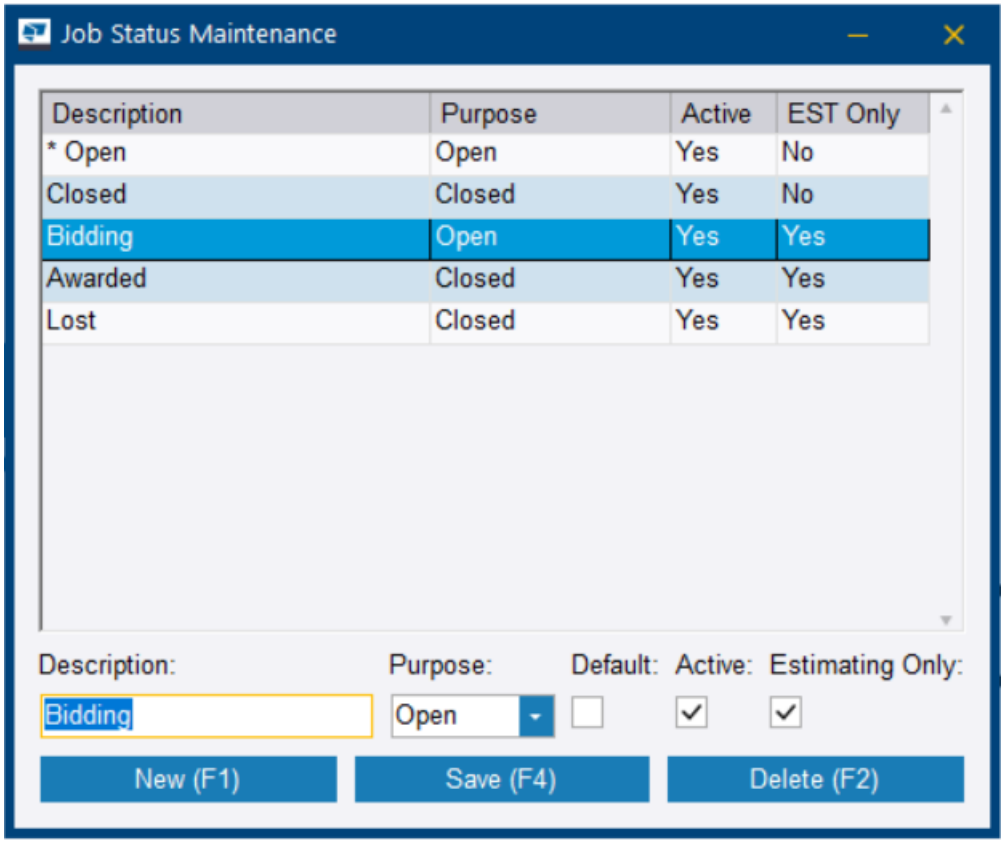
For more information, see Create an estimating job (page 509).

1.8 Improved estimate job status

As an estimator, you can now apply a wider variety of job statuses to your estimates without affecting other job types. This allows your team to to build ýour own set of job statuses to track each estimate through the workflow.

You can record when a bid is in progress, has been submitted, is on hold, or won or lost. This not only provides greater visibility and transparency for the estimating team throughout the estimating workflow but it will also be essential for greater insight and analysis on future estimating dashboards.

In the **Job Status Maintenance** dialog box, you can create new statuses and define them as **Estimating Only**, which means that these statuses can only be selected for estimate jobs. This will allow you as an estimator to create your own set of statuses. This makes managing and prioritising estimates easier and provides greater transparency across the whole team.



For more information, see the following:.

- Job status maintenance (page 276)
- Create an estimating job (page 509)

1.9 New global edit options in Maintenance Estimating

There are now new options to modify the properties of multiple items at once using **Global Edit - Selected** in **Maintenance** --> **Estimating**.

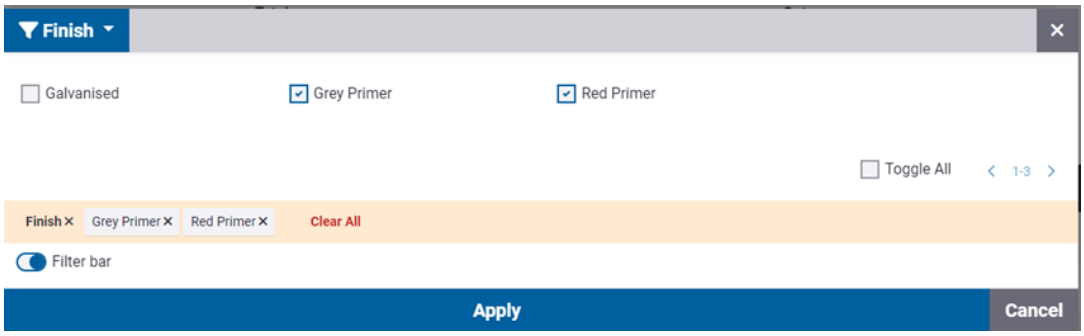
See the following:

- Modify multiple burn details (page 478)
- Modify multiple drill details (page 481)
- Modify multiple punch details (page 484)
- Modify multiple weld details (page 488)

- Manage standard clips (page 474)

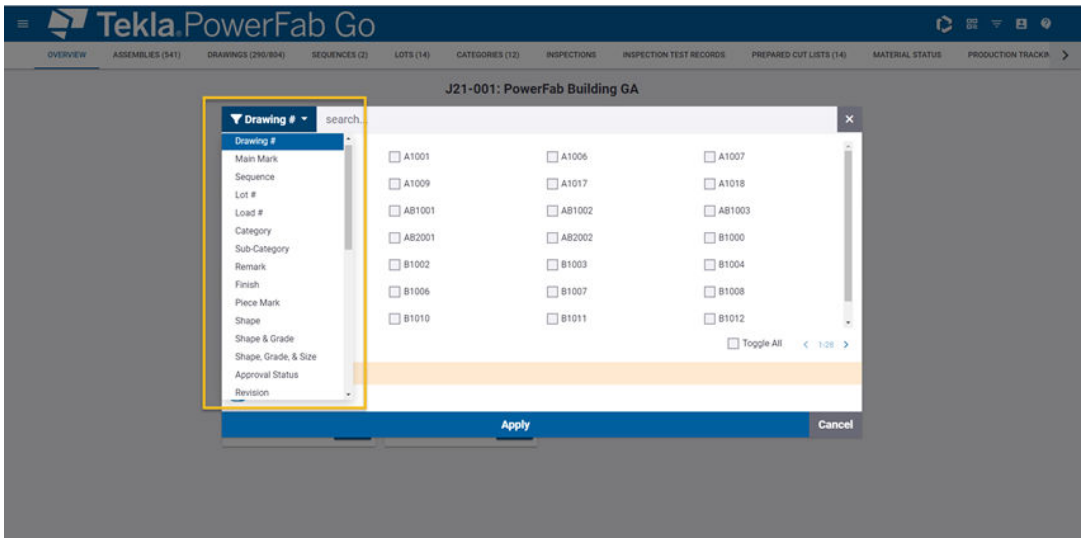
1.10 Improved filtering in Tekla PowerFab Go

Tekla PowerFab Go has an updated filtering view, which makes the filtering quicker, easier and more intuitive. The number of filter options has also been extended significantly. This means that you can now filter by finish, shape, size, grade, load number, and piece mark, for example.



The active filters are explicitly shown on the filter bar so that it is easy to see which filters are currently applied. From the filter bar, you can also clear either all filters or one filter at a time without opening the filtering view.





The complete list of filters is now as follows:

- Drawing #
- Main Mark
- Sequence
- Lot #
- Load #
- Category
- Sub-Category
- Remark
- Finish
- Piece Mark
- Shape
- Shape & Grade
- Shape, Grade & Size
- Approval Status
- Revision
- Main/Accessory Pieces
- Pay Category
- Production Code
- Release #
- Drawing Description
- Drawing Package #
- Route
- Station
- Station Completed By
- Date Station Completed
- Batch ID
- Shipping Route
- Destination Group
- Destination
- Load Status
- Date Shipped
- Length

- Width
- Camber

1.11 Tekla PowerFab and Tekla PowerFab Go 2023i fixlist

Here you can find the improvements and fixes implemented in Tekla PowerFab and Tekla PowerFab Go 2023i.

2 Install Tekla PowerFab

The Tekla PowerFab Suite license includes several items that you need to install. To get a Tekla license, contact your organization's administrator.

To download a Tekla PowerFab software product, go to Tekla Downloads.

You must sign in with your personal **Trimble Identity** to be able to download the installation packages.

See also Dowload Tekla PowerFab (page 52).

2.1 Tekla PowerFab license content

The Tekla PowerFab license includes the following software:

- Tekla PowerFab: The main application for estimating, project management, purchasing, inventory management and production control with a server installation and a client installation
- Tekla PowerFab Go: A device-independent application for browser with an embedded Trimble Connect viewer
- Trimble Connect: A tool for real-time visualization and collaboration between all project parties

The Tekla PowerFab server installation contains the MySQL database installation and Tekla PowerFab Go. The MySQL database contains the information used by Tekla PowerFab. You can have multiple sets of data within the database. The MySQL database is usually only installed on the server computer. The connection information is the IP address or the computer name of the computer running the server installation. However, the server machine is connected to the local host.

Tekla PowerFab database connection can be selected by machine and by port.

As for Tekla PowerFab Go, the Tekla PowerFab Remote Server service allows performing functions remotely. For example, Tekla PowerFab Remote Server

allows running automated events and using the Tekla PowerFab Go mobile application.

The licenses of each Tekla PowerFab user are tied to the user's Trimble Identity and not to particular workstations. For this reason, users always need to sign in to Tekla PowerFab with their Trimble Identity. Since the licenses are managed online, you need to have a reliable internet connection to use Tekla PowerFab.

2.2 Tekla PowerFab installation overview

1. Create your Trimble Identity
2. Install Tekla PowerFab on a server (page 56).
   a. Set the Default directories (page 53).
   b. Set up Tekla PowerFab Remote Server for Tekla PowerFab Go (page 58).
3. Install Tekla PowerFab on a client (page 62).
4. Install Trimble Connect (page 64).
   a. Install Trimble Connect Status Sharing tool.
   b. Install Trimble Connect.

For more information, see also Manage user accounts for Tekla Products.

See also

Tekla PowerFab configurations (page 112)

Troubleshoot 401 Unauthorized error (page 1243)

Enable licensing logging (page 1249)

2.3 System requirements for Tekla PowerFab and Tekla PowerFab Go

Make sure you follow the system requirements for Tekla PowerFab and Tekla PowerFab Go for best performance.

System requirements for Tekla PowerFab server

	Minimum server specifications	Recommended server specifications
Operating system (Windows 10 and 11)	Windows Server 2012	Windows Server 2012, 2016, 2019, 2022 **Note** that Windows Server 2012 is supported by Microsoft only until October 2023.
Memory	8 GB	32 GB RAM
Server disk space	10 GB	100 GB reserved for Tekla PowerFab (software and data), solid state drive (SSD) Standard drives are acceptable, but SSDs have faster response times.
Processor	–	No specific recommendations on the processor

System requirements for Tekla PowerFab client

	Minimum client specifications	Recommended client specifications
Operating system	Windows 10	Windows 10 and 11
Memory	4 GB	16 GB RAM
Disk space	2 GB	4 GB
Display resolution	1024 × 768	–

Tekla PowerFab Go supported browsers

Tekla PowerFab Go supported browsers are the following (latest stable version):

- Google Chrome
- Safari
- Microsoft Edge
- Mozilla Firefox

- Opera

Devices and browsers that are no longer able to receive updates are not supported after September 1, 2023.

Accepted Transport Layer Security protocols

Tekla PowerFab Go web servers only accept Transport Layer Security (TLS) 1.2 and 1.3 protocols.

See TLS Compatibility Check.

2.4 Recommended directory structure

When installing Tekla PowerFab, we recommend that you use the directories listed here.

Item	Default location (server)
Program files from the install (server and workstation)	`C:\Program Files\Tekla PowerFab`
Document folder from the install (server and workstation)	`C:\Users\Public\Public Documents\Tekla PowerFab` All Tekla PowerFab users should have full access to this folder and all subfolders unless an optional location is to be shared for this purpose.
MySQL database (server)	`C:\mysql` The database can also be installed on the D: drive, for example, or any other location as long as it is on the same machine as the other install material.

For **Default Directories**, see the following:

- Default directories (page 53)
- Install Tekla PowerFab on a server (page 56)
- Install Tekla PowerFab on a client (page 62)

2.5 Create your Trimble Identity

You need a **Trimble Identity** to download Trimble products and to use your subscriptions.

For more information, see Create your Trimble Identity.

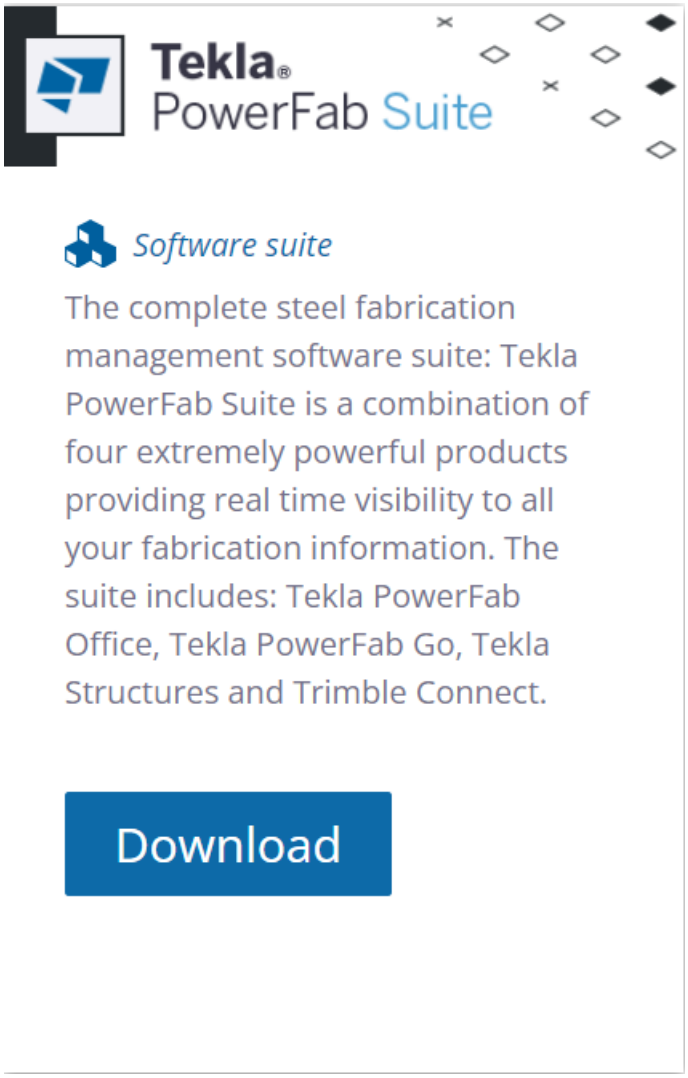
See also

Troubleshoot 401 Unauthorized error (page 1243)

2.6 Dowload Tekla PowerFab

You can find all Tekla PowerFab installation packages and additional files in one place.

1. Go to Tekla Downloads.
2. Scroll down to Tekla PowerFab Suite and click **Download**.



You must sign in with your personal **Trimble Identity** to be able to download the installation packages.

3. On the Tekla PowerFab Office tab, do either of the following:
   - Select the release from the drop-down list and click **Download**.
   - Click **All Downloads**.

   Follow the instructions on the page to proceed.

   See also an article about downloading Tekla PowerFab 32- and 64-bit versions.

See also

Install Tekla PowerFab (page 48)

2.7 Default directories

During the Tekla PowerFab installation procedure, you need to set default directories. Default directories are the folders where Tekla PowerFab saves information by default. Default directories are used in the program to manage external files.

The intended functionality requires that certain shared directories are set on each Tekla PowerFab user workstation.

If the default directories are to be located on the same server, the server setting should always use the local path to the folders. In turn, each user sets their default directories pointing to the same location.

On the client machines, the shared directories are best set using IP addresses or UNC file paths. The use of mapped drives is not recommended even though they may work.

It is possible for individual users to have their own default directories, but this is not recommended, with the exception of the `Log` directory.

See also Document Index (page 183).

Set the default directories for saving files

TIP To ensure that the default directories are consistent on all computers, you can copy the `settings.ini` file from the first client Tekla PowerFab installation to `C:\Users\Public\Documents\Tekla\Tekla PowerFab\Settings` for all later installations.

1. Go to **File** --> **Default Directories**.

   The **Default Directories** dialog box opens.

2. Set the default directories for the content.

   See *Default directories for server* and *Default directories for client* below.

   The **Custom Reports** directory is not created during the installation and, therefore, you must add it.

   a. Click **...** on the right side of a field.

   b. In the **Browse For Folder** dialog box, browse to find the folder that you want to set as the default directory. If necessary, you can add a new folder under the currently selected one by clicking **Make New Folder**.

   c. Select the folder.

   d. Click **OK**.

NOTE It may be easiest to copy and paste the path in the available field. You can check the access to the folder or path by double-clicking in the field for the directory.

3. To update the default directories, click **OK**.

Default directories for server

- Backup - `C:\Users\Public\Documents\Tekla PowerFab\Backup`
- Export - `C:\Users\Public\Documents\Tekla PowerFab\Export`
- Import - `C:\Users\Public\Documents\Tekla PowerFab\Import`
- Log - `C:\Users\Public\Documents\Tekla PowerFab\Log`
- Document Index - `C:\Users\Public\Documents\Tekla PowerFab \Documents`
- Drawings - `C:\Users\Public\Documents\Tekla PowerFab \Documents\Jobs`
- Updates - `C:\Users\Public\Documents\Tekla PowerFab\Updates`
- Custom Reports - `C:\Users\Public\Documents\Tekla PowerFab \CustomReports`

Default directories for client

The recommended directory structure for clients is the following:

- Backup - `C:\Users\Public\Documents\Tekla PowerFab\Backup`
- Export - `C:\Export (User preference)`
- Import - `C:\Import (User preference)`
- Log - `C:\Users\Public\Documents\Tekla PowerFab\Log`
- Document Index - `\\(IP Address)\Shared Folder\Documents`
- Drawings - `\\(IP Address)\Shared Folder\Drawings`
- Updates - `\\(IP Address)\Shared Folder\Updates`
- Custom Reports - `\\(IP Address)\Shared Folder\Custom Reports`

The directory structure is as follows:

- **Backup**: Tekla PowerFab database backup files. This can stay as default as backups are rarely done from a user's device. User preference.
- **Export**: Initial location selected for the export of files. User preference.

- **Import**: Initial location opened for the selection of import files. User preference.

  NOTE Once a file type has been selected, the location defaults to the last opened location.

- **Log**: Import log and error log text files. Leave as default.

  NOTE This is typically set to a local path on each device so as not to combine information from different devices in the same error logs.

  For **Document Index**, **Drawing**, **Update**, and **Custom Report**, it is best to use an IP address or an UNC file path. These need to be set to a shared network location normally on a server.

- **Document Index**: Files that are linked or attached to records in the program and to be shared among other users. A shared network location required. See also Set the standard categories for attached documents (page 184).

  NOTE It can be useful to use the same directory as **Drawing** in that it automatically creates project-specific folders that can be then set as the directory for other documents related to the specific project.

- **Drawing**: Drawing directories for each project, type, log, and revision are automatically created within this directory. Drawing files are copied to the appropriate directory during import. A shared network location required.
- **Update**: Tekla PowerFab update files.

  With the new update file placed in the directory, the user is prompted to run the update when they open the program. A shared network location required.
- **Custom Report**: All customized report files. This directory is not created during the installation and, therefore, you must add it.
- **Extension**: This is activated in the administrator settings and is not visible by default. See Define Tekla PowerFab administration settings (page 91).

  The purpose of this directory is to allow external software API extensions developed by others for combining and cut lists to be added to the program.

2.8 Install Tekla PowerFab on a server

As an administrator, installing Tekla PowerFab on a server is the first step. The server installation includes the MySQL database.

Install Tekla PowerFab on a server

NOTE To download the latest installation files and to install a Full configuration, make sure you are signed in with a Trimble Identity that with a current maintenance license. Without a Trimble Identity, use the Viewer configuration and sign in with the default Tekla PowerFab sign-in information.

For further instructions, see a video on installation files.

1. Go to Tekla Downloads and download the installer for the desired Tekla PowerFab version or service pack.
2. Double-click the installer to run the installation.
   a. Review the license agreement. Select **Accept** and click **Next**.
   b. From the drop-down menu, select the installation type **Server**.

      By default, **New Tekla PowerFab Installation** and **MySQL Database** are selected.
   c. Click **Next >**.
   d. Select the installation folder.

      We recommend installing Tekla PowerFab to the default folder `C:\Program Files (x86)\Tekla\Tekla PowerFab`. You can also select your preferred location.
   e. Click **Install**.

      The Tekla PowerFab installation starts. When the application files have been installed, you are prompted to install the MySQL database.
   f. Review the license agreement. Select **Accept** and click **Next**.
   g. Use the default folder for installation. Click **Install**.

      The MySQL installation starts.
   h. When the installation is complete, close the installer.

      The actual fabrication database is not yet installed.
3. Open Tekla PowerFab.
4. Sign in with your Trimble Identity.
5. Click **Log In**. Use the default Tekla PowerFab sign-in information:
   - User: `admin`
   - Password: `fab`

   You get a message that the database is not yet installed and that the program will extract and restore the sample database. The log-in process runs through both the upgrade and update processes.

6. Sign in and log in again as prompted.
7. You may be prompted to back up the database. Click **No**.

Proceed to defining the **Default Directories**. For instructions, see Default directories (page 53).

After defining the directory structure, exit Tekla PowerFab and proceed to setting up the remote service for Tekla PowerFab Go. For instructions, see Set up Tekla PowerFab Remote Server for Tekla PowerFab Go (page 58).

Set up Tekla PowerFab Remote Server for Tekla PowerFab Go

The Tekla PowerFab Remote Server allows you to perform Tekla PowerFab actions remotely. In practice, the Tekla PowerFab Remote Server enables running automated events and using the Tekla PowerFab Go mobile application.

For details on installing and troubleshooting Tekla PowerFab Go, see Tekla PowerFab Go User Guide.

Tekla PowerFab Remote Server

For Tekla PowerFab Go installation, you need to install the Tekla PowerFab Remote Server and set up and manage its service settings in the Tekla PowerFab Remote Monitor.

The Tekla PowerFab Remote Server is a Windows service that is installed on the Tekla PowerFab server. This service listens for and responds to traffic from Tekla PowerFab Go and executes automated events.

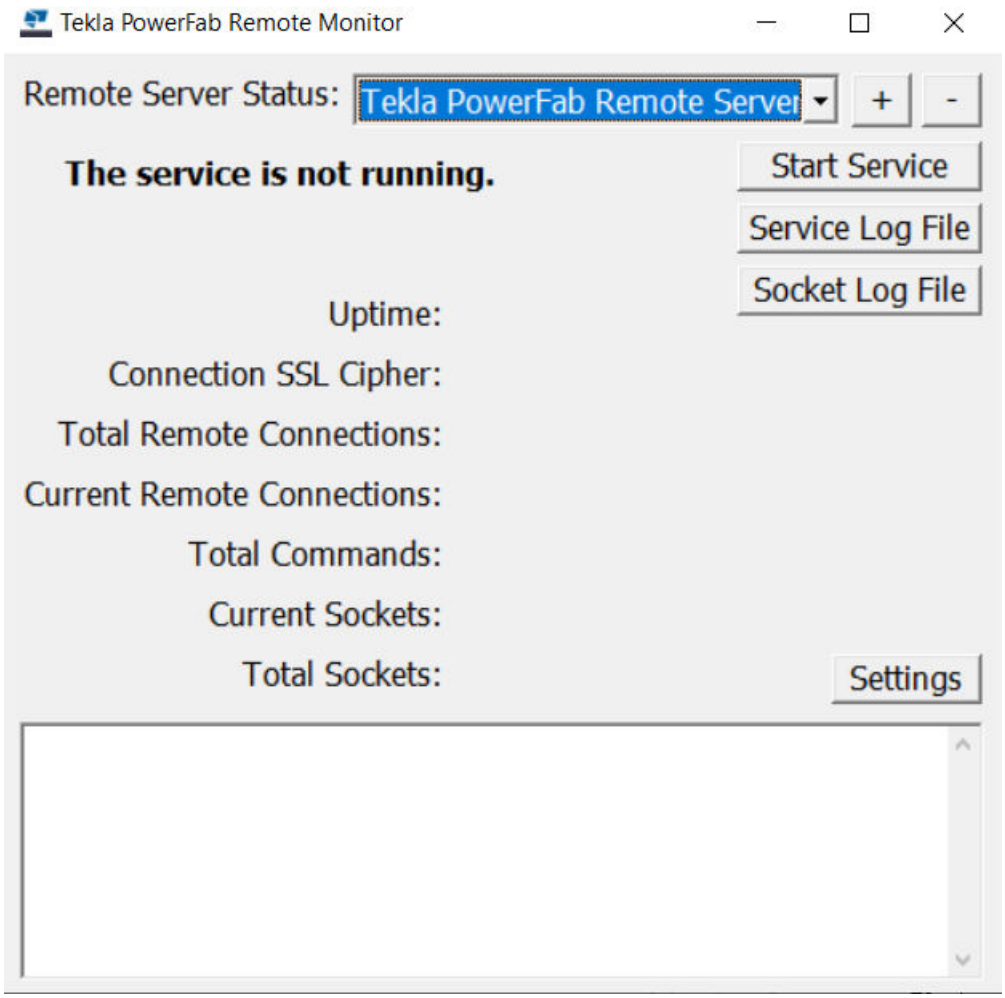
The Tekla PowerFab Remote Server allows you to perform Tekla PowerFab actions remotely. In practice, the Tekla PowerFab Remote Server enables running automated events and using the Tekla PowerFab Go mobile application.

The Tekla PowerFab Remote Server is typically only installed on the Tekla PowerFab server computer. To use Tekla PowerFab Go, a TCP port (not TCP/UDP) needs to be forwarded to the computer on which you install the Tekla PowerFab Remote Server.

You can manage Tekla PowerFab Remote Server settings in the **Tekla PowerFab Remote Monitor** dialog box.

Tekla PowerFab Remote Monitor

The **Tekla PowerFab Remote Monitor** is a graphical user interface for setting up and managing **Tekla PowerFab Remote Server** service.



Tekla PowerFab Remote Monitor reports the following details in real-time:

Item	Description	Output example
Remote Server Status	The current status of the service. If the service is running, shows the TCP port that the service is listening for connections.	The service is not running. The service is running. Running - Port 9154.
Uptime	The time in hours, minutes, and seconds that the service has been active.	145:35:46
Connection SSL Cipher	Indicates whether **Tekla PowerFab Remote Server** is connected to the MySQL database via	

Item	Description	Output example
	an encrypted connection. If Tekla PowerFab does not use encryption for its ODBC connection, this will be blank.	
Total Remote Connections	The total number of connections that have been made during the time that the service has been active.	154
Current Remote Connections	The count of connections that are currently active.	17
Total Commands	The total number of XML/JSON commands that have transacted during the time that the service has been active.	987
Current Sockets	The number of TCP sockets that are currently active.	4
Total Sockets	The total number of TCP sockets that have been created during the time that the service has been active.	876

Install Tekla PowerFab Remote Server

We recommend that you install the Tekla PowerFab Remote Server service during the initial the Tekla PowerFab installation when you select the **Server** configuration. You can also install Tekla PowerFab Remote Server separately.

1. In File Explorer, go to `C:\Users\Public\Documents\Tekla\Tekla PowerFab\Backup`.
2. Double-click the `TeklaPowerFabRemoteServerSetup.exe` file to install the Tekla PowerFab Remote Server.
3. Click **Install**.

   The **Tekla PowerFab Remote Monitor** dialog box opens. A Tekla PowerFab Remote Monitor icon has been created on the desktop.

4. Click **OK** to close the installer.

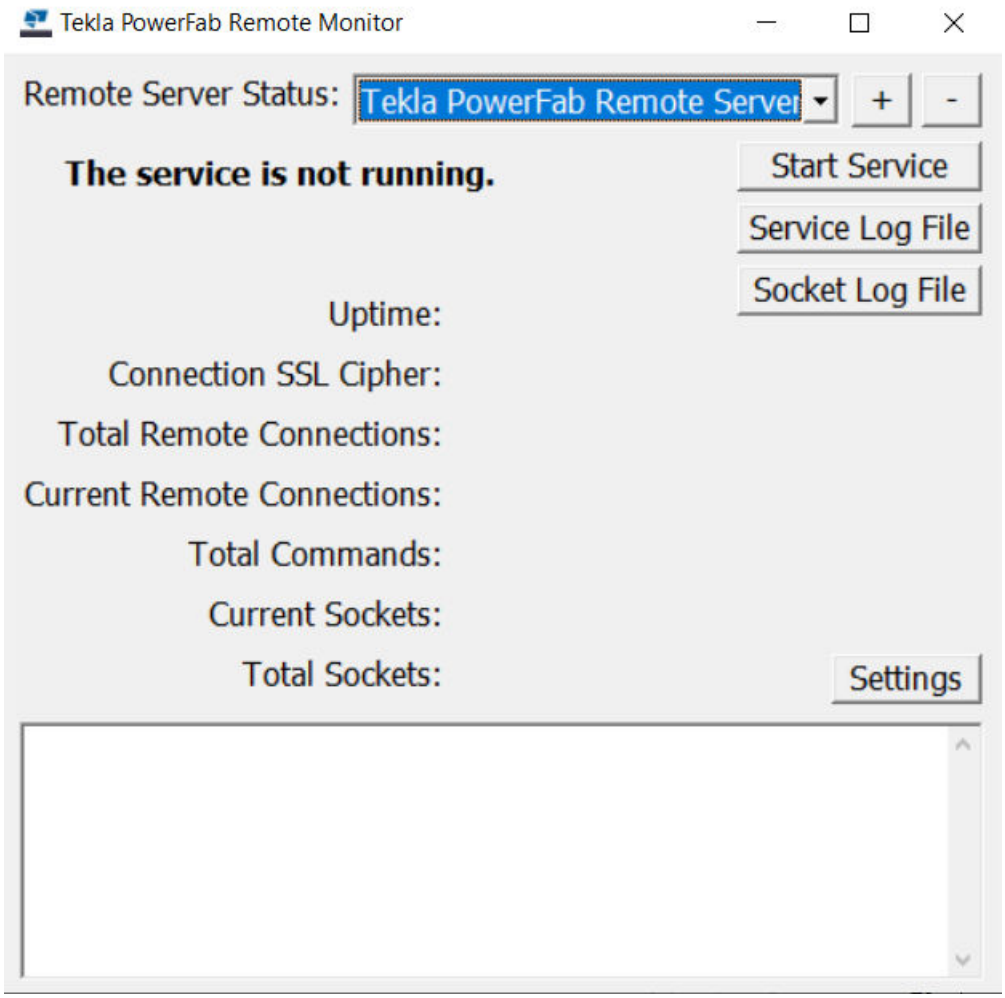
   You are prompted to sign in with **Trimble Identity** to start the service.

The **Tekla PowerFab Remote Monitor** dialog box opens automatically after the installation is finished.

Next, define the Tekla PowerFab Remote Server settings and start the remote server.

Set up and start Tekla PowerFab Remote Server

You can set up and manage the **Tekla PowerFab Remote Server** service settings in the **Tekla PowerFab Remote Monitor** dialog box.



1. If you do not have the **Tekla PowerFab Remote Monitor** dialog box open, do either of the following:

   a. Double-click the **Tekla PowerFab Remote Monitor** icon on the server desktop.

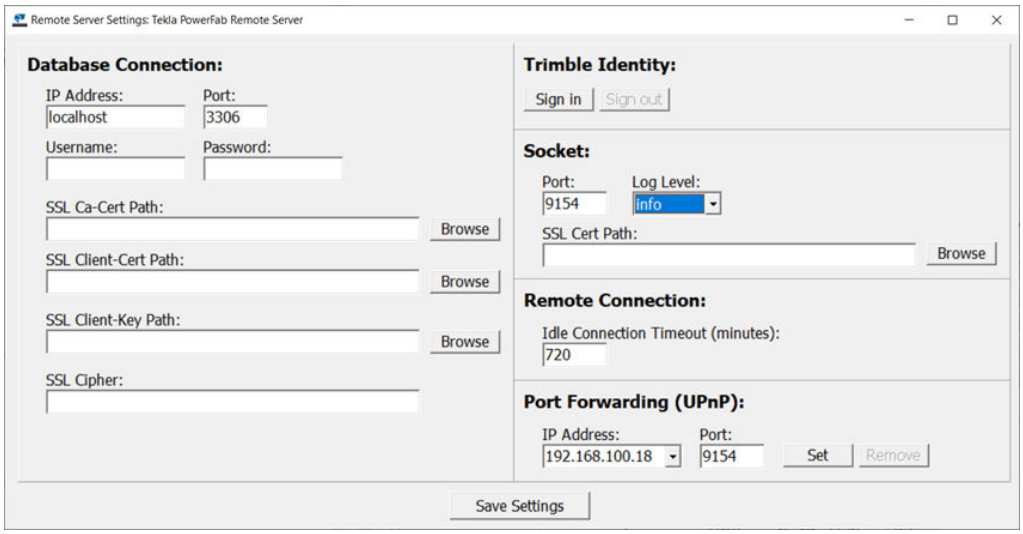
b. Go to the default installation directory `C:\Program Files (x86)\Tekla\Tekla PowerFab` and double-click `Tekla.PowerFab.Remote.Monitor.exe`.

   Individual installation locations may vary.

2. In the **Tekla PowerFab Remote Monitor** dialog box, click **Settings**.

   The **Remote Server Settings** dialog box opens. You can see the IP address and port for the database connection.

   For details on the settings, see .



3. To sign in, click **Sign in** in the upper right-hand section of the dialog box. Sign in with a Trimble Identity that is an administrator for all the Trimble Connect projects of your company.

4. In the **Port** field in the **Socket** section, type any non-standard TCP port (1024–65535) not already in use.

   The default port is 9154. See also Setting up port forwarding.

5. Click **Save Settings**.

6. In the **Tekla PowerFab Remote Monitor** dialog box, click **Start Service**.

If the settings have been defined successfully, the Tekla PowerFab Remote Server starts running.

You can always check in the **Tekla PowerFab Remote Monitor** dialog box if the Tekla PowerFab Remote Server is running.

The server installation is complete.

For troubleshooting, see Tekla PowerFab Go User Guide.

2.9 Install Tekla PowerFab on a client

After server installation, you can proceed to client installations and defining the Default Directories for a client.

Install Tekla PowerFab on a client

Before you start, write down your server name and IP address. You need them to set the connection to the server when you first log in to a client workstation.

1. Go to Tekla Downloads and download the installer for the desired Tekla PowerFab version or service pack.

   To ensure that you are using the same version installed on the server, use the installation file downloaded for the server install.

2. Double-click the installer to run the installation.
   a. Review the license agreement. Select **Accept** and click **Next**.
   b. From the drop-down menu, select the installation type **Client**.

      New Tekla PowerFab Installation

      is selected by default.
   c. Select the installation folder.
   d. Click **Install**.

      The Tekla PowerFab installation starts.
   e. When the installation is complete, close the installer.
3. Open Tekla PowerFab using the desktop icon or the Windows Start menu.
4. Sign in with a Trimble Identity.

   The **Connection Settings** window opens with the default connection information.
5. To connect to the server, change the **Connection Settings** information to your Tekla PowerFab server.

   Use either the IP address or the server name. Change the port only if it was set differently on the server.
6. Sign in with a username and password for the database.

   If no username and password have been created for you, use the default values:

   - **User:** `admin`
   - **Password:** `fab`

Next, set the default directories and then exit Tekla PowerFab.

2.10 Install Trimble Connect

Trimble Connect is an open collaboration tool. Tekla PowerFab subscription contains a Trimble Connect license that you need for access. The license also controls the features available to the user.

Install Trimble Connect Status Sharing tool

1. Go to Tekla Downloads.
2. In Tekla PowerFab Suite, click **Download** and select the **Trimble Connect** tab.
3. To download the workflow tools for Tekla PowerFab to Trimble Connect, click Download also Workflow tools for Trimble Connect for Windows.
4. Click **Download** --> **Download 64-bit**.
5. Double-click the installer to run the installation.

   The **Trimble Connect Status Sharing Setup Wizard** opens.
6. Click **Next**.
7. Select the installation folder.
8. Click **Next** --> **Next** --> **Yes**.
9. When the installation is complete, close the installer.

Next proceed to install Trimble Connect. See Trimble Connect product guides.

To use Trimble Connect for viewing IFC models for estimating and production control jobs, you also need to link Tekla PowerFab and Trimble Connect to each other.

3 Manage Tekla PowerFab

As an administrator, you need to define your company information, automatic backup settings, and administration settings, add the necessary users, and otherwise set up Tekla PowerFab, so that other users can start working in it.

NOTE These instructions contain actions that can only be performed by Tekla PowerFab users with administrative rights in the database. If you do not have administrative rights, contact your administrator for help.

For more information, see also Tekla Online Admin Tool.

After setting up Tekla PowerFab, administrators can do the following:

- Download and install updates, so that the updates are installed automatically for other Tekla PowerFab users in your company
- Create backup copies of the Tekla PowerFab database to restore the database if it is compromised
- Optimize and compress the information in the Tekla PowerFab database
- Clear extra logs from particular actions performed by Tekla PowerFab users in the company
- Export labor information from a Tekla PowerFab database, and import the labor information to another Tekla PowerFab database
- Recover deleted combining, estimating, and production controls jobs, and recover import backup files
- Find and repair program errors in Tekla PowerFab

See also

Install Tekla PowerFab (page 48)

Manage Tekla PowerFab users (page 69)

Manage Tekla PowerFab workstations (page 89)

Manage Tekla PowerFab company information (page 222)

Define Tekla PowerFab administration settings (page 91)

Update Tekla PowerFab (page 66)
Work with integrated software in Tekla PowerFab (page 235)
Export labor information (page 589)
Manage the Tekla PowerFab database (page 98)
Repair program errors (page 1244)

3.1 Update Tekla PowerFab

In the lower left corner of the Tekla PowerFab main window, you can see when there are new versions of Tekla PowerFab available. Always run the update on the server first.

Update server

Before you begin updating Tekla PowerFab, ensure the following:

- You are signed in with a Trimble Identity that has a Tekla EPM or Tekla PowerFab maintenance license.
- Tekla PowerFab is closed.
- All users and integrated software are signed out of the database. See View currently signed-in users (page 68) and Force shutdown (page 69).

1. To download the update file, go to downloads.tekla.com and in Tekla PowerFab Suite, click **Download**.
2. In **All Downloads**, click the latest version to download it.
3. In **File Exlorer**, go to the **Downloads** folder and double-click the update file to run it.

   The installation wizard opens.
4. Accept the license agreement.
5. Select **Update** as the install type.

   If the update fails, the **Client** install is shown as the default instead.
6. In the **Destination Folder** field, check the location where the update will be installed.

   The location of the latest install is shown as default.
7. To install the update, click **Install**.

   If there is an error, check the **Task Manager** to make sure that there are no Tekla PowerFab processes running and retry the installation.

   If the update was aborted, run the installation as a client install and follow the remaining steps.

8. When the update is complete, click **Close** to close the installation window.
9. Sign in to Tekla PowerFab as an administrator.

   The application prompts you to update the database.
10. To update the database, click **OK** --> **Yes**.

The server update is complete and the program restarts the remote server service. Verify the restart in Tekla PowerFab Remote Monitor.

Update client

Before you update any client workstation, note that:

- The server computer must be updated first.
- Tekla PowerFab has to be closed on all client workstations. See View currently signed-in users (page 68) and Force shutdown (page 69).
- You must be signed in with a Trimble Identity.
- To connect and share information, all workstations in your company need to have the same version of Tekla PowerFab as the server computer.

1. In **File Explorer**, move the update file from the **Downloads** folder to the **Update** directory.

   If the **Update** directory is set properly, this will prompt the users to update when they open the program. To check the directory, go to **File** --> **Default Directories**.

   When the program asks you to confirm the update, click **Yes**.

   If **Update** field is not correct in the **Default Directories** or the users are not allowed to act as a local administrator, the update file must be run on each client machine manually. In this case, you get an error message and need to do steps a and b:

   a. Click **OK** --> **No**.

      If you click **Yes**, this will delete your database.

   b. Go to the location where you downloaded the update, and to run the update, double-click the update file.
2. In the **Tekla PowerFab License Agreement** wizard, accept the license agreement.
3. Click **Next >**.
4. Check that the type of install is **Update** and click **Next >**.
5. In the **Destination Folder** field, check the location where the update will be installed.
6. To install the update, click **Install**.
7. To start the update, click **OK**.

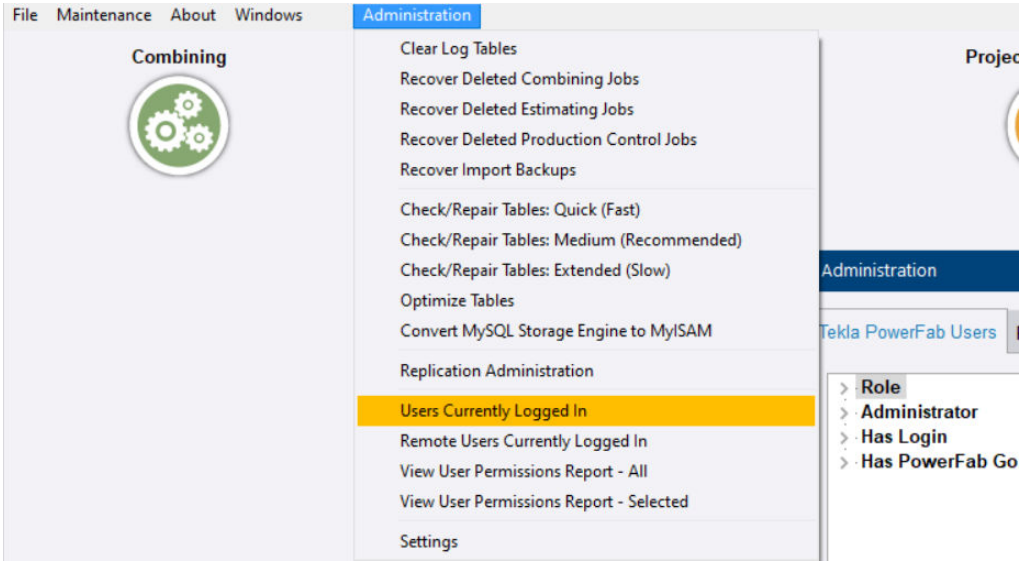
8. When the update is complete, click **Close** to close the installation window.

You can now start working in the updated version of Tekla PowerFab.

View currently signed-in users

Administrators can view the Tekla PowerFab users that are currently signed in using the **Users Currently Logged In** command. This can be useful when trying to run an update from one Tekla PowerFab version to another, which requires that other users exit Tekla PowerFab. Administrators can also close other users' Tekla PowerFab sessions and sign them out.

1. Go to **File** --> **Administration**.
2. Click the **Administration** ribbon tab.



3. On the menu, select **Users Currently Logged In**.
4. In the **Users Currently Logged In** dialog box, view the users that are currently signed in.

   For users within the office, you can see the IP address of the computer on which the user is signed in and the time that the user has signed in.
5. If necessary, do either of the following:
   - To close a user's Tekla PowerFab session and sign them out, select the user and click **Force Shutdown**.
   - To cancel closing the user's Tekla PowerFab session and signing them out, click **Cancel Shutdown**.
6. To close the **Users Currently Logged In** dialog box, click the **Close** button (**X**) in the upper-right corner.

Note that you can also use the **Remote Users Currently Logged In** command to view the remote users that are currently signed in.

For remote users, you can see the time that they have signed in and the time of their last activity in Tekla PowerFab Go. However, you cannot close remote users' Tekla PowerFab Go sessions or sign the users out.

Force shutdown

When you are logged in as an administrator, you can force the shutdown of any users logged in.

You may need to do this when updating Tekla PowerFab and need to make sure that all users are signed out.

1. Go to **File** --> **Administration**.
2. In the **Administration** context menu, select **Users Currently Logged In**.
3. Click **Force Shutdown**.

   Note that you can end the session of any remote users by stopping the remote server.

   In Microsoft Task Manager, check that there are no Tekla PowerFab processes running.

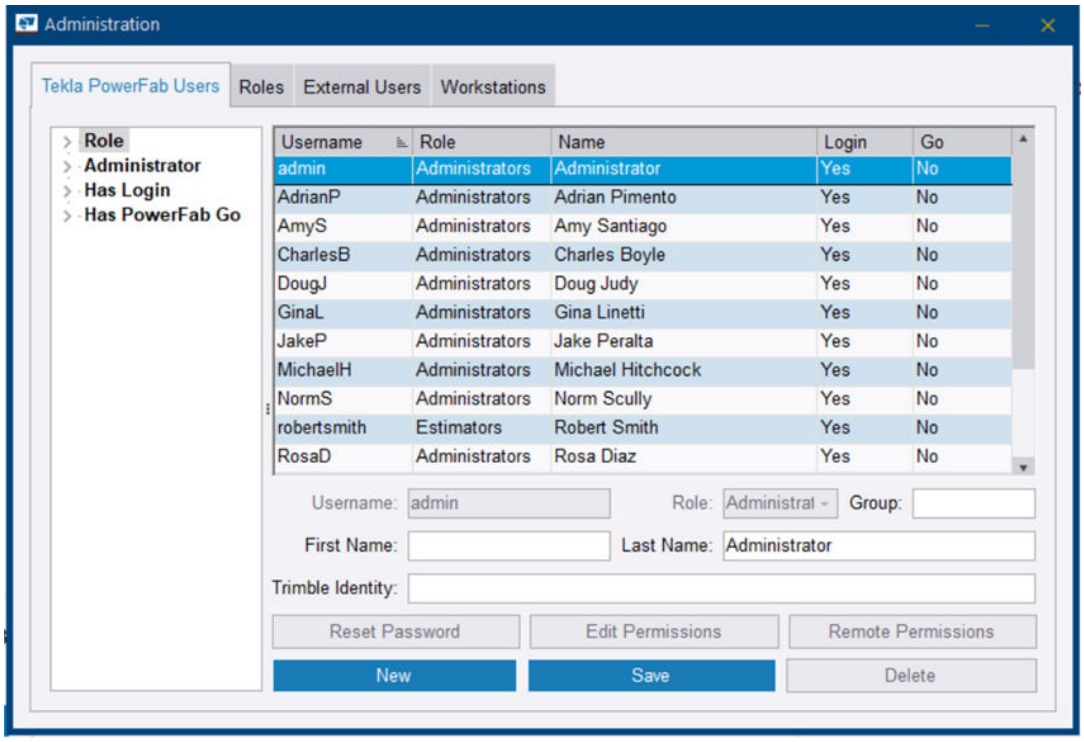
3.2 Manage Tekla PowerFab users

On the **Tekla PowerFab Users** tab of the **Administration** dialog box, administrators can add new users, modify the properties of the existing users, and delete any unnecessary users. Users added to this list also include the workers available in production tracking and inspection. Administrators can also reset users' passwords.

Access user data

To manage Tekla PowerFab users, do the following:

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Administration**.



Add a user

1. Go to **File** --> **Administration**.
2. On the **Tekla PowerFab Users** tab, click **New**.
3. Define the user properties.

   The properties marked with an asterisk (*) are mandatory information.

Option	Description
Username *	The username with which the user logs in to Tekla PowerFab. Note that the user name cannot be changed after the user has been added.
Role	The user role assigned to the user. A role determines which permissions the users with that role have in Tekla PowerFab. For more information, see Manage Tekla PowerFab user roles (page 76). You can also modify the permissions individually for users. For more information, see Manage Tekla PowerFab user permissions (page 72). Click the arrow on the right side of **Role** list and select a role in the list.

Option	Description
Group	The group which the user belongs to. For example, you can define groups for estimators and project managers. Note that groups do not allow you to automatically assign permissions to the user.
First Name, **Last Name**	The first and last name of the user. Type the appropriate names in the **First Name** and **Last Name** fields.
Trimble Identity	The email address that has been registered as the user's Trimble Identity. The Trimble Identity is a user account that allows the user to access various Tekla Online services and other Trimble products. For more information, see Trimble Identity for Tekla Online services. Type the appropriate email address in the **Trimble Identity** field.

4. Click **Add**.

The user is added to Tekla PowerFab.

When the users log in to Tekla PowerFab for the first time, they need to leave the **Password** field blank. Then, they need to set the new password in the **Change Password** dialog box. For more information on defining the password policy, see Define Tekla PowerFab administration settings (page 91).

NOTE If you have not assigned any roles or permissions to new users, they have no access to any information in Tekla PowerFab. You need to modify the new users' permissions to give them access to the necessary information and modules. You can manage the user permissions in the company either separately for each user, or by creating user roles and assigning them to multiple users.

For more information, see Manage Tekla PowerFab user permissions (page 72).

Reset a user's password

If necessary, you can reset a user's password, so that they can create a new one the next time they log in to Tekla PowerFab.

Note that if the user remembers their current password, they can change the password by themselves at any time.

1. Go to **File** --> **Administration**.

2. On the **Tekla PowerFab Users** tab, select the user whose password needs to be reset.
3. Click **Reset Password**.
4. To confirm resetting the password, click **Yes** in the confirmation dialog box.

When the user logs in after the password has been reset, they need to leave the **Password** field blank. Then, they need to set the new password in the **Change Password** dialog box.

Modify a user

1. Go to **File** --> **Administration**.
2. On the **Tekla PowerFab Users** tab, select the user that you want to modify.
3. Modify the user's role, group, first and last name, and Trimble Identity according to your needs.
4. Click **Save**.

Delete a user

1. Go to **File** --> **Administration**.
2. On the **Tekla PowerFab Users** tab, select the user that you want to delete.
3. Click **Delete**.
4. To permanently delete the user, click **Yes** in the confirmation dialog box.

See also

Troubleshoot 401 Unauthorized error (page 1243)

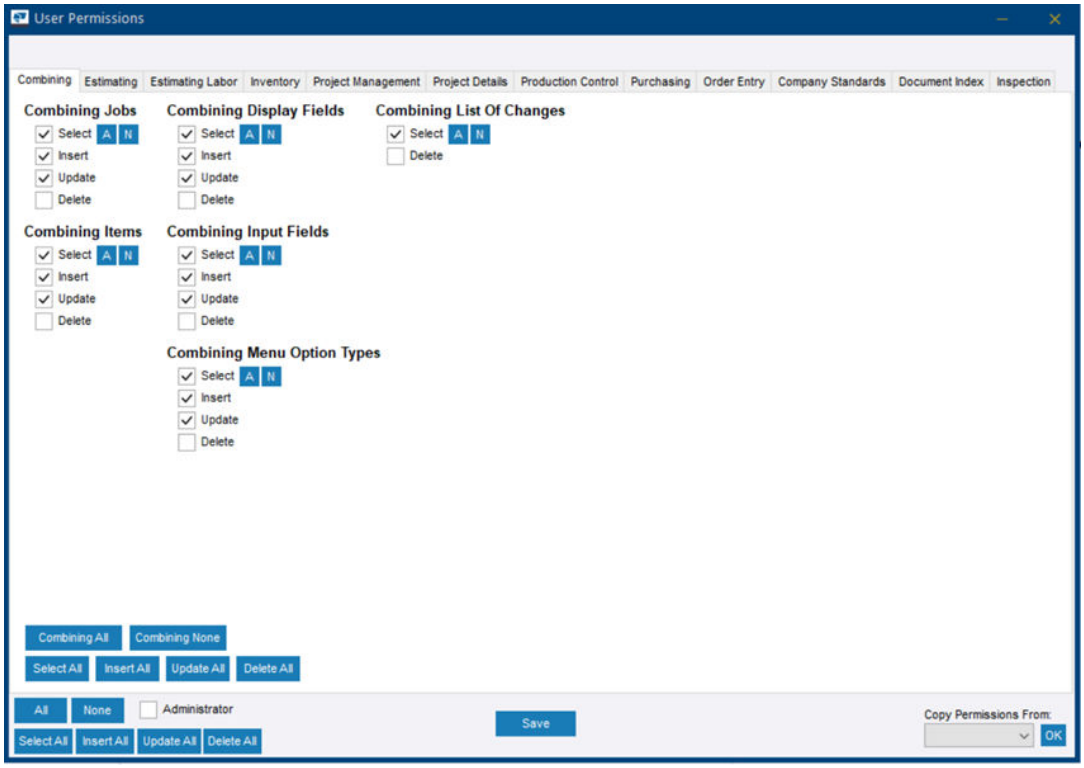
3.3 Manage Tekla PowerFab user permissions

After creating a new Tekla PowerFab user, the administrator has to manage the user permissions and roles before the user can access any module.

NOTE If you have not assigned any roles or permissions to new users, they have no access to any information in Tekla PowerFab. You need to modify the new users' permissions to give them access to the necessary information and modules. You can manage the user permissions in the company either separately for each user, or by creating user roles and assigning them to multiple users.

User permissions dialog box

The **User Permissions** dialog box has multiple tabs that represent the different modules and features of Tekla PowerFab. This way, the user permissions can be set separately for each module.



The tabs are divided into sections that represent different parts of the module or feature. This allows you to give the user permissions to only perform particular actions related to the module.

All sections contain checkboxes that determine what the user can do in that part of the module. The available checkboxes are:

- **Select**: When selected, allows the user to select and filter information, such as material items.
- **Insert**: When selected, allows the user to add new information.
- **Update**: When selected, allows the user to modify existing information.
- **Delete**: When selected, allows the user to delete information.

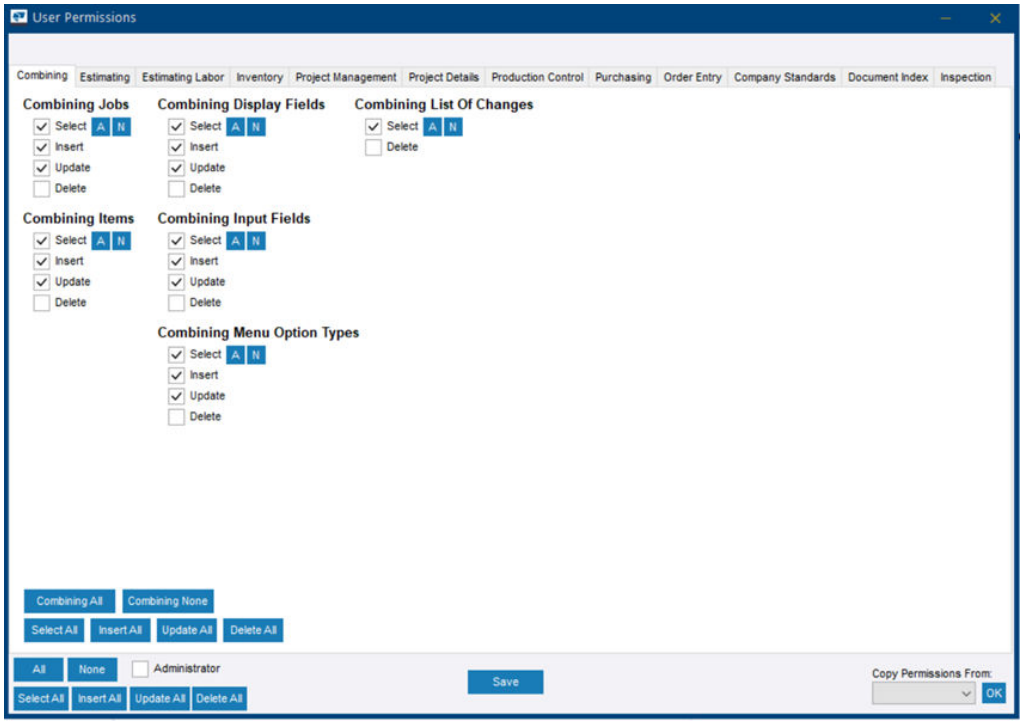
For example, to allow the user to select items and add items in a combining job, select the **Select** and **Insert** checkboxes in the **Combining Items** section of the **Combining** tab. If only the **Select** and **Insert** checkboxes were selected, the user could not modify or delete combining items, so the **Edit** and **Delete** buttons would not be available.

Edit user permissions

1. Go to **File** --> **Administration**.
2. On the **Tekla PowerFab Users** tab, select the user whose permissions you want to modify.
3. Click **Edit Permissions**.

   Note that if the user has been assigned a role, their permissions cannot be modified individually, so the **Edit Permissions** button is inactive.
4. At the top of the **User Permissions** dialog box, select the **Allow Tekla PowerFab Login** checkbox.

   When logging in to Tekla PowerFab has been allowed for the user, you can modify the other permissions.



5. To modify the user permissions, do any of the following:

To	Do this
Select the permissions one by one	a. Click a tab at the top of the **User Permissions** dialog box to open it. b. Select checkboxes next to the permissions that you want to give to the user. You can also click the **A** (all) and **N** (none) buttons to select or clear all checkboxes in a section. This way, you can quickly give the user all or no permissions to that part of the module or feature.

To	Do this
	c. Repeat steps a to b on all necessary tabs.
Select multiple permissions at once	Do one of the following: • To allow the user to perform an action anywhere in the selected module, click the desired button at the bottom of the current tab. • To allow the user to perform an action anywhere in Tekla PowerFab, click the desired button at the bottom of the dialog box. For example, when the **Update All** checkbox is selected at the bottom of a tab, the user can modify information in all parts of the module. However, if the **Update All** checkbox is selected at the bottom of the **User Permissions** dialog box, the user can modify information in all modules of Tekla PowerFab.
Copy the permissions of another Tekla PowerFab user	a. At the lower-right corner of the dialog box, click the arrow on the right side of the **Copy Permissions From** list. b. Select the desired user in the list. c. Click **OK**.
Give all possible permissions	• In the lower left-hand corner of the dialog box, select the **Administrator** checkbox.

6. Click **Save** to save the permissions.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the user permission report

Administrators can view a report that shows the permission settings of the Tekla PowerFab users in their company.

As an administrator, you can select between two commands:

- **View User Permissions Report - All**: Displays the permissions of all Tekla PowerFab users
- **View User Permissions Report - Selected**: Allows administrators to select which users' permissions they want to view

To manage Tekla PowerFab user permissions, see Manage Tekla PowerFab user permissions (page 72).

View the permissions of all users

1. Go to **File** --> **Administration**.
2. Click the **Administration** ribbon tab.
3. On the menu, select **View User Permissions Report - All**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

You can also export the report and save it in another file format.

View the permissions of a selected user

1. Go to **File** --> **Administration**.
2. In the **Administration** dialog box, select the user whose permissions you want to view.
3. Click the **Administration** ribbon tab.
4. On the menu, select **View User Permissions Report - Selected**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

You can also export the report and save it in another file format.

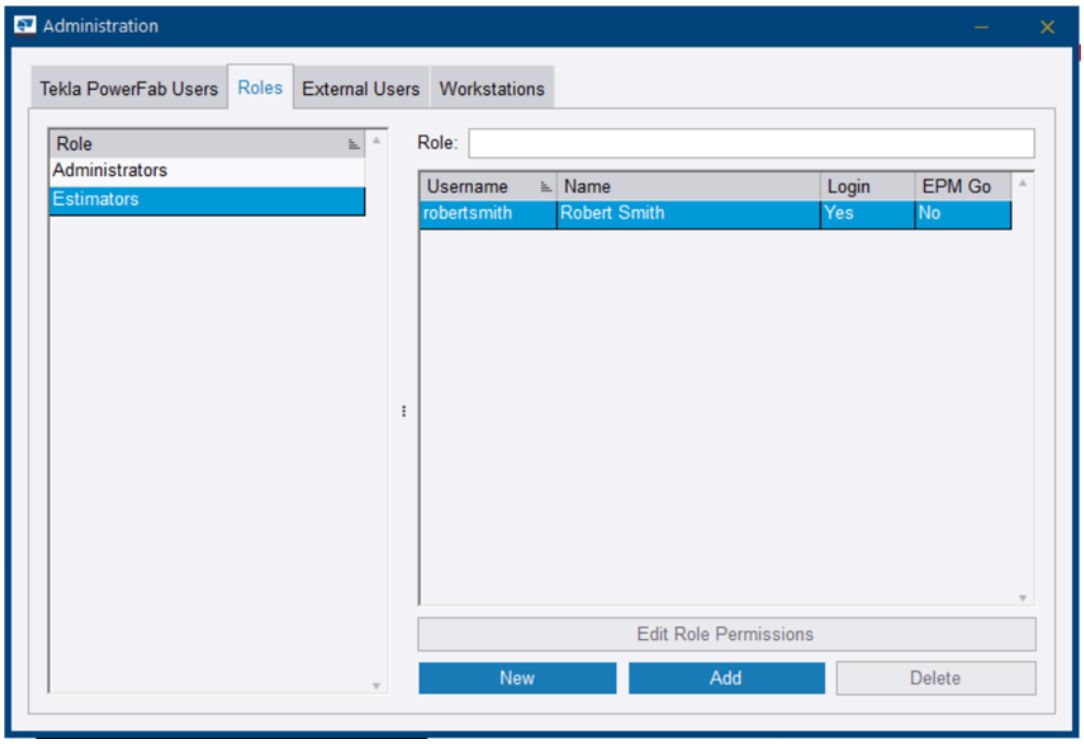
3.4 Manage Tekla PowerFab user roles

User roles allow the administrator to quickly assign the same permissions to multiple users.

On the **Roles** tab of the **Administration** dialog box, you can add user roles, manage the permissions of the roles, and delete any unnecessary roles. After you have added the necessary user roles and modified the permissions according to your needs, you need to assign the roles to the desired users on the **Tekla PowerFab Users** tab.

To manage user roles, do the following:

1. Go to **File** --> **Administration**.
2. Open the **Roles** tab.

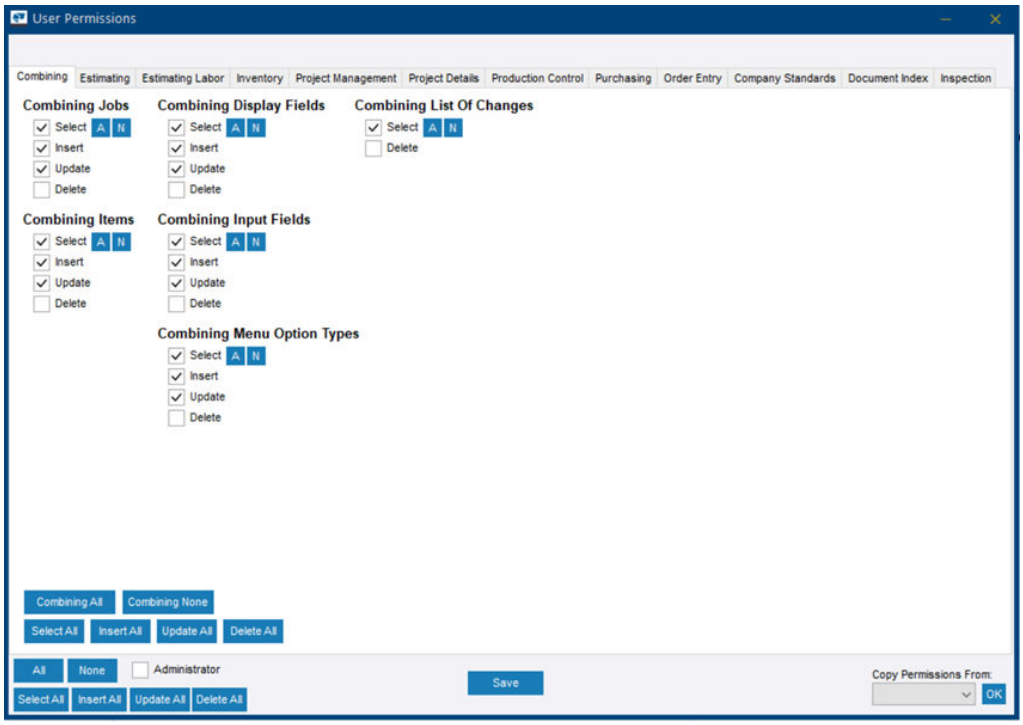


Add a user role

1. Go to **File** --> **Administration**.
2. On the **Roles** tab, click **New**.
3. In the **Role** field, type a name for the user role.

   For example, `Project managers`.
4. Click **Save** to create the role.
5. To manage the permissions of the new user role, click **Edit Role Permissions**.

The **User Permissions** dialog box opens.



For more information on the dialog box, see User permissions dialog box (page 73).

6. Modify the user permissions as instructed in Edit user permissions (page 73).
7. Click **Save** to save the permissions.
8. To close the **User Permissions** dialog box, click the **Close** button (**X**) in the upper-right corner.
9. In the **Administration** dialog box, click **Save** to update the permissions.

Assign a user role to a user

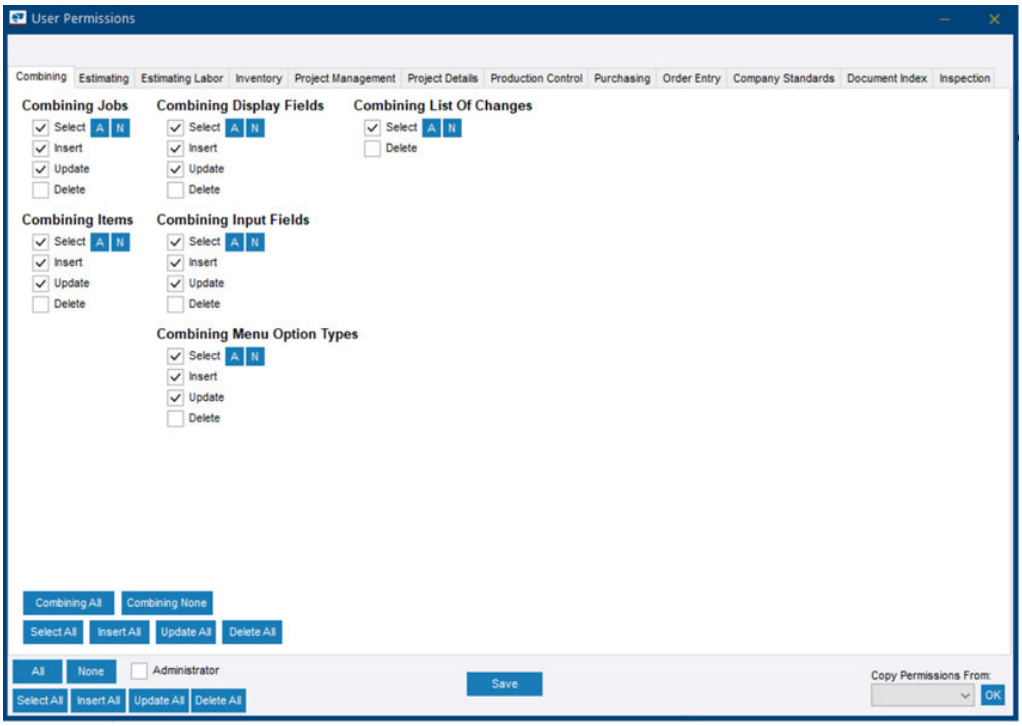
1. Go to **File** --> **Administration**.
2. Open the **Tekla PowerFab Users** tab.
3. Select the user for whom you want to assign a user role.
4. Select the user role from the **Role** drop-down list.
5. Click **Save**.

Modify a user role

1. Go to **File** --> **Administration**.

2. On the **Roles** tab, select the role that you want to modify in the left-hand pane.
3. In the **Role** field, modify the name of the user role.
4. To manage the permissions of the user role, click **Edit Role Permissions**.

   The **User Permissions** dialog box opens.



   For more information on the dialog box, see *User permissions dialog box* in Manage Tekla PowerFab user permissions (page 72).
5. Modify the user permissions as instructed in *Edit user permissions* in Manage Tekla PowerFab user permissions (page 72).
6. Click **Save** to save the permissions.

   The changed permissions are immediately applied to all users that have been assigned the role.
7. To close the **User Permissions** dialog box, click the **Close** button (**X**) in the upper-right corner.
8. In the **Administration** dialog box, click **Save** to update the permissions.

Delete a user role

Note that deleting a user role is permanent and cannot be undone.

1. Go to **File** --> **Administration**.

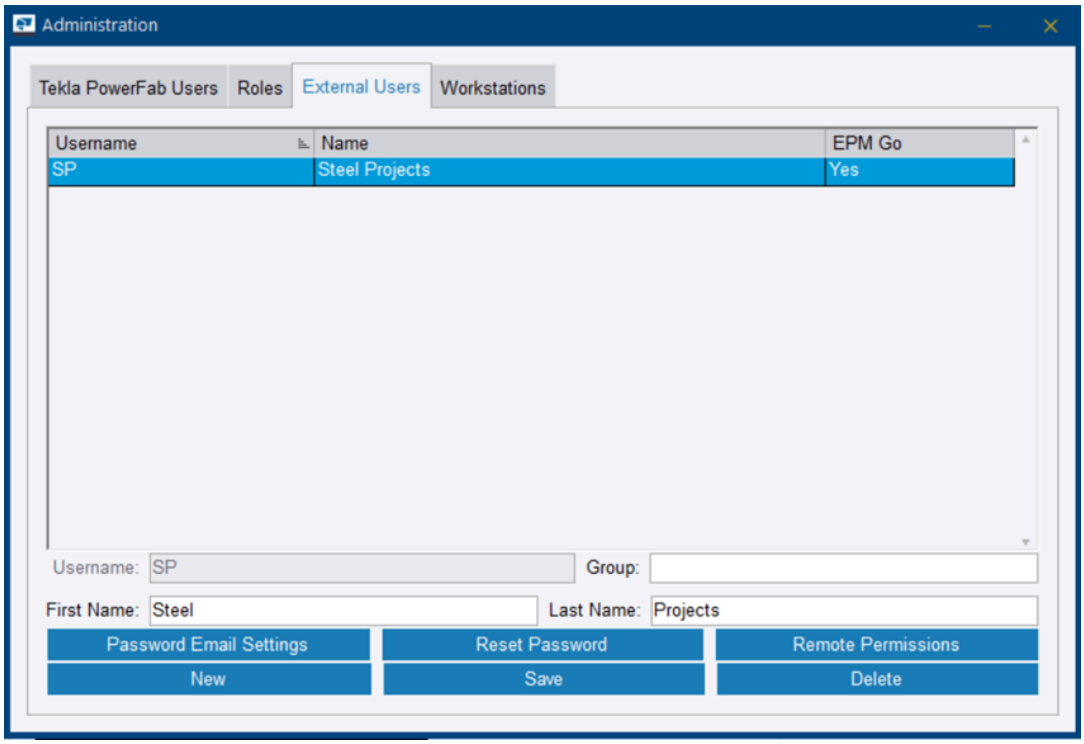
2. On the **Roles** tab, select the role that you want to delete in the left-hand pane.
3. Click **Delete**.
4. To permanently delete the user role, click **Yes** in the confirmation dialog box.

3.5 Manage Tekla PowerFab external users

Administrators can add, modify, and delete external users on the **External Users** tab of the **Administration** dialog box. Administrators can also reset the passwords of the external users.

NOTE Initially, the external user has no access to any information in Tekla PowerFab. You need to modify the user permissions to give them access to the necessary information and modules. For more information, see Manage Tekla PowerFab remote user permissions (page 83).

1. Go to **File** --> **Administration**.
2. In the **Administration** dialog box, open the **External Users** tab.



Add an external user

1. Go to **File** --> **Administration**.
2. On the **External Users** tab, click **New**.
3. Define the user properties.

   The properties marked with an asterisk (*) are mandatory information.

Option	Description
Username *	The username with which the external user logs in to Tekla PowerFab. Type the username in the **Username** field. Note that the username cannot be changed after the external user has been added.
Group	The group to which the external user belongs. For example, you can define groups for estimators and project managers. Note that groups do not allow you to automatically assign permissions to the user. Type the user group in the **Group** field.
First Name, **Last Name**	The first and last name of the external user. Type the appropriate names in the **First Name** and **Last Name** fields.

4. Click **Add**.
5. Do any of the following:

To	Do this
Generate and send an email with the external user's user name and password	a. In the confirmation dialog box, click **Yes**. Microsoft Outlook opens and generates a new email containing the username and password. b. Add the recipient. c. If necessary, modify the default email content. d. Send the email.
Continue without generating and sending an email	a. In the confirmation dialog box, click **No**. A message appears, displaying the password that the user needs to log in to Tekla PowerFab. b. Highlight and copy the password to send it to the external user. c. Click **OK** to close the message.

To	Do this
	d. Send the password to the external user in the desired communication channel.

The external user is added to Tekla PowerFab.

Reset an external user's password

1. Go to **File** --> **Administration**.
2. On the **External Users** tab, select the external user whose password you want to reset.
3. Click **Reset Password**.
4. To confirm resetting the password, click **Yes** in the first confirmation dialog box.
5. Do any of the following:

To	Do this
Generate and send an email that contains the username and new password of the external user	a. In the second confirmation dialog box, click **Yes**. Microsoft Outlook opens and generates a new email containing the username and new password. b. Add the recipient. c. If necessary, modify the email content. d. Send the email.
Continue without generating and sending an email	a. In the second confirmation dialog box, click **No**. A message appears, displaying the password that the user needs to log in to Tekla PowerFab. b. Highlight and copy the password to send it to the external user. c. Click **OK** to close the message. d. Send the password to the external user in the desired communication channel.

Modify an external user

1. Go to **File** --> **Administration**.

2. On the **External Users** tab, select the external user whose information you want to modify.
3. Modify the group, first name, and last name according to your needs.
4. To modify the user permissions, click **Remote Permissions**.

   For more information, see Manage Tekla PowerFab remote user permissions (page 83).
5. Click **Save** to save the changes.

Delete an external user

1. Go to **File** --> **Administration**.
2. On the **External Users** tab, select the external user that you want to delete.
3. Click **Delete**.
4. To permanently delete the external user, click **Yes** in the confirmation dialog box.

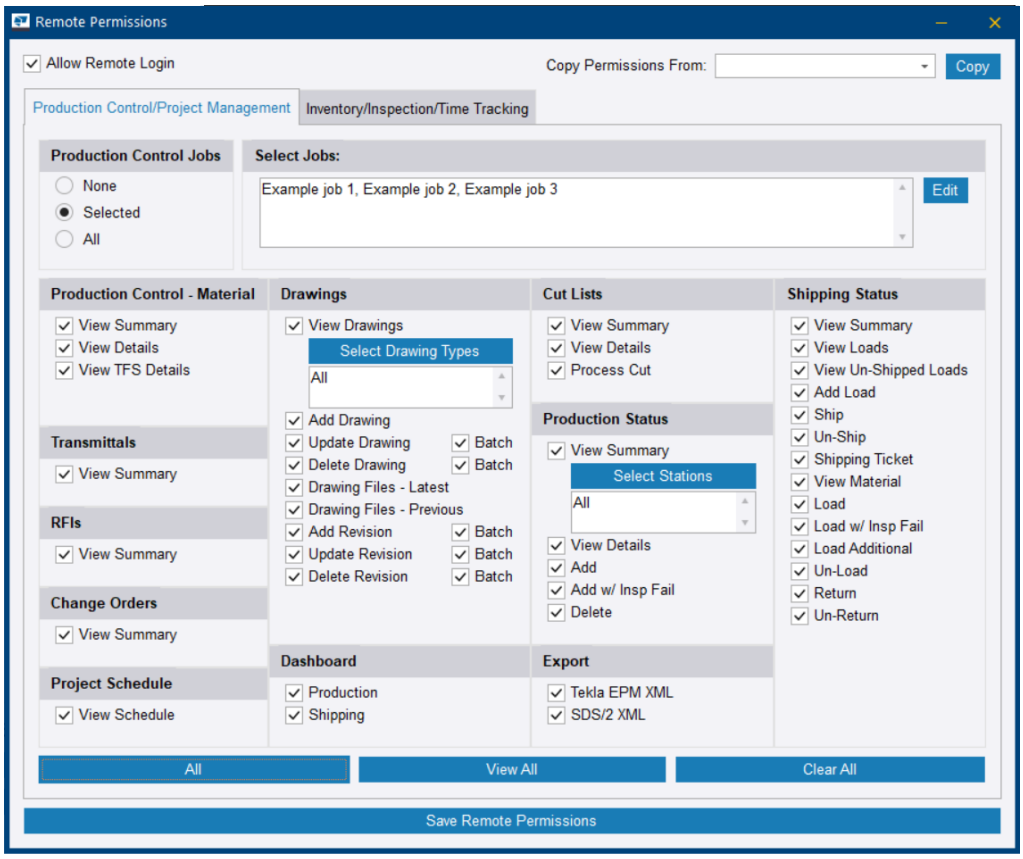
3.6 Manage Tekla PowerFab remote user permissions

Administrators can allow any internal or external Tekla PowerFab users to access information remotely using Tekla PowerFab Go.

The users that have been assigned remote permissions can access Tekla PowerFab Go through a remote link when they are out of the office, and modify the information in Tekla PowerFab Go according to the permissions they have been given.

1. Go to **File** --> **Administration**.
2. On either the **Tekla PowerFab Users** tab or the **External Users** tab, select the user whose remote permissions you want to modify.

3. Click **Remote Permissions**.



4. At the top of the **Remote Permissions** dialog box, select the **Allow Remote Login** checkbox.

   When you have allowed logging in to Tekla PowerFab Go, you can modify the other remote permissions.

   Note that the **Remote Permissions** has two tabs:

   - **Production Control/Project Management**
   - **Inventory/Inspection/Time Tracking**

   You need to modify the information on both tabs separately.

5. On the **Production Control/Project Management** tab, select which production control jobs the user can access remotely, and what information theyh can view and modify. The options are:

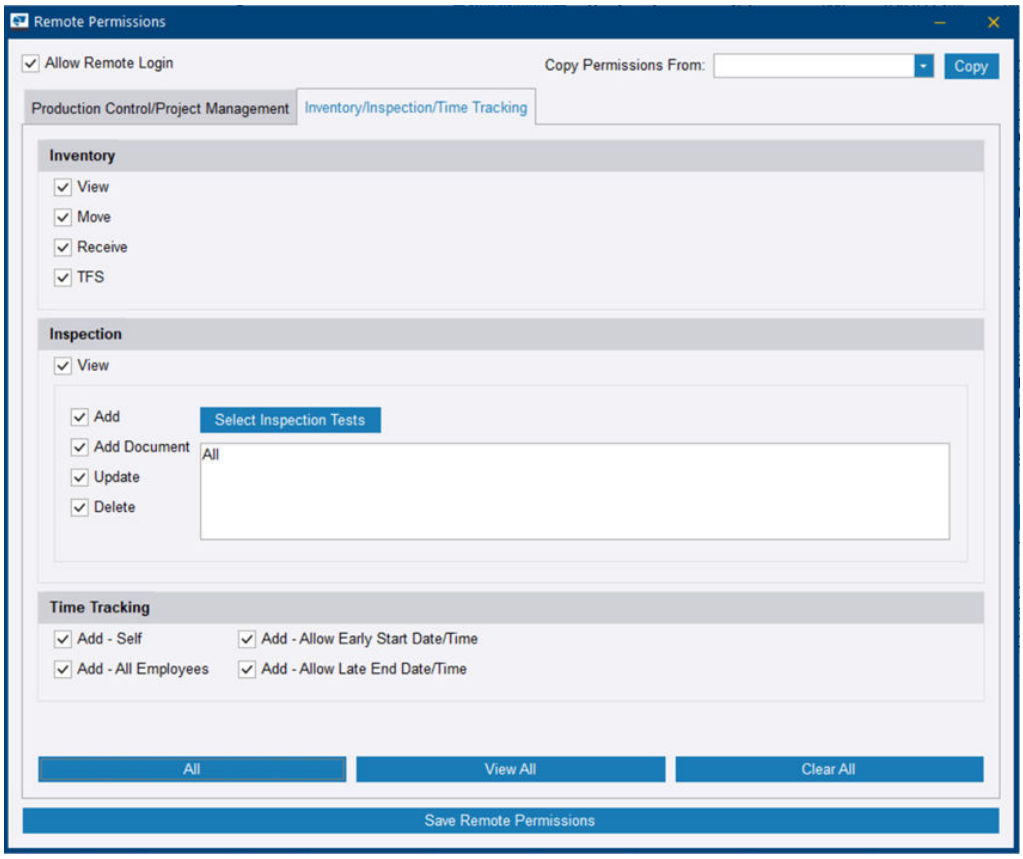
   - **None**: the user cannot access the information of any production control job remotely.
   - **Selected**: allows you to select the control jobs that the user can access remotely.

To select the jobs, click **Edit** in the **Select Jobs** section of the **Production Control/Project Management** tab.

You can also create job groups in **Production Control** to allow the users to only access jobs in particular job groups. For example, you could create a job group called `Active`, and allow the users to access all jobs in the `Active` job group. You could also create a job group called `Inactive` and store all jobs that you do not want users to access in Tekla PowerFab Go in the `Inactive` job group.

- **All**: the user can access the information of all production control jobs remotely.

6. On the **Inventory/Inspection/Time Tracking** tab:
   a. Select the actions the user can do the inventory, (**View**, **Move**, **Receive**)
   b. To select the inspections tests the user can view or modify, click **Select Inspection Tests**.
   c. Click the arrow buttons to move the items tests that the user needs to access remotely to the **Included** list.
   d. Click **OK**.
   e. Select what kind of time tracking records the user can add (records for themselves or for all employees, records that have a late start or end time).



7. To modify the user permissions further, do any of the following:

To	Do this
Select the permissions one by one	a. Click a tab at the top of the **Remote Permissions** dialog box to open it. b. Select checkboxes next to the permissions that you want to give to the user. Repeat steps a to b on both tabs of the **Remote Permissions** dialog box. c. To only allow access to particular drawing types, stations, or inspection tests: 1. Click the **Select Drawing Types**, **Select Stations**, or **Select Inspection Tests** button. 2. Use the arrow buttons to move the accessible items to the **Included** list. 3. Click **OK**.
Copy the remote permissions of another user	a. In the upper-right corner of the dialog box, click the arrow on the right side of the **Copy Permissions From** list.

To	Do this
	b. Select the desired user in the list. c. Click **Copy**.

Select or remove multiple permissions at once	• Do one of the following:
	  • To allow the user to view, but not modify, all information listed on the current tab, click **View All** at the bottom of the dialog box.
	  • To remove all permissions that the user has on the current tab, click **Clear All**.
	Select or remove the permissions on both tabs of the **Remote Permissions** dialog box.

Give all remote permissions on the current tab	• In the lower-left corner of the dialog box, click **All**. Note that to give all available remote permissions, you need to click **All** on both tabs of the **Remote Permissions** dialog box.

8. Click **Save Remote Permissions**.

The user can now view and modify the information according to the remote permissions you gave them.

See also

Manage Tekla PowerFab external users (page 80)

3.7 Manage Tekla PowerFab remote work

Presented here are the four main scenarios for setting up work from outside the office network, ranked in the order of effectiveness. These scenarios also apply to cloud installations.

It is assumed that you run Tekla PowerFab on a computer that is outside your office network or that the server installation is not on the network that the user will be on.

Scenario 1: Work with a terminal server connection

Companies that have deployed and configured a terminal server have an excellent way of working remotely with Tekla PowerFab. User's local computer connects to the terminal server and acts as a “thin client.”

Terminal servers allow for multiple remote desktop sessions for each user connected. Running the application on the same network as the server provides the optimal remote working experience.

Things to consider:

- This can be a costly and labor-intensive setup.
- Terminal servers or services are not hosted by Tekla PowerFab.
- The support for setting up and maintaining the terminal servers is outside the Tekla PowerFab scope.

Scenario 2: Connect using remote desktop software

Various remote desktop solutions are available. These may allow you to connect to and control a computer on the same network as the Tekla PowerFab server installation.

Things to consider:

- Remote desktop solutions are not set up or supported by Tekla PowerFab.
- Set up the remote desktop at the office. You may need to reconfigure firewalls and other security software to allow these connections.
- The computer at the office must be running for you to connect to it, but many computers can be set up to start automatically when you try to connect.
- Since the computer running Tekla PowerFab is on the same network as the Tekla PowerFab server installation, standard performance and file access is maintained.
- This setup requires a reliable internet connection so that all features or integrations function properly. This may not be a workable solution for all users.

See also How to use Tekla PowerFab with a VPN.

Scenario 3: Connect through a VPN and work as if you were at the office

If your company has a VPN set up for remote workers, this is an option for Tekla PowerFab as well.

To use VPN solutions with Tekla PowerFab, connect to the office network from the computer that runs Tekla PowerFab.

Things to consider:

- VPN solutions are not set up or maintained by Tekla PowerFab.
- The connection is set up and access permitted to the network usually through your IT.

- Licensing likely requires a split VPN connection.
- Latency in the remote connection is greater than in your office network. Therefore, most processes requiring calls to the server take longer to run.
- This is the least recommended option due to performance levels.

Scenario 4: Install a local database - For use with the Estimating module only

If Tekla PowerFab is installed as a server installation, the database is local to the user's machine. You need to restore a database from the user's company server and restore it to their local machine. This ensures that all the current company settings and jobs are available.

The estimator can then perform estimates from the local machine, and when finished, use the **Job Maintenance** option to export the estimate. The export can then be imported into the main database.

Things to consider:

- This workflow has the potential for inaccuracy if the settings in the databases do not match. If there are changes, they need to be made to both databases.
- This scenario is also only practical for the **Estimating** module. Other Tekla PowerFab modules are dependent on links to other records that are not included in the export.

See also

Install Tekla PowerFab on a server (page 56)

Restore the Tekla PowerFab database (page 99)

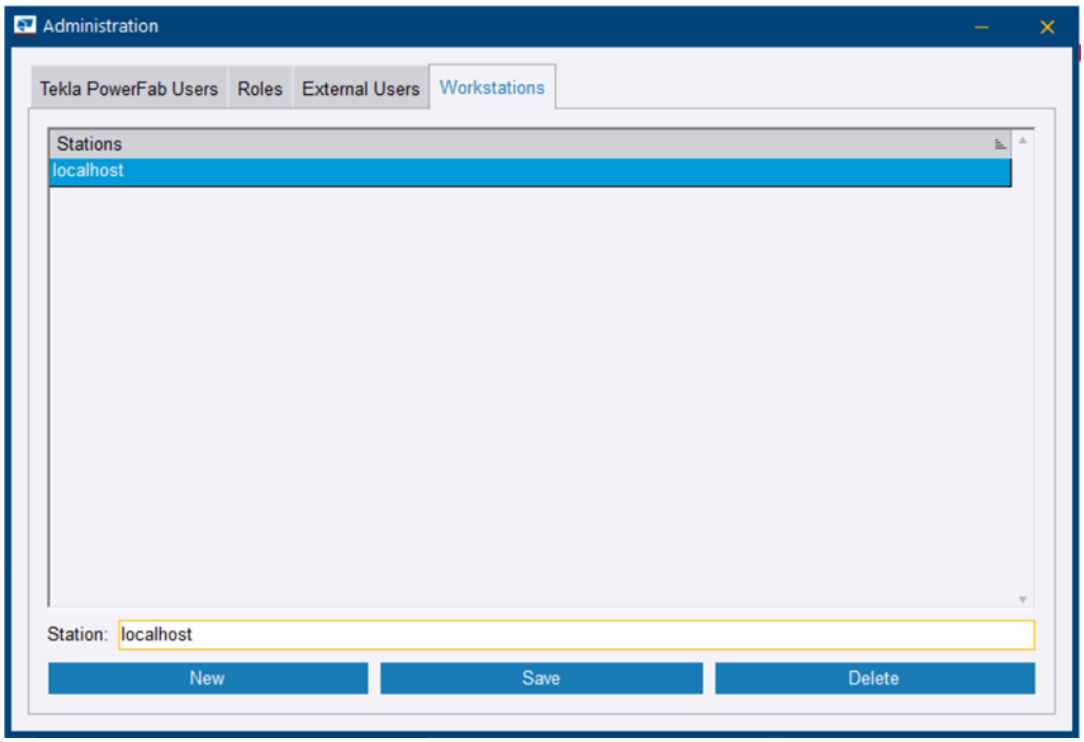
Manage estimating jobs (page 406)

3.8 Manage Tekla PowerFab workstations

On the **Workstations** tab of the **Administration** dialog box, you can add new workstations, modify existing workstations, or delete unnecessary workstations.

To manage workstations, do the following:

1. Go to **File** --> **Administration**.
2. Open the **Workstations** tab.



Add a workstation

1. Go to **File** --> **Administration**.
2. On the **Workstations** tab, click **New**.
3. In the **Station** field, type the workstation name or the computer ID.
4. Click **Add**.

Modify a workstation

1. Go to **File** --> **Administration**.
2. On the **Workstations** tab, select the workstation that you want to modify.
3. In the **Station** field, modify the workstation name or the computer ID.
4. Click **Save** to save the changes.

Delete a workstation

1. Go to **File** --> **Administration**.
2. On the **Workstations** tab, select the workstation that you want to delete.

3. Click **Delete**.
4. To permanently delete the workstation, click **Yes** in the confirmation dialog box.

Create replicas

Replication is a legacy function. For details, contact the local support.

In **File** --> **Administration** --> **Replication**, administrators can connect to workstations in an off-site location to share Tekla PowerFab files and activity. Replication requires a special license and a separate server installation at the slave site.

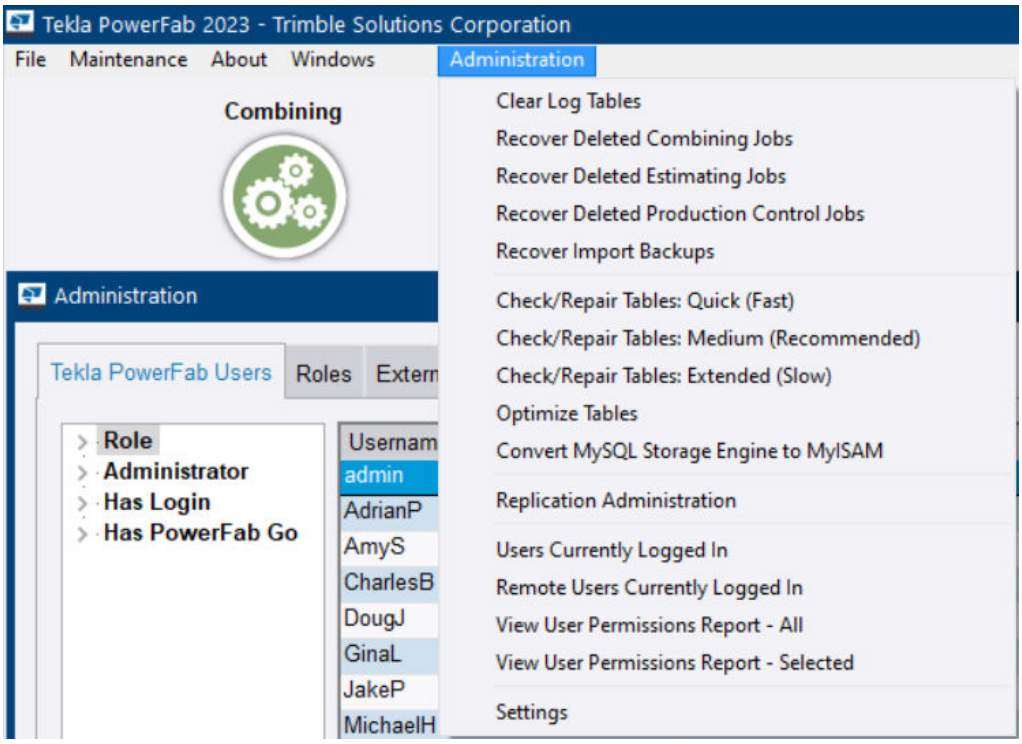
3.9 Define Tekla PowerFab administration settings

Administrators can define the way in which Tekla PowerFab can be used. In the **Settings** dialog box accessed via the **Administration** ribbon tab, administrators can adjust several general settings and database backup and restore settings, and define the password policy.

Define general administration settings

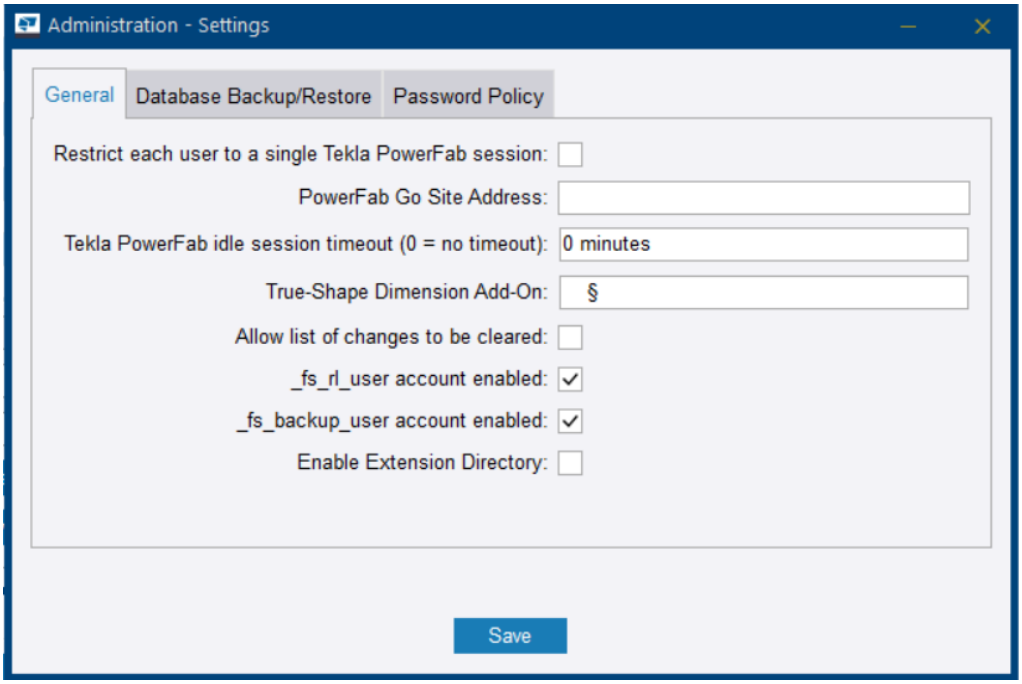
In the administrator role, you can define a variety of settings affecting the way Tekla PowerFab can be used.

1. Go to **File** --> **Administration**.
2. Click the **Administration** ribbon tab.



3. On the menu, select **Settings**.

   The **Administration - Settings** dialog box opens.



4. On the **General** tab, define the settings according to your needs:

Option	Description
Restrict each user to a single Tekla PowerFab session	When selected, users can only have one Tekla PowerFab session open at the same time. When cleared, users can have multiple Tekla PowerFab sessions open at the same time.
Tekla PowerFab Go Site Address	Enter the user's Tekla PowerFab Go site address.
Tekla PowerFab idle session timeout	Allows you to define the number of minutes that a user can remain inactive before the user's session times out and the user is logged out. Type the number of minutes in the **Tekla PowerFab idle session timeout** field. If you do not want sessions to time out, type `0` in the **Tekla PowerFab idle session timeout** field.
True-Shape Dimension Add-On	Default: The section sign (§) The symbol that is displayed after dimensions if a plate item has a CNC file attached to it and the actual shape of the item in the CNC file is not a rectangle. For example, if a plate is triangular, Tekla PowerFab knows the true shape, although it cannot be shown in the item dimensions. You can replace the section sign § with `[SQM]` to display the area of non-rectangular plates in square feet or square meters.
Allow list of changes to be cleared	When selected, allows administrators and other users with the correct user permissions to clear the list of changes in a particular Tekla PowerFab module. When cleared, the list of changes cannot be cleared in any module, even by administrators or users that have the correct permissions.
_fs_rl_user account enabled	When selected, the built-in user login is enabled, so that the Tekla PowerFab Remote Server can connect to the Tekla PowerFab database without the administrator adding the username and password in the monitor settings. When cleared, the built-in user login is disabled, so the Tekla PowerFab Remote Server cannot connect to the Tekla PowerFab database without the administrator adding the username and password in the monitor settings.

Option	Description
_fs_backup_user account enabled	When selected, the built-in username and password are enabled, so that Tekla PowerFab can perform scheduled backups from the server computer without a username and password. When cleared, Tekla PowerFab cannot perform scheduled backups from the server computer without a username and a password.
Enable extension directory	When selected, users can use their own extensions with Tekla PowerFab. User-defined extensions need to be saved in the **Extension** default folder that is defined in the **Default Directories** dialog box. When cleared, users cannot use their own extensions with Tekla PowerFab. Also, the **Extension** option is not available in the **Default Directories** dialog box.

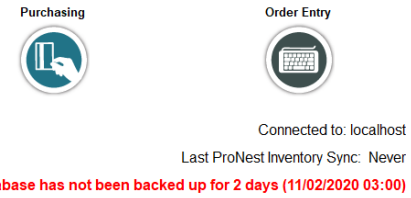
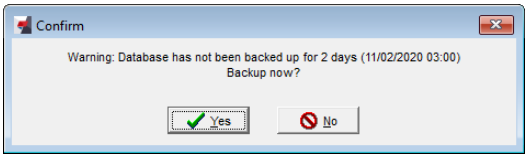
5. To save the changes, click **Save**.

Define database backup and restore settings

On the **Database Backup/Restore** tab of the **Administration - Settings** dialog box, you can define how the database can be restored and how often users should get reminders to create backup copies of the database.

1. Go to **File** --> **Administration**.
2. Click the **Administration** ribbon tab.
3. On the menu, select **Settings**.
4. On the **Database Backup/Restore** tab of the **Administration - Settings** dialog box, define the settings according to your needs:

Option	Description
Allow database restore from any workstation	When selected, allows administrators to restore the Tekla PowerFab database using any computer. When cleared, the Tekla PowerFab database can only be restored on the server computer. For more information, see Restore the Tekla PowerFab database (page 99).
Show background message if backup has not been run in 'x' days (0 for no message)	The number of days after the previous database backup when Tekla PowerFab should remind users with a

Option	Description
	background message about backing up the Tekla PowerFab database. You can type a different number of days for users with administrative rights and for regular Tekla PowerFab users. If you do not want to give a reminder message, type 0. See an example of a background message below.  For instructions on how to back up the Tekla PowerFab database, see Save a backup copy of the Tekla PowerFab database (page 98).
Show popup message if backup has not been run in 'x' days (0 for no message)	The number of days after the previous database backup when Tekla PowerFab should remind users with a pop-up message about backing up the Tekla PowerFab database. You can type a different number of days for users with administrative rights and for regular Tekla PowerFab users. If you do not want to give a reminder message, type 0. See an example of a pop-up message below.  For instructions on how to back up the Tekla PowerFab database, see Save a backup copy of the Tekla PowerFab database (page 98).

5. To save the changes, click **Save**.

Define password policy

On the **Password Policy** tab of the **Administration - Settings** dialog box, you can define the password policy settings such as complexity and length.

If no password policy is defined, any passwords can be used. Note that Tekla PowerFab passwords are always case-sensitive.

1. On the **Password Policy** tab, define the minimum length for Tekla PowerFab passwords and select the checkboxes for the characters that all Tekla PowerFab passwords need to contain.
2. To save the changes, click **Save**.

3.10 Adjust Tekla PowerFab spell-checking settings

Tekla PowerFab has a spell-checking tool that allows you to spellcheck the text that you write in input fields. Automatic spell-checking is enabled by default in **Project Management** for subject lines and body texts. You can also perform spell-checking manually in any input field in any Tekla PowerFab module.

Enable spell-checking

If your `settings.ini` file does not contain the spell-checking function, you need to edit the file to add it.

1. Ensure that Tekla PowerFab is closed.
2. Go to the `C:\Users\Public\Documents\Tekla\Tekla PowerFab \Settings` folder.
3. Find and open the `settings.ini` file in a text editor.
4. To find or add the section, write `[SpellCheck]`.

```
[SpellCheck]
Enabled=1
AutoSpellCheckEnabled=1
Dictionary=en_US
```

5. Save and close the `settings.ini` file.

Perform spell-checking

1. In Tekla PowerFab, click the field whose text you want to spell-check.
2. Press **Ctrl+S** on the keyboard.

   Tekla PowerFab spell-checks the text in the current field.

3. If you need to add a new word to the dictionary, so that the spell-checking tool will recognize it in the future, right-click the word and select **Add**.

   New words are saved in the `tekla-powerfab.dic` file `C:\Users\Public\Documents\Tekla\Tekla PowerFab\Settings\`. Do not edit the `tekla-powerfab.dic` file manually.

Disable spell-checking

1. Ensure that Tekla PowerFab is closed.
2. Go to the `C:\Users\Public\Documents\Tekla\Tekla PowerFab\Settings` folder.
3. Find and open the `settings.ini` file in a text editor.
4. In the `[SpellCheck]` section, do any of the following:

To	Do this
Disable all spell-checking in Tekla PowerFab	• Set the `Enabled` value to `0`
Disable automatic spell-checking	• Set the `AutoSpellCheckEnabled` value to `0`

5. Save and close the `settings.ini` file.

Switch to another spell-checking dictionary

By default, Tekla PowerFab uses a spell-checking dictionary that matches the current system locale setting. However, you can force the use of another dictionary.

1. Ensure that Tekla PowerFab is closed.
2. Go to the `..\Program Files (x86)\Tekla\Tekla PowerFab` folder.
3. Find and open the `settings.ini` file in a text editor.
4. In the `[SpellCheck]` section, set the `Dictionary` value to one of the following:
   - `en_AU` (English / Australia)
   - `en_CA` (English / Canada)
   - `en_GB` (English / United Kingdom)
   - `en_US` (English / United States)
   - `es_ES` (Spanish / Spain)
   - `es_MX` (Spanish / Mexico)

- `fr` (French / France)
- `ru_RU` (Russian)

5. Save and close the `settings.ini` file.

3.11 Manage the Tekla PowerFab database

Administrators can manage the Tekla PowerFab database in multiple ways.

As an administrator, you can do the following:

- Save backup copies of the database
- Use a backup copy restore a compromised database
- Compress the database
- Clear information on user activity from log tables
- Recover previously deleted jobs
- Import backup files

See also

Save a backup copy of the Tekla PowerFab database (page 98)

Restore the Tekla PowerFab database (page 99)

Compress the Tekla PowerFab database (page 100)

Clear all information from log tables (page 101)

Recover deleted files (page 102)

Save a backup copy of the Tekla PowerFab database

We recommend that administrators save backup copies of the Tekla PowerFab database regularly. This way, you can restore a compromised database by using a backup copy of the database.

NOTE The best way to ensure reliable database backups is using the automated event for creating automatic backups. For more information, see Automated events (page 208).

1. Close all dialog boxes that you have open in Tekla PowerFab.
2. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
3. On the **File** menu, select **Backup Database**.
4. In the **Save As** dialog box, browse to the location where you want to save the backup file.

5. If necessary, modify the name of the backup file.
6. Click **Save**.

Tekla PowerFab copies all database information to the selected folder as a compressed `7z` file.

NOTE You can change the compression level of backup copies in the `settings.ini` file under the folder where Tekla PowerFab has been installed.

To do so:

1. Open the `settings.ini` file.
2. Find or add a section called `[DatabaseBackup]`.
3. Below the `[DatabaseBackup]` line, type `CompressionLevel`, an equal sign, and the compression value.

   The compression values are from 1 (lowest level of compression, fastest backup) to 5 (highest level of compression, slowest backup).

   For example, to save as compressed backup copies as possible, type:

   ```
   [DatabaseBackup]
   CompressionLevel=5
   ```
4. Save and close the `settings.ini` file.

See also

Restore the Tekla PowerFab database (page 99)

Export a combining job to KISS (page 394)

Export an estimating job to KISS (page 588)

Export a production control job to KISS (page 1063)

Restore the Tekla PowerFab database

Administrators can use the **Restore Database** command to replace the Tekla PowerFab database with a previously saved backup copy. This can be useful if the database has been compromised, or if the database needs to be moved from one server to another.

1. Ensure that all other users have logged out of Tekla PowerFab.
2. To stop the Tekla PowerFab Remote Server:
   a. Go to `C:\Program Files (x86)\Tekla\Tekla PowerFab`.
   b. To open the **Tekla PowerFab Remote Monitor** window, double-click `Tekla.PowerFab.Remote.Monitor.exe`.
   c. In the **Tekla PowerFab Remote Monitor** window, click **Stop Service**.

3. Close all dialog boxes that you have open in Tekla PowerFab.
4. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
5. On the **File** menu, select **Restore Database**.
6. In the **Open** dialog box, browse to find the backup file that you want to use.
7. Select the file and click **Open**.
8. To replace all existing information in the Tekla PowerFab database with the information in the backup file, click **Yes** in the confirmation dialog box.

   Tekla PowerFab restores the database. This may take a while.
9. In the **Message** dialog box, click **OK** to close Tekla PowerFab.
10. To use the restored database, restart Tekla PowerFab and log in.

If you have any problems, contact your local support. See Contact support (page 180).

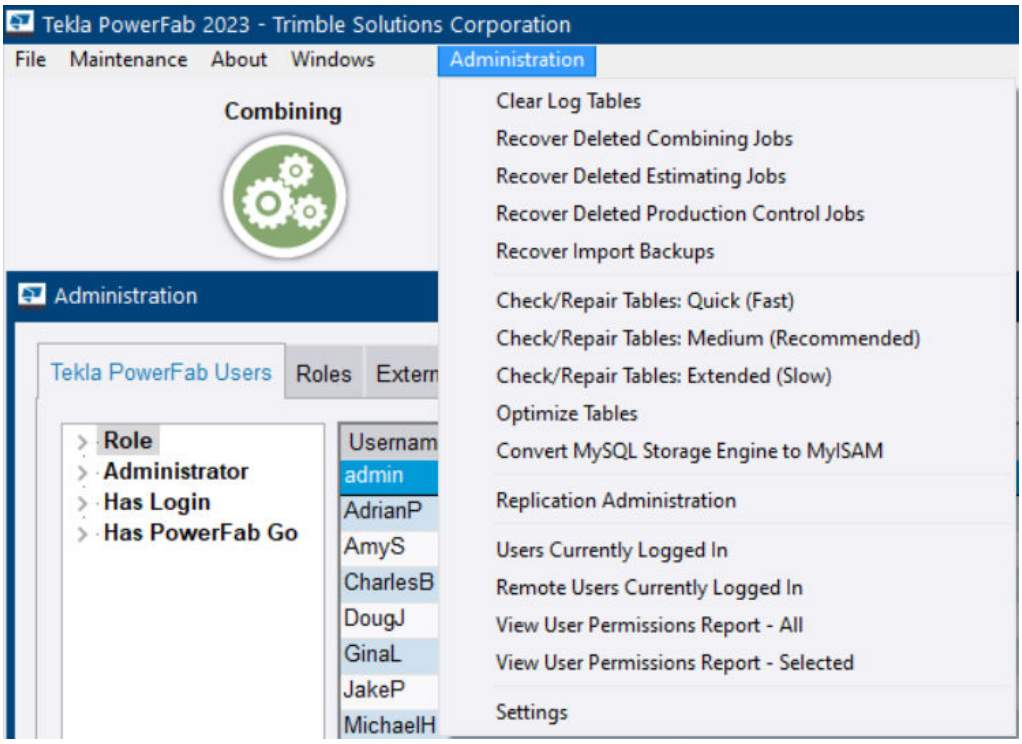
See also

Save a backup copy of the Tekla PowerFab database (page 98)

Compress the Tekla PowerFab database

Administrators can use the **Optimize Tables** command to compress the Tekla PowerFab database.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Administration**.
3. Click the **Administration** ribbon tab.



4. On the menu, select **Optimize Tables**.

   The **Optimize Tables** dialog box opens, and the compression process starts.

   The more information is saved into Tekla PowerFab, the longer the compression process takes.

5. In the **Optimize Tables** dialog box, review the result of the compression process.

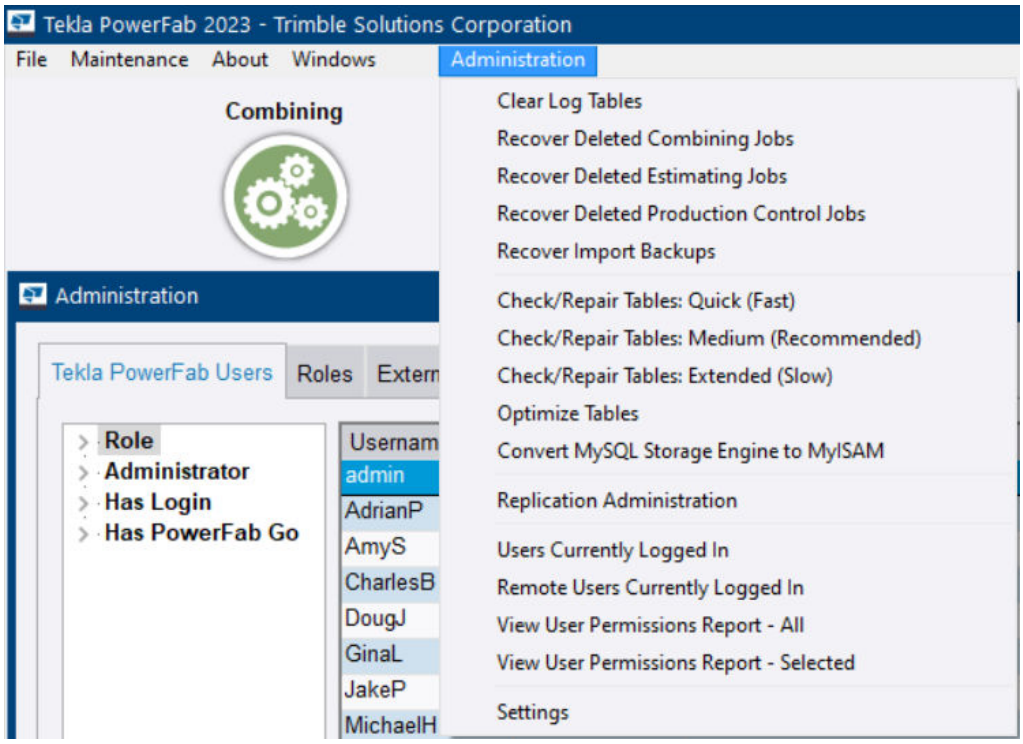
   - **Optimized** shows the number of files that were compressed.
   - **Optimization Not Required** shows the number of files that did not need to be compressed.
   - **Errors Found** shows the number of errors that were found in the compression process. The errors are also listed in the **Optimize Tables** dialog box.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Clear all information from log tables

All actions that are performed in Tekla PowerFab are saved in log tables. Administrators can use the **Clear Log Tables** command to manually clear extra logs from particular actions made by the Tekla PowerFab in the company.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Administration**.
3. Click the **Administration** ribbon tab.



4. On the menu, select **Clear Log Tables**.
5. To confirm clearing the log tables, click **Yes** in the confirmation dialog box.

Recover deleted files

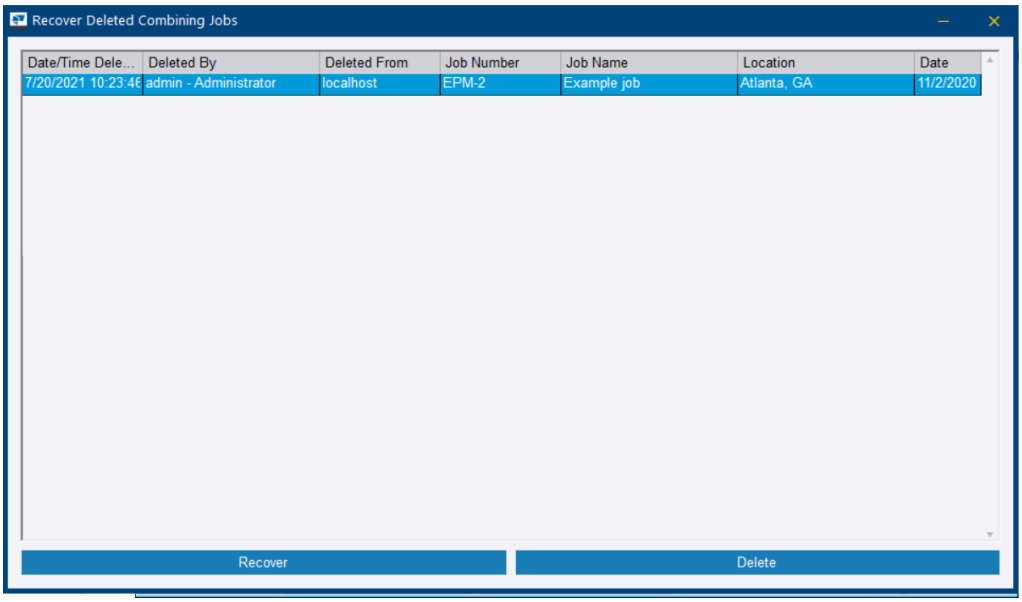
When a user deletes a combining job, estimating job, or a production control job, Tekla PowerFab saves the jobs in the Tekla PowerFab database as KISS files. Administrators can recover the deleted combining jobs, estimating jobs, and production control jobs within 30 days of deleting the job.

To access the recovering options, do the following:

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Administration**.
3. Click the **Administration** ribbon tab.

Recover jobs

1. On the menu, select any of the following depending on the job type:
   - **Recover Deleted Combining Jobs**
   - **Recover Deleted Estimating Jobs**
   - **Recover Deleted Production Control Jobs**



2. In the recovering dialog box that opens, select the jobs that you want to recover.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

3. Click **Recover**.

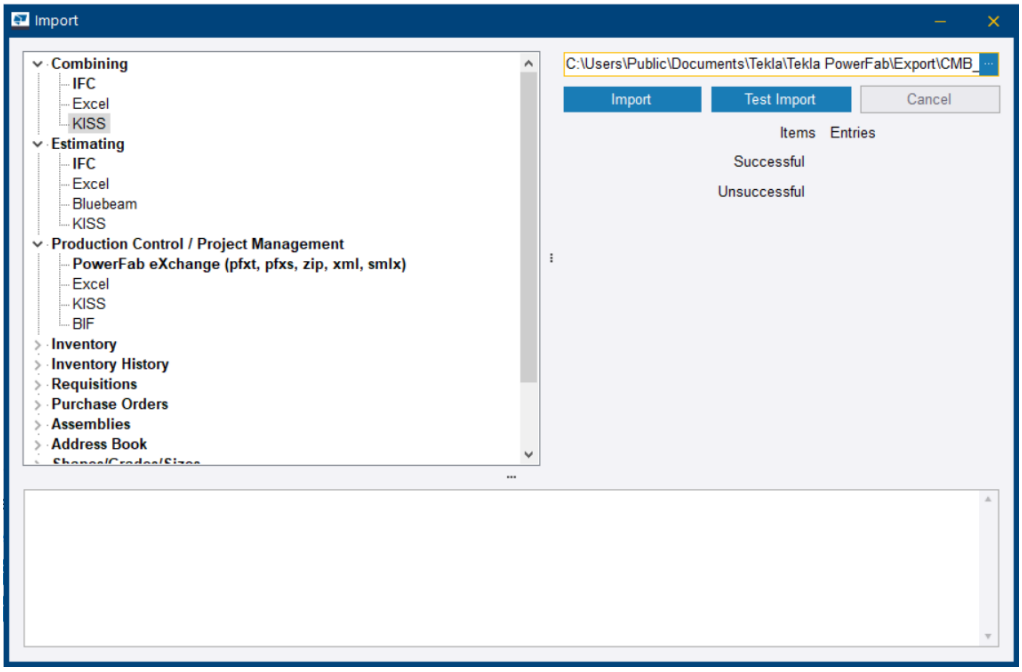
   A message opens, informing you that Tekla PowerFab will create KISS files for the selected jobs. You can then import the KISS files back to Tekla PowerFab to view and modify the recovered job again.

4. Click **OK** to close the message.
5. In the **Save As** dialog box, browse to the location where you want to save the first KISS file for recovering the job.
6. If necessary, change the file name.
7. Click **Save**.

   Repeat steps 5 to 7 to select the saving location of all KISS files.

8. Close all open dialog boxes in the Tekla PowerFab.
9. To re-import the recovered job to Tekla PowerFab, click the **File** ribbon tab.
10. On the **File** menu, select **Import**.

11. In the navigation tree on the left of the **Import** dialog box, select the job type (**Combining**, **Estimating**, or **Production Control**) and then, select KISS.



12. Click the **...** button.
13. In the **Open** dialog box, browse to find the KISS file that you want to import.
14. Select the file and click **Open**.
15. Click **Import**.
16. In the job editing dialog box, modify the job information according to your needs.
17. Click **Save**.
18. In the **Import** dialog box, view the status of the import process.

    If necessary, you can view the import details and errors in a text file by clicking the **Open Import Log** button.
19. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The recovered job can now be opened and modified when you open the related module in Tekla PowerFab.

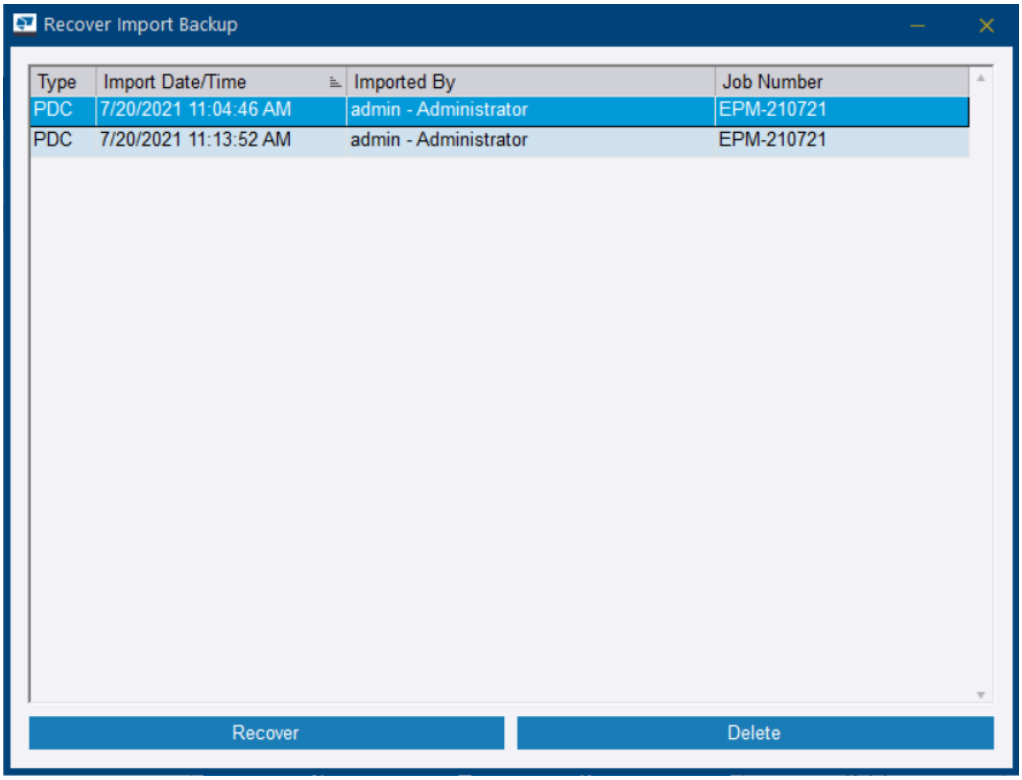
Recover import backups

Tekla PowerFab creates import backup files automatically when information is imported to a production control job. Import backup files contain the information of a production control job before any new information was

imported. By recovering import backup files, you can revert a production control job to the state before new information was imported.

1. On the menu, select **Recover Import Backups**.
2. In the **Recover Import Backup** dialog box, select the import backup file.

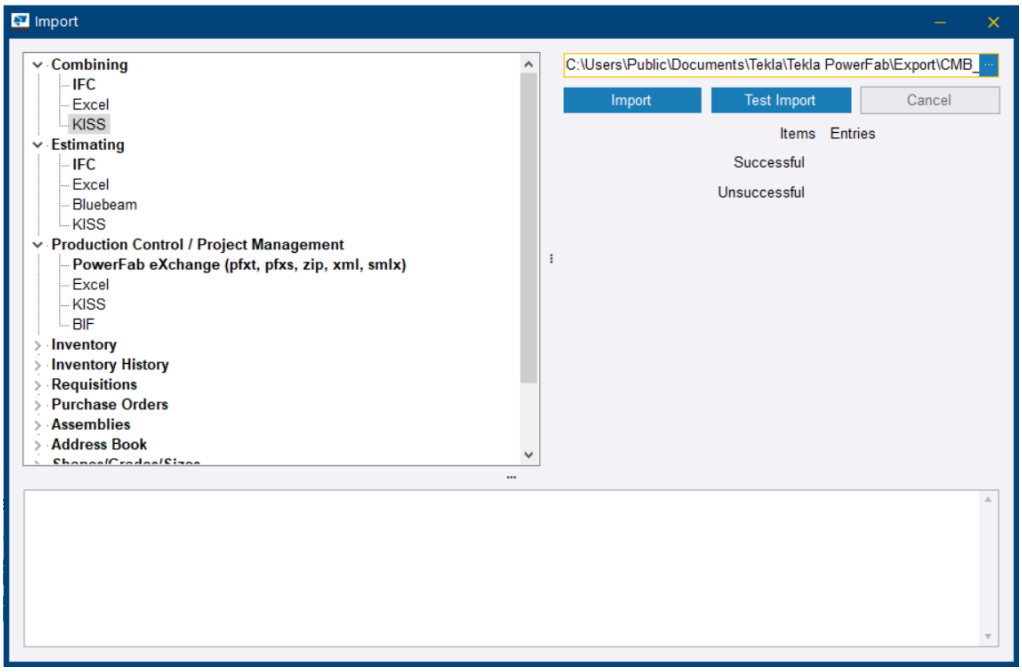
   You can identify the correct backup file by the import date and time, the user that imported the information, and the job number.



3. Click **Recover**.

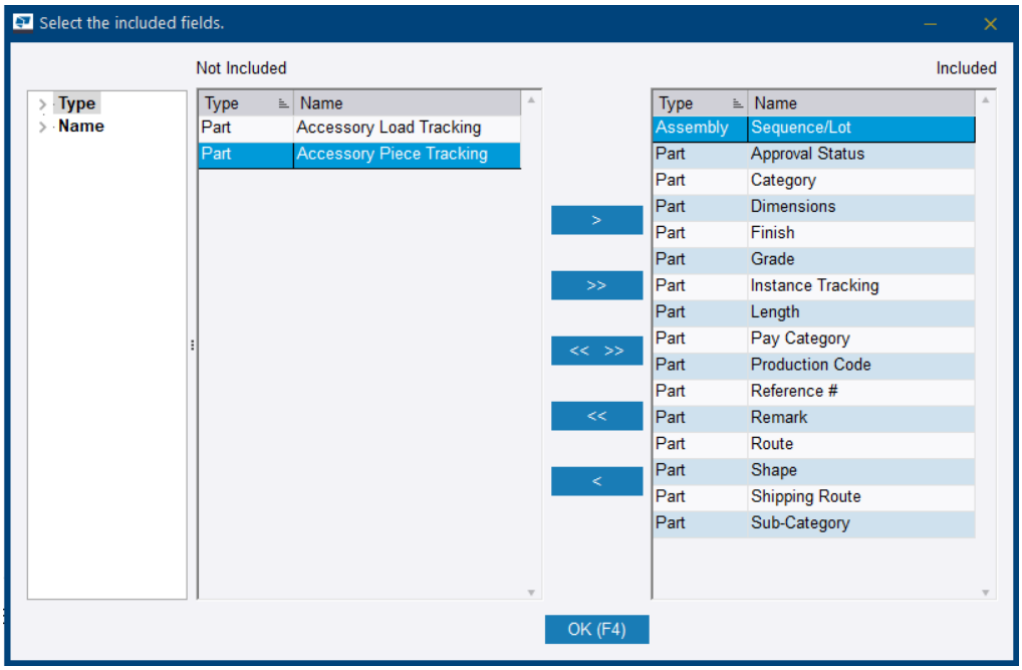
   A message opens, informing you that Tekla PowerFab will create KISS files for the selected import backups. You can then import the KISS files back to Tekla PowerFab to revert the production control job to the state before importing information.
4. Click **OK** to close the message.
5. In the **Save As** dialog box, browse to the location where you want to save the KISS file.
6. If necessary, change the file name.
7. Click **Save**.
8. Close all open dialog boxes in Tekla PowerFab.
9. To revert the job to the state before new information was imported, Tekla PowerFab, click the **File** ribbon tab.

10. In the navigation tree on the left of the **Import** dialog box, select the import file type and then, select **KISS** .



11. Click the **...** button.
12. In the **Open** dialog box, browse to find the KISS file that you want to import.
13. Select the file and click **Open**.
14. Click **Import**.
15. In the **Job #** list, select the job that you want to revert to its previous state.
16. Click **Save**.
17. To overwrite the current information with the import backup file, in the **Import** dialog box, select **Add & Replace**.
18. Click **OK**.

    If you have selected the **Prompt to confirm import fields** in the **Company Standards** dialog box for the **Production Control** module, the **Select the included fields** dialog box opens.
19. In the **Select the included fields** dialog box, click the arrow buttons to move the fields whose information that you want to replace to the **Included** list.



20. Click **OK**.
21. Define other necessary information for the imported backup file.
22. Click **OK**.
23. In the **Import** dialog box, view the status of the import process.

    If necessary, you can view the import details and errors in a text file by clicking the **Open Import Log** button.
24. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

3.12 Migrate Tekla PowerFab to a new server

When migrating Tekla PowerFab to a new server, you need to first install Tekla PowerFab to the new server and then move the data from the old server to the new one.

See View currently signed-in users (page 68) and Force shutdown (page 69).

1. Install Tekla PowerFab server

See Install Tekla PowerFab (page 48).

1. Install Tekla PowerFab on a server.

   See Install Tekla PowerFab on a server (page 56).

2. Install Tekla PowerFab Remote Server service.

   See Install Tekla PowerFab Remote Server in Set up Tekla PowerFab Remote Server for Tekla PowerFab Go (page 58).

3. Document the directory locations, server IP address, and server name for the installation and update on client machines.
4. You may need to create an inbound rule for the Windows firewall to allow the connection to the database through TCP port 3306.

2. Get the data from the old server

NOTE Before you start migrating Tekla PowerFab to a new server, all users must be out of the system until the database has been restored on the new server.

1. Open Tekla PowerFab on the old server as an administrator.
2. To note the current location of the default directories, go to **File** --> **Default directories**.
3. Optional: Go to **File** --> **Administration**.
4. Optional: Click the **Administration** ribbon tab and select **Check/Repair Tables: Medium**.
5. Optional: Go to **File** --> **Administration**.
6. Optional: Click the **Administration** ribbon tab and select **Optimize Tables**.
7. In the **File** ribbon tab, select **Backup Database**.
8. Save the file to an accessible location on the new server or portable media.
9. Open the Services application and click **Stop the service**.
10. To prevent users from doing work in the old database, stop and disable MySQL_TeklaPowerFab.

    NOTE Instead of MySQL_TeklaPowerFab, the service name may be MySQL_Fabsuite.

    a. Open the Services application and click **Stop the service**.
    b. Right-click the service and select **Properties**.
    c. On the **General** tab, in **Startup type**, select **Disabled**.
    d. Click **Apply**.
    e. Click **OK**.

3. Restore the data on the new server

1. Open Tekla PowerFab and log in as an administrator.
2. Go to **File** --> **Restore Database**.
3. Browse to the location of the database backup from the old server and select the file.
4. Follow the prompts to restore the database.

4. Migrate default directories to the new locations

If the default directories are local to the old server, they may need to be moved to the ones set up on the new server. If they are on a separate file server they may or may not need to be moved.

1. Migrate the content of the **Document Index**, **Drawing**, and **Custom Report** directories to the new location.

   Migrating the content in other directories is optional.
2. Locate the default directories.
3. Copy the content of those directories to the new directories on the new server or location.

5. Update the connection and settings on the client machines

1. Open Tekla PowerFab on the client machine.
2. In the login dialog box, click **Connection**, and on the **Database Connection** tab, set the connection to the new IP address or server name.
3. Click **OK**.
4. If multiple connections are to be used, the local Windows administrator must do the following:
   a. In the login dialog box, click **Connection**, and on the **Other** tab, select **Separate ODBC Data Sources by Connection Details**.
   b. Click **OK**.
5. Log in.

   If the database connection has changed, you get a message telling to update the ODBC connection to match the new one. This is for ensuring that the report viewer connection is also changed.
6. Select **Yes**.

7. Go to **File** --> **Default Directories** and set the directories to the new location.

   Document Index, **Drawing**, and **Custom Report** directories are critical. The **Update** directory is important if you want to have future updates running through a system-generated prompt.

6. Update Tekla PowerFab Connection

It is important for those using Tekla PowerFab Go that the port forwarding on your router is updated if the server IP address is changed.

NOTE If the server is moved to a different network that requires a change in the public IP address, contact support to have it updated for your site.

Due to the number of varieties of routers and software interfaces for setting port forwarding, we cannot provide specific instructions for this.

4 Start using Tekla PowerFab

Tekla PowerFab is a software solution designed for the needs of the steel fabrication industry. Tekla PowerFab brings together various modules that integrate seamlessly with each other, so the information that you enter in one Tekla PowerFab module is available through the entire workflow.

Tekla PowerFab is built upon the industry best practices. However, the operations and options in Tekla PowerFab can be customized to match your existing processes and procedures.

Tekla PowerFab consists of the following modules:

- The **Combining** module allows you to create advanced bills of materials while optimizing the use of material and minimizing the waste.
- The **Estimating** module allows you to create estimates with customizable pricing based on multiple sources for material pricing and shop-specific labor.
- The **Inventory** module allows you to track your entire inventory across all jobs as material is received and consumed. The **Inventory** module also allows you to track stock materials and non-steel items.
- The **Project Management** module allows you to easily share project information to all users that participate in a project, and create and view project schedules in order to track the progress of the project.
- The **Production Control** module allows you to view and manage the fabrication process of material items.
- The **Purchasing** module allows you to create requisitions, and automate and optimize creating and tracking purchase orders.
- The **Order Entry** module allows you to manage all tasks related to selling material from your warehouse or shop, such as creating quotes and orders, invoicing, and recording payments.

For more information, see the following links:

Tekla PowerFab configurations (page 112)

Sign in to Tekla PowerFab (page 112)

Tekla PowerFab user interface (page 119)
Import files to Tekla PowerFab (page 144)
Customize Tekla PowerFab (page 124)
Customize and manage Stimulsoft reports (page 151)
Set the default printer (page 180)
Contact support (page 180)

4.1 Tekla PowerFab configurations

Tekla PowerFab allows access to all the desktop application modules. Only permissions within the database can restrict access to areas or modules.

Tekla PowerFab Viewer allows access to all the desktop application modules in the read-only mode. Only permissions within the database can restrict access to areas or modules. The read-only mode only allows the viewing of records and does not permit to add, edit or delete any records. No license is needed for the viewer mode.

Additionally, there are legacy Tekla PowerFab configurations that provide the opportunity to use different modules and features.

The Tekla PowerFab modules included in different configurations are:

Name	Tekla PowerFab	Tekla PowerFab Viewer	Tekla PowerFab Production (legacy)	Tekla PowerFab Estimating (legacy)
Combining	✔	✔	✔	✔
Estimating	✔	✔		✔
Inventory	✔	✔	✔	✔
Project Management	✔	✔	✔	
Production Control	✔	✔	✔	
Purchasing	✔	✔	✔	✔
Order Entry	✔	✔	✔	

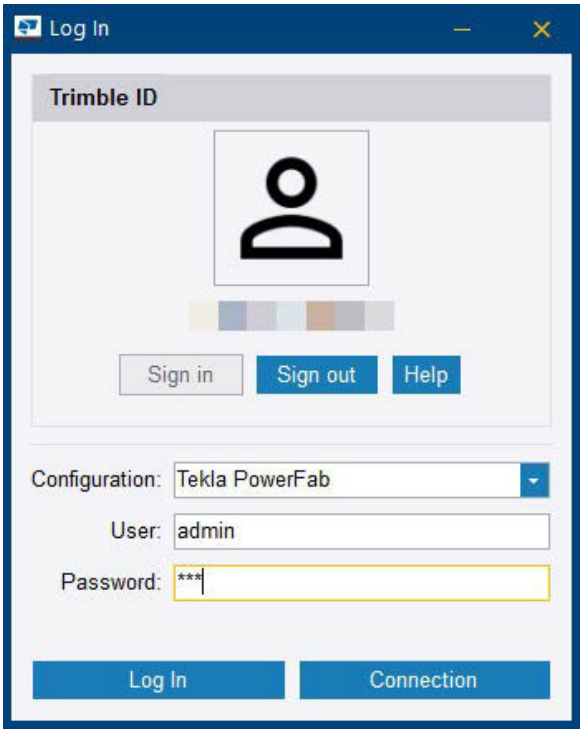
In addition to the Tekla PowerFab configurations in the table, there are specific Tekla PowerFab configurations that replace the FabSuite configurations used by former FabSuite customers.

4.2 Sign in to Tekla PowerFab

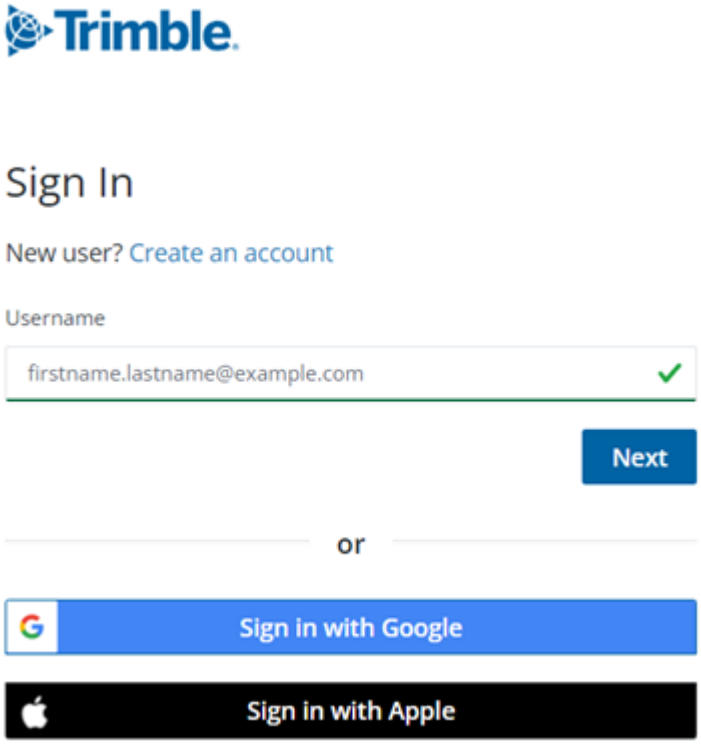
Before you sign in to Tekla PowerFab for the first time:

- Make sure you have a Trimble Identity, see Create your Trimble Identity.
- Make sure that you have been assigned the appropriate license by your organization's administrator. You can check your licenses in Tekla Online Profile.

1. Start Tekla PowerFab.
2. In the **Trimble ID** section of the **Log In** dialog box, click **Sign in**.



3. Sign in with your Trimble Identity.



   If you do not have a Trimble Identity, see Create your Trimble Identity.

   If you have forgotten your password, contact a Tekla PowerFab user in your company that has administrative rights, so that they can reset your password (page 69).

4. If necessary, in the **Configuration** list of the **Log In** dialog box, select which configuration of Tekla PowerFab you want to use.

   Note that you only need to select a configuration if you have purchased more than one configuration of Tekla PowerFab.

5. Type your Tekla PowerFab username and password.

   The username and password need to be created by an administrator in your company.

   The default Tekla PowerFab sign-in information for administrators is:

   - username: `admin`
   - password: `fab`

   If you have previously used FabSuite, your username and password are the same as in FabSuite.

6. Click **Log In**.
7. In the **Enter Value** dialog box, do either of the following:

- To save your Trimble Identity and use it automatically when you sign in to Tekla PowerFab, select **Yes** in the list.
- To not use your Trimble Identity automatically when you log in, select **No** in the list.

If you have any problems with signing in, check the frequently asked questions in Trimble Identity for Tekla Online services. See also Create your Trimble Identity for Tekla products .

See also

Tekla PowerFab configurations (page 112)

Tekla PowerFab user interface (page 119)

Set or change your Tekla PowerFab password (page 115)

Set or change your Tekla PowerFab password

Use the **Change Password** command to either create the password you will use when you log in to Tekla PowerFab, or change your current password.

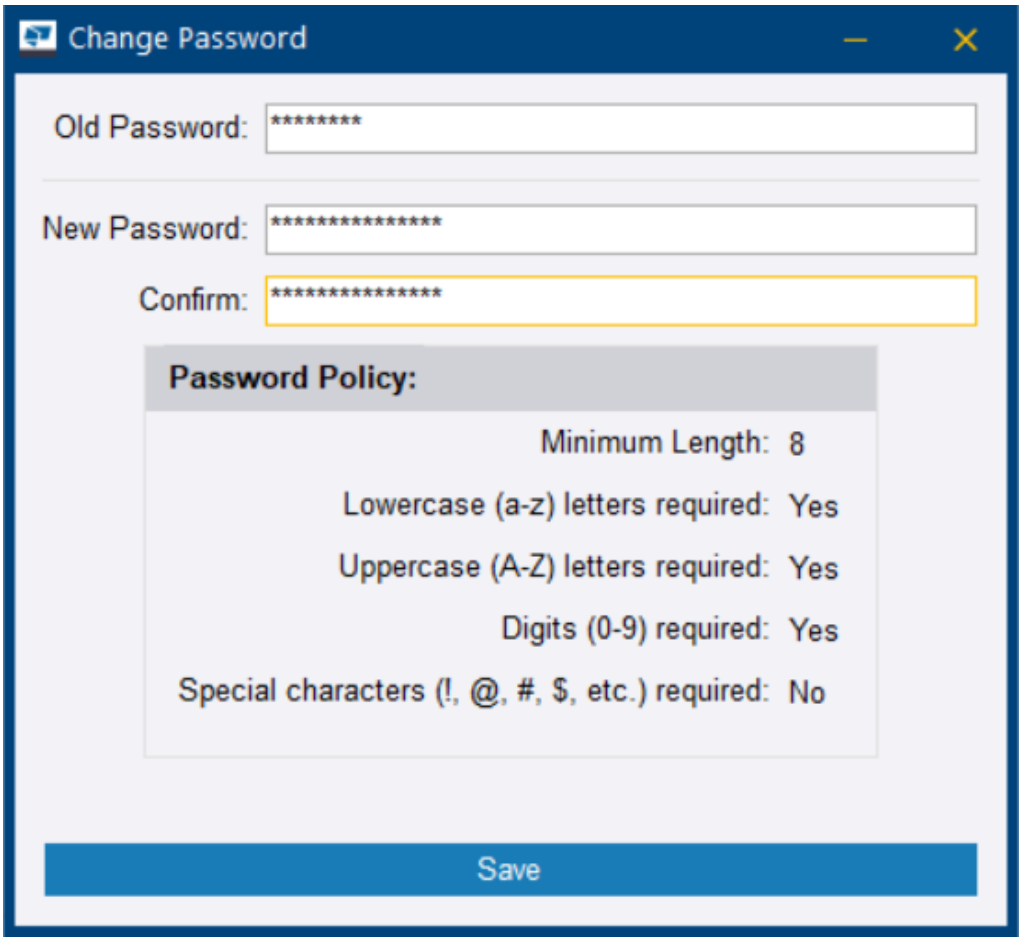
NOTE	Passwords are case-sensitive.

If your initial password does not meet the company password policy, the **Change Password** dialog box opens automatically when you first log in to Tekla PowerFab.

If you are setting your password for the first time, leave the **Old Password** field blank and sign in.

If you have forgotten your password, ask the administrator to reset it so that you can create a new one.

1. Go to **File** --> **Change Password**



2. In the **Change Password** dialog box, type your old password in the **Old Password** field. If you are setting your password for the first time, leave the **Old Password** field blank.
3. Type your new password in the **New Password** and **Confirm** fields.

   The passwords in the **New Password** and **Confirm** fields need to be identical.

   You can verify your company's requirements for the password in the **Password Policy** section of the dialog box. The password policy is set by the Tekla PowerFab administrators of your company.
4. Click **Save** to update the password.

   A message appears, telling you that the password has been changed.
5. Click **OK** to close the message.

Emergency use when no access to online system

If you cannot access the online system because you do not have a connection to the internet, access to the license server, or an active Trimble Identity, you have three emergency uses available for your machine to access the system.

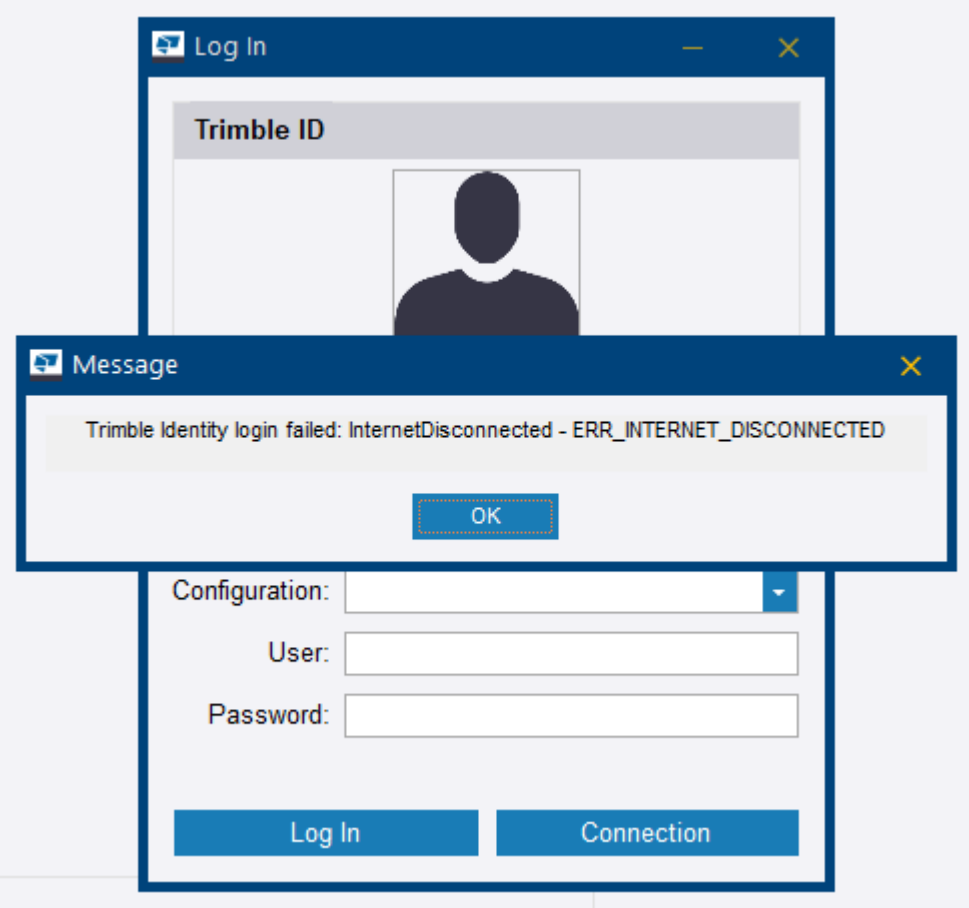
Do not use your emergency uses unless it is absolutely necessary.

NOTE If you have used all three emergency uses, contact your local support.

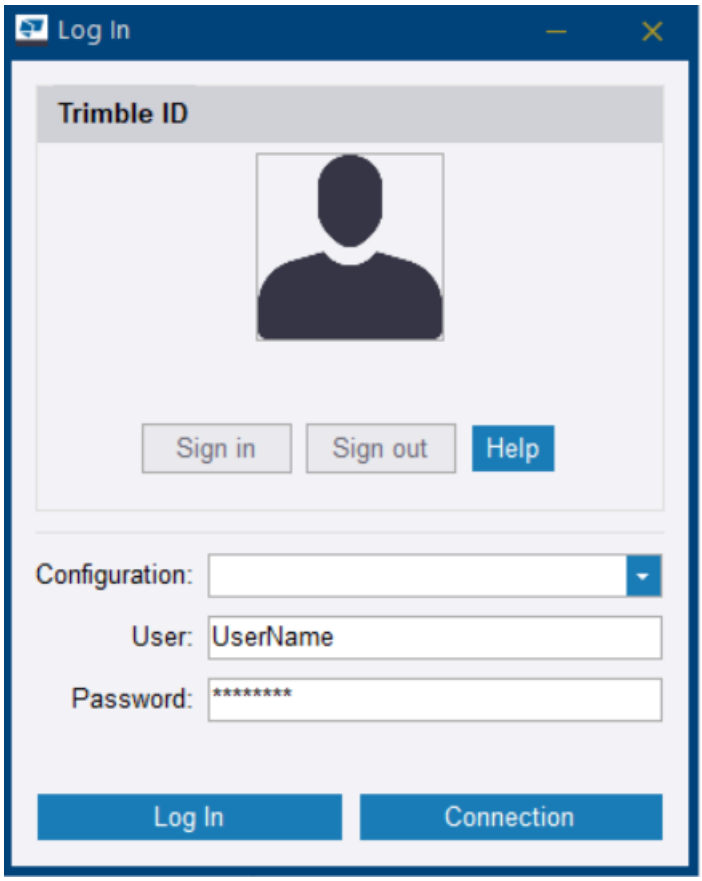
For instructions for contacting support, see Contact support (page 180).

Example: No internet access or loss of internet access

When you lose internet access, you get the following message:



1. Click **OK** to close the message.
2. Delete the text in the **Configuration** field.



3. Type in your username and password and click **Log In**.

   You are asked to confirm the sign-in.

4. Click **No**.

   You get a message saying "HTTP request failed".

5. Click **OK**.

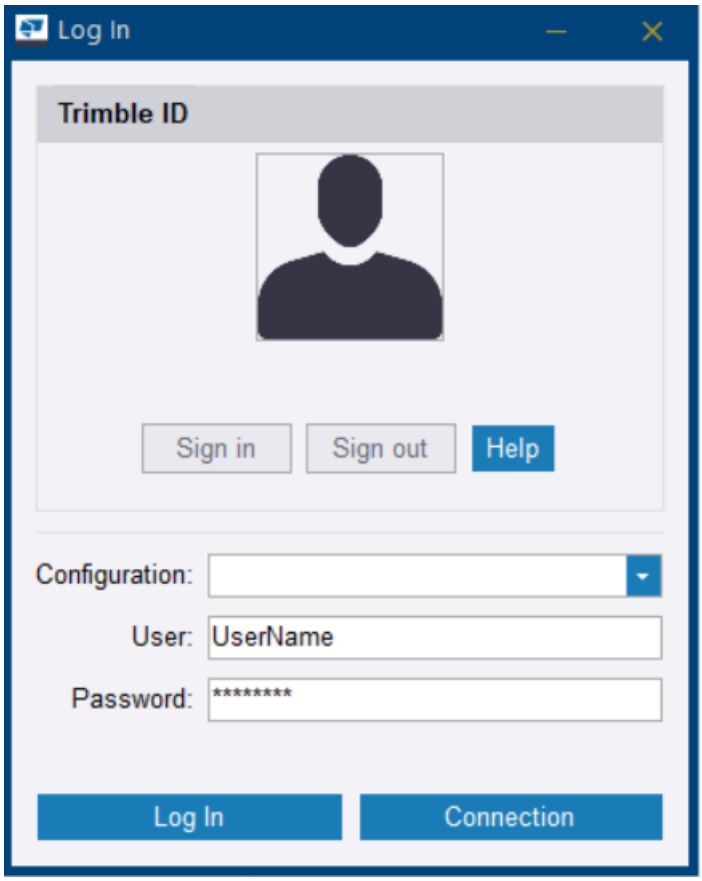
   You are asked to confirm the use of one emergency use.

6. To confirm the emergency use, click **Yes**.

Example: Your Trimble Identity is inactive or not created

For an inactive **Trimble Identity** you get the sign-in window, but when you close it without signing in, you get the "Trimble Identity login canceled" message.

1. Delete the text in the **Configuration** field.



2. Type in your username and password and click **Log In**.

   You are asked to confirm the sign-in.

3. Click **No**.

   You get a message saying "Invalid configuration".

4. Click **OK**.

   You are asked to confirm the use of one emergency use.

5. To confirm the emergency use, click **Yes**.

4.3 Tekla PowerFab user interface

The main elements of the Tekla PowerFab user interface comprise the ribbon tab with its drop-down menus, icons for each module, and active drop-down menus for each module.

At the very top, there are four ribbon tabs, **File**, **Maintenance**, **About**, and **Windows**, which can be used to access certain features and options.



- The **File** ribbon tab is mainly used for administrative tasks, except for **Import**.
- The **Maintenance** ribbon tab is used mostly for configuration, both for individual modules and global settings.
- The **About** ribbon tab provides information on the current version of Tekla PowerFab, contact details, access to the Tekla PowerFab release notes, and Tekla PowerFab support.
- The **Windows** ribbon tab lists all the windows that you currently have open. This is helpful when you have multiple windows open simultaneously, and you want to bring a certain window to the front.

Across the top there are icons for each of the major modules. Clicking an icon launches a particular module.



In most cases, this opens a selection table for selecting, for instance, the desired estimate, job, or purchase order. When you double-click a row, this opens the module main window. An exception to this is **Inventory**, which opens the main inventory window.

If you do not have the rights to access a module, the module icon appears gray and cannot be selected.

In any module, when you click to open a job, the main window opens. All modules have a consistent layout on the main window.



(1) Navigation tree: Allows quick filtering of information shown on the display area

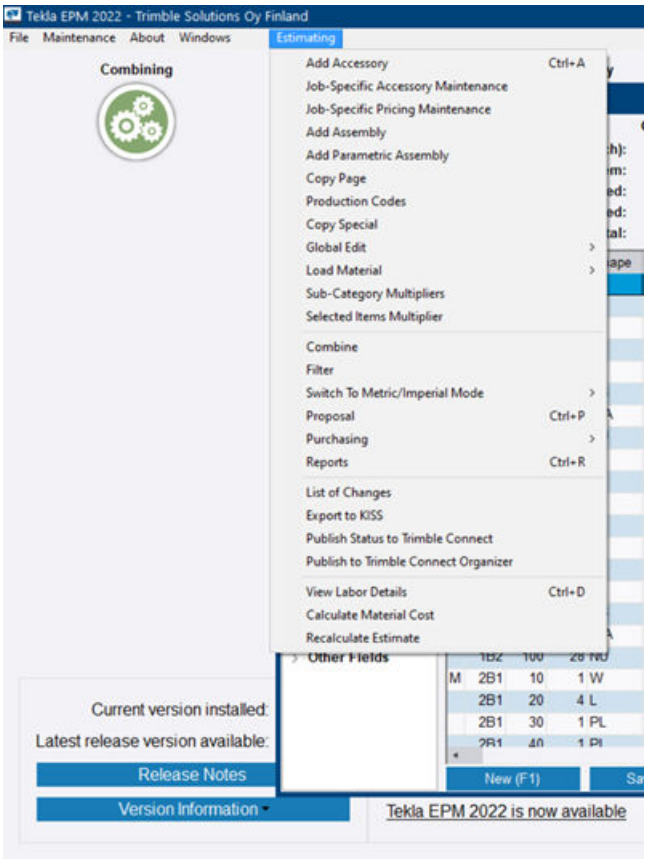
(2) Display area

(3) Input area: Allow entering information manually

(4) Summary grid: Displays information for an item, selected item, filtered items, and for the total job

The individual name of each window is displayed in the top left hand corner, and all windows can be closed, minimized, and restored from the top right hand corner.

A fifth ribbon tab appears when you open any window for a module. This ribbon tab provides contextual features and options based on the selected window. Below is an example of an active **Estimating** ribbon tab and drop-down menu.



You can resize all windows by placing the mouse cursor on the edge of the window and dragging in the desired direction.

See also

Change the user interface language (page 122)

Customize Tekla PowerFab (page 124)

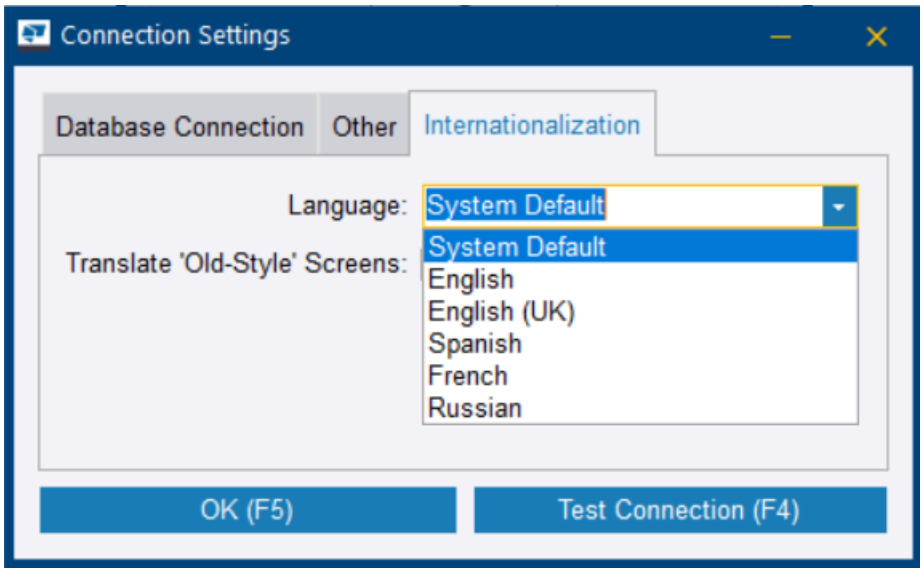
Change the user interface language

You can change the user interface language in the **Log In** dialog box.

1. In the **Log In** dialog, click **Connection**.



2. Go to the **Internationalization** tab.



3. Select the language from the drop-down menu, click **OK** and **Yes** to restart.

Set the user preferences for the user interface

You can enable sounds, and change the way the highlight colors are displayed in grid views such as **Production Status**.

1. Click the **User Preferences** ribbon tab.
2. In the **User Preferences** dialog box, select the grid highlight color.
   - Contrast



   - Pale



3. In the **User Preferences** dialog box, select whether sounds are on or off.

See also Improved user interface accessibility.

4.4 Customize Tekla PowerFab

You can customize different information in Tekla PowerFab, including the display and input fields in various dialog boxes, the menu options for contextual ribbon tabs, report lists, and reports. You can also create module-wide filters that can be used for all jobs in a particular Tekla PowerFab module.

Customize display fields

You can customize the fields in the display area of **Combining**, **Estimating**, **Inventory**, **Project Management**, **Production Control**, and **Purchasing** dialog boxes. For example, you can change the column names and locations, move columns up and down, or adjust the column width or alignment.

For some modules, you can modify the display fields of the dialog boxes separately. For example, in the **Purchasing** module, you can customize the display fields separately for purchase orders and requisitions. Similarly, in **Project Management**, you can modify the display fields of drawings, change orders, RFIs, and journal entries separately.

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to the desired module and select a suitable **Edit Display Fields** option.
3. In the **Display Fields** dialog box, click **Edit Types**.
4. In the left-hand list, select the set of settings that you want to modify.

5. Click the arrow buttons to move the fields that you want to show to the **Included** list.

   The fields marked with an asterisk (*) are required fields that need to always be in the **Included** list.

6. According to your needs, do any of the following.

   Note that all options may not be available when customizing the display fields in different modules.

To	Do this
Change the order of the display fields	a. In the **Included Fields** list, select the field that you want to move. b. Click the **Move Up** and **Move Down** buttons to change the position of the field. Note that the top item in the list will be the column to the far left of the display area in the module.
Change the sort order of the display fields	a. In the **Included Fields** list, select the field whose sort order you want to change. b. Click the **Sort Order +** and **Sort Order -** to increase or decrease the sort value of the field.
Modify display field names, widths, and alignment	Be careful when customizing the names of display fields. Significant changes to the field names can prevent you from following the instructions given in the user guide or by the Tekla PowerFab support. a. In the **Included Fields** list, select the field that you want to modify. b. Click **Properties**. c. Type the desired values in the **Display Name** and **Field Width** fields. The display name appears in the column header, and the field width defines the width of the associated column. d. Select an alignment option in the **Alignment** list. The alignment affects the text alignments within the associated column. e. Click **OK** to save the changes.
Highlight the input field corresponding the selected display field	• At the top of the dialog box, select the **Highlight Input of Clicked Cell** checkbox. When you work in a dialog box and click a display field, the corresponding input field is highlighted.

To	Do this
Select how main pieces are highlighted in the **Production Control** module	• At the top of the dialog box, select an option in the **Highlight Main Piece** list. For example, if you select **Bold & Italic**, you can quickly identify main pieces at a glance. If you do not want main pieces to be highlighted in any way, select **None**.
Add display types	a. In the lower-left corner of the dialog box, click **New**. b. Enter a name for the new set of settings in the **Description** field. c. Click **Add**. d. In the left-hand list, select the new set of settings. e. Modify the settings according to your needs. f. Click **Save**. The changes you made are saved to the new set of settings.
Revert to the default settings	• At the bottom of the dialog box, click **Set to Default**.

7. Click **Save** to save the changes and then, click the **Close** button (**X**) in the upper-right corner to close the dialog box.

   The fields of the dialog box are updated and will be shown the next time you open the module.

8. In the **Type** list, select which settings you want to use by default in the associated dialog box.

   For example, you can select a set of personalized settings that you have created.

9. Click **Save**.

See also

Customize input fields (page 126)

Customize input fields

You can customize the fields in the input area of the **Combining**, **Estimating**, **Inventory**, **Project Management**, **Production Control**, and **Purchasing** dialog boxes according to your needs. For example, you can change the places of input fields, modify their names, change the field widths, and skip fields or preserve the value of fields when adding more items.

For some modules, you can modify the input fields of the dialog boxes separately. For example, in the **Purchasing** module, you can customize the

input fields separately for purchase orders and requisitions. Similarly, in **Project Management**, you can modify the input fields of drawings, change orders, RFIs, and journal entries separately.

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to the desired module and select a suitable **Edit Input Fields** option.
3. In the **Input Fields** dialog box, click **Edit Types**.
4. In the left-hand list, select the set of settings that you want to modify.
5. Click the arrow buttons to move the fields that you want to show to the **Included** list.

   The fields marked with an asterisk (*) are required fields that need to always be in the **Included** list.
6. According to your needs, do any of the following:

To	Do this
Select if you want to confirm all changes	• At the top of the dialog box, select the **Prompt on Edit** checkbox. Whenever you make changes in the associated dialog box, a confirmation dialog box appears and asks you to confirm the changes. If you do not want to have to confirm all changes, do not select the checkbox.
Change the order of the input fields	a. In the **Included Fields** list, select the field that you want to move. b. Click the **Move Up** and **Move Down** buttons to change the position of the field. The item at the top of the list will be the top field in the dialog box.
Change the input field names	Be careful when customizing the names of input fields. Significant changes to the field names can prevent you from following the instructions given in the user guide or by the Tekla PowerFab support. a. In the **Included Fields** list, select the field that you want to modify. b. Click **Set Display Name**. c. Type a new name in the field. d. Click **OK** to save the new name.
Skip input fields when using the tab key in input	a. In the **Included Fields** list, select the field that the users can skip.

To	Do this
	b. Select the **Skip Field** checkbox. The selected field can now be skipped when inputting information using the tab key. In order to add information to a skipped field, you need to click the field.
Preserve the value of a field when a new item is added	a. In the **Included Fields** list, select the field whose value you want to preserve for new items. b. Select the **Carry Over** checkbox. For example, if you allow carrying over the **Shape** field, Tekla PowerFab uses the same shape for new items until you manually select a different one. Some fields cannot be carried over because the data in these fields is unique for each item. To clear the field when adding new items, clear the **Carry Over** checkbox.
Keep the additional labor when a new item is added	Note that the **Carry Over Additional Labor** checkbox is only available when customizing the input fields in the **Estimating** module. • At the top of the dialog box, select the **Carry Over Additional Labor** checkbox.Tekla PowerFab uses the same additional labor for new items until you manually select a different one.
Keep the standard clips when a new item is added	Note that the **Carry Over Standard Clips** checkbox is only available when customizing the input fields in the **Estimating** module. • At the top of the dialog box, select the **Carry Over Standard Clips** checkbox. Tekla PowerFab uses the same standard clips for new items until you manually select a different one.
Change the font size of the input fields	• In the **Font Size** field, type a new font size.
Change the input area width	• In the **Input Area Width** field, type the width in pixels.
Change the navigation tree width	• In the **Navigation Tree Width** field, type the width in pixels. To make the navigation tree narrower, type a value that is smaller than the current one, and to make it wider, type a greater value.
Add input types	a. In the lower-left corner of the dialog box, click **New**.

To	Do this
	b. Enter a name for the new set of settings in the **Description** field. c. Click **Add**. d. In the left-hand list, select the new set of settings. e. Modify the settings. f. Click **Save**.
Revert to the default settings	At the bottom of the dialog box, click **Set to Default**.

7. Click **Save** to save the changes and then, click the **Close** button (**X**) in the upper-right corner to close the dialog box.

   The fields of the dialog box are updated and will be shown the next time you open the module.

8. In the **Type** list, select which settings you want to use by default in the associated dialog box.

   For example, you can select a set of personalized settings that you have created.

9. Click **Save**.

See also

Customize display fields (page 124)

Customize menu options

You can customize the drop-down menu options available in the **Combining**, **Estimating**, **Inventory**, **Production Control**, and **Purchasing** modules. For example, you can add or modify the options visible in the menu, and define shortcuts to access the different menu commands.

For the **Purchasing** module, you can customize the menu items separately for purchase orders and requisitions.

NOTE Be careful when customizing the menu options. Significant changes to the menu options can prevent you from following the instructions given in the user guide or by the Tekla PowerFab support.

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to the desired module and select **Menu Setup** .
3. In the **Menu Setup Types** dialog box, select the menu setup that you want to customize, and click **Edit Types**.

4. To create personalized menu setup settings, click **New**.

   With personalized menu setup settings, you can use a menu setup that meets your personal needs, while the default settings remain untouched.

5. In the **Description** field, type a name for the personalized settings.
6. To start customizing the menu, click **Save**.
7. According to your needs, do any of the following:

To	Do this
Add an existing item to the menu setup	a. In the **Not Included** list, select the item that you want to add. b. Click **>** to include the item to the customized menu setup.
Remove an item from the menu setup	a. In the **Included** list, select the item that you want to remove. b. Click **<** to remove the item from the customized menu setup.
Add a text item to the menu	Text items serve as headings under which you can place action items, or items that are marked with an asterisk (*). a. In the **Included** list, select the item under which you want to add a text item. b. Click **Add Text Item**. c. Type text for the item. This text will be visible in the drop-down menu. d. Click the new text item in the **Included** list to select it. e. To add action items under the text item, click an action item in the **Not Included** list to select it. f. Click **>** to add the item under the new text item. The action item is moved under the text item.
Add a line to separate text items in the menu	a. In the **Included** list, select the text item under which you want to add the line. b. Click **Add Line**.
Change the order of the menu items	a. In the **Included** list, select the item that you want to move in the menu. b. Click the **Up** and **Down** buttons to move the menu item.
Add a shortcut	a. In the **Included** list, select the item to which you want to add a shortcut. b. In the **Shortcut** list, select a shortcut that you want to use to access the menu item.

To	Do this
	c. Click **Update**.
Change the name of a menu item	a. In the **Included** list, select the menu item that you want to rename. b. Click the **Edit Text** button. c. Type a new name for the menu item. d. Click **OK**.

8. Click **Save** to save the changes and then, click the **Close** button (**X**) in the upper-right corner to close the dialog box.
9. In the **Type** list, select the settings that you want to use when working in the associated module.
10. Click **Save**.

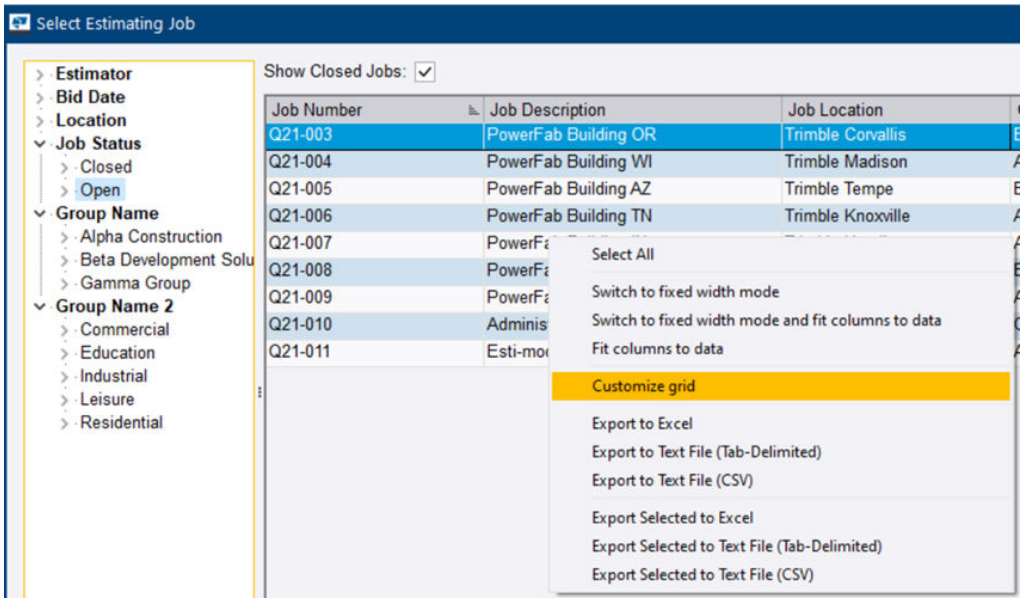
The customized menu setup settings are now used.

Customize the layout of a dialog box

You can customize the dialog boxes to display information that is relevant to you. For example, you can add and remove data columns, change the column headers and column placement, and add spaces between rows and columns. It is also possible to create different layouts for different purposes.

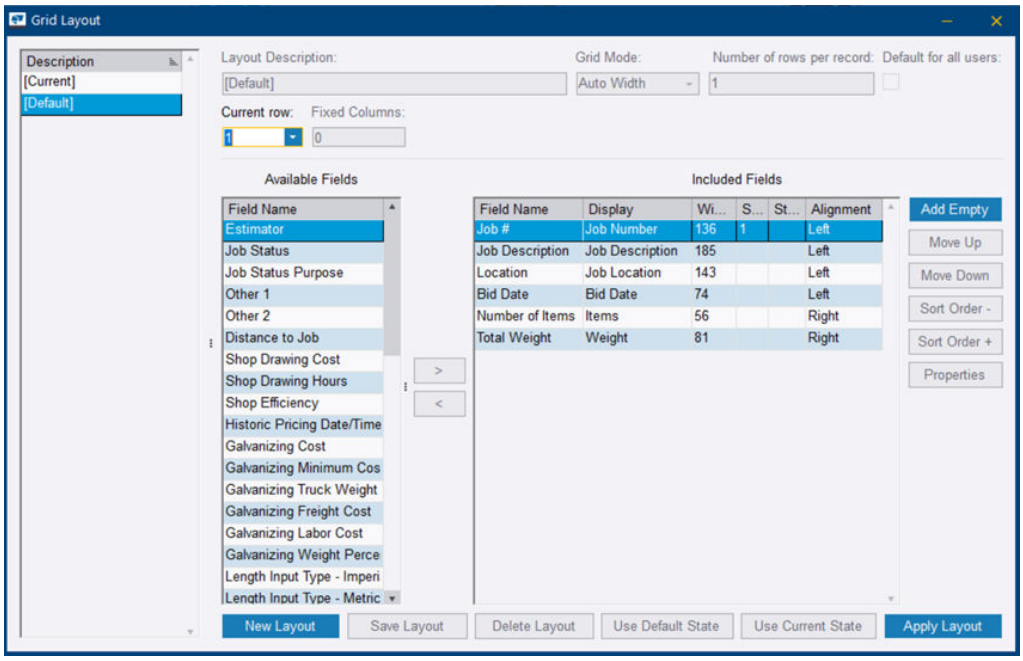
1. Open the desired dialog box.
2. Right-click anywhere in the display area of the dialog box.

   A context menu opens.



3. Click **Customize grid**.

The **Grid Layout** dialog box opens.



4. To create a customized layout, click **New Layout**.
5. Type a description for the layout.
6. Modify the following properties as needed:

Option	Description
Grid Mode	Allows you to select if you want the job list to have a fixed width or an automatically scaling width. Click the arrow on the right side of **Grid Mode** field, and select a suitable option in the list.
Number of rows per record	Allows you to have more than one row for each job, or record. By adding rows, you can place the job information on multiple rows. Type the desired number of rows in the **Number of rows per record** field.
Default for all users	When selected, the layout that you are adding or modifying will be used as the default layout for all Tekla PowerFab users.
Current row	The row on which you are adding fields. The **Current row** only applies if the value in the **Number of rows per record** field is greater than 1. Click the arrow on the right side of **Current row** field, and select a row number in the list.
Fixed Columns	Allows you to freeze a desired number of columns from the top of the list, so that you can see them

Option	Description
	all the time when you scroll across different columns. Type the number of columns that you want to freeze in the **Fixed Columns** field.

7. In the **Available Fields** list, select the columns that you want to include in the dialog box, and click the arrow buttons to move them to the **Included Fields** list.
8. Do any of the following:

To	Do this
Add an empty column	• On the right side of the dialog box, click **Add Empty**. An empty entry appears at the bottom of the list. This means that the empty column is the rightmost column in the selection dialog box. If necessary, you can still modify the location of the empty column. To remove the empty field, move it to the **Available Fields** list.
Change the order of columns	a. In the **Included Fields** list, click the column that you want to move left or right. b. Click the **Move Up** and **Move Down** buttons to move the column according to your needs. Note that the top field represents the leftmost column in the selection dialog box. Similarly, the bottom field represents the rightmost column in the dialog box.
Change the sort order of columns	a. In the **Included Fields** list, click the column whose sort order you want to change. b. Click the **Sort Order +** and **Sort Order -** to increase or decrease the sort value of the field.
Modify the column name, width, style, and alignment	a. In the **Included Fields** list, click a column to select it. b. Click **Properties**. c. Type the desired values in the **Display Name** and **Width** fields. The display name appears in the column header and the field width defines the width of the associated column.

To	Do this
	d. To modify the style of the column header, in the **Style** section, select any checkboxes according to your preferences. e. Select an alignment option in the **Alignment** list. The alignment affects the text alignments within the associated column. f. If you want to hide all values in the column, select the **Hide Display** checkbox. g. Click **OK** to save the changes.

9. To save the customized layout, click **Save Layout**.
10. To use the layout in the selection dialog box, click **Apply Layout**.

    You can revert to the default layout or the current layout at any time by clicking the **Use Default State** and **Use Current State** buttons.

Create and modify module-wide filters

You can create module-wide filters that are available for all jobs in a particular Tekla PowerFab module. Module-wide filters are available for the **Combining**, **Estimating**, **Production Control**, **Project Management**, and **Purchasing** modules. In the **Purchasing** module, you can create module-wide filters separately for requisitions and purchase orders.

To start managing module-wide filters:

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to the desired module or job type, and select **Global Filter Types**.

   For example, to create filters for requisitions, select **Requisitions** --> **Global Filter Types**.

The **Filter Types** dialog box opens.

Create module-wide filters

1. In the **Filter Types** dialog box, click **New**.
2. In the **Filter Type Description** field, type a description for the filter.
3. Select a filter type in the **Type** list, and click **Select**.
4. Click the arrow buttons to move the items that you want to include in the filter to the **Included** list.

5. Click **OK**.

   Repeat steps 3 to 5 to define all values that you want to include in the filter.

6. When you have added all necessary values, click **Add**.

The new filter is saved for the related Tekla PowerFab module.

To use the filter:

1. In an open job, click the contextual ribbon tab.

   For example, in an estimating job, click the **Estimating** ribbon tab.

2. On the menu, select **Filter**.
3. In the **Filter Types** list, select the new filter.

Modify module-wide filters

1. In the **Filter Type** list, select the filter that you want to modify.
2. If necessary, change the description in the **Filter Type Description** field.
3. Select a filter type in the **Type** list, and click **Select**.
4. Click the arrow buttons to move the items that you want to include in the filter to the **Included** list.
5. Click **OK**.

   Repeat steps 3 to 5 to define all values that you want to include in the filter.

6. When you have made the necessary changes, click **Save**.

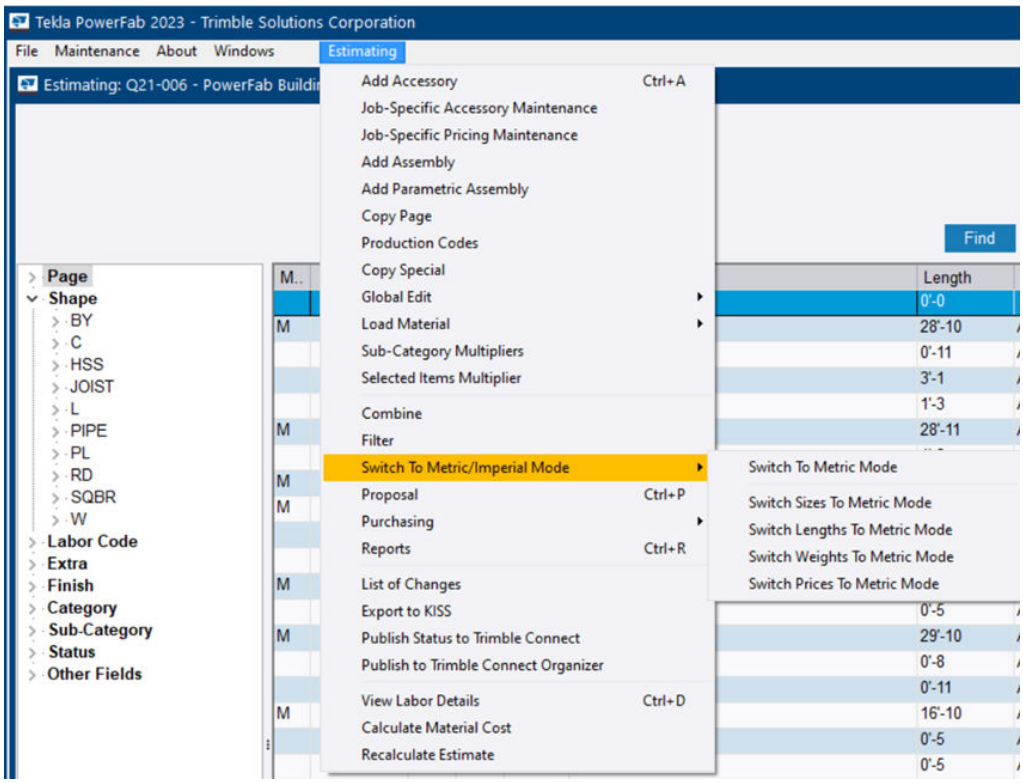
Delete module-wide filters

1. In the **Filter Type** list, select the filter that you want to delete.
2. Click **Delete**.
3. To permanently delete the filter, click **Yes**.

Select metric or imperial mode

You can choose to display material dimensions, lengths, weights, prices, or all previously mentioned information in either imperial or metric units in various dialog boxes in Tekla PowerFab.

1. In **Combining**/**Estimating**/**Inventory**/**Production Control**/**Purchasing**, open a job/requisition/purchase order.
2. Click the module-specific ribbon tab to open the context menu.



3. On the menu, select **Switch To Metric/Imperial Mode**.
4. On the extended menu, click an item whose mode you want to switch.

   If you select the **Switch To Metric Mode** or **Switch To Imperial Mode** option, all information in the dialog box is switched to the mode that is not currently active.

Create customized report lists

You can create customized report lists for different Tekla PowerFab users, so that each user can view their most used reports by default. You can also add user-defined reports in the report lists.

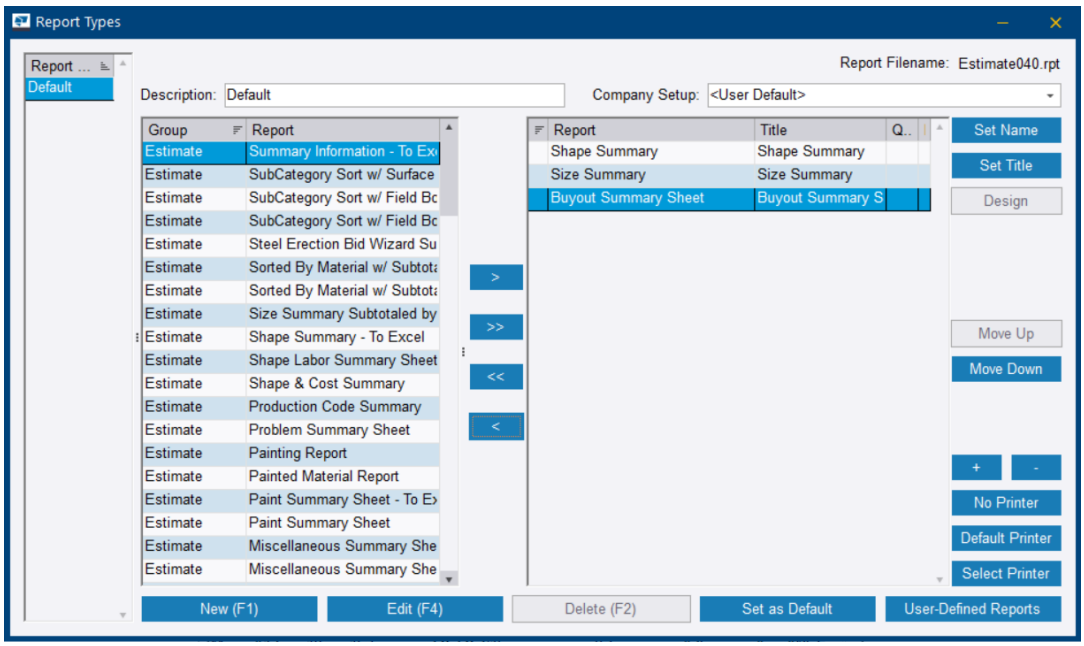
Note that report lists need to be created separately for each Tekla PowerFab module.

1. In any Tekla PowerFab job, click the associated ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include particular information in the reports, in the **Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the information that you want to include to the **Included** list.

- Type the maximum and minimum values for the items that you want to include.

5. Click **OK**.
6. Depending on the dialog box that opens, do the following:
   - In the **Report Selection** dialog box, click **Edit Report Types**.
   - In the **Report Progress** dialog box, click **Edit**.

The **Report Types** dialog box opens.



Create a report list

1. At the bottom of the **Report Types** dialog box, click **New**.
2. Type a description for the report type list.

   For example, you can type the user's name.
3. If you have created multiple companies in the **Company Information** dialog box, click the arrow on the right side of the **Company Setup** list and select the company that you want to include when creating reports.
4. Click the arrow buttons to move the reports that you want to include in the report list to the list on the right side of the dialog box.

   The reports on the left side of the dialog box are not displayed in the report list.
5. To modify the reports in the list, do any of the following:

To	Do this
Change the report name	The report name determines what the report is called in the **Report Selection** or the **Report Progress** dialog box. a. Select the report in the list on the right side of the dialog box. b. Click **Set Name**. c. In the **Enter Value** dialog box, type a new name for the report. d. Click **OK** to save the new report name.
Change the report title	The report title is displayed at the top of the report when you view, print, or export the report. a. Click **Set Title**. b. In the **Enter Value** dialog box, type a new name for the report. c. Click **OK** to save the new report title.
Move the report up or down in the report list	a. Click the **Move Up** and **Move Down** buttons until the report is in the desired location in the report list.
Change the default number of printed copies	a. Select the report in the list on the right side of the dialog box. b. Click the **+** and **-** buttons until the report has the desired number of copies.
Change the printer used when printing the report	a. Select the report in the list on the right side of the dialog box. b. Click **Select Printer**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK** to save the printer settings.
Create a custom report and add it to the report list	a. Click **User-Defined Reports**. b. In the **User-Defined Reports** dialog box, click **New**. c. Select the report that you want to use as the basis of the user-defined report. d. Click **Select Base Report**.

To	Do this
	e. Define the report name and title. The report name determines what the report is called in the **Report Selection** or the **Report Progress** dialog box. The report title is displayed at the top of the report when you view, print, or export the report. f. Click **Add**. g. To close the **User-Defined Reports** dialog box, click the **Close** button (**X**) in the upper-right corner. h. Click the arrow buttons to move the custom report to the list on the right side of the **Report Types** dialog box.

6. Click **Add**.

The report list can now be selected in the left-side pane of the **Report Selection** dialog box or the **Report List** list in the **Report Progress** dialog box.

Set the default report list

A default report list is the report list initially displayed in the **Report Selection** or **Report Progress** dialog box. To change the default report list, do the following:

1. In the left-hand pane of the **Report Types** dialog box, select the report list that you want to set as the default option.
2. Click **Set as Default**.
3. To confirm using the selected report list as the default option, click **Yes** in the confirmation dialog box.

Modify a report list

1. In the left-hand pane of the **Report Types** dialog box, select the report list that you want to modify.
2. If you have created multiple companies in the **Company Information** dialog box, click the arrow on the right side of the **Company Setup** list and select the company that you want to include when creating reports.
3. Click the arrow buttons to move the reports that you want to include in the report list to the list on the right side of the dialog box.

   The reports on the left side of the dialog box are not displayed in the report list.

4. To modify the reports in the list, do any of the following:

To	Do this
Change the report name	The report name determines what the report is called in the **Report Selection** or the **Report Progress** dialog box. a. Select the report in the list on the right side of the dialog box. b. Click **Set Name**. c. In the **Enter Value** dialog box, type a new name for the report. d. Click **OK** to save the new report name.
Change the report title	The report title is displayed at the top of the report when you view, print, or export the report. a. Click **Set Title**. b. In the **Enter Value** dialog box, type a new name for the report. c. Click **OK** to save the new report title.
Move the report up or down in the report list	a. Click the **Move Up** and **Move Down** buttons until the report is in the desired location in the report list.
Change the default number of printed copies	a. Select the report in the list on the right side of the dialog box. b. Click the **+** and **-** buttons until the report has the desired number of copies.
Change the printer used when printing the report	a. Select the report in the list on the right side of the dialog box. b. Click **Select Printer**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK** to save the printer settings.

5. Click **Edit** to save the changes.

To create customized reports and add them to report lists in Tekla PowerFab, see Create user-defined reports for customizing (page 141).

Delete a report list

Note that deleting a report list is permanent and cannot be undone.

1. In the left-hand pane of the **Report Types** dialog box, select the report list that you want to delete.

2. Click **Delete**.
3. To permanently delete the report list, click **Yes** in the confirmation dialog box.

Customize reports

Reports are template files that are used to display the filtered information from the Tekla PowerFab database. You can customize not only the reports themselves, but also the reports that individual users see.

You can add a customized report to Tekla PowerFab by selecting an existing report that you want to use as the basis of the new report and adding a new template file name in Tekla PowerFab. You can also edit existing reports.

Adding a user-defined report for customizing ensures future access to the default reports in the program. Copying the report file to the **Custom Report** directory replaces the existing report within the program instead of adding a new report.

Tekla PowerFab automatically looks for the template first in the **Custom Report** folder set in the **Default Directories** dialog box, and after that, in the `C:\Program Files (x86)\Tekla PowerFab\Reports` folder.

You can create either Crystal or Stimulsoft reports. Information on the editor can be found on the report types website. For more information, see:

- Crystal Reports
- Stimulsoft

See also

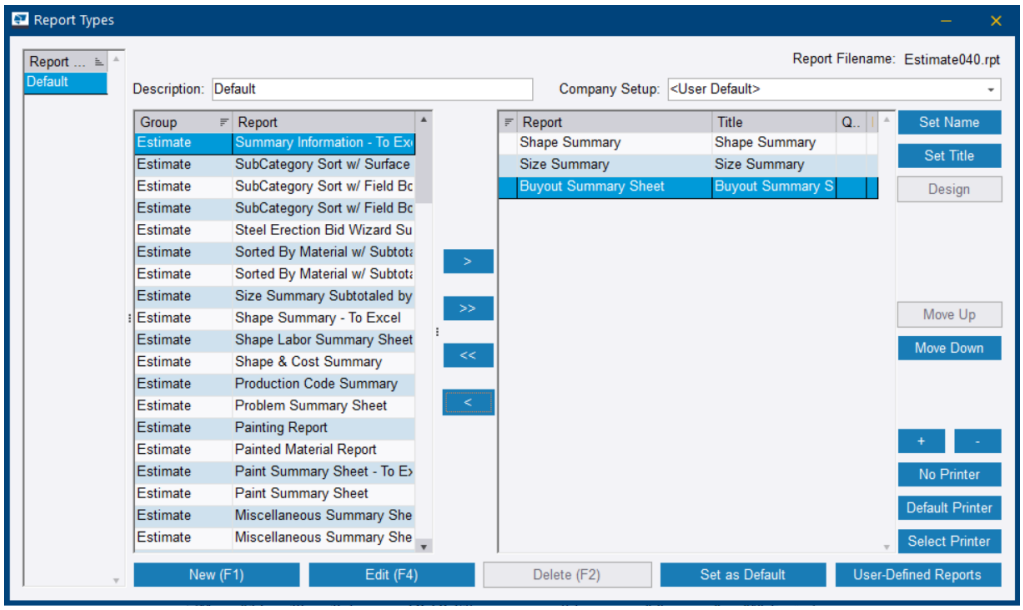
Create user-defined reports for customizing (page 141)

Customize and manage Stimulsoft reports (page 151)

Create user-defined reports for customizing

In Tekla PowerFab you can customize the reports themselves and the reports that individual users see.

1. In the module of your selection, go to the active drop-down menu, select **Reports** and click **Make Report**
2. In the upper-left corner of the dialog box, click **Edit Report Types**.
3. At the lower-right corner of the **Report Types**, click **User-Defined Reports**.

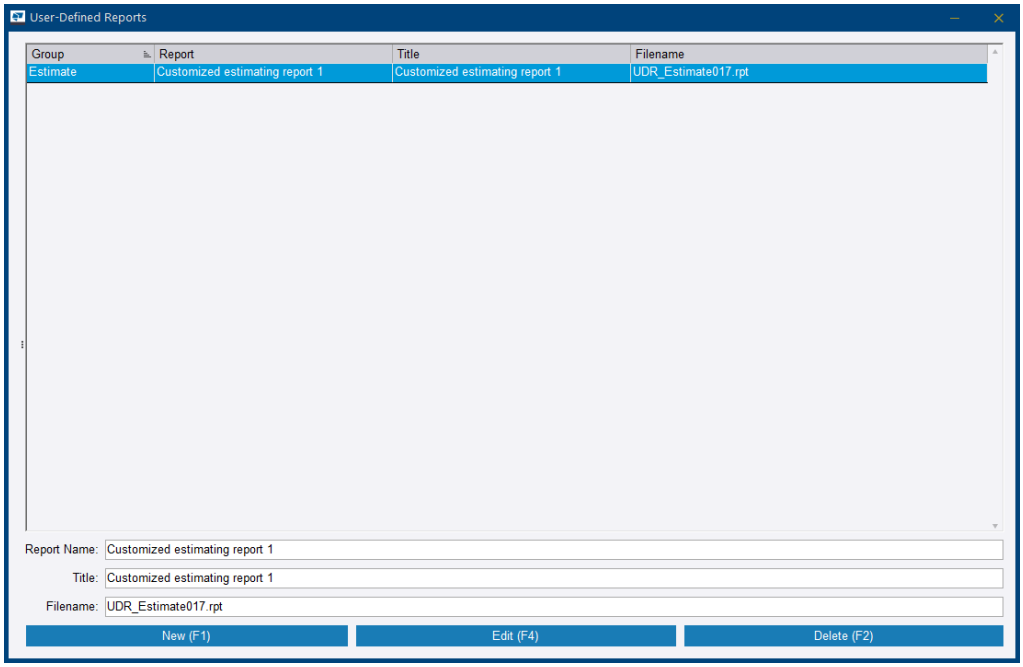


4. In the **User-Defined Reports** dialog box, click **New**.
5. In the **Select Base Report** dialog box, double-click the report that you want to use as the basis of the new report.

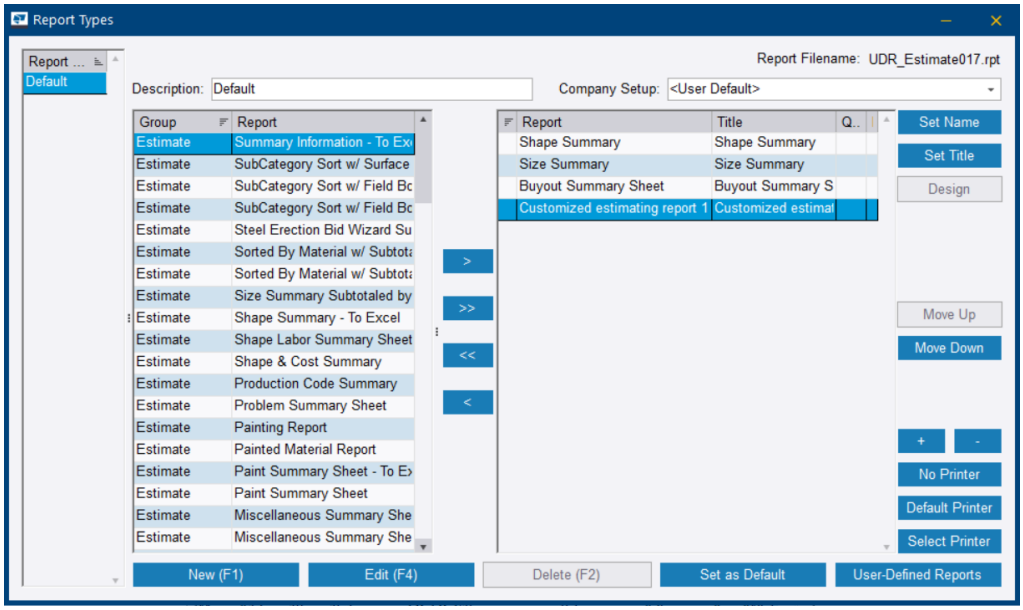
   The base report contains all the correct tables and information for the new report. Therefore, select an existing report and modify it.

   If another party creates a user-defined report from within the program, the report template file name that you have received indicates which base report you must select.

When you have selected the base report, the file name of the base report appears at the bottom of the **User-Defined Reports** dialog box.



6. Type the desired name and title for the new report.
7. In the **Filename** field, type the desired file name for the new report.
8. Click **Add**.
9. To close the **User-Defined Reports** dialog box, click the **Close** button (**X**) in the upper-right corner.
10. In the **Report Types** dialog box, click the **>** button to move the customized report to the **Included** list.



11. Click **Edit** to save the changes.
12. If the file was created from an outside source, save the new report template in the **Custom Report** folder with the file name that you defined in the **User-Defined Reports** dialog box.

    This overwrites the report file name created for the new report that was displayed in the **User-Defined Reports** dialog box.

The customized report is now available in Tekla PowerFab.

See also

Create customized report lists (page 136)

4.5 Import files to Tekla PowerFab

You can import various types of files to Tekla PowerFab. You can import jobs, requisitions, purchase orders, companies or contacts to the address book, inventory or inventory history information, assemblies, material dimensions, labor, and pricing information.

You can import the following file types:

- ASCII files
- BIF files
- IFC files
- ifcZIP files
- KISS files
- KSTK files
- Microsoft Excel worksheets
- SSC files
- txt files
- XML files

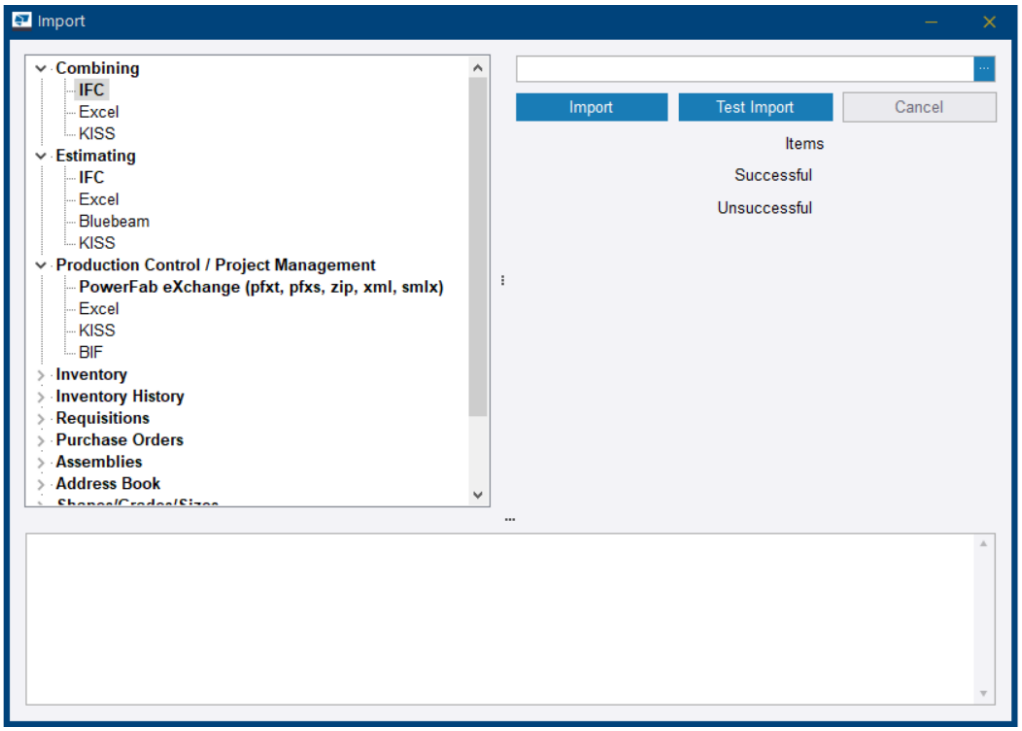
NOTE The file types that you can import depend on the location and module into which you are importing the files.

For Microsoft Excel imports, see Excel Spreadsheet Sample Import Files for sample files.

Importing files

1. Go to **File** --> **Import**.

The **Import** dialog box opens.



2. In the navigation tree on the left, select the location where you want to import a file.
3. Below the location, select the file type that you want to import.

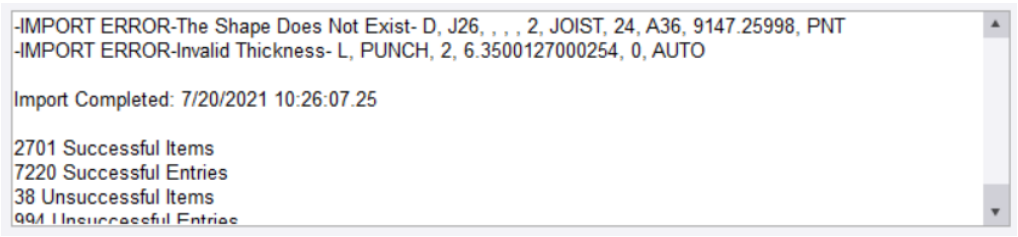
   If a file type is not available below the selected location, you cannot import that type of a file to the selected location.

   For additional help on some import options, you can click the **Help** button in the **Import** dialog box.
4. Click the **...** button.
5. In the **Open** dialog box, browse to find the file that you want to import, and select it.
6. Double-click the file, or click **Open**.
7. To import the file, click **Import**.

   Some import locations have a **Test Import** button. By clicking **Test Import**, you can preview the effects of the import.

   What happens next depends on the imported file and the information within it. You may need to translate shapes and grades, modify the job information, or select if the new information replaces the information in an existing job.

   If any import errors occur, you can see the error details at the bottom of the **Import** dialog box.



See also *Manage changes to a production control job* in *Tekla PowerFab User Guide*.

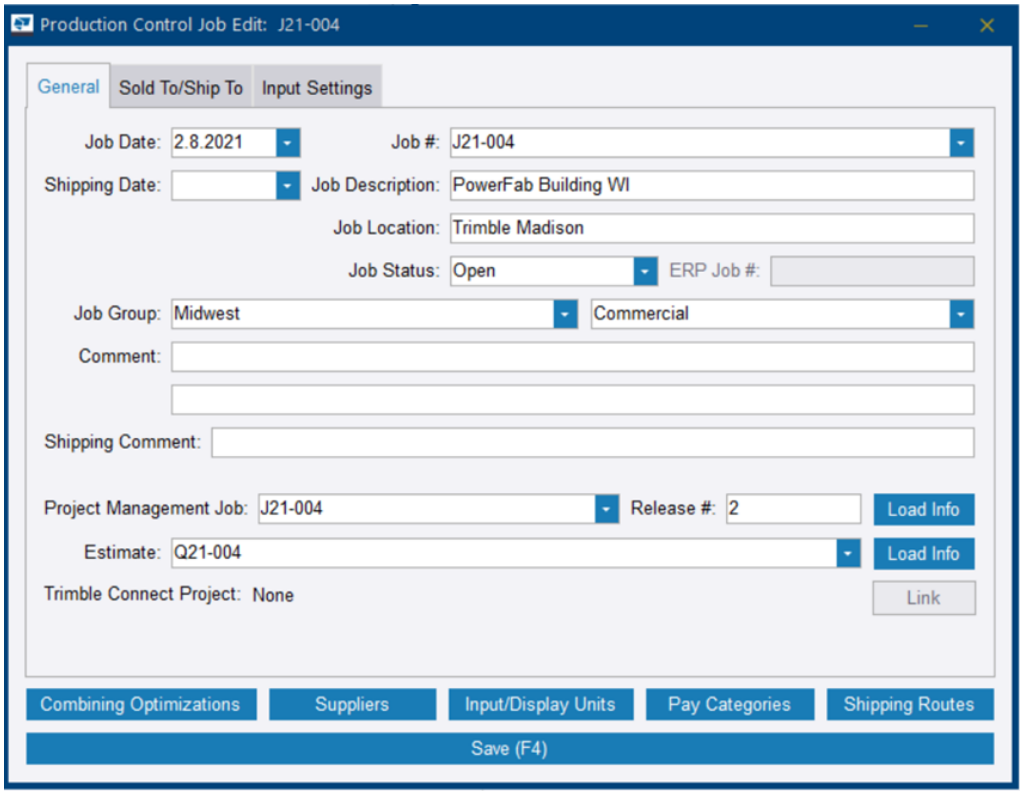
Example: Import a new production control job

For information on change management, see *Manage changes to a production control job* in *Tekla PowerFab User Guide*.

1. In the **File** ribbon tab, open the **Import** dialog box.
2. In the navigation tree, select **Production Control** and the file type that you want to import.
3. Click **Import**.

   The **Production Control Job Edit** dialog box opens.
4. Type the job number and define other necessary job information.

If you want to import drawings along with the production control job, you can either select an existing job in the **Project Management Job** list, or create a new project management job in step 6.

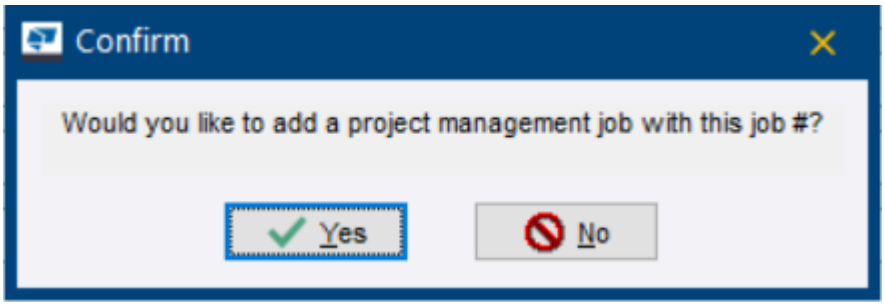


TIP When you first import a job, type a release number in the **Release #** field. This way, if you import new items into the job later, Tekla PowerFab will increase the initial release number.

5. Click **Save**
6. If you want to create a related project management job with the same job number, click **Yes** in the confirmation dialog box.

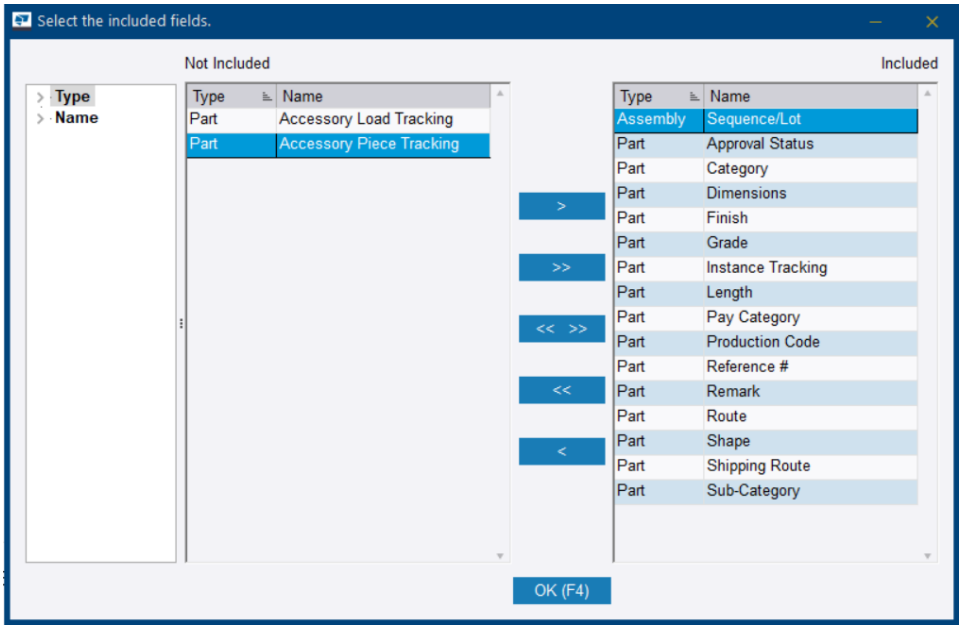
   If you do not want to create a related project management job, click **No**.

   If you do not create or link a related project management job to the imported production control job, you will not be able to import any related drawings.



If you have selected the **Prompt to confirm import fields** option on the **Import Settings** tab in **Maintenance** --> **Production Control** --> **Company Standards**, the **Select the included fields** dialog box opens, allowing you to select the information that is imported.

a. Click the arrow buttons to move the information that you want to import to the production control job to the **Included** list.



b. Click **OK**

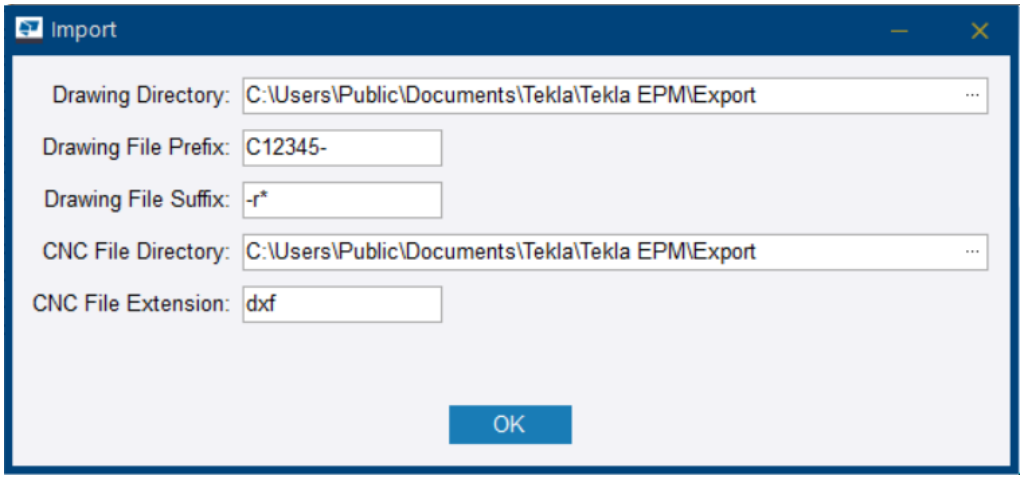
7. In the **Import** dialog box, click **...** to select the drawing folder and CNC file folder, and define the drawing file prefix and suffix, and the CNC file extension.

NOTE If you do not define a drawing file prefix or suffix, Tekla PowerFab expects that the drawing file names match the Tekla PowerFab drawing numbers exactly. If you use some text in the drawing file name before or after the drawing number, you should write this text as the drawing file prefix or the drawing file suffix.

For example, if you use the job number before the drawing number in job C23487, you should define the drawing name prefix as `C23847-`. This way,

Tekla PowerFab can recognize the drawing by matching the remaining part of the file name. For example, the file name of drawing 100 would be `C23847-100.pdf`.

You can also use the wildcard character (*) if the prefix or suffix is not exactly the same for every file. For example, when importing drawing revisions, the revision number changes. The first revision of a file might be `C23847-100-r1.pdf`, but later revisions of the drawing could also be imported at the same time. In this case, it could be useful to define the drawing file suffix as `r*`.



Note that if you did not create or link a related project management job (page 922) to the imported production control job, drawings cannot be imported.

8. Click **OK**.

   The import begins. Tekla PowerFab alerts you if any files, such as drawings, are missing.

   Note that CNC files are not stores as individual files, but in a table within the Tekla PowerFab database. If you export CNC files with nesting results or nesting requests, the CNC files are recreated from the database.

   You can see the number of the successfully and unsuccessfully imported items in the **Import** dialog box.

See also

Manage changes to a production control job (page 938)

Import assemblies and parametric assemblies (page 150)

Translate unknown shapes and grades (page 150)

Import files to the Estimating module (page 586)

Manage time-tracking information (page 815)

Import and export project management information (page 836)

Import assemblies and parametric assemblies

Besides labor time, you can also import assemblies and parametric assemblies. To be imported, the assemblies and parametric assemblies need to be saved as text files. You can use the imported assemblies and parametric assemblies in any estimating job.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Import**.
3. In the navigation tree on the left side of the **Import** dialog box, select one of the following depending on the assembly type:
   - **Assemblies** --> **Assemblies**
   - **Assemblies** --> **Parametric Assemblies**
4. Click the **...** button.
5. In the **Open** dialog box, browse to find the text file that you want to import.
6. Select the file and click **Open**.
7. Click **Import**.
8. View the status of the import process.

   If necessary, you can view the import details and errors in a text file by clicking the **Open Import Log** button.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Translate unknown shapes and grades

When you are importing files, such as drawings, to Tekla PowerFab, sometimes the shapes and grades in the imported files do not match the shapes and grades in Tekla PowerFab. In these cases, Tekla PowerFab does not recognize the shapes and grades. To solve the issue, you need to create an item association that allows Tekla PowerFab to identify the shapes and grades.

We recommend that your administrator sends a list of shapes and grades used in Tekla PowerFab to the detailers, so that you can ensure that the same abbreviations are used in the shop detail drawing bill of materials.

If you need to create an item association during the import process, the **Translate Shapes/Grades** dialog box opens automatically.

1. In the **Translate Shapes/Grades** dialog box, select the item that needs to be translated.

2. Click the arrow on the right side of the **New Shape** list, and select the shape abbreviation used in Tekla PowerFab.
3. If necessary, click the arrow on the right side of the **New Grade** list, and select the grade abbreviation used in Tekla PowerFab.
4. Click **Set Shape/Grade**.

   Repeat steps 1 to 4 for all items that are listed in the **Translate Shapes/Grades** dialog box.

   If you save a shape or grade abbreviation, the shape or grade will not appear in the **Translate Shapes/Grades** dialog box when you import files in the future. You should only save the shape and grave abbreviations if the detailer has no intention of conforming to the abbreviations used in Tekla PowerFab.
5. When you have translated all necessary shapes and grades, click **OK** to close the dialog box and continue the import.

NOTE The dimensions matching the properties of the shape are added for the shape during the import. Remember to review the dimensions that are added during the import to ensure that the properties of the shape are completely defined in the **Shapes/Grades/Sizes** database.

See also

Import files to Tekla PowerFab (page 144)

4.6 Customize and manage Stimulsoft reports

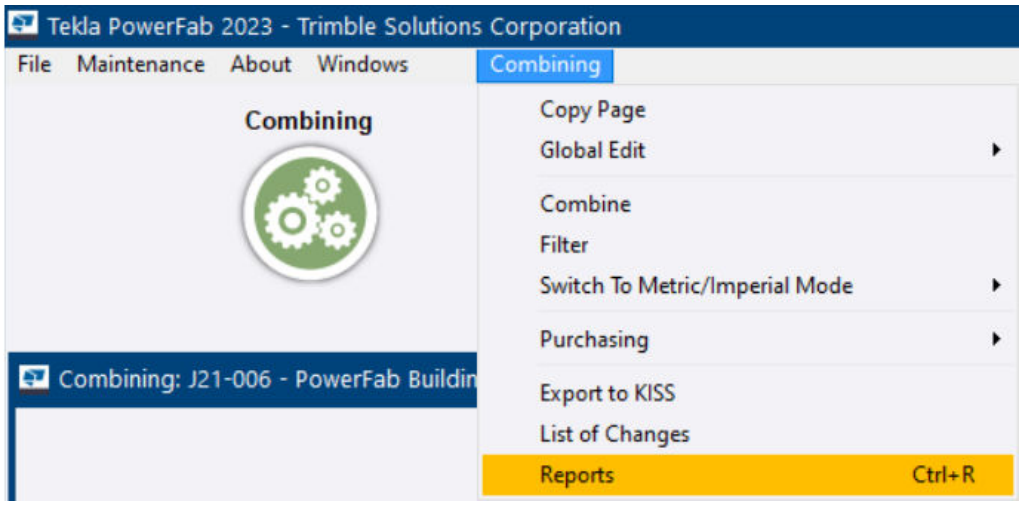
The Stimulsoft report designer in Tekla PowerFab allows you to edit reports without the need to own a Crystal Reports application.

Before modifying existing reports it is worth considering creating a new user-defined report to work with to learn the basics of the editor. See Create user-defined reports for customizing (page 141).

For full documentation of the report editor, see Stimulsoft User Manual.

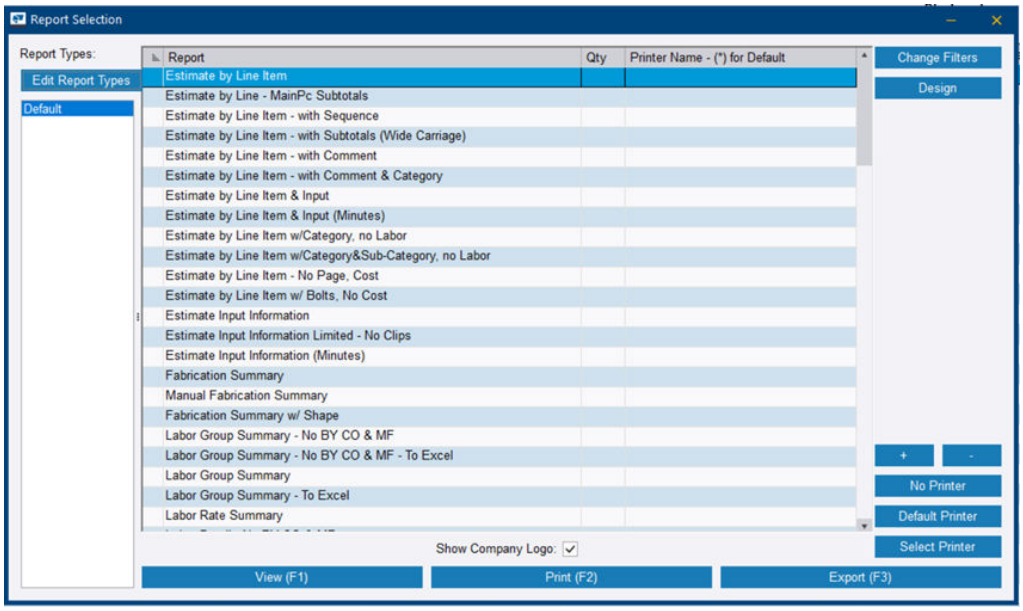
Open the report editor

1. Open a job/requisition/purchase order. The module-specific ribbon tab appears.
2. On the drop-down menu, select **Reports**.



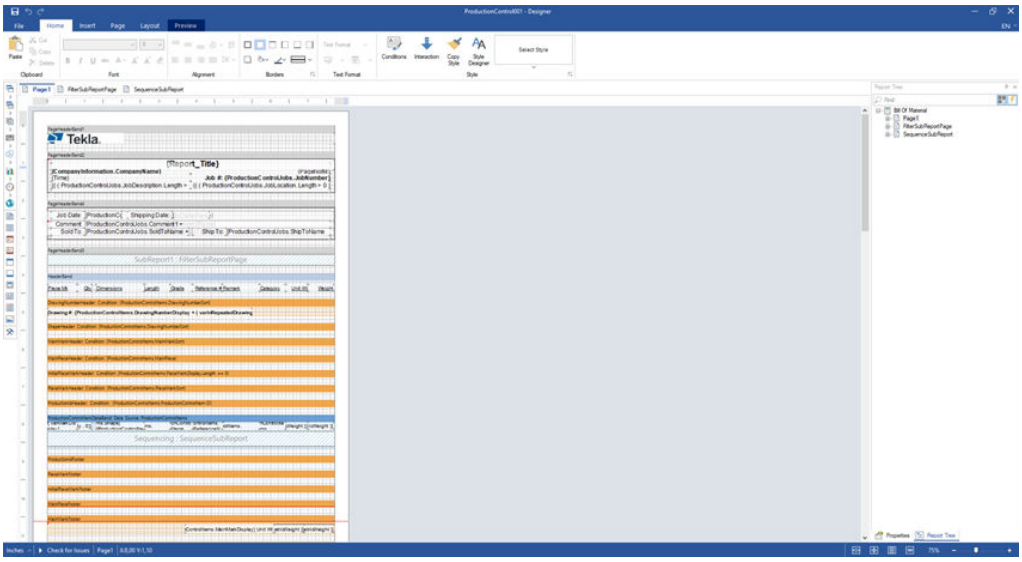
3. Select filters and click **Make Report**.

   The **Report Selection** dialog box opens.



4. To open the report editor, click **Design**.

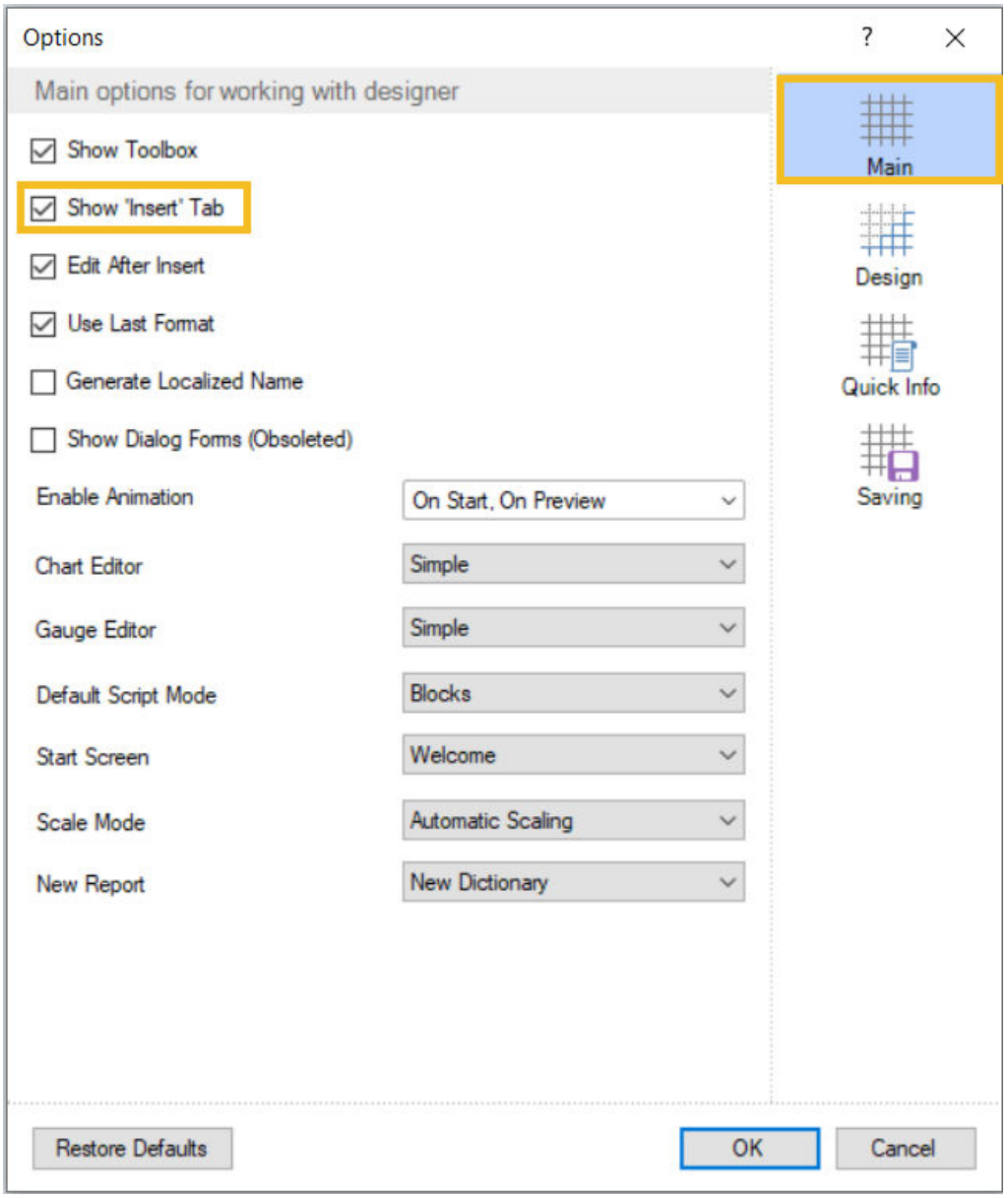
NOTE The button is enabled only if the report has been converted to Stimulsoft.



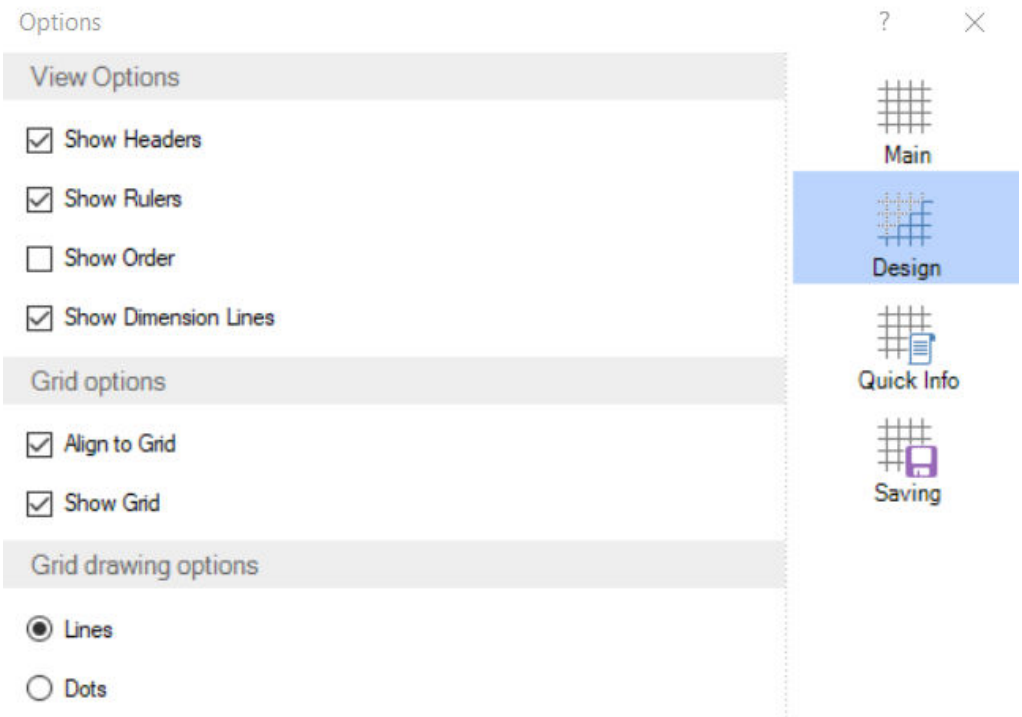
Modify report properties

There are two tabs with settings that are related to editing and designing reports.

1. Go to **File** --> **Options**.
2. On the **Main** tab, we recommend selecting **Show 'Insert' Tab**.



3. On the **Design** tab, we recommend the following options:



Show Headers: Displays report headers and footers

Show Rulers: Displays the ruler at the top of the design page

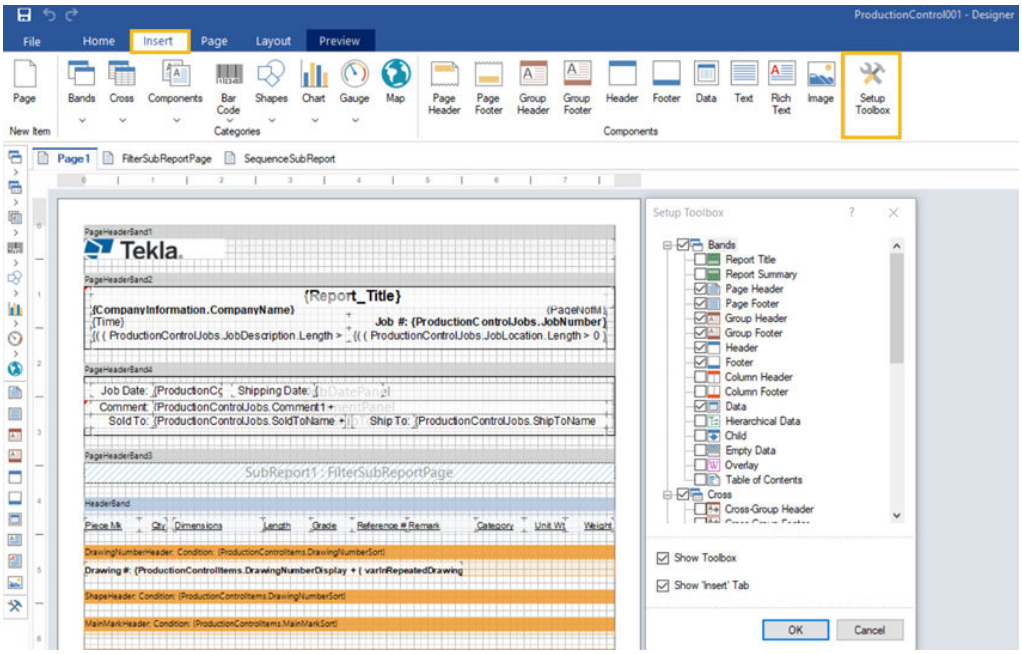
Show Order: Order is the sequence in which elements in a band are processed. The order of processing can affect results for items that rely on each other.

Show Grid: Turn grid on and off

Align to Grid: When selected, controls are automatically aligned to the nearest grid lines when they are moved.

Set up toolbox

1. Go to **Insert** --> **Setup Toolbox**



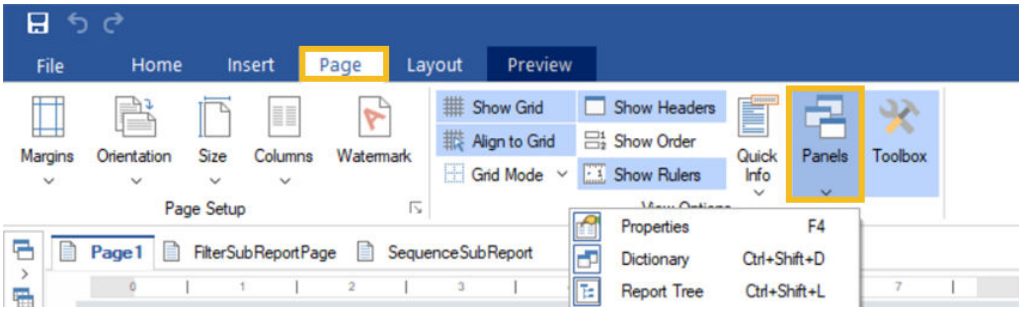
2. Select the items that you want to appear in the toolbox and on the **Insert** ribbon tab.

For an example of how to modify group headers and footers, see Stimulsoft report group headers and footers (page 164).

Report panels

The three available report panels provide several tools for modifying reports.

1. When editing a report, go to **Page** --> **Panels**.

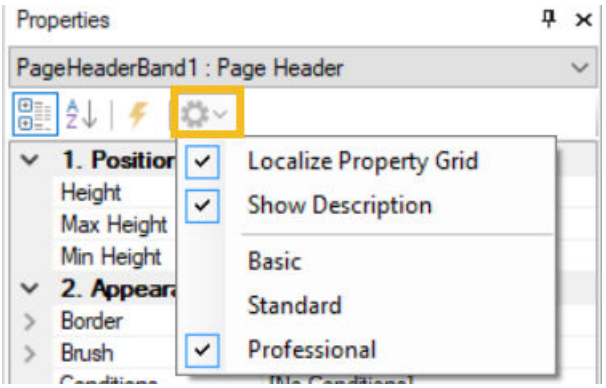


2. Select one of the panels to modify the properties.

Properties

You can edit the properties for the currently selected item on the report. Each type of component has its own selection of properties that are available for editing.

In the settings for **Properties**, you can select between **Basic**, **Standard**, and **Professional**.



Dictionary

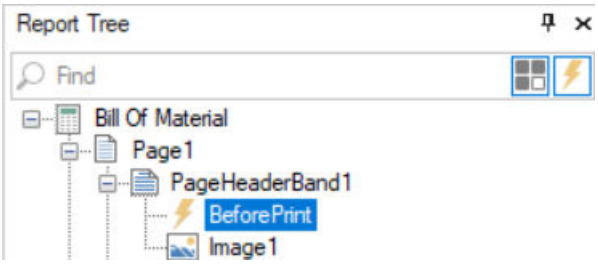
The Dictionary provides a tree-view control that provides access to the following:

- The data tables which are used to generate the report.
- The system and custom variables, to store custom data and calculations. See Stimulsoft report variables (page 171)
- Functions, which are used for calculations and formatting of data.

Report tree

Report Tree allows you to navigate between the elements in a report. You can select report headers, groupings, and subreports. It can also be used to find any named elements in the report.

By default, **Report Tree** displays components and events. Components are elements in the report such as page headers, text fields, and labels. The events shown here are managed on the **Events** tab of the **Report Tree** panel.



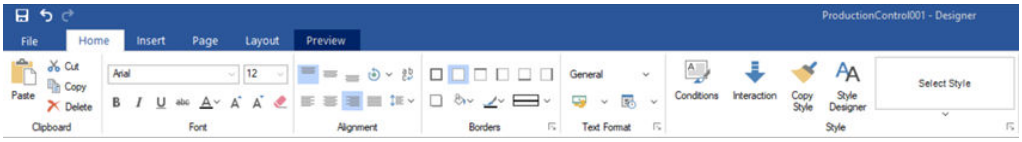
The report tree in the image shows both components, such as **Page 1** and **PageHeaderBand1**.

The **Before Print** event of the **PageHeaderBand1** control also contains code. When you double-click the event, it opens the text editor for the event.

Modify Stimulsoft report appearance

On the toolbar, you can select various formatting options for the text fields.

1. To format text fields, go to the **Home** ribbon tab.



   a. Select an item on the report.

      To apply changes to multiple items at once, hold down **Shift** and select the items you want to modify.

   b. Select a formatting option on the toolbar.

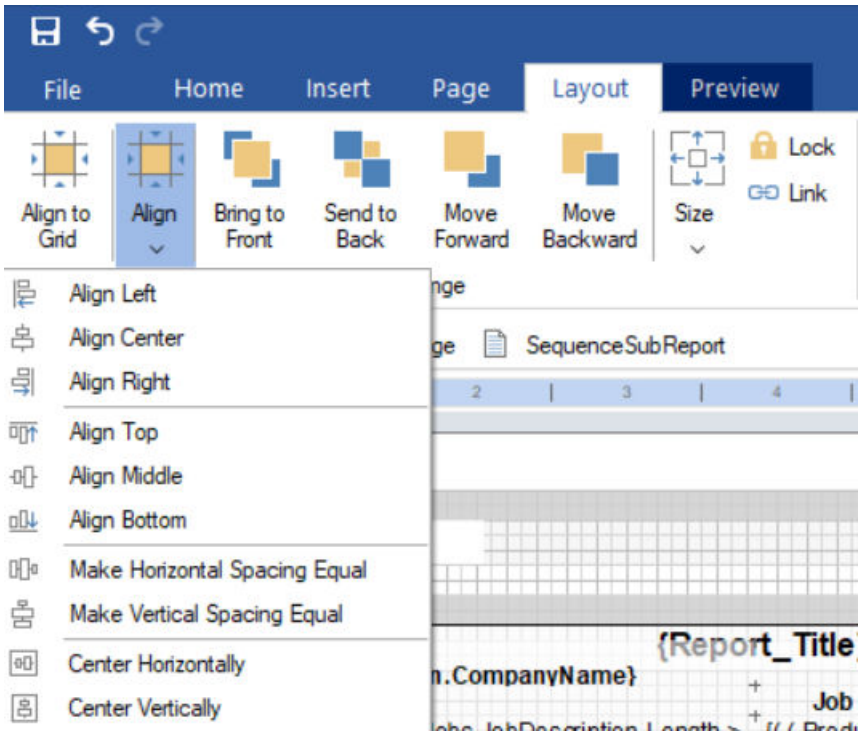
      For example, you can select font, font size and style, text alignment, and background and foreground colors. You can also specify borders using the toolbar for single or multiple controls.

2. To align components when moving fields and labels, go to the **Layout** ribbon tab.

   a. Select multiple components.

      The first component that you select determines the position of the other components.

   b. Click **Align**.



c. Select an option on the drop-down menu.

You can also modify the position, appearance, behavior, and design of the components on the **Properties** tab in **Page** --> **Panels** --> **Properties**.

Manage Stimulsoft report fields

You can add new fields to a Stimulsoft report, and move existing fields and adjust their size.

Move and modify existing fields

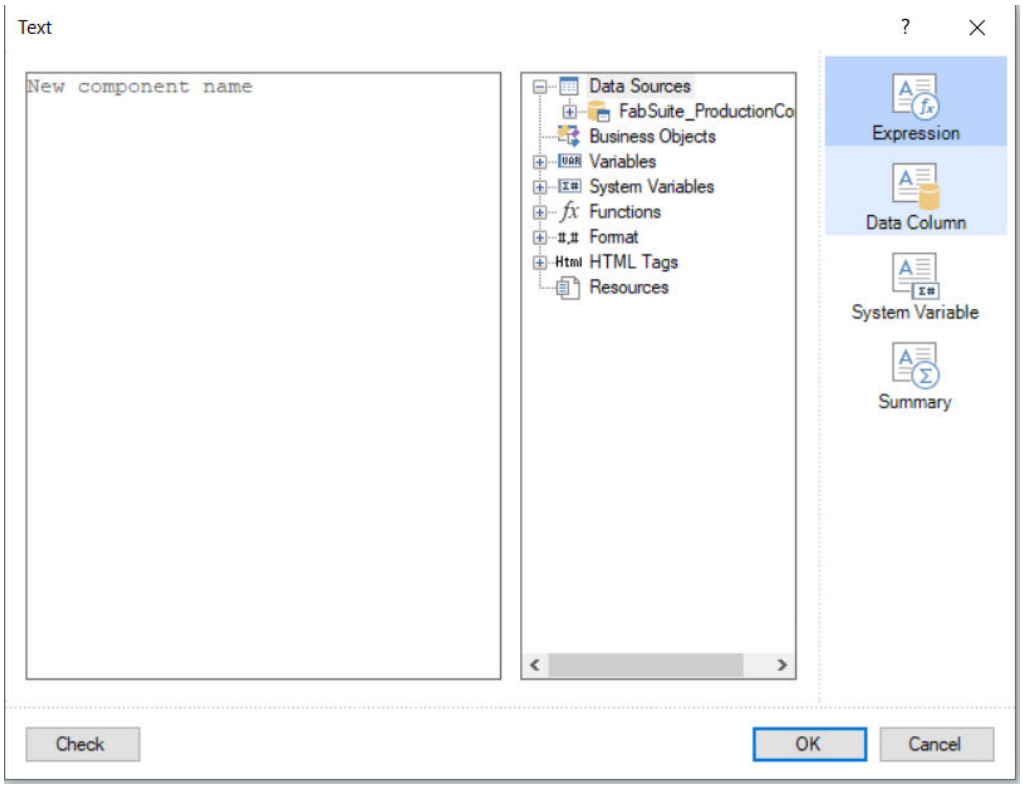
To	Do this
Move an existing field	Select and drag the field to a new location. By default, components snap to the displayed grid for easy alignment.
Adjust field size and alignment	Select a field and adjust its alignment and dimensions in the **Position** section in **Page** --> **Panel** --> **Properties**.

Add a new field

To add a new field, do the following:

1. Select an existing component.
2. Do one of the following:
   - Copy and paste:
     a. Right-click the component and select **Copy** on the context menu.
     b. To paste the component, select the new location, right-click to display the context menu, and select **Paste**.
   - On the **Insert** ribbon tab, select a component and drag it to the desired location.
   - Select a component, press **Ctrl**, and drag a copy of the selected component to the desired location.
3. To move the component, click the new location.
4. To rename the component, select a component, and do either of the following:
   - Double-click the component and enter a new name in the editor that appears.
   - Right-click the component, select **Design** on the context menu, and enter a new name in the editor that appears.

Ensure that the **Expression** option is selected



View data fields

To display the data available to the report, do the following:

1. Select an existing component and right-click it.
2. Select **Design** on the context menu.

   The editor opens.
3. Go to the **Data Column** tab.

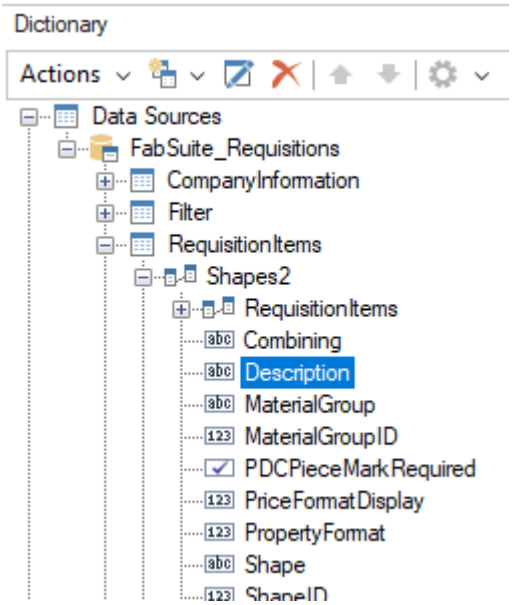
The data available to the report is displayed.

Data field examples

It is important to understand the data relationships that are displayed. Relations are links to other tables defined by matching record data from one table to the other so that the correct records are associated to each other.

To retrieve data, not in the data source but in a relation created to other tables, you need to start in the data source assigned to the detail band in the report.

Example 1:

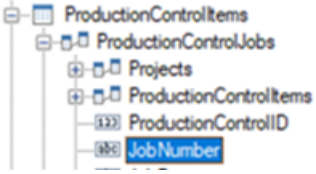


In this example, to retrieve the shape description that is not in the **RequisitionItems** data source, expand the **RequisitionItems** table. Then expand the associated data relation for **Shapes2**. Then you can select the description for the shape.

When you click **Expression**, the the above is displayed as `{RequisitionItems.Shapes2.Description}`

Example 2 for a Production Control project:

The report is based on the table ProductionControlItems.



It is possible to use the links for this table to link to other tables and pieces of other information.

The use of these navigation properties makes it possible to use a link from the **ProductionControlItems** table to get to the table **ProductionControlJobs**, and then access fields in that table that are not present in the **ProductionControlItems** table.

When you click **Expression**, the above is displayed as `{ProductionControlItems.ProductionControlJobs.JobNumber}`.

Combine text and data components

It is possible to combine label text and a data field. Braces identify the portion of the expression that is a formula or components of the data source. Items outside the braces are treated as pure text

In the above example the **Expression** would be the following:

```
Req#: {RequisitionItems.Requisitions.RequisitionNumber}
```

When the report is run, this shows the text 'Req#:' and then the requisition number.

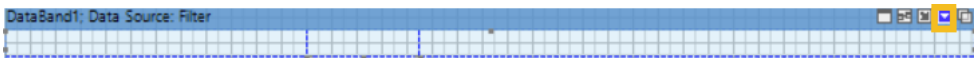
Stimulsoft report data band

Each report needs a data band, which must have a data source specified. This is the main data table that is used to iterate through the records.

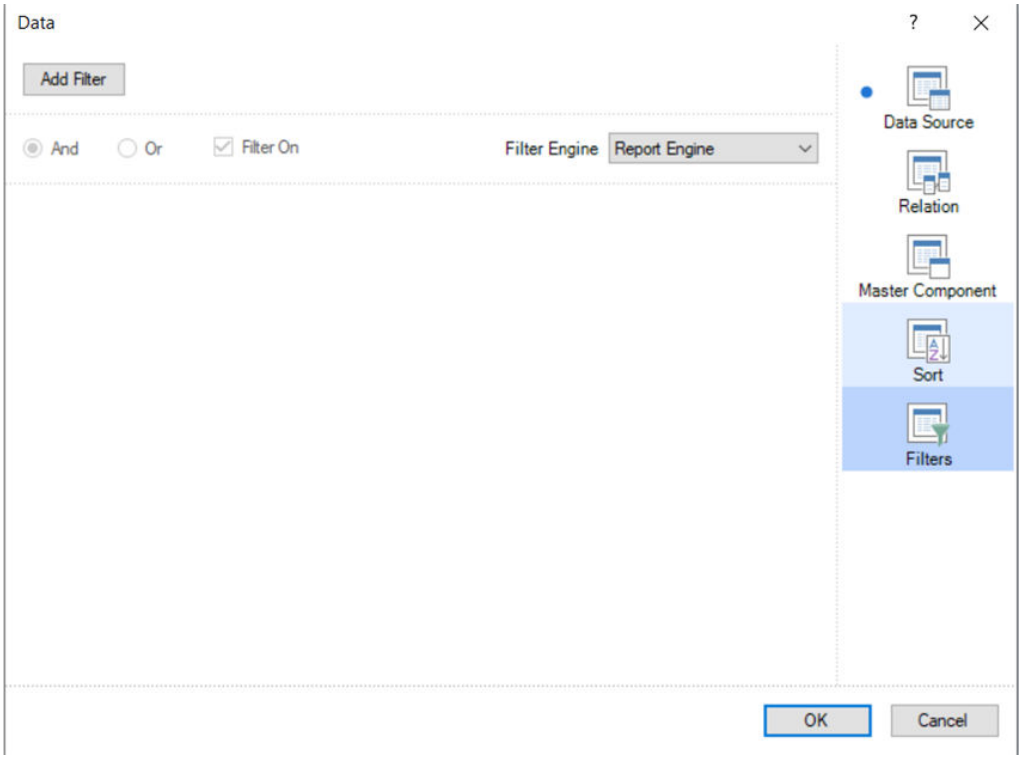
You do not need to have any components in the data band, the report will still process each record without one.

Filter data

1. Do either of the following:
   - Right-click the data band and select **Design** in the context menu..
   - On the data band, click the **Filters** button and select **Design**.

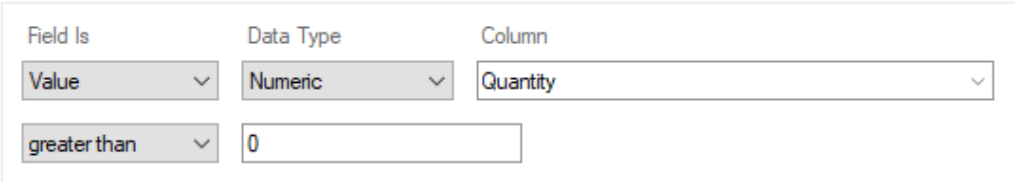


2. Click **Filters**.
3. Click **Add Filter**.



4. Select the appropriate values.

   See example:



   Field Is = Value

   Data Type = Numeric (because the chosen field is a numeric field)

   Column = Quantity (field chosen from the list of fields from the data band data table)

   Selected 'greater than' from the list.

   0 as the value

   This filter specifies that only data rows with a quantity greater than zero are shown.

To remove any unneeded filters, click ☒ in the upper-right corner of the filter.

Stimulsoft report group headers and footers

Group headers group and sort the data by a specified field. You can create multiple group headers for a report. A group header should have a corresponding footer and both should be named to keep the report manageable.

For a bill of material report you can create a group header for **Shape**, **Dimensions**, **Grade**, **Width**, and **Length** each. For each group, specify the field to be used in the **Condition** property of the group, for example, `Projects.JobNumber`.

In the report, you then have a table that displays the material by these groupings.

You can also use group headers to specify page breaks. You can, for example, start a new page for each material shape or project.

Group headers and footers are the place to put summarized data. For example, a **Dimensions** footer can be set to show the material quantity and weight totals for each material size.

Add a Group header and footer

1. To add a Group header, do either of the following

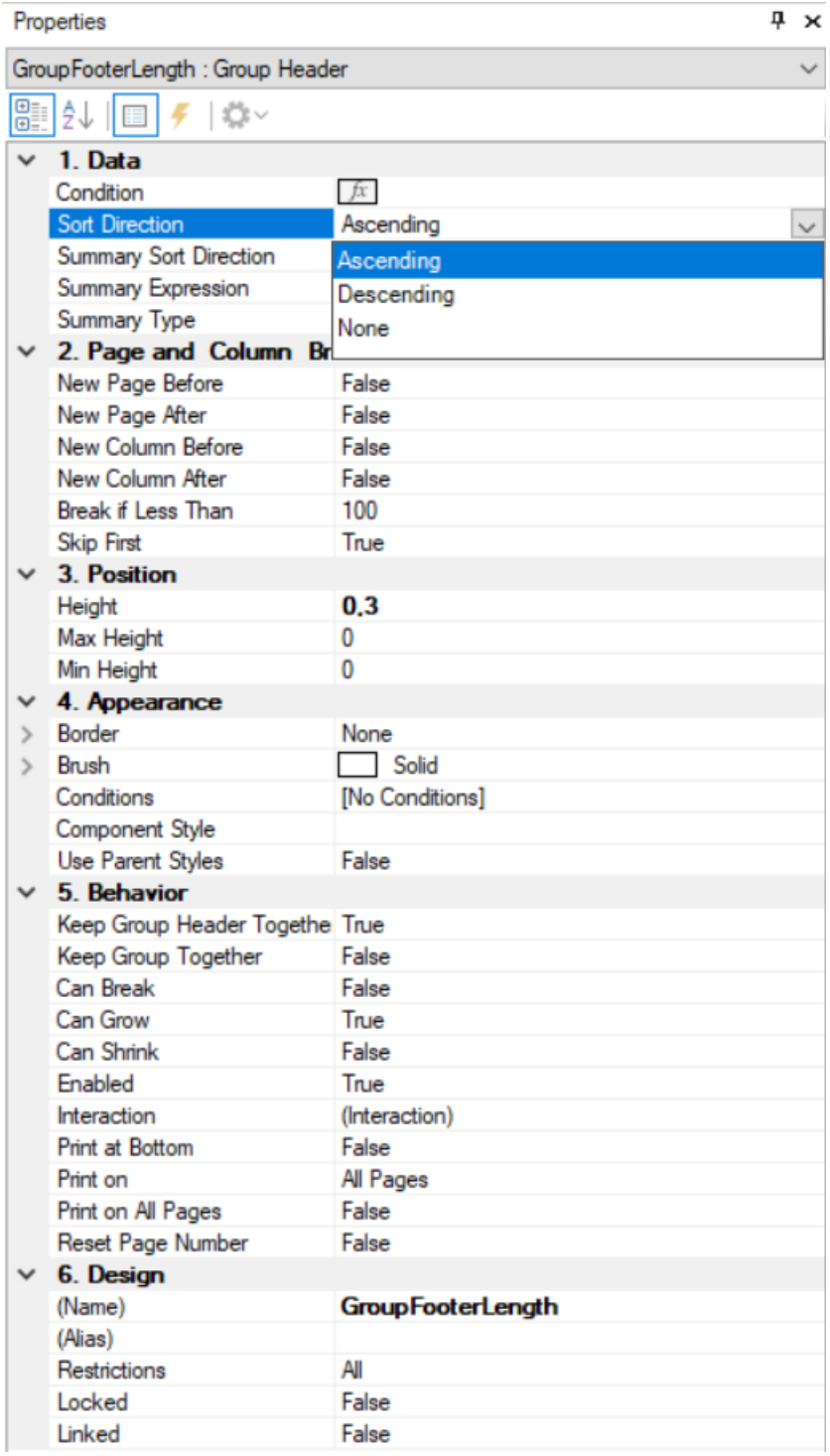
- On the **Insert** tab, click **Setup Toolbox**.
  a. Select **Group Header**.

     Group Header appears in the toolbar.
  b. Select and hold **Group Header** and drag it to its location.
- On the **Insert** tab, click **Bands**.
  a. On the drop-down menu, select and hold **Group Header**.
  b. Drag the new header to its location.

2. To give the new header a name that matches the field name assigned to it, such as 'GroupFooterLength, do the following:
   a. Right-click the header, and on the menu that appears, select **Properties**.
   b. Under **Design**, select **Name** and type the new name.
3. To keep reports manageable, add a group footer for each group header and assign it a name that matches the corresponding header, such as 'GroupFooterLength'.

   To add the footer, follow the steps for adding the header. Just select **Group Footer** instead of **Group Header**.

Once you have added the group header, you can also modify the other properties.



Specify a data field for Condition

A group header needs to have a data field specified for its **Condition** property.

To specify the data field, do the following:

1. Select the header and right-click it.

   A context menu opens.

2. Select **Design**.

3. On the **Data Column** tab, select the data field.

For more information on properties, see Report panels in Customize and manage Stimulsoft reports (page 151).

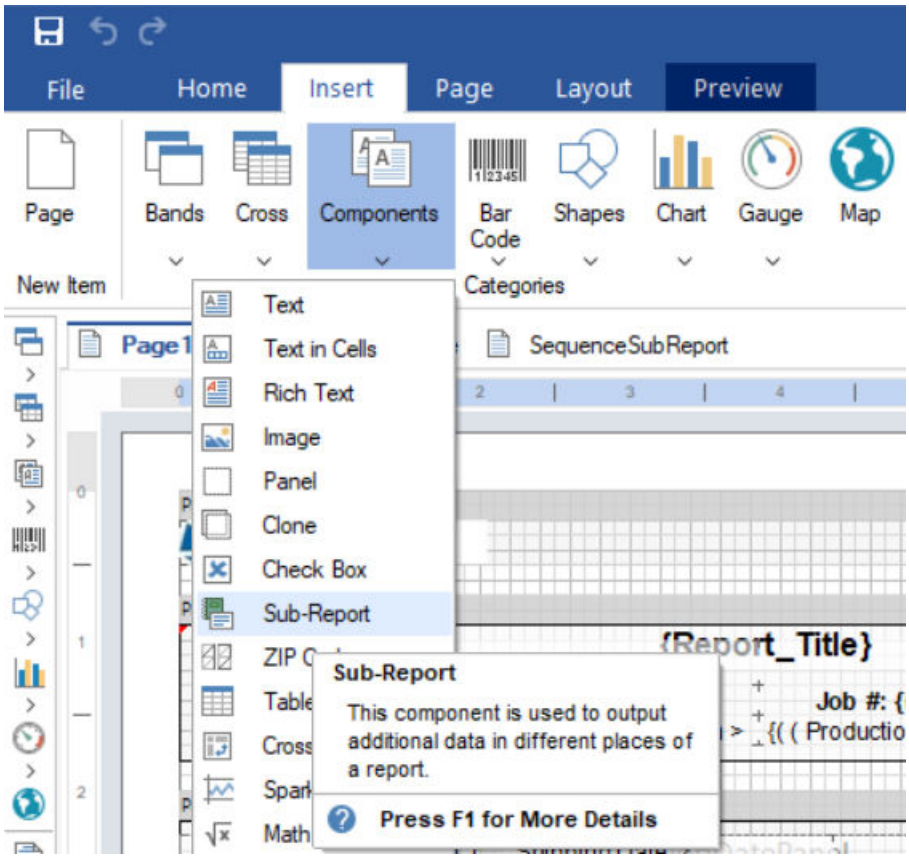
Stimulsoft Sub-Reports

A Sub-Report is a secondary report within the current report. It allows the secondary report to be run with data from another table but linked to the current item in the main data band.

You can create subreports with all the components of a regular report, that is, group headers and footers, and filters on the data band.

Create a Sub-Report

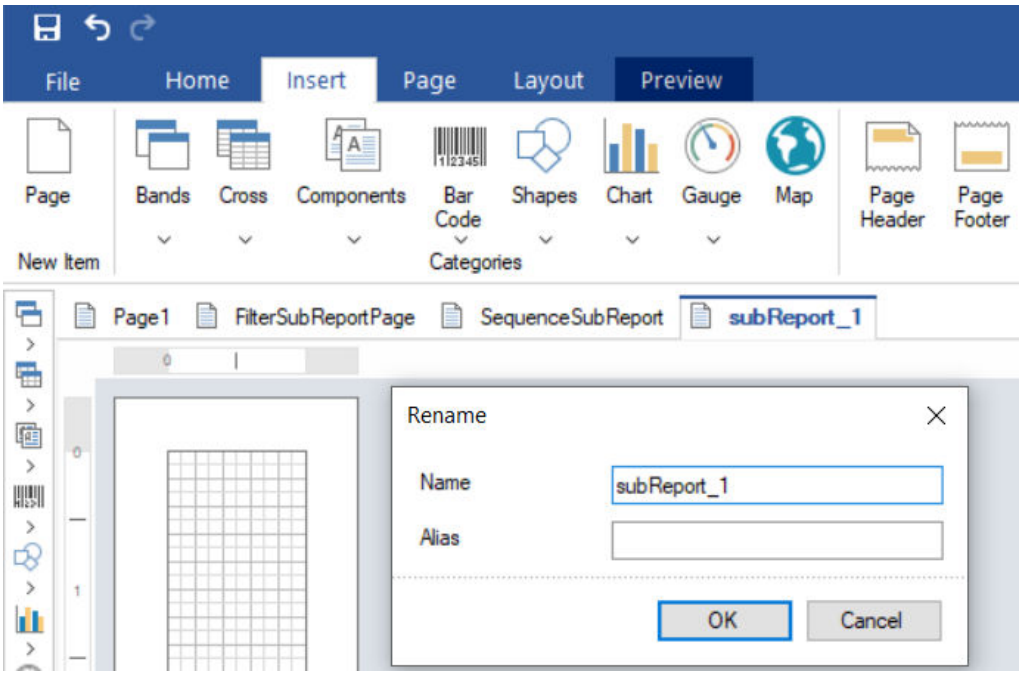
1. On the **Insert** ribbon tab, select **Component** --> **Sub-Report**.



2. To place the Sub-Report on the current report, click a suitable location.

   A new tab appears for the subreport.

3. To name the subreport, double-click the tab, and type a name in the **Name** field.



4. Click **OK**.
5. On the new subreport tab, to add a data band, click **Insert** --> **Bands** --> **Data**.

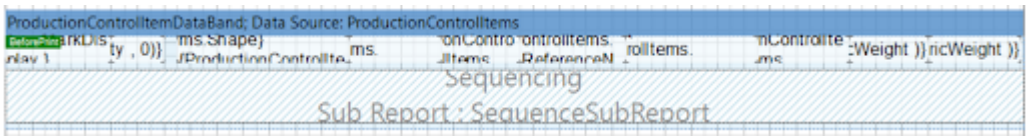
   See also Stimulsoft report data band (page 163).

6. Right-click the new data band and select **Design**.
7. On the **Data Source** tab, specify which table this report is using.
8. On the **Relation** tab, specify the relation to the parent data table.
9. The **Master Component** tab specifies the parent data band.

Sub-Report example

The Production Control report **Bill of Material** (ProductionControl001.mrt) uses a subreport to display the sequencing information for each main mark.

The **SequenceSubReport** is only enabled if the piece is flagged as a MainPiece in the **BeforePrint Event** of the DataBand.



The **SequenceSubReport** handles the formatting of the displayed sequencing.

Add images and watermarks to a Stimulsoft report

You can add images and watermarks to your Stimulsoft report.

Add images

You can add company logos or user signatures as image files to the report.

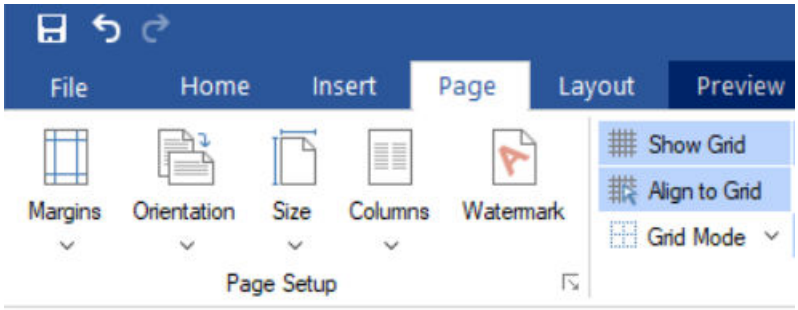
1. Do either of the following:
   - On the **Insert** ribbon tab, select **Components** --> **Image**.
   - In the tooldbar, click **Image**.

     If you do not have the button, click **Setup Toolbox** and select **Image**.
2. Select a location for the image.
3. Select an existing image from the **Gallery** or load an image from a file.

   Use the property **File** to specify where to load the file from. Ensure that this location is available to other users if needed.

Add a watermark

1. On the **Page** ribbon tab, click **Watermark**.



2. Type a text or add an image.

   To adjust the text and image properties, click **More Options**.

The watermark appears on all pages of the report.

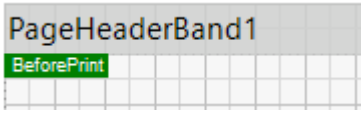
Stimulsoft report events

Many reports use code within events in the program to calculate custom variables for the report or to provide formatting of data.

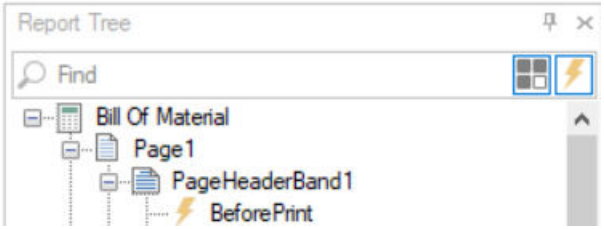
Events use code in the C# language.

Display events with code

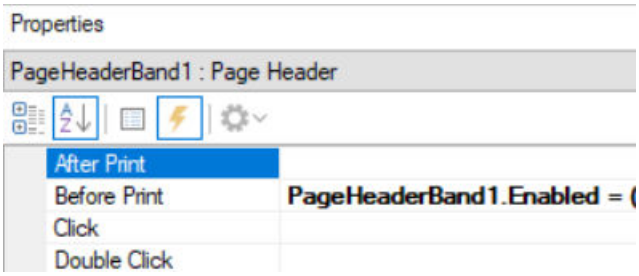
The report editor displays which components have code related to them and also which event the code is located in.



1. To enable this display, do either of the following:
   - On the **File** ribbon tab, select **Options**.
     a. On the **Quick Info** tab, select **Show Events**.
     b. Click **OK**.
   - On the **Page** ribbon tab, select **Panels** --> **Report Tree**.
     a. Click the lightning symbol to **Show Events.**

     This displays all events that contain code.
2. To view events with code, go to **Page** --> **Panels** --> **Properties**.

   In this example, **PageHeaderBand1** has code in the **BeforePrint** event.
3. To access the code, do the following:
   a. Select the component (here: **PageHeaderBand1**).

b. In **Page** --> **Panels** --> **Properties**, click the three-dot ellipsis.

The **Event Editor** opens.

Code within an event can use comments to provide documentation. Comments start a line with : //

Stimulsoft report variables

You can use variables in reports. Variable is a value that can be modified and reused. There are various types of values such as string, date, number, and array.

Variables need a unique name, a description, and a data type. Once a variable is declared for the report, it can be accessed from anywhere within the report.

A variable can be created within an event using the C# language, but that variable can only be used within that event.

Variables can be used as the data source of a label, and then use code within an event to set the value of the variable.

View and edit variables

Reports can prepare values for report-level variables that can be used to display fields.

Variables are stored in the data dictionary. To find the variables, do the following:

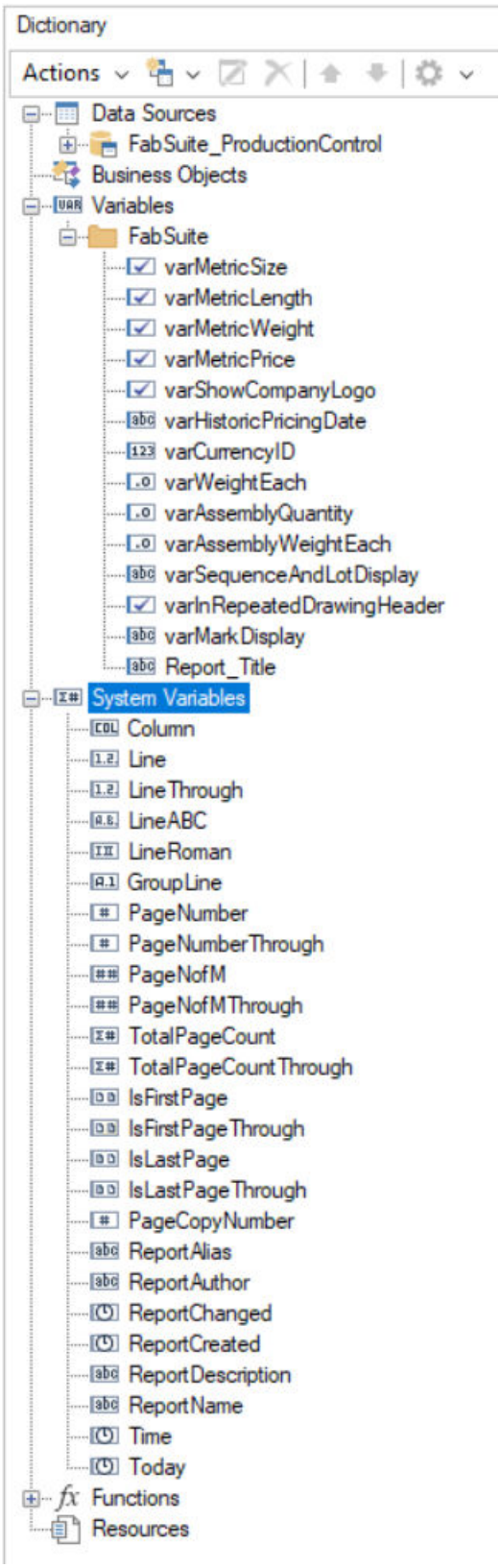
1. Go to **Page** --> **Panels** --> **Dictionary**.
2. To see the variables used on the report, expand the **Variables** and **FabSuite** nodes.
3. To edit an existing variable, do either of the following:
   - Double-click it in the tree view.
   - Right-click it and select **Edit**.

   The **Edit Variable** dialog box opens.

System variables

Each report has a list of built-in variables that can be used in the components on the report.

To view the system variables, go to **Page** --> **Panels** --> **Dictionary**.


Dictionary
Actions
Data Sources
FabSuite_ProductionControl
Business Objects
Variables
FabSuite
varMetricSize
varMetricLength
varMetricWeight
varMetricPrice
varShowCompanyLogo
varHistoricPricingDate
varCurrencyID
varWeightEach
varAssemblyQuantity
varAssemblyWeightEach
varSequenceAndLotDisplay
varInRepeatedDrawingHeader
varMarkDisplay
Report_Title
System Variables
Column
Line
LineThrough
LineABC
LineRoman
GroupLine
PageNumber
PageNumberThrough
PageNofM
PageNofMThrough
TotalPageCount
TotalPageCountThrough
IsFirstPage
IsFirstPageThrough
IsLastPage
IsLastPageThrough
PageCopyNumber
ReportAlias
ReportAuthor
ReportChanged
ReportCreated
ReportDescription
ReportName
Time
Today
Functions
Resources

Example: Convert data type using variables

This is an example of code for taking the string data type for the **Load Category** of a **Load** and changing it to a decimal.

Code within an event can use comments that start a line with : //

Example:

```
// Set an interim variable.

decimal lnLoadCat1;

// Get the value from the data- i.e.
ProductionControlTrucks.LoadCategory1, and try convert to a
decimal.

// if TryParse is successful - the value is in "lnLoadCat1"

// if TryParse is not successful - the value is set to be 1.0
- a dummy multiplier.

if (!Decimal.TryParse( ProductionControlTrucks.LoadCategory1,
out lnLoadCat1)) {

//The row could not be parsed as a decimal.

lnLoadCat1 = 1.0m; }

_LoadCat1 = lnLoadCat1;
```

At this point, the variable `_LoadCat1` can be used within the event. If it is needed outside the event, you must create and use a report variable.

Record count for tables in Stimulsoft reports

To get a count of the number of rows in a table within the data source, use `{Count()}`.

Example:

```
ProductionControlItems.Count ;
```

See also

Customize and manage Stimulsoft reports (page 151)

Create a row for each quantity in Stimulsoft reports

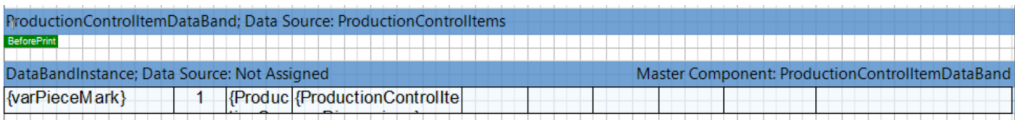
You can print a report row for each quantity of an item. If an item has a quantity of 5, it is possible to print 5 rows of data for that item.

1. Create a new data band beneath the required item.

   We recommend that you provide it with a name similar to ‘instance’ to denote that this shows instances of an item.

2. Right-click the new band and select **Design**.
3. Select **Master Component** and the parent data band.

   Example:

   In this example, the parent data band is the table **ProductionControlItems**. The new data band is named **DataBandInstance** and it has no data source.

4. In the **BeforePrint** event of the **ProductionControlItemDataBand**, add the following code:

   ```
   DataBandInstance.CountData =
   ProductionControlItems.Quantity ;
   ```

   This line of code specifies that the number of rows for the data band is equal to quantity for the item.

   The fields in the **Instance** data band still reference the **ProductionControlItems** table, for example:

   ```
   {ProductionControlItems.Dimensions}.
   ```

   See also Stimulsoft report events (page 169)

Add a checkbox in a Stimulsoft report

Short description of the topic.

1. On the **Insert** ribbon tab, select **Components**.
2. In the drop-down menu, select **Check Box** and drag to the desired location.
3. To modify the properties, right-click the checkbox and select **Properties**.

   The **Checked** property defines the source.

4. To open the editor, click the three-dot ellipsis.
5. Specify the control source.

   The control source must be a logical data field or variable.

6. To further define the checkbox, select values from the drop-down menus.



Conditional formatting of a Stimulsoft report

You can use conditional formatting to change the design of components.

Once a component has been allocated a condition, an icon is displayed for it in the report editor.

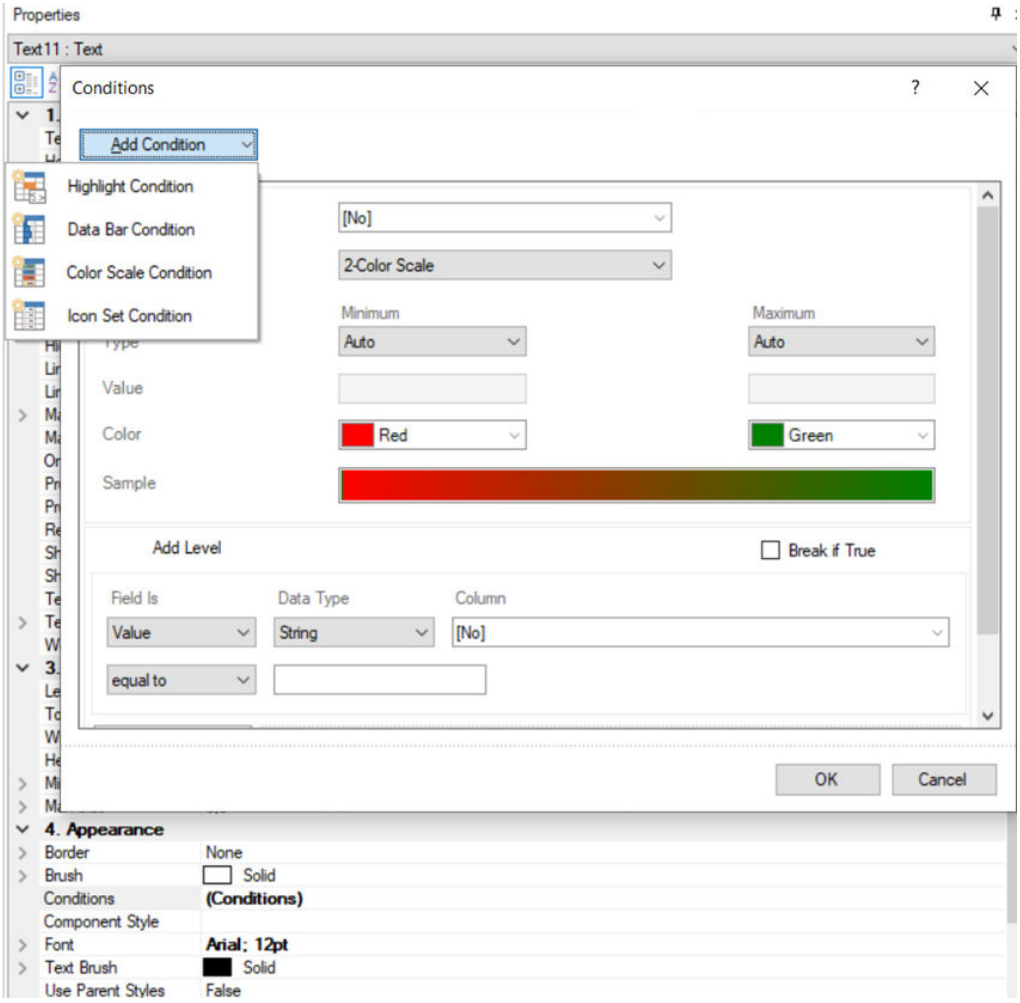
You can view existing conditions on the **Property** panel for the selected item.

Add a simple condition

A simple condition is good for setting threshold values where the report can highlight unexpectedly high or low values.

You can change the color of text based on values to indicate if a value is less than zero or a drawing that is on hold, for example.

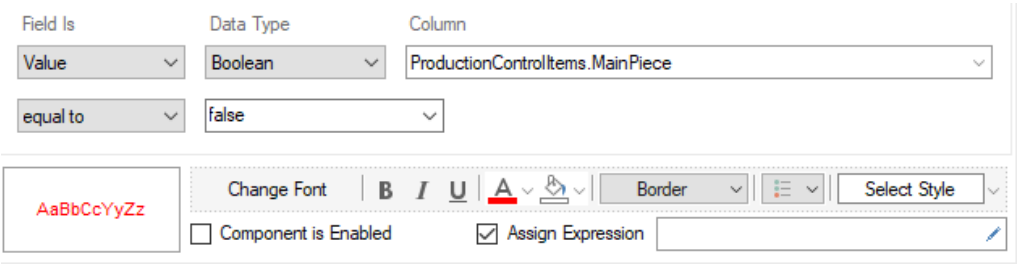
1. To change the visual style of a component, select it do either of the following:
   - Click **Conditions** on the toolbar.
   - Click the three-dot ellipsis for **Conditions** in the **Appearance** section in **Properties**.



2. To add a **Highlight Condition**, click **Add Condition**.

Example:

If the line item is not a MainPiece, unselect **Component is Enabled**. This sets the enable flag of the label to **false**. Then the label is shown only when the item is a MainPiece.



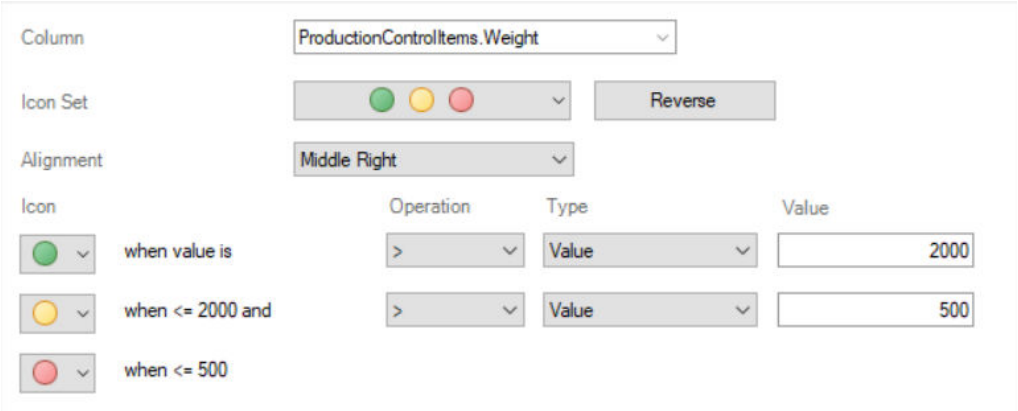
If you keep **Component is Enabled** selected, the label will still show and it is possible to add a highlight to the field, select a border, and use a different font, for example.

Add icons

You can add icons to identify components with specific conditions.

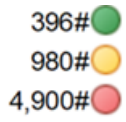
The following procedure provides an example for part weight.

1. Select the component displaying the part weight.
2. Add a condition.
   - Click **Conditions** on the toolbar.
   - Click the three-dot ellipsis for **Conditions** in the **Appearance** section in **Properties**.
3. Click **Add Condition**.
4. Select **Icon Set Condition**.
5. In **Color Scale Type**, select **3-Color Scale**.
6. Specify the data field.



7. To reverse the icons, click **Reverse**.
8. Specify values for each icon.

As a result, you can see the value and the icon for each row of data.



ODBC data source in Stimulsoft reports

For items that are in the database but not included in the report, you can add a data source to provide that information to the report template.

There are several things to consider when adding data sources:

- It is always best to make these kinds of design changes in a new user-defined report. See Create user-defined reports for customizing (page 141).

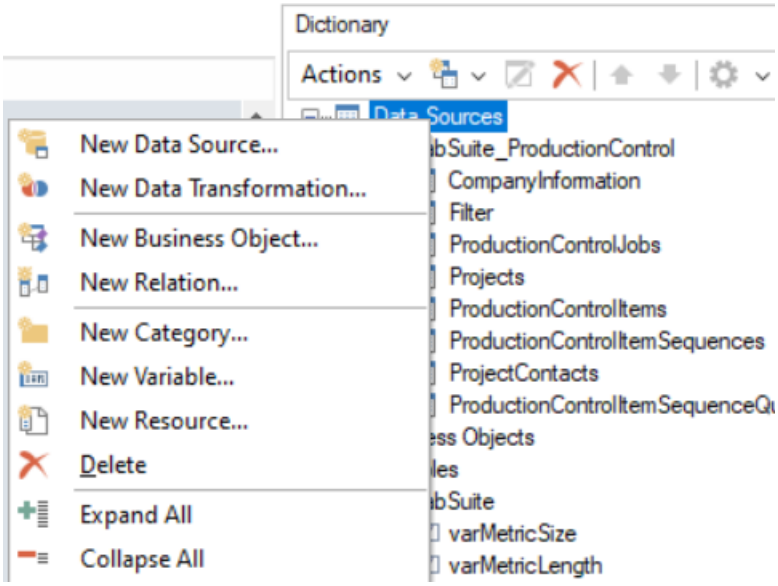
- If the item that you are adding is universally used, you should send a development request to include the field in the default data source for the report.
- It is important for the organization of the report to use a consistent naming pattern when adding items. Observing the methods already in use is a good starting point.
- Due to the amount of data in the source, it may be necessary to apply a filter to the source.
- There needs to be a way to link the source data to provide the proper relationship so that the correct data is provided for the record or summary being displayed. This may require that multiple tables are added.

  For example, if you want to include the job status description, you may need to add both the “projects” table to get the “jobstatusid” for the project and the “jobstatuses” to be able to link the “jobstatusid” to the correct description.

NOTE When you are adding the ODBC data source, you must open the program directly through the application shortcut or files. You cannot use MySQL Service Manager to open the program to successfully add the ODBC data source.

Add an OBDC data source

1. Open the report in the Designer.
2. Go to **Page** --> **Panels** --> **Dictionary**.
3. Right-click **Data Sources.**



4. Select **Data Source**.

   The **New Data Source** dialog box opens.
5. Select **OBDC**.

   The **New OBDC Connection** dialog box opens.
6. Click **OK**.

   Do not change the name.

   The **Select Data** dialog box opens.
7. Click **OK**.
8. Save and close the report.

Add tables to the ODBC data source

1. Open the report in the Designer.
2. Go to **Page** --> **Panels** --> **Dictionary**.
3. In the navigation tree, right-click **ODBC[ODBC]**.
4. Select **Data Source**.

   The **New Data Source** dialog box opens.
5. Select **OBDC**.

   The **New OBDC Connection** dialog box opens.
6. Click **OK**.

   The **Select Data** dialog box opens.
7. Select all the required tables and click **OK**.

The selected tables are available in the navigation tree under the **ODBC[ODBC]** source.

Add relation to the detail data band source

1. Open the report in the Designer.
2. Go to **Page** --> **Panels** --> **Dictionary**.
3. Right-click the detail data band source and select **New Relation**.

   The **New Relation** dialog box opens.
4. Complete the following:
   - **Name in Source**
   - **Name**
   - **Alias**
5. Select the **Parent** data source that is being linked from the drop-down list.

6. Select the data source field in the **Parent** data source.
7. Select the data source field in the **Child** data source that links to that field.

The name of the relation is now available in the **Child** data source and the records are linked based on the fields set in the relation.

NOTE This process to add the proper relations may need to be repeated to provide relations to the required data through multiple tables.

Have the relation populated with the data from the added source

1. Open the report in the Designer.
2. Go to **Page** --> **Panels** --> **Properties**.
3. At the top of the panel, click the first item on the drop-down list.

   It will be labeled as **Report**.
4. In the **Data** section ensure that **Cache All Data** is set to **True**.
5. Save the report.

The data that has been added and related to the data source for the report is available.

4.7 Set the default printer

You can set or change the default printer for the current workstation. Setting a default printer for a workstation is optional.

1. On the **File** menu, select **Default Printer**.

   The **Default Printer** dialog box opens.
2. To select or change the default printer, click **Change**.

   The **Select Printer** dialog box opens.
3. Select a printer.
4. Click **OK**. You return to the **Default Printer** dialog box.
5. To confirm using the selected printer as the default printer, click **OK**.

4.8 Contact support

You can contact support directly from Tekla PowerFab using the support tool. You can launch the tool directly from an error dialog or from the **About** dialog box.

In the tool, you can describe the issue, and attach error logs, and database backups.

If there is a crashing error, the tool automatically launches the ticket-creation dialog box.

Create a support ticket

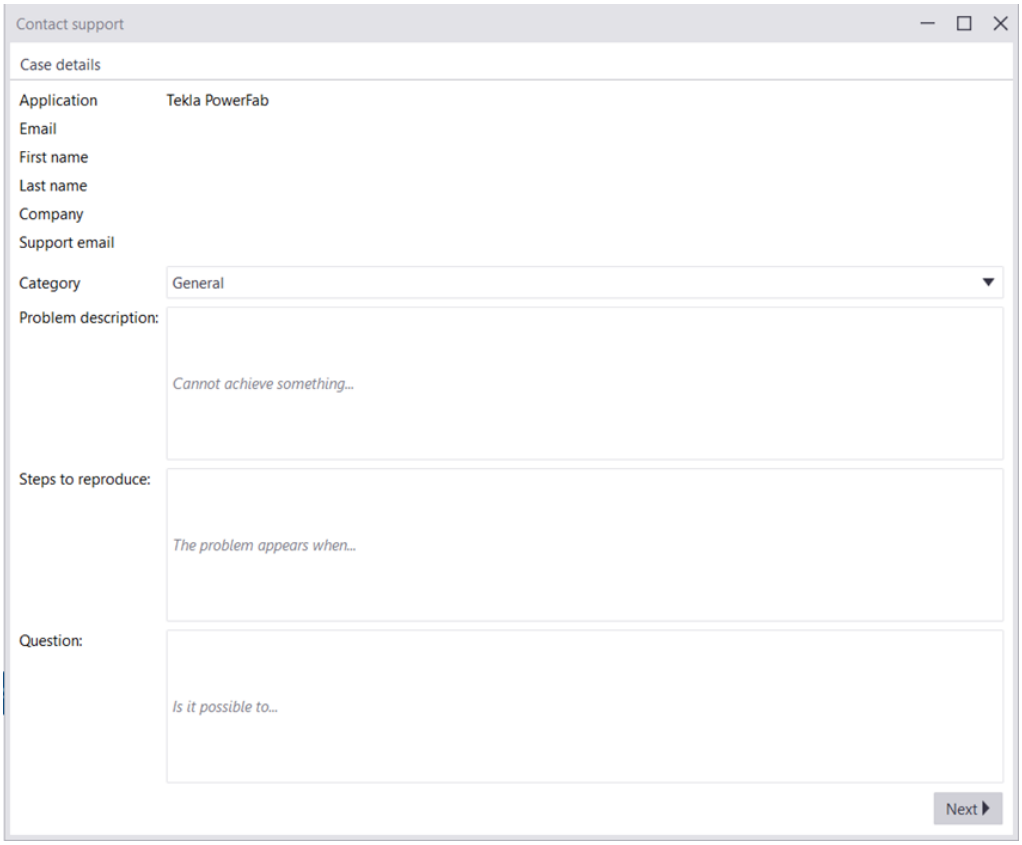
This step-by-step procedure instructs you how to contact support using the **About** dialog box. You can also contact support directly from an error dialog.

1. Click the **About** ribbon tab.

   The **About** dialog box opens.

2. Click **Create Support Ticket**.

   The **Contact support** dialog box opens.



3. Type the details of your issue or questions and click **Next >**.

   In the description, include the version of the program, if it is on the server or client, and if the issue is occurring on multiple machines.

4. Select the attached information and click **Next >**.

5. Check the **Case summary**.

6. If you are satisfied with your ticket, click **Create case**.
   Otherwise, click **Back**, and modify your ticket as desired.

5 Maintenance

The menu in the **Maintenance** ribbon tab contains dozens of selections that allow you to modify settings that apply to several or all jobs at a time.

Before you start working in Tekla PowerFab, it is important to adjust the material database and pricing to match those of your company. You can also define the standard categories that you want to use for attaching documents to jobs in **Document Index**.

5.1 Document Index

Document Index is a place for storing files to be shared among other users with access so that everyone can easily keep up to date.

Every module, with the exception of **Inventory** and **Order Entry**, have their own **Document Index** area that allows various kinds of files to be stored within the appropriate module. For example, you may store design drawings in the **Estimating** document index and order acknowledgement files in the **Purchase Order** document index.

The structure of the **Document Index** can be customized for each module to define the required document categories and sub-categories.

You can set the **Document Index** in **Default Directories**. When a file is added to the document index, it is not saved into the MySQL database. It is copied into a directory under the base directory and the relative path to the file is saved in the database

The **Document Index** directory must be set on each computer. In a network setup, all computers must be set to the same base directory so that they can access the same files.

See also

Default directories (page 53)

Install Tekla PowerFab on a server (page 56)

Install Tekla PowerFab on a client (page 62)

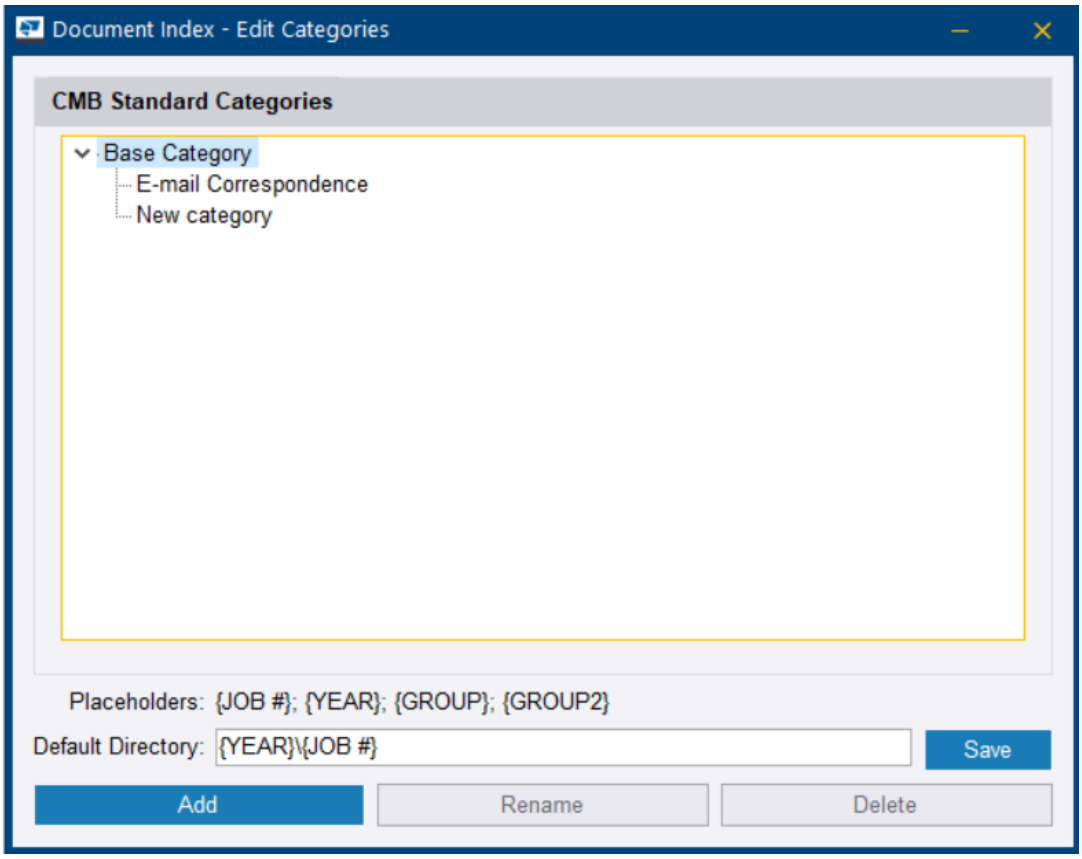
Set the standard categories for attached documents (page 184)
Manage Document Index categories (page 186)
Add document references (page 188)
Edit a document reference (page 192)
Open a document (page 193)
Delete a document reference (page 194)
Attach a document reference to an email (page 196)
View Document Index history of changes (page 197)

Set the standard categories for attached documents

Document Index allows you to organize and save documents for a job in the **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing** modules. The standard categories where you can organize documents need to be set separately for each module.

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to **Document Index**, and select any of the following:
   - **Standard Categories - CMB**: set the categories for organizing documents related to combining jobs.
   - **Standard Categories - EST**: set the categories for organizing documents related to estimating jobs.
   - **Standard Categories - ORD**: set the categories for organizing documents related to customer orders.
   - **Standard Categories - PRJ**: set the categories for organizing documents related to project management jobs.
   - **Standard Categories - PDC**: set the categories for organizing documents related to production control jobs.
   - **Standard Categories - REQ**: set the categories for organizing documents related to requisitions.
   - **Standard Categories - PO**: set the categories for organizing documents related to purchase orders.

The **Document Index - Edit Categories** dialog box opens with the default categories.



Placeholders: The user can define the job organization by using placeholders that will separate the jobs.

Default Directory: Dynamically creates subfolders in the folder defined in **File --> Default Directories/Document Index**.

In **Company Standards** under the **Maintenance** ribbon tab for each module mentioned above, you can select **Automatically Create Document Index Directories**. Items in areas that have been created before this is set need to be edited manually.

For more information, see Document Index in Tekla PowerFab.

Add a category

1. In the **Document Index - Edit Categories** dialog box, select the category under which you want to create the new category.
2. At the bottom of the dialog box, click **Add**.

   The **New Category** dialog box opens.
3. Type a name for the new category.

4. Click **OK** to add the category.

Rename a category

1. In the **Document Index - Edit Categories** dialog box, select the category that you want to rename.
2. Click **Rename**.
3. In the **New Category** dialog box, type a new name for the category.
4. Click **OK** to update the name.

Delete a category

Note that deleting a category is permanent and cannot be undone.

1. In the **Document Index - Edit Categories** dialog box, select the category that you want to delete.
2. Click **Delete**.
3. To permanently delete the category, click **Yes** in the confirmation dialog box.

See also

Manage files for a combining job (page 368)

Manage files for an estimating job (page 545)

Manage files for inventory (page 608)

Manage files for a project management job (page 691)

Manage files for a production control job (page 932)

Manage files for a requisition (page 1105)

Manage files for a purchase order (page 1145)

Manage Document Index categories

You can add new **Document Index** categories, and rename and delete existing categories. You can also change the default folder where document references are stored.

1. To access **Document Index**, do one of the following:
   - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
   - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.

- In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.

2. Click **Edit Categories**.
3. Select the category you want to modify
4. Do any of the following:

To	Do this
Add a new category	a. In the navigation tree at the top of the dialog box, select the parent category for the new category. b. Click **Add**. c. Type a name for the new category. For example, `Miscellaneous documents`. d. Click **OK**. The new category is added to the list.
Rename a category	a. In the navigation tree, select the category that you want to rename. b. Type a new name for the category. c. Click **OK**. The category name is updated.
Delete a category	Note that you cannot delete a category that has sub-categories. a. In the navigation tree, select the category that you want to delete. b. Click **Delete**. c. To permanently delete the category, click **Yes** in the confirmation dialog box.
Change the folder where documents in the selected category are saved	a. In the navigation tree, select the category whose default folder you want to change. b. Click **Default Directory** c. Do either of the following: • Select the folder that you want to use as the default folder.

To	Do this
	• Click **Make New Folder** to add a new sub-folder under the currently selected folder. Then, click the sub-folder to use it as the default folder. d. Click **OK**

5. To close the dialog box, click **X** in the upper-right corner.

Add document references

You can either upload completely new document references, such as documents, Microsoft Outlook emails, and Microsoft Outlook email attachments to **Document Index**, or add documents already loaded to **Document Index** for the current job.

Add new documents

1. To access the **Document Index - By Category** dialog box, do either of the following:
   - For **Combining**, **Estimating**, **Project Management**, **Production Control**, **Purchasing**, open the module and click the **Document Index** button
   - For **Inventory**, open the module and go to the **Inventory** ribbon tab and select **Document Index**.

   The **Document Index - By Category** dialog box opens.
2. Select the category where you want to save the document.
3. Click **Add Document Reference**.
4. In the **Document Index - Add Document Reference** dialog box, do one of the following:
   - Click **Add File**. Then, browse for and select the document, and click **Open**. If you want to add more documents with the same settings, click **Add Additional File**, and browse for and select the additional files. Then, click **Open**.
   - Drag and drop a file to the **Document Index - Add Document Reference** dialog box.
5. From the **File Source** drop-down list in the **Add File** dialog box, select the company and contact that provided you with the document.
6. (Optional) Do one of the following:
   - To compress multiple documents into one archive, select the **Compress Files into a Single Archive** option.

- To leave the documents that you added uncompressed, select the **Leave Files Uncompressed** option.

7. (Optional) Type a description for the attached document.
8. (Optional) To change the folder where the document is saved, click **Browse** and select a new folder.
9. (Optional)
   - To move the original document to the selected folder, select the **Move Files** option.
   - To copy the document to the selected folder but leave the original untouched, select the **Copy Files (Leave Original)** option.
10. Click **Add File**.
11. Click **Add Document Reference**

The **Document Index - Add Document Reference** closes, and the documents are added to **Document Index**.

You can see all the added documents in the list in the **Document Index - By Category** dialog box.

Add a Microsoft Outlook email

1. In Microsoft Outlook, select the email that you want to add.
2. To access the **Document Index - By Category** dialog box, do either of the following:
   - For **Combining**, **Estimating**, **Project Management**, **Production Control**, **Purchasing**, open the module and click the **Document Index** button
   - For **Inventory**, open the module and go to the **Inventory** ribbon tab and select **Document Index**.

   The **Document Index - By Category** dialog box opens.
3. In the navigation tree, select **E-mail Correspondence**.
4. Click **Add Document Reference**.
5. In the **Document Index - Add Document Reference** dialog box, click **Add Outlook Email**.

   A copy of the email is added to **Document Index**. The text of the email is added to the **Description** field.
6. (Optional) Type a description for the attached document.
7. Click **Add File**.

8. Click **Add Document Reference**

The **Document Index - Add Document Reference** closes, and the emails are added to **Document Index**.

Add an attachment from a Microsoft Outlook email

1. In Microsoft Outlook, select the email with the attachment that you want to add.
2. To access the **Document Index - By Category** dialog box, do either of the following:
   - For **Combining**, **Estimating**, **Project Management**, **Production Control**, **Purchasing**, open the module and click the **Document Index** button
   - For **Inventory**, open the module and go to the **Inventory** ribbon tab and select **Document Index**.

   The **Document Index - By Category** dialog box opens.
3. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the attachment.
4. Click **Add Document Reference**.
5. In the **Document Index - Add Document Reference** dialog box, click **Add Outlook Attachments**.
6. Browse to the folder where you want to save the email attachment, and click the folder to select it.
7. Click **Open**.
8. In the **Add File** dialog box, select the company and contact that provided you with the email attachment in the **File Source** lists.
9. (Optional) Do one of the following:
   - To compress multiple documents into one archive, select the **Compress Files into a Single Archive** option.
   - To leave the documents that you added uncompressed, select the **Leave Files Uncompressed** option.
10. Type a description for the email attachment.
11. Click **Add File**.
12. Click **Add Document Reference**

The **Document Index - Add Document Reference** closes, and the email attachments are added to **Document Index**.

Search for and add a document already in Document Index

To find and add documents for the current job that are already saved in **Document Index**, use the **Search** command.

1. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the document.
2. Click **Add Document Reference**.
3. In the **Document Index - Add Document Reference** dialog box, click **Search**.
4. In the **Search** dialog box, click **Browse** and select the folder where you want to look for documents.

   TIP To also search from the subfolders of the selected folder, select the **Sub-Directories** checkbox in the **Search** dialog box.

5. To narrow the search, do one or more of the following:
   - In the **Filename** list, type the document name
   - In the **Ext** field, type the file name extension.
   - In the **Source** lists, select the company and contact person that have provided the document.
   - In **File Date**, select the dates between which the document has been created or downloaded onto your computer.
   - In **Date Loaded**, select the dates between which the document has been added to **Document Index**.
6. Click **Search**.

   The search results appear at the top of the **Search** dialog box.
7. In the search results, double-click the document that you want to add.

The document is added to **Document Index** for the current job.

Browse for and add a document already in Document Index

To browse to and add documents to the current job that are already saved in **Document Index**, use the **Find By Directory** command. You can also add new documents, delete existing documents, rename documents and categories, move documents to other folders, and open documents.

1. In the navigation tree of the **Document Index - By Category** dialog box, select the category where you want to save the document.
2. Click **Add Document Reference**.
3. In the **Document Index - Add Document Reference** dialog box, click **Find By Directory**.

4. In the navigation tree on the left of the **Document Index - By Directory** dialog box, select a category.

   The documents within the category are listed in the display area of the dialog box.

5. Select a document.
6. In the lower-right corner of the dialog box, click **Select**.

   Note that besides adding an existing document to the current job, you can also use the buttons at the bottom of the dialog box to:

   - Add new documents (**Add File**).
   - Delete a document (**Delete File**).
   - Move a document to another folder within the document index folder (**Move File**).
   - Rename a document (**Rename File**).
   - Open a document (**Open File**).

The document is added to **Document Index** for the current job.

Edit a document reference

You can modify the source and description of a document in **Document Index**.

1. To access **Document Index**, do one of the following:

   - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
   - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
   - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

   For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

   The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.

2. Select the document that you want to modify.
3. Click **Edit Document Reference**.

4. In the **Document Reference Details** dialog box, do any of the following:

To	Do this
Change the source or description of a file	a. Click **Filename**. b. In the **File Details** dialog box, select a new source company and contact person for the file. c. Adjust the description. d. Click **Save** e. To close the **File Details** dialog box, click the **Close** button (**X**) in the upper-right corner.
To change the description of the entire document reference	a. Adjust the description. b. Click **Save** Note that entering a description in the **Document Reference Details** dialog box will override the file description that you entered in the **File Details** dialog box. To have a different file description, see Change the source or description of a file.

5. To close the **Document Reference Details** dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Add document references (page 188)

Open a document (page 193)

Delete a document reference (page 194)

Open a document

Use the **Open File** command to open and view a document reference.

1. To access **Document Index**, do one of the following:
   - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
   - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.

- In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.

2. Select the document that you want to open.
3. Click **Open File**.

See also

Add document references (page 188)

Edit a document reference (page 192)

Attach a document reference to an email (page 196)

Delete a document reference (page 194)

Delete a document reference

Deleting a document reference from **Document Index** is permanent and cannot be undone. If you delete a document reference, you or any other Tekla PowerFab users will not be able to access the document reference or any documents, emails, or attachments that it contains from **Document Index**.

1. To access **Document Index**, do one of the following:
   - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
   - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
   - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

   For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

   The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.
2. In the **Document Index - By Category** dialog box, select the document reference that you want to delete.
3. Click **Delete Document Reference**.

4. To permanently delete the document reference, click **Yes** in the confirmation dialog box.

See also

Add document references (page 188)

Edit a document reference (page 192)

Open a document (page 193)

Delete a file from Document Index

You can delete files from the **Document Index** in the **Document Index - By Directory** dialog box.

1. Go to **Maintenance** --> **Document Index** --> **By Directory**.

   The **Document Index - By Directory** dialog box opens.
2. Select the file that you want to delete.
3. Click **Delete File**.

   You are prompted to confirm the deletion.
4. To delete the document, click **Yes**.

See also

Delete a document reference (page 194)

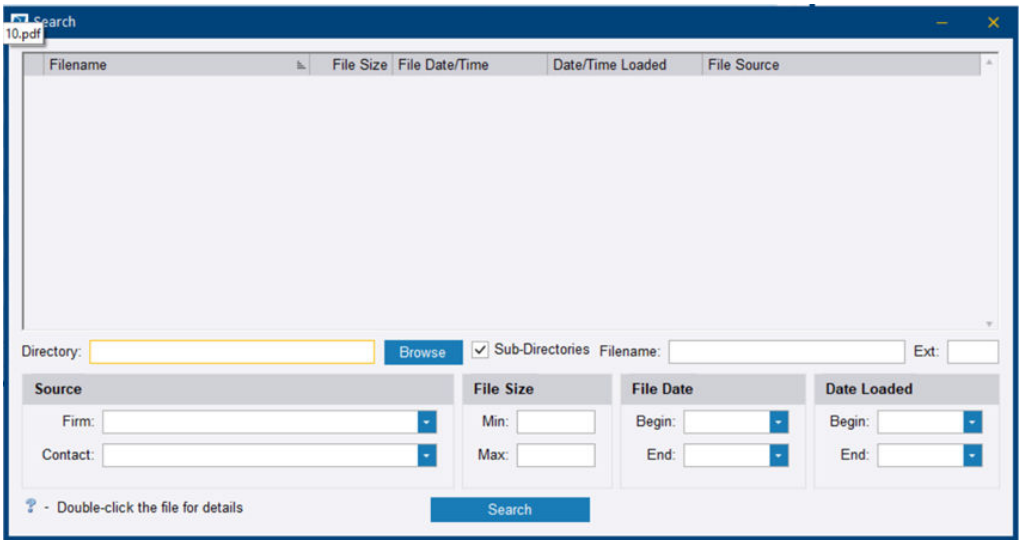
Find a document in Document Index

You can search the document index records by file properties.

1. Go to **Maintenance** --> **Document Index** --> **By Directory**.

   The **Document Index - By Directory** dialog box opens.
2. Click **Search**.

The **Search** dialog box opens.



3. Do a search.

   All fields are optional.

   Directory: Select a directory in the document index directory structure.

   Sub-Directories: Select to search in subdirectories

   Filename: The filename to search for. Supports wildcards (*) and multiple entries separated by a semicolon (;).

   Ext: File extension to search for, supports wildcards (*) and multiple entries separated by a semicolon (;).

   Source: File source company and contact. If the contact box is left blank, the search covers files from any contact from the selected company.

   File Size: Minimum and maximum file size in bytes.

   File Date: Minimum and maximum file date.

   Date Loaded: Minimum and maximum date loaded into the document index.

   Include All Archive Files: If this is unchecked, archive files (zip files) are excluded from the search results unless they contain more than one file.

4. Click **Search**.

   The search result displays a list of matching documents.

Double-click a document to view the **File Details** dialog box.

See also

Document Index (page 183)

Attach a document reference to an email

You can create a new Microsoft Outlook email and send a document to the desired recipients via email.

1. To access **Document Index**, do one of the following:
   - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
   - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
   - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

   For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

   The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.
2. Sselect the document that you want to send via email.
3. Click **Email File**.

   Microsoft Outlook opens. A new email with the selected document is created, with the selected document attached to it.
4. Add recipients for the email.
5. Modify the subject and body text of the email.
6. Send the email.

See also

Add document references (page 188)

Open a document (page 193)

View Document Index history of changes

You can view the history of changes that have been made to the **Document Index**.

1. Go to **Maintenance** --> **Document Index** --> **History of Changes**.

   The **Document Index - History of Changes** dialog box opens.

   You can narrow down the search by user and date, and by change area.
2. To view the history, click **View History of Changes**.

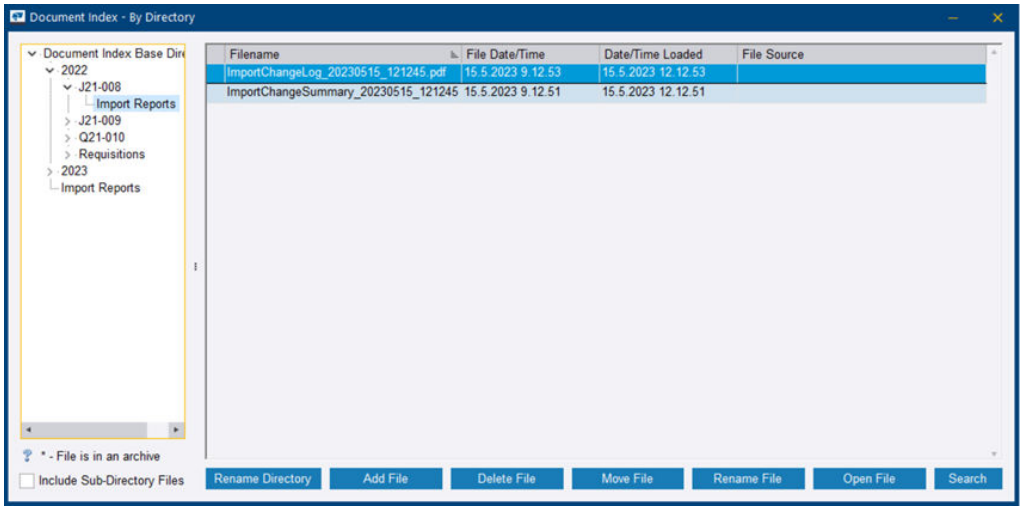
   The history of changes view opens.

Rename a file or directory

You can rename a file or directory in the **Document Index - By Directory** dialog box.

1. Go to **Maintenance** --> **Document Index** --> **By Directory**.

   The **Document Index - By Directory** dialog box opens.



   Include Sub-Category Files: When selected, displays the files in any subcategories

2. To rename a directory, do the following:

   a. Select the directory that you want to rename.

      You can rename any directory except for the **Document Index Base Directory**. In addition to renaming the **Document Index** directory, this also renames the Windows directory.

   b. Click **Rename Directory**.

      The **New Directory** dialog box opens.

   c. Edit or type the directory name.

   d. Click **OK**.

3. To rename a file, do the following:

   a. Select the file that you want to rename.

   b. Click **Rename File**.

   c. Edit or type the file name.

      In addition to updating the **Document Index** information, this also renames the actual file.

   d. Click **OK**.

See also

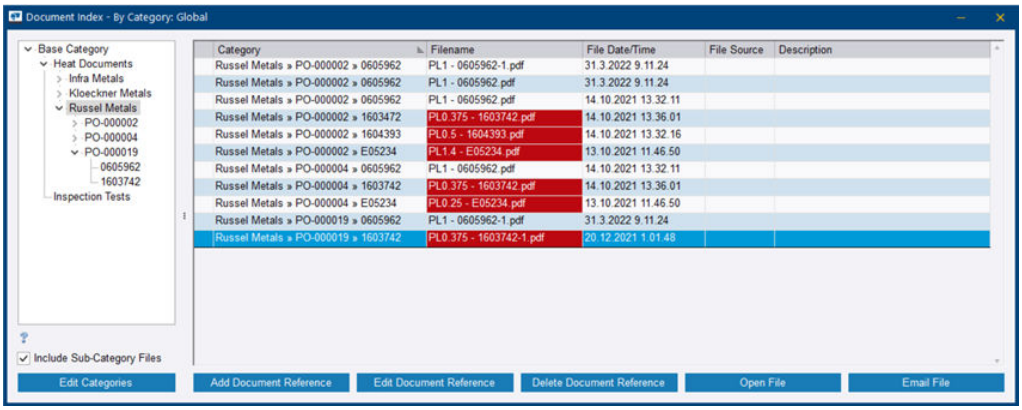
Document Index (page 183)

View heat documents

In the **Heat Documents** category in the **Document Index**, you can filter the heat documents by supplier, PO number, and heat number and view the associated mill test reports (MTR).

1. Go to **Maintenance** --> **Document Index** --> **Global Categories**.

   The **Document Index - By Category: Global** dialog box opens.



2. To view and filter heat information, select the **Heat Documents** category.

   You can add, edit, and delete document references, and view and email files.

See also

View heat documents attached to inventory items (page 633)

View heat documents attached to purchase order items (page 1163)

Document Index (page 183)

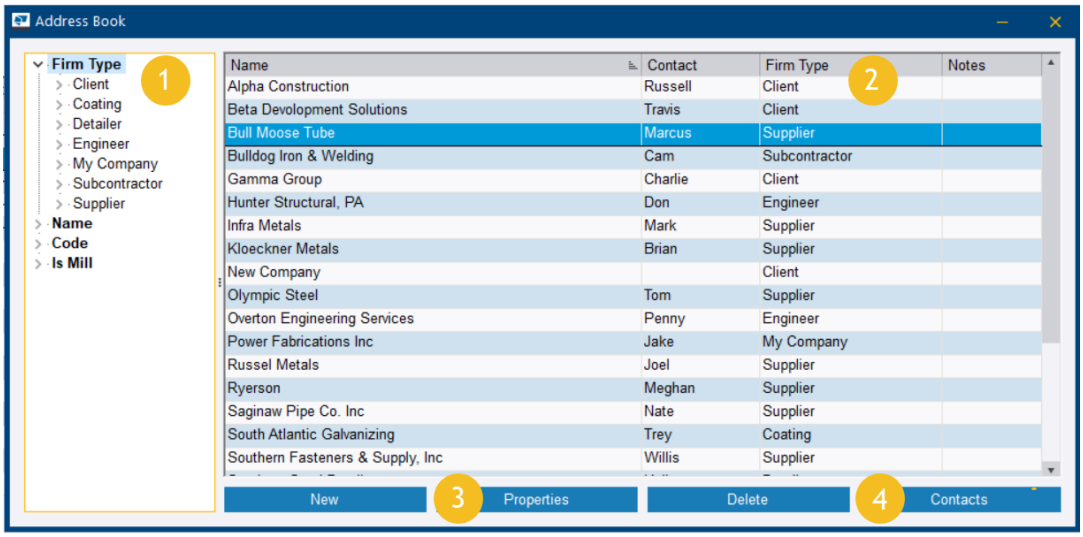
5.2 Manage the address book

Use the **Address Book** to define and manage the companies and contacts used in all Tekla PowerFab modules. We recommend that you set up the address book as early as possible, so that working in Tekla PowerFab becomes more fluent and efficient.

To access the **Address Book**, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Address Book**.

The **Address Book** dialog box opens.



(1) Navigation tree: Allows you to only view specific companies.

You can expand and select options in the navigation tree. When you select an option, only companies that match the selected option are displayed.

For example, you can expand **Firm Type** and select **Supplier** to only display suppliers.

(2) Firm type: Tells Tekla PowerFab where the company information should be used.

For more information, see View firm types (page 201).

(3) Properties: Allows you to view the current company properties and credit settings and modify them.

(4) Contacts: Allows you to switch to a view where the contact persons of the companies are displayed.

Any red cells indicate companies that are over their assigned credit limit.

NOTE You can customize the layout of the **Address Book** dialog box. For more information, see Customize the layout of a dialog box (page 131).

For more information, see the following links:

Find companies or contacts (page 201)

View firm types (page 201)

Add companies to the address book (page 202)

Add contacts to the address book (page 203)

Modify company or contact properties (page 204)

Import contacts to the address book (page 206)

Export companies or contacts (page 208)

Delete companies or contacts from the address book (page 208)

Find companies or contacts

You can use the **Find Company** and **Find Contact** commands to quickly find and select the correct company or contact in the **Address Book** dialog box.

Find companies

1. Go to **Maintenance** --> **Address Book**. The **Address Book** dialog box opens and the **Address Book** ribbon tab appears.
2. In the **Address Book** ribbon tab, select **Find Company**.
3. Select if you want to search companies by name or by company code.
4. Type the company name or company code in the empty field, or click the arrow on the right side of the field and select the company in the list.
5. Click **OK**.

The company is selected in the **Address Book** dialog box.

Find contacts

1. Go to **Maintenance** --> **Address Book**.
2. In the **Address Book** dialog box, click **Contacts** The **Address Book - Contacts** dialog box opens.
3. Click the **Address Book Contacts** ribbon tab.
4. On the menu, select **Find Contact**.
5. Type the contact name in the empty field, or click the arrow on the right side of the field and select the contact in the list.
6. Click **OK**.

The contact is selected in the **Address Book - Contacts** dialog box.

View firm types

The various firm types in the address book are used in different modules in Tekla PowerFab. Use the **Firm Types** command to quickly view the different firm types and where they can be used.

NOTE You cannot create new firm types or modify the existing ones.

---

1. Go to **Maintenance** --> **Address Book**. The **Address Book** dialog box opens and the **Address Book** ribbon tab appears.

2. Click the **Address Book** ribbon tab.
3. On the menu, select **Firm Types**.
4. In the **Firm Types** dialog box, review the firm types and where they can used in Tekla PowerFab.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Add companies to the address book

To add new companies to the address book and define their properties, do the following:

1. Go to **Maintenance** --> **Address Book**. The **Address Book** dialog box opens and the **Address Book** ribbon tab appears.
2. At the bottom left corner of the **Address Book** dialog box, click **New**.
3. On the **General** tab of the **Firm Details** dialog box, select a suitable firm type in the **Firm Type** list.

   Firm types help Tekla PowerFab to sort the list of companies in the address book. For more information, see View firm types (page 201).

   TIP You can add more than one firm type for a company. For example, a steel detailer can be added as both a detailer for **Project Management** and as a supplier for purchase orders.

4. Type a name and a code for the company.

   The company code can be any value. For example, you can use the accounting code of the company.

   Note that you cannot use the same company code for two companies that have the same firm type.
5. Select a primary currency type for the company.
6. If necessary, modify the credit limit of the company, and add any additional notes regarding the company.
7. Open the **Addresses** tab.
8. Click **New Address**.
9. Type a description for the address and enter other necessary contact information.

   Sometimes, it might be useful to have multiple addresses for a client. For example, if a client has different production control jobs, they can have multiple jobsite addresses that you should ship materials to. In these

situations, you can use the jobsite names or job numbers as the descriptions of the jobsite addresses.

Remember to add the jobsite contacts on the **Contacts** tab. For more information, see Add new contacts to the address book (page 203).

10. Select one of the available checkboxes to define if the address is a shipping or mailing address.
11. Select the **Active** checkbox.

    If you do not select the **Active** checkbox, the address will not be available for use anywhere in Tekla PowerFab.
12. Click **Save Address**.
13. On the **Contacts** tab, add contacts for the company.

    For more information, see Add new contacts to the address book (page 203).
14. Click **Save**.

The **Firm Details** dialog box closes. The new company is saved to the address book.

See also

Modify company or contact properties (page 204)

Add contacts to the address book

You can add new contact persons either when adding or modifying company properties, or in the **Address Book - Contacts** dialog box. You can also view all existing contacts by clicking the **Contacts** tab at the bottom of the **Address Book** dialog box.

You can also import contacts to the address book. For more information, see Import contacts to the address book (page 206).

Add a new contact person in the company properties

1. In the **Firm Details** dialog box, go to the **Contacts** tab.
2. Click **New Contact**.
3. Type the name and contact information of the new contact person.
4. If the contact person is an inspector, select the **Inspector** checkbox and add an inspector ID.
5. Select the **Active** checkbox.

   If you do not select the **Active** checkbox, you cannot select the contact person anywhere in Tekla PowerFab.

6. To save the contact person and add the contact person to the list of contacts, click **Add Contact**.
7. In the **Default Contact** list, select a default contact person for the company.
8. Click **Save**.

   The **Firm Details** dialog box closes.

Add a new contact person in the contact list

1. At the bottom of the **Address Book**, click **Contacts**.
2. In the lower-left corner of the **Address Book - Contacts** dialog box, click **New**.
3. In the **Contact Details** dialog box, select the firm type and company for the new contact person.
4. Type the contact person's name and contact information.
5. If the contact person is an inspector, select the **Inspector** checkbox and add an inspector ID.
6. Select the **Active** checkbox.

   If you do not select the **Active** checkbox, you cannot select the contact person anywhere in Tekla PowerFab.
7. Click **Save**.

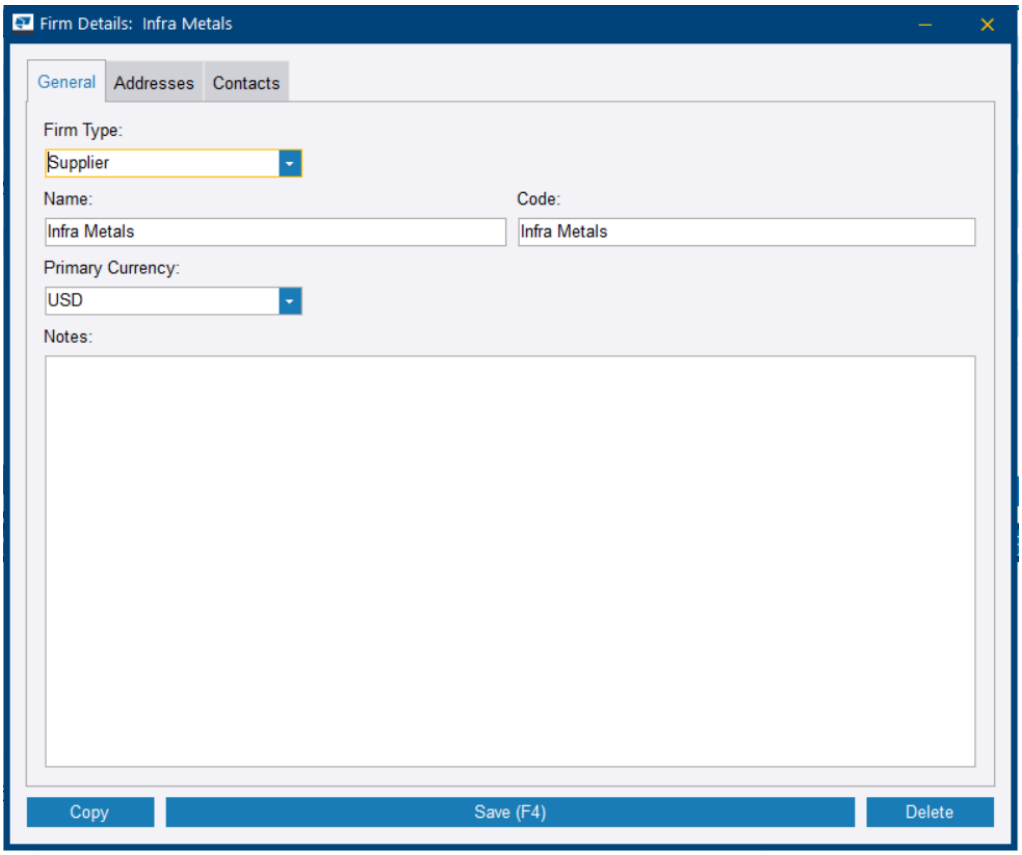
The **Contact Details** dialog box closes. The new contact person is added to the list of contacts.

Modify company or contact properties

You can modify the properties of existing companies and contacts in the **Address Book** dialog box. For example, this can be useful when you need to update phone numbers, or shipping and mailing addresses.

1. At the bottom of the **Address Book** dialog box, click **Properties**.

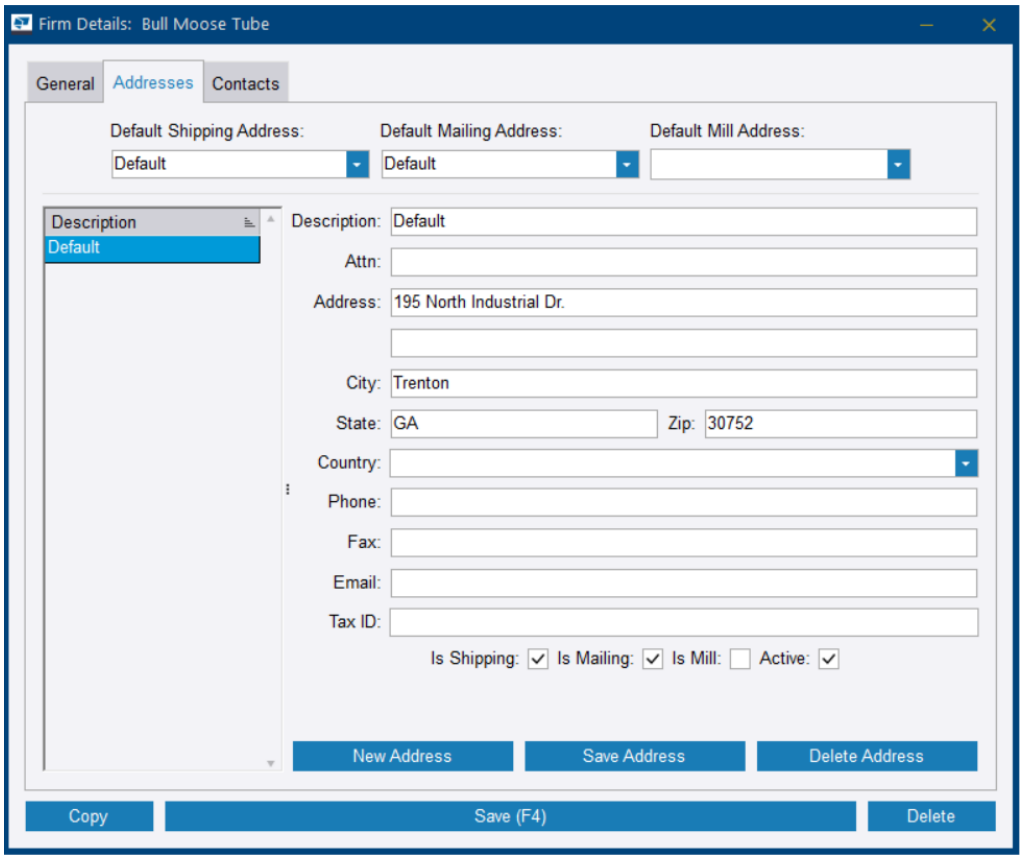
The **General** tab of the **Firm Details** dialog box opens.



2. Modify the company properties on the various tabs.

   On the **General** tab, you can change the firm type, name, company code, and currency.

   On the **Addresses** tab, you can specify the required address details.



Is Mill defines the mill location so that it can be applied to materials, both when receiving from a purchase order and when adding or editing inventory.

NOTE Only firm type **Supplier** can have the property **Is Mill**.

On the **Contacts** tab, you add add and modify contacts for a company.

3. Click **Save**.

The company and contact details are updated, and the **Firm Details** dialog box closes.

Import contacts to the address book

You can import contacts from your Microsoft Outlook address book or a Microsoft Excel worksheet to Tekla PowerFab.

Import contacts from Microsoft Outlook

Before you import contacts from Microsoft Outlook, verify that the contacts are listed with the companies in the manner that you want them to appear in Tekla PowerFab.

1. In the **Address Book** dialog box, click the **Address Book** ribbon tab.
2. On the menu, select **Import Outlook Contacts**.

   The **Select Contacts to Import** dialog box opens.

   Tekla PowerFab reads the list of contacts in Microsoft Outlook, and the contacts appear on the **Included** side of the dialog box.
3. In the lefthand pane, select the contacts folder from which you want to import contacts.
4. If you want to include the contacts in the subfolders of the selected folder, ensure that the **Include Sub-Folder Contacts** checkbox is selected.
5. Click the arrow buttons to move the contacts that you want to import to the **Included** list.
6. Click **Save**.

The selected Microsoft Outlook contacts are imported to the address book in Tekla PowerFab. The **Import Outlook Contacts** closes.

Import companies or contacts from Microsoft Excel

Before you start, ensure that the fields in your Microsoft Excel file match the Tekla PowerFab address book structure. You can change the order of the columns, but the column headers need to remain exactly as they are written. For sample files, see Excel Spreadsheet Sample Import Files.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Import**.
3. In the navigation tree on the left side of the **Import** dialog box, select **Address Book**.
4. Below **Address Book**, select if you want to import companies (**Firms**) or contacts.
5. Click the **...** button.
6. In the **Open** dialog box, browse to find the Microsoft Excel worksheet that you want to import, and select it.
7. Double-click the file, or click **Open**.
8. To import the file, click **Import**.

   If the Microsoft Excel worksheet contains unnecessary fields, Tekla PowerFab asks you if the fields can be ignored in the import.

9. To ignore the unnecessary fields, click **Yes**.

Tekla PowerFab imports the companies or contacts in the selected Microsoft Excel worksheet.

If any import errors occur, you can see the error details at the bottom of the **Import** dialog box. To see further details about errors in the import, click **Open Import Log**.

Export companies or contacts

You can export the current list of companies or contacts in the **Address Book** and save the list as a Microsoft Excel worksheet or a text file.

1. In the **Address Book** dialog box, click the **Address Book** ribbon tab.
2. On the menu, select either **Export Firms** or **Export Contacts**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. If necessary, select another file format in the **Save as type** list.
6. Click **Save**.

The list of companies or contacts is exported and saved to the selected location.

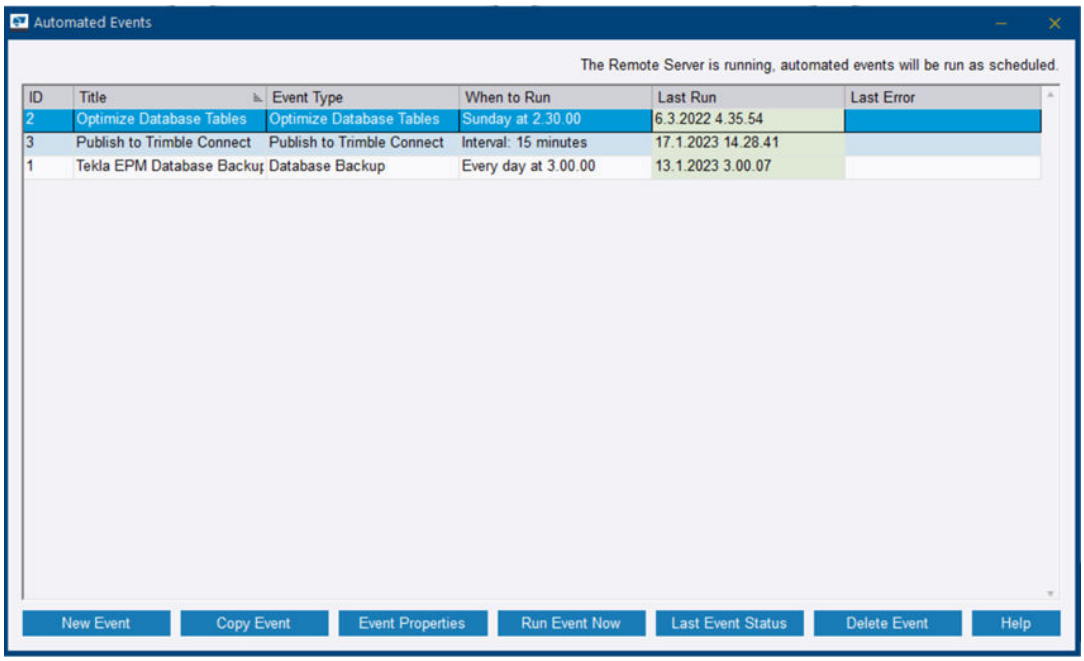
Delete companies or contacts from the address book

To keep the address book up to date, you may need to delete unnecessary and outdated companies and contacts.

1. Do one of the following according to your needs:
   - To delete a company, select the company in the **Address Book** dialog box.
   - To delete a contact, select the contact in the **Address Book - Contacts** dialog box.
2. Click **Delete** in the lower-right corner of the dialog box.
3. To permanently delete the company or contact from the address book, click **Yes** in the confirmation dialog box.

5.3 Automated events

By creating automated events in **Maintenance**, you can have Tekla PowerFab perform operations either on demand or automatically according to a set schedule. For example, you can create automatic reports to stay up to date on the progress of a project.



NOTE The Tekla PowerFab Remote Server must be running in order for automated events to run as scheduled.

For more information on starting the Tekla PowerFab Remote Server, see Set up Tekla PowerFab Remote Server for Tekla PowerFab Go (page 58).

If the Tekla PowerFab Remote Server is running normally, the message at the top of the dialog box is black.

If the Tekla PowerFab Remote Server is not running, the message at the top of the dialog box is highlighted in red and warns you that automated events will not be run as scheduled.

Define outgoing email settings

You need to define the outgoing email settings to receive automatic reports or failure notifications by email.

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.

2. Click the **Automated Events** ribbon tab.

3. On the menu, select **Outgoing Email Settings**.

4. On the **Outgoing SMTP Server** tab of the **Automated Event Email Settings** dialog box, select the **Enable Outgoing Email** checkbox.
5. Define the host, port, username, password, and sender name and email address.
6. To test the outgoing email server settings, click **Test**.
7. On the **Failure Notifications** tab, type the email addresses to which you want to send failure notifications.
8. Click **Save** to save the settings.

Create a report event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Click **New Event**.

   The **Automated Event Details** dialog box opens.
3. Type a title and a description for the event.
4. In the **Event Type** list, select **Report**.
5. If you have created a report event, define the event properties.

   For details, see Define report event properties (page 210).
6. Set the reporting frequency.

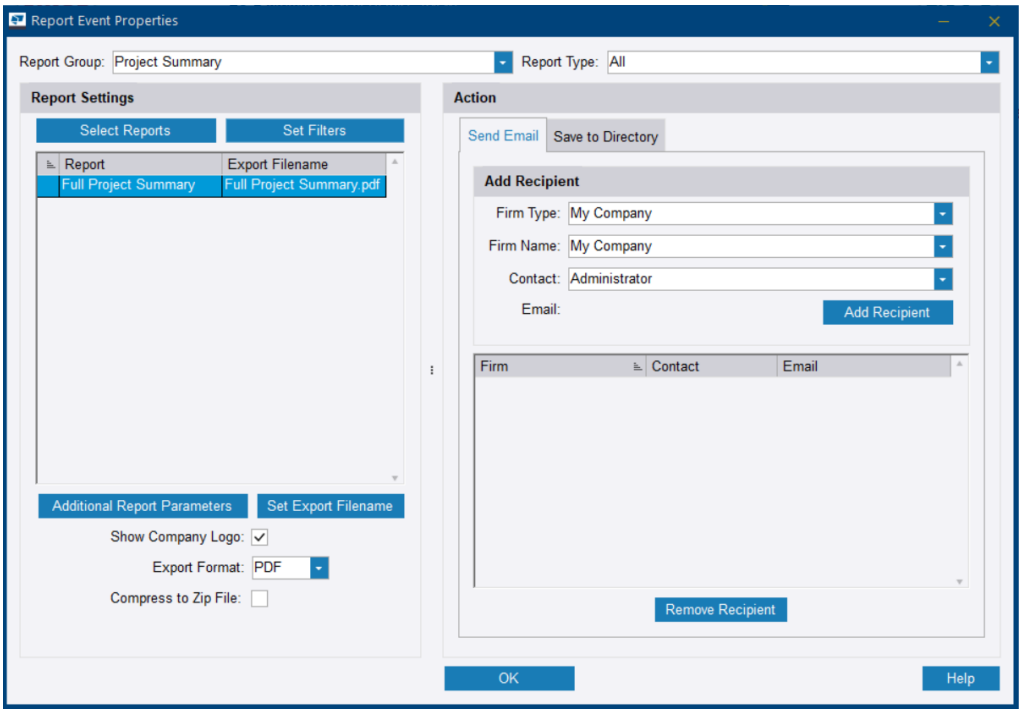
   For details, see Set the reporting frequency (page 212).
7. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.
8. Click **Save** to create the automated event.

Define report event properties

When creating an event, define the properties in the **Report Event Properties** dialog box.

1. Click the **Event Properties** button.

The **Report Event Properties** dialog box opens.



2. In the **Report Group** list at the top of the **Report Event Properties** dialog box, select the group to which the reports that you want to save or send belong.
3. Select the report list that contains the desired report.
4. Click the **Select Reports** button.

   The **Select Reports** dialog box opens.
5. Click the arrow buttons to move the reports that you want to include in the automated event to the **Included** list.
6. Click **OK**.

   The selected reports are added to the list on the left.
7. To filter the reports to only include particular items, click **Set Filters**.
8. To add fields that are not included in the report, click **Additional Report Parameters**, and type the missing field names and their values.

   The format for adding fields is `FieldName=Value`. For example, to add a field for cost center and set the value to A123, type `CostCode=A123`.

NOTE You need to separate each parameter with a semicolon (;).

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9. To change the name of the report file, click **Set Export Filename**, type the desired name, and click **OK**.

   You can view the placeholders available for file names and folders on the **Save to Directory** of the **Report Event Properties** dialog box. You can use these placeholders in the file names of reports to ensure that other files are not overwritten and that the event does not fail because a report with the same file name is open.

10. At the bottom of the dialog box, select if you want to show the company logo in the report files, and if you want to compress the reports into a .zip file.
11. In the **Export Format** list, select if you want to send or save the reports as PDF files, Microsoft Excel worksheets, or text files.
12. To send the report by email, on the **Send Email** tab, select firm type, company name, and contact person, and click **Add Recipient**.

    You can add more recipients by selecting a new firm type, company name, and contact person, and clicking **Add Recipient** again.

    NOTE The company and contact person need to exist in the **Address Book**. The contact person also needs to have an email address in the **Address Book**.

13. To save the report in a folder, on the **Save to Directory** tab, click the **...** button, select the folder where you want to save the file, and click **OK**.
14. To save the settings of the report event, click **OK** at the bottom of the **Report Event Properties** dialog box.

Set the reporting frequency

- In the **Automated Event Details** dialog box, do one of the following:

To	Do this
Create an automated event that repeats with a particular interval	1. In the **Repeat Type** list, select **Interval**. The **Interval** tab opens, allowing you to define the desired interval. 2. In the **Interval Units** list, select if the interval is measured in hours, days, or weeks. 3. In the **Value** field, type the number of hours, days, or weeks.

To	Do this
Create an automated event that repeats on particular days of the week	1. In the **Repeat Type** list, select **Scheduled**. The **Scheduled** tab opens on the bottom half of the dialog box, allowing you to define the schedule. 2. Click **Add**. 3. In the **Schedule on** list at the top of the **Automated Event Schedule**, select **Day of Week**. The **Day of Week** tab opens. 4. Select checkboxes next to the days when you want to run the automated event. 5. In the **Run At** lists, select the time when you want to run the report. 6. Click **Save** to save the event schedule. The **Automated Event Schedule** dialog box closes.
Create an automated event that repeats on a particular day of the month	1. In the **Repeat Type** list, select **Scheduled**. The **Scheduled** tab opens, allowing you to define the schedule. 2. Click **Add**. 3. In the **Schedule on** list at the top of the **Automated Event Schedule**, select **Day of Month**. The **Day of Month** tab opens. 4. Define the day number. If you type `31`, the automated event runs on the last date of each month, including the months with less than 31 days. 5. In the **Run At** lists, select the time when you want to run the report. 6. Click **Save** to save the event schedule. The **Automated Event Schedule** dialog box closes.

Create an automated Trimble Connect synchronization event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.

2. Click **New Event**.

   The **Automated Event Details** dialog box opens.

3. Type a title and a description for the event.

4. In the **Event Type** list, select **Publish to Trimble Connect**.

5. To send an email if publishing the information to Trimble Connect fails:

   a. Click **Failure Notifications**.

   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).

   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the automated database optimization fails.

      NOTE You need to type each email address on a separate line.

   d. Click **Save**.

6. Click **Event Properties**.

7. Select which actions happen when the automated event is run:

   - **Publish to Organizer**: Publish jobs to Trimble Connect Organizer.
   - **Publish to Status Sharing**: Publish jobs to Trimble Connect Status Share.
   - **Push Projects**: Publish project management jobs to the selected applications.

     You can select which jobs should be published by clicking **Set Filter**.
   - **Push Estimates**: Publish estimating jobs to the selected applications.

     You can select which jobs should be published by clicking **Set Filter**.
   - **Push Production Control Jobs**: Publish production control jobs to the selected applications.

     You can select which jobs should be published by clicking **Set Filter**.

8. Click **Save** to save the actions to be published and the applied filters.

9. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.

10. Click **Save** to create the automated event.

Create an automated database optimization event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Click **New Event**.

   The **Automated Event Details** dialog box opens.
3. Type a title and a description for the event.
4. In the **Event Type** list, select **Optimize Database Tables**.
5. To send an email if the database optimization fails:
   a. Click **Failure Notifications**.
   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).
   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the automated database optimization fails.

      NOTE You need to type each email address on a separate line.
   d. Click **Save**.
6. Set the reporting frequency.

   For details, see Set the reporting frequency (page 212).
7. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.
8. Click **Save** to create the automated event.

Create an automated database backup

Before you start, check the default folder for saving the backup files. See Default directories (page 53).

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Click **New Event**.

   The **Automated Event Details** dialog box opens.
3. Type a title and a description for the event.

4. In the **Event Type** list, select **Database Backup**.
5. To send an email if the database backup fails:
   a. Click **Failure Notifications**.
   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).
   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the automated database backup fails.

      NOTE You need to type each email address on a separate line.

   d. Click **Save**.
6. Set the reporting frequency.

   For details, see Set the reporting frequency (page 212).
7. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.
8. Click **Save** to create the automated event.

Create an automated inventory sync event

Inventory can be synchronized to Tekla PowerFab from either ProNest or SigmaNest.

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Click **New Event**.

   The **Automated Event Details** dialog box opens.
3. Type a title and a description for the event.
4. In the **Event Type** list, select **ProNest Inventory Sync** or **SigmaNest Inventory Sync** .
5. To send an email if the automated inventory sync fails:
   a. Click **Failure Notifications**.
   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).
   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the automated inventory sync fails.

NOTE You need to type each email address on a separate line.

d. Click **Save**.

6. Set the reporting frequency.

   For details, see Set the reporting frequency (page 212).

7. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.

8. Click **Save** to create the automated event.

Create an automated cut list import event

Inventory can be synchronized to Tekla PowerFab from ProNest, SigmaNest, or Peddinghaus Raptor.

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.

2. Click **New Event**.

   The **Automated Event Details** dialog box opens.

3. Type a title and a description for the event.

4. In the **Event Type** list, select of the following based on the software you use:

   - **ProNest Cut List Import**
   - **SigmaNest Cut List Import**
   - **Peddinghaus iDSTV+ Cut List Import**

5. To send an email if the automated cut list import fails:

   a. Click **Failure Notifications**.

   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).

   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the automated cut list import fails.

      NOTE You need to type each email address on a separate line.

   d. Click **Save**.

6. If you selected the **Peddinghaus iDSTV+ Cut List Import** option, click **Event Properties**, and browse to find and select the directory from which you want to import iDSTV+ files that contain cut information.

7. Set the reporting frequency.

   For details, see Set the reporting frequency (page 212).

8. Click **Save** to create the automated event.

Create a production status export event

You can export the production statuses of particular projects from Tekla PowerFab to another Tekla product, SDS/2, or Advance Steel.

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.

2. Click **New Event**.

   The **Automated Event Details** dialog box opens.

3. Type a title and a description for the event.
4. In the **Event Type** list, select **Production Status Export**.
5. To send an email if the automated production status export fails:
   a. Click **Failure Notifications**.
   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).

   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the production status export fails.

      NOTE You need to type each email address on a separate line.

   d. Click **Save**.
6. To define the details of the automated event, click **Event Properties**.
7. If you want to export the production statuses of only particular projects, set filters:
   a. Click **Set Filter**.
   b. In the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
   c. In the **Filter** dialog box, click the arrow buttons to move the jobs or job groups whose statuses you want to export to the **Included** list.
   d. Click **OK** to save the filter.

      Repeat steps a to b to d to set all necessary filters.

   e. When you have set all necessary filters, click **OK** to apply the filters.

8. In the **Export Recipient** list, select the software to which you want to export the production status information.
9. Click **...** on the right side of the **Export Directory** field, browse to and select the folder where you want to export the production status information, and click **OK**.
10. If you want to include a time stamp in the file name, select **Include Timestamp in Export Filename** checkbox.
11. Click **Save** to save the event details.
12. Set the reporting frequency.

    For details, see Set the reporting frequency (page 212).
13. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.
14. Click **Save** to create the automated event.

Create an API log check event

Several Tekla PowerFab integrations call for the API. The commands in these integrations are recorded in the API log. The **API Log Check** event searches the API log to find any failed commands since the last log check, and sends an email with the failed entries to the selected email addresses.

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Click **New Event**.

   The **Automated Event Details** dialog box opens.
3. Type a title and a description for the event.
4. In the **Event Type** list, select **API Log Check**.
5. To send an email if the API log check fails:
   a. Click **Failure Notifications**.
   b. If you have not yet defined the outgoing email settings, do so on the **Outgoing SMTP Server** tab.

      See Define outgoing email settings (page 209).
   c. On the **Failure Notifications** tab, type the email addresses to which you want to send a message if the API log check fails.

      NOTE You need to type each email address on a separate line.
   d. Click **Save**.
6. To send a list of failed entries in the API log in an email:

a. Click **Event Properties**.

b. Type the email addresses to which you want to send the list of failed entries in the API log.

NOTE You need to type each email address on a separate line.

c. Click **Save**.

7. To allow Tekla PowerFab to perform the event automatically, ensure that the **Event Enabled** checkbox is selected.
8. Click **Save** to create the automated event.

Run an automated event manually

1. In the **Automated Events** dialog box, select the automated event that you want to run.
2. Click **Run Event Now**.
3. To confirm running the event, click **Yes** in the confirmation dialog box.

   The event is run. The event ID is highlighted with yellow in the **Automated Events** dialog box.

   The **Status** dialog box opens, showing the progress of the event.
4. When the event has been run, click **OK** to close the **Status** dialog box.

If the event has been run successfully, the **Last Run** column displays the latest run time on a green background.

You can view the details of the last run by clicking the **Last Event Status** button.

Copy an automated event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Select the automated event that you want to copy.
3. Click **Copy Event**.

   The **Automated Event Details** dialog box opens.
4. Type a title and a description for the event.
5. Modify any other event properties according to your needs.

   See Set the reporting frequency (page 212).

6. Click **Save** to save the properties of the copied event.

Modify an automated event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Select the automated event that you want to modify.
3. Click **Event Properties**.

   The **Automated Event Details** dialog box opens.
4. Modify the title and the description for the event.
5. In the **Event Type** list, change the type of event according to your needs.
6. Modify the event properties and the reporting frequency as needed.

   See Set the reporting frequency (page 212).
7. Click **Save** to update the automated event.

View the run history of an automated event

1. Go to **Maintenance** --> **Automated Events**.

   The **Automated Events** dialog box opens.
2. Select the automated event whose entire run history you want to view.
3. Click **Event Properties**.
4. In the **Automated Event Details** dialog box, click **Result History**.
5. In the **Results** dialog box, review the result history of the automated event.

   If an error has occurred during a run, the **Error Message** column of the run is highlighted in red, and a brief description of the error is displayed.
6. To view more details about a particular run and its errors, select the run and click **Details**.
7. To close the **Results** dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete an automated event

Deleting an automated event is permanent and cannot be undone.

1. Go to **Maintenance** --> **Automated Events**.

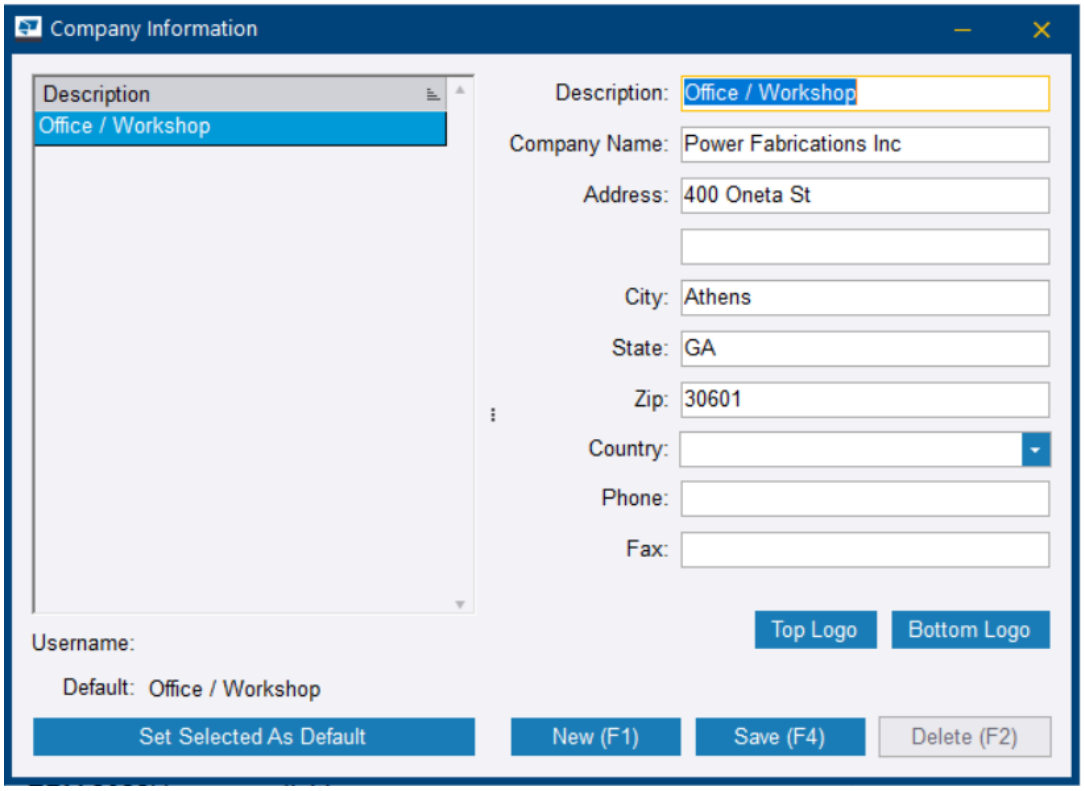
   The **Automated Events** dialog box opens.

2. Select the automated event that you want to delete.
3. Click **Delete Event**.
4. To permanently delete the automated event, click **Yes** in the confirmation dialog box.

5.4 Manage Tekla PowerFab company information

Administrators are responsible for defining the company information. The company information is used throughout Tekla PowerFab. It is also possible to add multiple companies.

You can manage the information of your company in the **Company Information** dialog box that is located in the Maintenance ribbon tab.



Add company information

1. Go to **Maintenance** --> **Company Information** and click **New**.

2. Add a description for the company.

   For example, `Main`.

3. Fill in the company name, address, city, state, zip code, phone, and fax according to your needs. The company name is mandatory information. All other details are optional.
4. Click **Save**.
5. To add the company logo for reports, click either **Top Logo** or **Bottom Logo**.
   a. Click **Load From File**.
   b. In the **Open** dialog box, browse to find the logo file, and select it.

      Note that the logo file needs to be a .bmp, .jpg, or .png file. We recommend using the .jpg format because logo files in any other format are converted to .jpg when you add them.

      The maximum height for the logo file is 3 inches, or 76,2 mm, at 96 pixels per inch. A maximum width is not enforced, but we recommend that you use a logo file that is narrower than the standard paper size of your company.

   c. Double-click the logo file, or click **Open**.
   d. Select if the logo should be aligned left, center, or right.
   e. Confirm if the selected logo contains company information.

   The logo is added for the company.

   Note that if you want to use another logo file instead, you need to click **Top Logo** or **Bottom Logo** again, and click **Clear** in order to delete the current logo file.
6. Click **Save** and close the **Company Information** dialog box.

The company is added to the list.

Note that you can add multiple companies, if necessary. For example, if you want the **Shipped From** location to be something other than the address of your main company, you need to add another company with that name and address. These can be the name and address of a vendor or a supplier.

You can change which one of the available companies is used in the **Report Types** dialog box.

Set the default company

If you have added multiple companies, you should set one of the companies as the default company used in reports.

Note that you can only set the default company for the current user.

1. Go to **Maintenance** --> **Company Information** and select the company that you want to set as the default company.
2. At the bottom of the dialog box, click **Set Selected As Default**.
3. To confirm using the selected company as the default option, click **Yes** in the confirmation dialog box.

The selected company is set as the default company used in reports.

Note that the default company is shown in the **Default** field at the bottom of the **Company Information** dialog box.

You can change which one of the available companies is used in the **Report Types** dialog box.

Modify company information

1. Go to **Maintenance** --> **Company Information** and select the company that you want to modify.
2. Modify the company description, name, address, city, state, zip code, phone, and fax according to your needs.
3. To modify the logo for the company, do the following:
   a. According to your needs, click click either **Top Logo** or **Bottom Logo**.
   b. Click **Clear** to delete the existing logo file.
   c. Click **Load From File**.
   d. In the **Open** dialog box, browse to find the logo file, and select it.

      Note that the logo file needs to be a .bmp, .jpg, or .png file. We recommend using the .jpg format because logo files in any other format are converted to .jpg when you add them.

      The maximum height for the logo file is 3 inches, or 76,2 mm, at 96 pixels per inch. A maximum width is not enforced, but we recommend that you use a logo file that is narrower than the standard paper size of your company.
   e. Double-click the logo file, or click **Open**.
   f. Select if the logo should be aligned left, center, or right.
   g. Confirm if the selected logo contains company information.

   The logo is added for the company.
4. Click **Save** to update the company information.

Delete company information

1. Go to **Maintenance** --> **Company Information** and select the company that you want to delete.
2. Click **Delete**.
3. To permanently delete the selected company and its information, click **Yes** in the confirmation dialog box.

5.5 Cost maintenance

You can create cost types and cost codes and manage you taxes and currencies in **Cost Maintenance**.

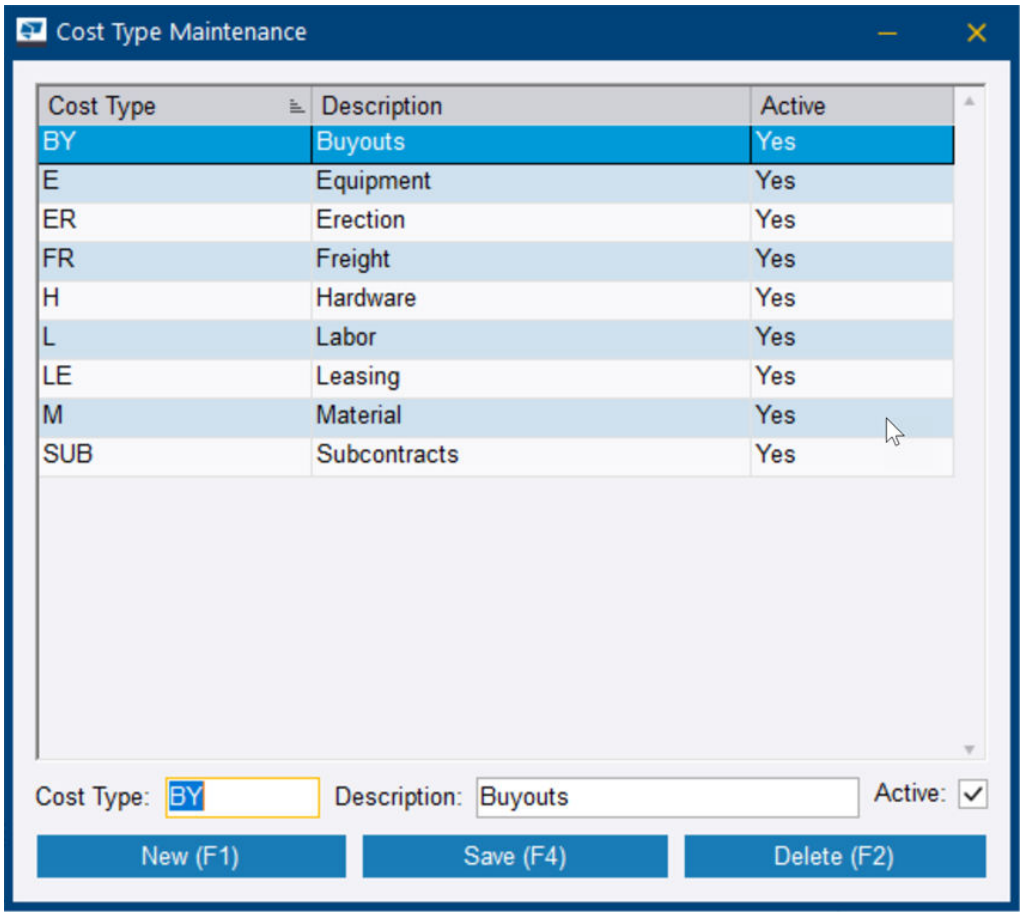
Manage cost types

Cost types are used to categorize cost codes. In **Maintenance**, you can create, edit, and delete cost types.

Create a cost type

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Types**.

The **Cost Type Maintenance** dialog box opens.



2. Click **New**.
3. In **Cost Type**, type the abbreviation identifying the cost type.
4. In **Description**, type a description for the code.
5. Select **Active**.

   If you have an old cost type that you cannot delete because it has been used in old jobs but you do not want use it anymore, you can deactivate it by deselecting the **Active** checkbox.
6. Click **Save**.

Modify a cost type

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Types**.

   The **Cost Type Maintenance** dialog box opens.
2. Select the code that you want to modify.
3. Modify the abbreviation and description as needed.
4. To save the changes, click **Edit**.

Delete a cost type

Deleting a cost type is permanent. After deleting a cost type, it is not available for use anymore.

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Types**.

   The **Cost Type Maintenance** dialog box opens.
2. Select the code that you want to delete.
3. Click **Delete**.

   A confirmation dialog box opens.
4. To permanently delete the code, click **Yes**.

See also

Assign and view default cost codes and cost types (page 495)

Create and modify labor rates (page 490)

Apply a cost code and cost type to a material type (page 339)

Assign a cost code and cost type to an estimate item (page 543)

Assign a cost code and cost type to multiple estimate items (page 544)

Create estimate extras (page 457)

Manage accessories (page 412)

Create and manage parametric assemblies (page 421)

Manage standard clips (page 474)

Add, modify, and delete shapes (page 304)

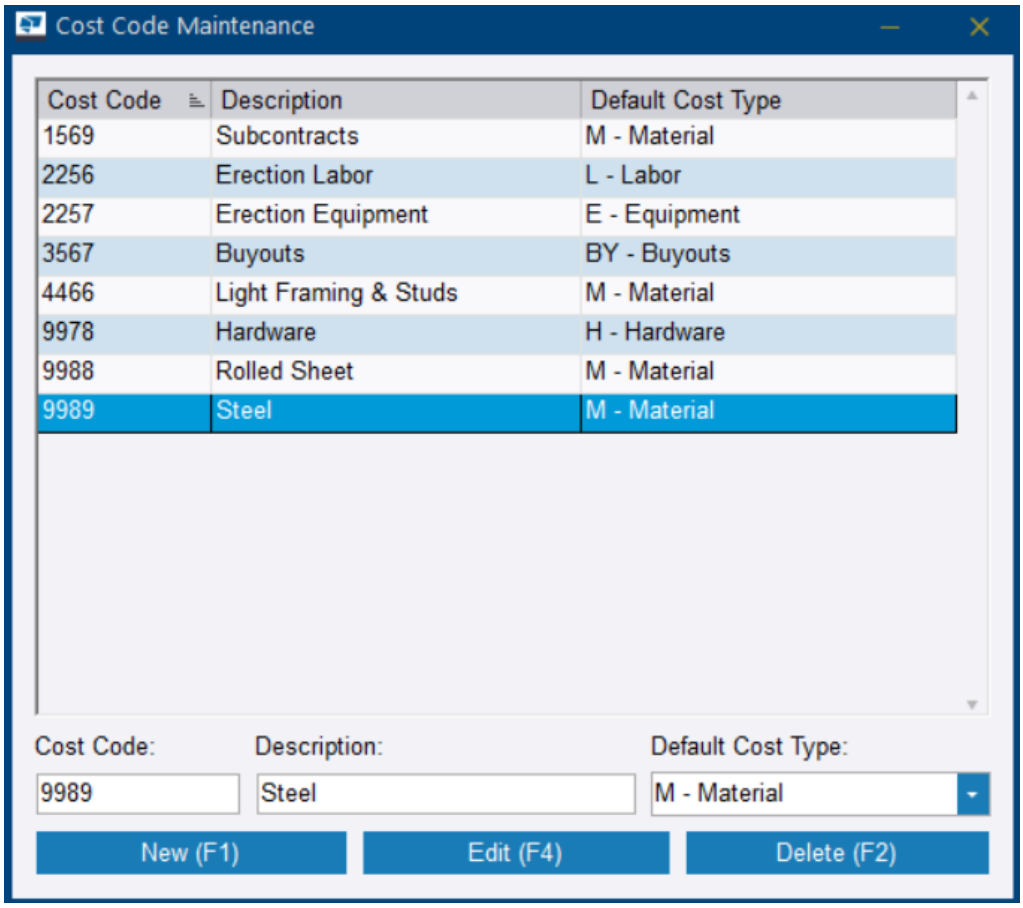
Manage cost codes

You can use cost codes to keep track of specific costs and set them to match your accounting system. In **Maintenance**, you can create new cost codes, modify the existing cost codes, and delete unnecessary ones.

Create a cost code

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Code**.

The **Cost Code Maintenance** dialog box opens.



2. Click **New**.
3. In **Cost Code**, type the code.
4. In **Description**, type a description for the code.
5. From **Default Cost Type** list, select the cost type.
6. Click **Add**.

Modify a cost code

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Code**.

   The **Cost Code Maintenance** dialog box opens.
2. Select the code that you want to modify.
3. Modify the abbreviation and description as needed.
4. To save the changes, click **Edit**.

Delete a cost code

Deleting a cost code is permanent and cannot be undone. After deleting a cost code, it is not available for use anymore.

1. Go to **Maintenance** --> **Cost Maintenance** --> **Cost Codes**

   The **Cost Code Maintenance** dialog box opens.
2. Select the code that you want to delete.
3. Click **Delete**.

   A confirmation dialog box opens.
4. To permanently delete the code, click **Yes**.

See also

Assign and view default cost codes and cost types (page 495)
Create and modify labor rates (page 490)
Apply a cost code and cost type to a material type (page 339)
Assign a cost code and cost type to an estimate item (page 543)
Assign a cost code and cost type to multiple estimate items (page 544)
Create estimate extras (page 457)
Manage accessories (page 412)
Create and manage parametric assemblies (page 421)
Manage standard clips (page 474)
Add, modify, and delete shapes (page 304)

Manage taxes

Before you start working in Tekla PowerFab, you should set the necessary tax rates. You can also create tax groups that contain multiple tax rates.

Manage tax rates

You can define all individual taxes used in your projects in the **Tax Rates** dialog box. For example, the state sales tax may consists of a city tax rate and a county tax rate, and you should enter each tax rate separately. In addition to adding tax rates, you can modify and delete existing tax rates.

1. Go to **Maintenance** --> **Cost Maintenance** --> **Tax Rates**.

   The **Tax Rate Maintenance** dialog box opens.
2. Do any of the following:

To	Do this
Add a new tax rate	a. Click **New**.

To	Do this
	b. In the **Abbreviation** field, type an abbreviation code. The abbreviation code is visible in lists where you can select the tax rate to be applied. c. In the **Description** field, type a description for the tax rate. d. Define the state, county, city, and tax rate. e. In the **Tax Rate Applies To** section, select what the tax rate is applied to. You can also define an up to amount and select whether the tax rate is cascading. f. To save the new tax rate, click **Add**.
Modify a tax rate	a. Select the tax rate that you want to modify. b. Modify the abbreviation, description, state, county, city, and tax rate according to your needs. c. In the **Tax Rate Applies To** section, select what the tax rate is applied to. You can also define an up to amount and select whether the tax rate is cascading. d. Click **Edit** to save the changes.
Delete a tax rate	Note that you cannot delete tax rates that are used somewhere in Tekla PowerFab. a. Select the tax rate that you want to delete. b. Click **Delete**. c. To permanently delete tax rate, click **Yes**.

3. Do either of the following:
   - To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
   - To group the existing tax rates, click **Tax Group Maintenance** at the lower-right corner of the dialog box.

See also

Manage tax groups (page 230)

Define company standard settings for purchase orders (page 1077)

Manage tax groups

Creating tax groups that contain multiple tax rates can be helpful for record keeping. For example, city, county, and state tax rates can be combined into one group. Tax groups are available in the **Purchasing** and **Order Entry** modules. Creating tax groups is optional, so if you wish, you can define and use single tax rates instead.

You can create and modify tax groups in the **Tax Group Maintenance** dialog box.

1. To access **Tax Group Maintenance**, do one of the following:
   - Go to **Maintenance** --> **Cost Maintenance** --> **Tax Groups**.
   - Go to **Maintenance** --> **Cost Maintenance** --> **Tax Rates**. At the bottom right corner of the **Tax Rate Maintenance** dialog box, click **Tax Group Maintenance**.

   The **Tax Group Maintenance** dialog box opens.
2. Do any of the following:

To	Do this
Create a new tax group	a. Click **New**. b. In the **Abbreviation** field, type an abbreviation code. The abbreviation code will be used in lists where you can select the tax group. c. In the **Description** field, type a description for the tax group. d. You can also type the state, country, or city that the tax group applies to. e. Click **Add** to save the tax group and add it to the list. The new tax group is automatically selected. f. To select the tax rates that you want to add to the tax group, click **Included Tax Rates**. g. Click the arrow buttons to move the tax rates that you want to include in the tax group to the **Included** list. h. Click **OK**. The selected tax rates are added to the selected tax group.
Modify a tax group	a. Select a tax group in the list. b. Modify the abbreviation, description, state, county, and city according to your needs.

To	Do this
	c. If necessary, click **Included Tax Rates** to modify the tax rates included in the tax group. d. Click the arrow buttons to move the tax rates that you want to include in the tax group to the **Included** list. e. Click **Edit** to save the changes.
Delete tax groups	Note that you cannot delete tax groups that are used somewhere in Tekla PowerFab. a. Select a tax group in the list. b. Click **Delete**. c. To permanently delete tax group, click **Yes** in the confirmation dialog box.

3. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Once you have created a tax group, you can select the tax rates that you want to include in the group.

You can now also select the tax groups as default values in **Purchase Order Company Standards**.

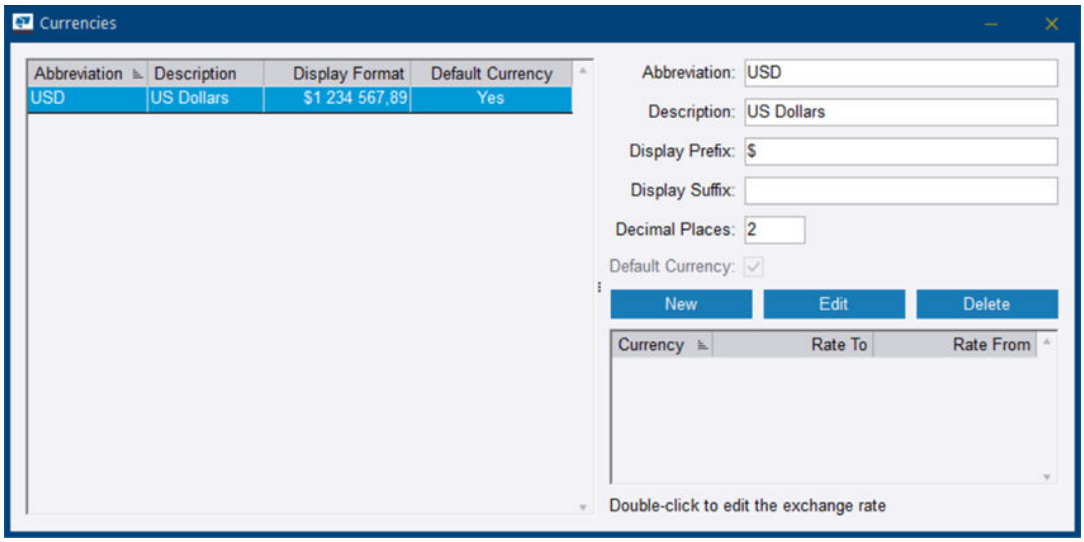
See also

Manage tax rates (page 229)

Define company standard settings for purchase orders (page 1077)

Manage currencies

You can add currencies that you need to use in Tekla PowerFab in the **Currencies** dialog box. You can also set the default currency, modify or delete existing currencies, and modify exchange rates.



You can define the following properties in the **Currencies** dialog box:

Option	Description
Abbreviation	The abbreviation of the currency. The abbreviation is used in lists where you need to select a currency. Type the abbreviation in the field.
Description	The currency name. For example, `Euros`. Type the currency name in the field.
Display Prefix	The currency code or symbol that is displayed before the sum. Type the currency code in the field.
Display Suffix	The currency code or symbol that is displayed after the sum. Type the currency code in the field.
Decimal Places	The number of decimal places in the currency. Type the number in the field.

Add a currency

1. Go to **Maintenance** --> **Cost Maintenance** --> **Currencies**.

   The **Currencies** dialog box opens.
2. Click **New**.
3. Define the currency properties.

4. If you want to make the new currency the default currency option, select the **Default Currency** checkbox.
5. Click **Add**.

The new currency is added to the list.

Now, you can modify the exchange rate of the new currency to other currencies.

Modify an exchange rate

1. Go to **Maintenance** --> **Cost Maintenance** --> **Currencies**.

   The **Currencies** dialog box opens.
2. Select the currency whose exchange rates you want to modify.

   The exchange rates of the selected currency are displayed in the lower-right corner of the dialog box.
3. Double-click the exchange rate that you want to modify.
4. In the **Currency Exchange Rate** dialog box, define the exchange rates from and to the selected currency.

   You can also only define the first exhange rate and automatically calculate the second one by selecting the **Calculate Inverse** checkbox.
5. Click **Save**.

Set the default currency

The default currency in Tekla PowerFab is US dollars. However, you can change the default currency according to your needs.

1. Go to **Maintenance** --> **Cost Maintenance** --> **Currencies**.

   The **Currencies** dialog box opens.
2. Select the currency that you want to set as the default option.
3. Select the **Default Currency** checkbox.
4. Click **Edit** to save the changes.

The selected currency is set as the default option.

Note that the **Default Currency** column of the selected currency now says **Yes**.

Modify a currency

1. Go to **Maintenance** --> **Cost Maintenance** --> **Currencies**.

   The **Currencies** dialog box opens.
2. Select the currency that you want to modify.

3. Modify the currency properties as needed.
4. Click **Edit** to save the changes..

Delete a currency

Deleting a currency is permanent and cannot be undone.

You cannot delete currencies that are currently used somewhere in Tekla PowerFab.

1. Go to **Maintenance** --> **Cost Maintenance** --> **Currencies**.

   The **Currencies** dialog box opens.
2. Select the currency that you want to delete.
3. Click **Delete**.
4. To permanently delete the selected currency, click **Yes** in the confirmation dialog box.

5.6 Work with integrated software in Tekla PowerFab

You can use Tekla PowerFab together with several software products.

Software integrations save you time and work, because you do not need to enter the same information to several applications or programs. Among other things, you can use software integrations to mult and nest materials, and to visualize IFC models.

See also Tekla PowerFab Integrations. You can access the list also from **Maintenance** --> **Integration Settings** --> **Integration List**.

Link Tekla PowerFab to Trimble Connect

To use Trimble Connect for viewing IFC models for estimating and production control jobs, you need to link Tekla PowerFab and Trimble Connect to each other.

To enable updating the statuses of Tekla PowerFab items to Trimble Connect, you also need to set up status sharing or set up the Trimble Connect organizer published fields.

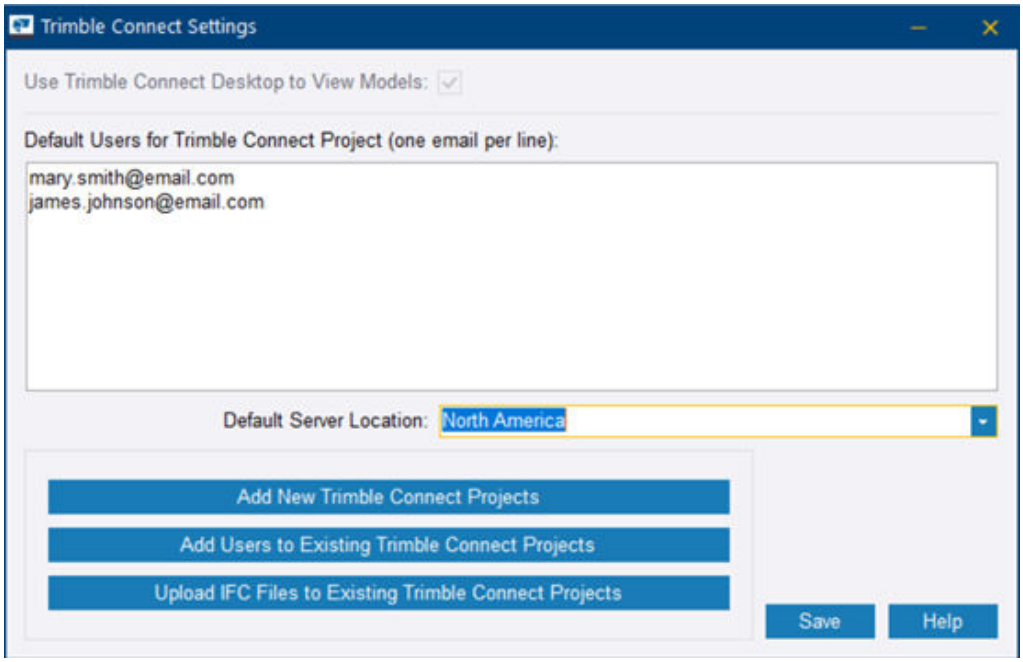
Linked jobs in the **Estimating**, **Production Control**, and **Project Management** modules can all be linked to a Trimble Connect project.

NOTE If an estimating or production control job is linked to a project management job, the Trimble Connect project is managed through the project management job.

In this case, you need to link the project management job to Trimble Connect. The link is then applied to any linked estimating and production control jobs. The Trimble Connect project cannot be modified when you access it through the estimating or production control job.

Linking Tekla PowerFab to Trimble Connect

1. Go to **Maintenance** --> **Integration Settings**.
2. On the menu, select **Trimble Connect**.



3. If you have not yet migrated to Tekla licensing, in **Trimble Connect Settings** dialog box, select the **Use Trimble Connect Desktop To View Models** checkbox.
4. To invite users to participate in your Trimble Connect projects, type their emails on separate lines in the **Default Users for Trimble Connect Project** section.

   The users whose email addresses you type here can later be added to existing Trimble Connect projects.
5. If necessary, click the arrow on the right side of the **Default Server Location** list, and change the server location.
6. Click **Save**.

You need to restart Tekla PowerFab to be able to use Trimble Connect for viewing IFC models.

Set up status sharing with Trimble Connect

You can create and share production control job statuses with users who view the model in Trimble Connect.

The available status types are the following:

- **Purchasing**: **None**, **Started** (on a purchase order but not yet received), **Completed**
- **Production**: **None** (production not started), **Started**, **Completed**
- **Station**: Can include all or any individual stations set up in Tekla PowerFab.

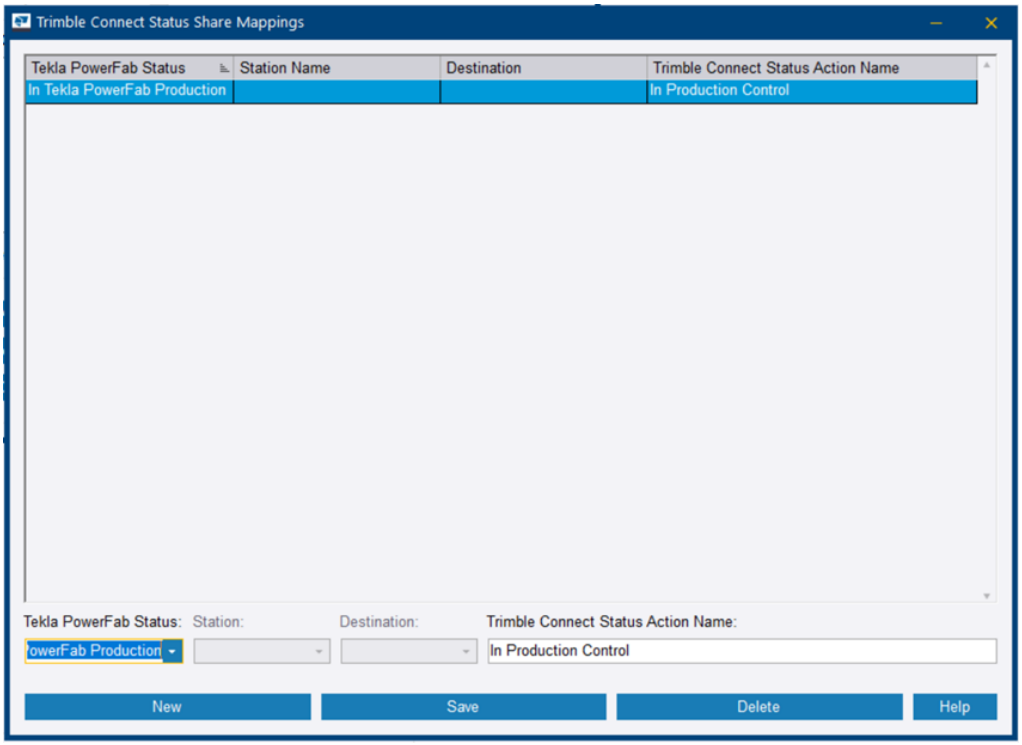
  For more information, see Manage stations (page 869).
- **Shipping**: **None**, **Started** (at an intermediate shipping destination), or **Completed**
- **Destination**: Can include all or any individual destinations set up in Tekla PowerFab.

  For more information, see Manage default shipping routes (page 896).
- **In Tekla PowerFab Production**: Items highlighted with green are in the production control job.
- **In Tekla PowerFab Estimating**: Items highlighted with green are in the estimating job.

To create a new status for sharing:

1. Go to **Maintenance** --> **Integration Settings**.
2. On the menu, select **Trimble Connect Status Share**.

The **Trimble Connect Status Share Mappings** dialog box opens.



3. Create a status type that can be shared to Trimble Connect:
   a. Click **New**.
   b. In **Tekla PowerFab Status** list, select a status.
   c. Depending on the selected status, select an option in the list in **Station** or **Destination**.
   d. In the **Trimble Connect Status Action Name** field, type the name used for the status in Trimble Connect.
   e. Click **Add**.
4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

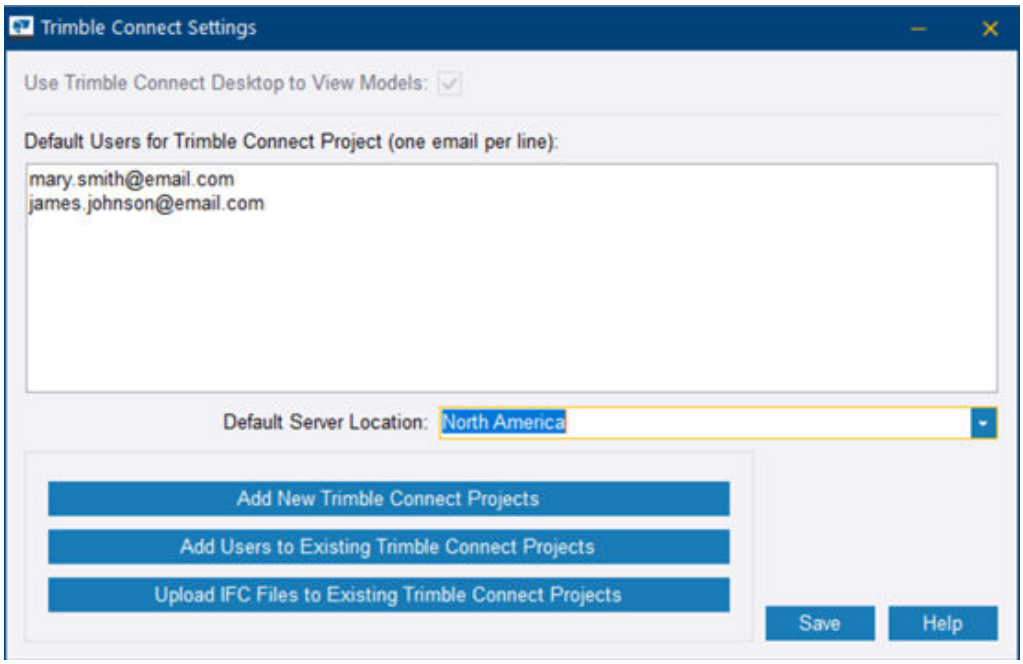
Add Trimble Connect projects (page 238)

Add users to Trimble Connect projects (page 240)

Add Trimble Connect projects

Use the **Add New Trimble Connect Projects** command to create Trimble Connect projects based on the existing project management jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Integration Settings** --> **Trimble Connect** .



3. In the **Trimble Connect Settings** dialog box, click **Add New Trimble Connect Projects**.
4. In the **Select Project** dialog box, click the arrow buttons to move the production control jobs that you want to add as projects to the **Included** list.
5. Click **OK**.
6. In the **Add Users to Project** dialog box, click the arrow buttons to move the users that need access to the new project to the **Included** list.

   All users that are set as default Trimble Connect users are automatically in the **Included** list.
7. Click **OK**.
8. In the **Status** dialog box, view the project creation process.
9. When the setup is completed, click **OK** to close the **Status** dialog box.
10. To attach an IFC model to the project, do the following:
    a. Open Trimble Connect for Windows.
    b. Double-click the new project to open it.
    c. In the **Explorer** side pane on the left, click the **Add File** button.
    d. In the **Add Files** dialog box, browse to find the IFC model.
    e. Select the IFC model and click **Open**.

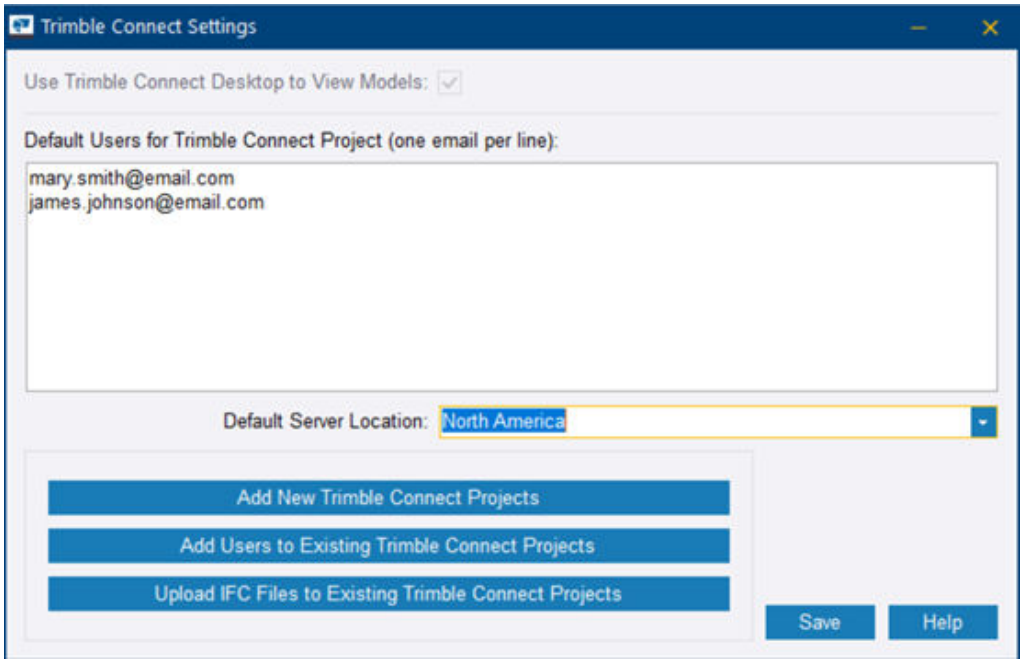
See also

Add users to Trimble Connect projects (page 240)

Add users to Trimble Connect projects

Use the **Add Users to Existing Trimble Connect Projects** command to invite users to participate in specific Trimble Connect projects.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Integration Settings** --> **Trimble Connect**.



3. In the **Trimble Connect Settings** dialog box, click **Add Users to Existing Trimble Connect Projects**.
4. In the **Add Users to Project** dialog box, click the arrow buttons to move the users that need access to the project to the **Included** list.

   The users in the **Included** list receive email invitations to the projects you select.
5. Click **OK**.
6. In the **Select Project** dialog box, click the arrow buttons to move the projects to which you want to add the selected users to the **Included** list.
7. Click **OK**.
8. In the **Status** dialog box, view the user invitation process.
9. When the setup is completed, click **OK** to close the **Status** dialog box.

The selected users have now been sent email invitations to the selected Trimble Connect projects.

See also

Add Trimble Connect projects (page 238)

Use Tekla PowerFab together with Tekla Warehouse

Tekla Warehouse is a service for collaboration and for storing and sharing content used for Tekla Structures and Tekla PowerFab.

Tekla Warehouse provides centralized access to a wide range of content that you can use in Tekla Structures and Tekla PowerFab.

For example, you can download the Workflow Tools for Tekla Structures application from Tekla Warehouse to allow showing the statuses of the items pushed from Tekla PowerFab to Trimble Connect in the related Tekla Structures model. Similarly, downloading Workflow Tools for Trimble Connect Desktop allow showing the statuses of items pushed from Tekla PowerFab to Trimble Connect in Trimble Connect for Windows.

NOTE You need to have a Trimble Identity to download content from Tekla Warehouse.

To access Tekla Warehouse, go to https://warehouse.tekla.com/.

For more information on Tekla Warehouse, see Getting started with Tekla Warehouse.

Use customized extensions for combining

You can create your own extensions that send multing and nesting requests from Tekla PowerFab to other software. This way, using external multing or nesting software becomes smoother.

NOTE Before you can use extensions with Tekla PowerFab, users with administrator rights need to enable using extensions in the **Administration - Settings** dialog box. For more information, see Define Tekla PowerFab administration settings (page 91).

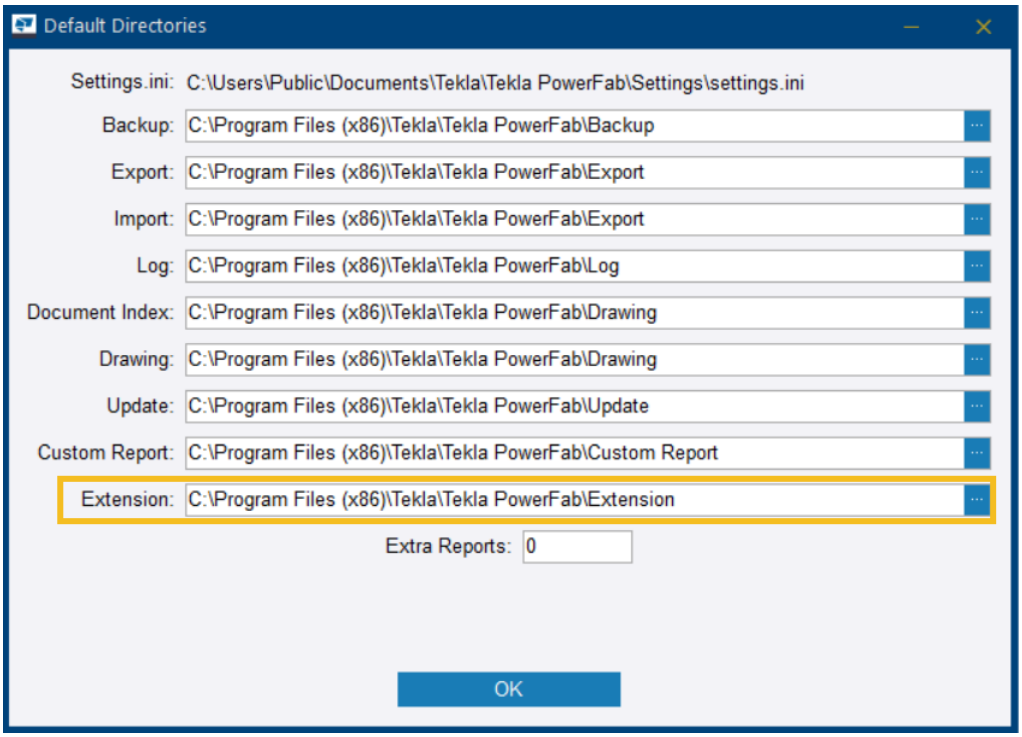
Add and save an extension

1. Create the extension with a suitable tool.

   For example, you can use Microsoft Visual Studio.

   Remember to create the necessary error messages if something goes wrong when you use or test the extension.

2. To check where the extension needs to be saved, click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
3. On the **File** menu, select **Default Directories**.



4. Save your extension to the default folder for extensions.

Export materials for combining

To test and use your extensions:

1. Open a job and click the contextual ribbon tab.

   For example, in an open production control job, click the **Production Control** tab.
2. On the menu, select **Combine**.
3. Select a combining command: **Mult**, **Nest**, or **Mult & Nest**.
4. Set the combining filters according to your needs.
5. Click **Optimizations**.
6. In the **Combining Setup** dialog box, set **Multing Software** or **Plate Nesting Software** to **Other**.
7. Combine the necessary items.
8. Click the **Combining Run** ribbon tab.
9. In the menu, go to **Export Parts for Nesting** and select your extension.
10. In the **Export Parts for Combining** dialog box, adjust the settings according to your needs:
    - To include existing inventory materials in the export, select the **Include available inventory** checkbox.

- To include inventory materials that are on order in the export, select the **Include orderable inventory**.
- In the **CNC files** list, select how you want to include CNC files in the export.

11. Click **Send**.

Manage inventory, cut lists, and nests with ProNest

You can use Tekla PowerFab and ProNest together to keep your inventory, cut lists, and nests synchronized, so that you do not have to enter the same information in both software.

These instructions cover the actions in Tekla PowerFab. For a complete procedure, see also the following: ProNest Integration

ProNest integration requirements

Check the required versions of ProNest.

Contact HyperTherm for information on their new extension for Tekla PowerFab. This integration does not require DataSync or the reports listed here. The extension requires Tekla PowerFab 2023SP4 or later. Tekla PowerFab 2023SP5 or later is recommended.

Software	Required version
Tekla PowerFab	2019 or newer
ProNest	2019 or newer
ProNest DataSync	2019 or newer

Note that the integration also requires the following:

- Having particular ProNest licenses. For more information, contact your ProNest representative.
- Downloading the following files:

File name	Description	Download file to
`Tekla PowerFab Inventory Sync.xml`	The inventory sync task for ProNest DataSync.	`C:\ProgramData\Hypertherm CAM\Data Sync\Tasks`
`Tekla PowerFab Work Order.xml`	Needed if you plan to export items from Tekla PowerFab in the work order format.	`C:\ProgramData\Hypertherm CAM\Data Sync\Tasks`

File name	Description	Download file to
`ProNest to Tekla PowerFab Nest Summary.fr3`	The custom report to import nested items from ProNest back to Tekla PowerFab.	`C:\ProgramData\Hypertherm CAM\ProNest [version]\Reports (FastReport)\Custom Reports`

- Having DataSyncCMD installed on the Tekla PowerFab server and Tekla PowerFab workstations that are communicating with ProNest.
- Having DataSyncCMD and DataSync server running on the ProNest server.

Test the connection between Tekla PowerFab and ProNest DataSync

1. On the start screen of the Tekla PowerFab server, type `cmd` into the search.
2. In the command prompt, copy and paste the following: `" "[Data Sync Path]" test1"`

   Replace the portions in square brackets with the appropriate information on your system.

If you get the error message "The specified task name is unknown", DataSync is running properly.

If you get the error message "Cannot find Data Sync Service", contact your ProNest representative.

See also

Manage inventory, cut lists, and nests with ProNest (page 243)

Set up Tekla PowerFab for ProNest

See also ProNest integration.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Integration Settings** --> **ProNest**.
3. To allow sending inventory to ProNest and using ProNest for nesting plates, select the **Enable ProNest for Plate Nesting** checkbox at the top of the **ProNest Settings** dialog box.
4. In the **Nesting Request Format** list, select how you want to send nesting requests:
   - **Work Order**: Allows sending the part list in a single click, and after that, automatically imports to the part list in ProNest
   - **PNL/SNL** (the recommended process for this version of the integration): Allows sending both the part list and the available inventory to ProNest in two files, PNL, and SNL, with the same name.

Opening the PNL file in ProNest imports the parts, selects the imported parts for nesting, and sets the available inventory for the nest to the plates within the related SNL file.

5. On the **Database Connection** tab in the dialog box, define how Tekla PowerFab connects to the ProNest database to sync the inventory:

Option	Description
IP address	The IP address of the ProNest database. The default value is `[Computer name]\PRONEST`. Note that the computer name needs to be the name of the computer on which ProNest has been installed. This might not be the computer on which you are using Tekla PowerFab. If you want to check if Tekla PowerFab can connect to the ProNest database properly, click **Test Connection**. If the connection is not successful, open ProNest and ensure that the database is networked, and that you have typed the right computer name in the **IP address** field.
ProNest Version	The ProNest version that you are using. Note that the oldest available ProNest version is version 2012, or version 10.
Use Windows Authentication	If you want to use Windows Authentication to connect to the ProNest database, select the **Use Windows Authentication** checkbox. If you do not want to use Windows Authentication, clear the **Use Windows Authentication** checkbox.
Username, **Password**	Your username and password in ProNest.

6. On the **Inventory Sync** tab, define the inventory synchronization settings:

Option	Description
Inventory Sync Folder	The path to the folder in which inventory sync files are stored. Note that both Tekla PowerFab and ProNest need to be able to read from and write to the inventory sync folder. This means that if Tekla PowerFab and ProNest are installed on different computers, the inventory sync folder needs to be a shared folder.
Data Sync Command Path	The path to the location on the Tekla PowerFab workstation or the server where you have installed `DataSyncCmd.exe`.

Option	Description
Inventory Sync Timeout	The time in minutes that Tekla PowerFab will wait for `DataSyncCmd.exe` to respond. 3 to 5 minutes is usually a sufficient time.
Material Display Format	The material display format defined in ProNest regional settings. Note that the format needs to match the format used in ProNest.
Show File Location Errors for Cut Lists	If you want to get notifications when ProNest cut lists are located in unsuitable folders, select the **Show File Location Errors for Cut Lists** checkbox. If you do not want to see these errors, clear the **Show File Location Errors for Cut Lists** checkbox.
Import Cut List before Inventory Sync	To receive updates on which items have been cut before synchronizing the inventory, select the **Import Cut List before Inventory Sync** checkbox. We recommend that you select the **Import Cut List before Inventory Sync** checkbox. If you do not want to receive updates on cut items before synchronizing the inventory, clear the **Import Cut List before Inventory Sync** checkbox.
Sync Material On Order	To send material that has not yet been received to ProNest, select the **Sync Material On Order** checkbox. To avoid sending material that has not yet been received to ProNest, clear the **Sync Material On Order** checkbox.
Sync Combined Material	To synchronize inventory stock material that has been used in combining, select the **Sync Combined Material** checkbox. To prevent synchronizing inventory stock material that has been used in combining, clear the **Sync Combined Material** checkbox.
Enable Automatic Inventory Sync	If you want to allow Tekla PowerFab to automatically synchronize the inventory with ProNest, select the **Enable Automatic Inventory Sync** checkbox. If you do not want to allow Tekla PowerFab to automatically synchronize inventory with ProNest, clear the **Enable Automatic Inventory Sync** checkbox. Note that if you have created an automated event (page 208) for synchronizing the inventory between Tekla PowerFab and ProNest, you should

Option	Description
	clear the **Enable Automatic Inventory Sync** checkbox. We recommend creating an automated event instead of selecting the **Enable Automatic Inventory Sync** checkbox.
Automatic Inventory Sync Interval	The time in minutes after which Tekla PowerFab automatically synchronizes the inventory with ProNest. The synchronization should happen frequently enough to keep your inventory up to date. We recommend using an interval between 10 and 60 minutes.

7. On the **Transfer Settings** tab, select to which ProNest fields you want to map the following Tekla PowerFab fields:

Option	Description
Tekla PowerFab Remnant ID Field	The unique, unchanging ID that Tekla PowerFab assigns to each remnant. If you want to see the remnant ID in ProNest as well, select the ProNest field in which you want to show the remnant ID.
Heat Serial Number Field	The heat serial number of each inventory item. Note that the heat number of each inventory item is automatically mapped to ProNest. If you use a heat serial number in Tekla PowerFab and want to see the heat serial number in ProNest as well, select the ProNest field in which you want to show the heat serial number.
PO Number Field	The purchase order on which the inventory item has been added. If you want to see the purchase order information in ProNest as well, select the ProNest field in which you want to show the purchase order number.
Bill of Lading Field	The bill of lading number, or the shipment number that the inventory item was received on. If you want to see the bill of lading number in ProNest as well, select the ProNest field in which you want to show the bill of lading number.

Option	Description
Secondary Location Field	The secondary location of each inventory item. Note that the primary location of each inventory item is automatically mapped to ProNest. If you want to see the secondary location in ProNest as well, select the ProNest field in which you want to show the secondary location.
ProNest Name Field	This setting corresponds to the information in the **Name** field in ProNest plate inventory. We recommend that you select the **Shape Grade Thickness** option. However, if you have used Tekla PowerFab and ProNest together without the integration before, you can also select the **PartNumber** option.
Dimension Units	Select if you want to show dimension lengths in imperial or metric units.
Blank Class	To ensure compatibility with ProNest, select an option for items without a class: • **Three Spaces**: use this option with newer versions of ProNest • **Empty**: use this option only with older versions of ProNest
Use Full Path for CNC Filename	To ensure that the ProNest integration works, select this checkbox if you use version 2021 of ProNest or newer.

8. Click **Save**.

Synchronize inventory information with ProNest

Use the **Sync with ProNest** command to synchronize Tekla PowerFab inventory information with ProNest and update the cut lists in ProNest. We recommend that you synchronize the two software regularly.

Before you begin, ensure that:

- `DataSyncCmd.exe` is running
- Tekla PowerFab can access the ProNest database

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export** --> **Sync with ProNest**.

   The inventory information in Tekla PowerFab is exported to ProNest to synchronize the two software. You can view the process in the **Status** dialog box.

3. When the synchronization process is completed, click **OK** to close the **Status** dialog box.

You can now view the inventory information exported from Tekla PowerFab in ProNest.

In the synchronization process, Tekla PowerFab checks the ProNest database for new items and links each new item in the ProNest inventory to the appropriate piece in the Tekla PowerFab inventory. When synchronization is complete, ProNest has all the inventory items that Tekla PowerFab has.

Note that inventory items that have previously been in ProNest but have not been linked to ProNest are not affected by the synchronization.

See also

Manage inventory, cut lists, and nests with ProNest (page 243)

Import and export inventory information (page 647)

Import ProNest inventory to Tekla PowerFab

This import procedure is primarily for new Tekla PowerFab users who need to add ProNest inventory to Tekla PowerFab.

1. In ProNest, print the plates that you want to export into an HTML file.
2. In Tekla PowerFab, open the **Inventory** module.
3. Click the **Inventory** ribbon tab.
4. On the menu, select **Import** --> **Inventory from HTML**.
5. Browse to and select the inventory HTML file from ProNest.
6. Click **Open**.

   The selected ProNest plates are imported into the Tekla PowerFab inventory. The import creates a link between Tekla PowerFab and ProNest, so that the imported plates can be used in nests.

   Existing plates in the Tekla PowerFab inventory are updated, but their quantity is not decreased.
7. See the progress of the import in the **Import** dialog box.

   To see more details on the import, click **Open Import Log**.
8. When the import is complete, click the **Close** button (**X**) in the upper-right corner to close the **Import** dialog box.

See also

Manage inventory, cut lists, and nests with ProNest (page 243)

Import and export inventory information (page 647)

Import ProNest cut lists to Tekla PowerFab

You can import cut lists available in the ProNest nesting software to Tekla PowerFab. By importing cut lists, you receive information on the scrap of a ProNest nesting process to inventory.

Before sending cut lists to Tekla PowerFab, send the nest to CNC in ProNest.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Import** --> **ProNest Cut List**.

   Tekla PowerFab imports the cut lists that are available in ProNest.
3. See the progress of the import in the **Import** dialog box.

   When the import is completed, click **Open Import Log** to view, print, or save the import log.
4. To close the dialog box, click **Close** (**X**) in the upper-right corner.

Once a cut list is imported, it can be cut in Tekla PowerFab. This way, you can remove the used plate from inventory and add the proper scrap.

See also

Update the inventory using a cut list imported from ProNest (page 250)

Manage cut lists (page 881)

Manage inventory, cut lists, and nests with ProNest (page 243)

Import and export inventory information (page 647)

Update the inventory using a cut list imported from ProNest

For instructions for importing ProNest cut lists to Tekla PowerFab, see Import ProNest cut lists to Tekla PowerFab (page 249)

After you have imported a ProNest cut list to Tekla PowerFab, you can update the inventory as follows:

1. Open a production control job.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Review** --> **Cut Lists**.
4. At the bottom of the **Cut Lists** dialog box, click **New**.
5. Click **Make Report**.
6. In the **Report Selection** dialog box, click **Save Cut List**.
7. Type a description and select a due date for the cut list.
8. Ensure that **Share Cut List** is selected.
9. Click **Save To Cut List**.

   The new cut list appears in the **Cut Lists** dialog box.

10. In the **Cut Lists** dialog box, double-click the new cut list.
11. To view the nest details of an item, double-click the item in the cut list.
12. To see images of the nest, click **Nest Image**.
13. When an item in the cut list has been cut by a machine, in the **Cut Lists** dialog box, select the item and click **Cut**.
14. Define the properties of the used inventory item.
15. Define the drop properties.
16. To remove the item from the Tekla PowerFab inventory and add the resulting remnant to the inventory, click **TFS**.

    The status of the item in the cut list is now set to **Complete** and highlighted in green.

    The remnant item is linked to ProNest and can be used in ProNest for further nesting.

    You can see an image of the remnant, if you double-click the remnant item in the **Inventory** dialog box.

Troubleshooting TFS

Sometimes, when you take an item from stock with the **TFS** command, you get an error saying "External Nesting Result is not available". This occurs when the cut list that was imported from ProNest to Tekla PowerFab could not be completed during the import.

This can happen in the following cases:

- The ProNest job was sent to CNC with the initial nesting, but the material items in Tekla PowerFab needed to be ordered. This means that the inventory did not exist in Tekla PowerFab when ProNest marked this item as cut.
- The ProNest job was sent to CNC multiple times.
- The cut list was imported to Tekla PowerFab before the material that was being cut had been received in the Tekla PowerFab inventory.
- Something in the nest changed in Tekla PowerFab, invalidating the nest. For example, this can happen if the reserved inventory was used for something else.

To fix the error, try the following:

1. Ensure that all inventory needed for the nest is in stock and received in the Tekla PowerFab inventory.
2. In ProNest, resend the job to CNC.
3. Import the cut list to Tekla PowerFab again.

If you continue to face the same error after this, contact support.

Export plates to be nested in ProNest

1. Open a combining, estimating, or production control job, a requisition, or a purchase order.
2. Click the ribbon tab.

   For example, if you are working on a combining job, click the **Combining** ribbon tab.
3. On the menu, select **Combine**.
4. In the **Select Combining Run** dialog box, click **Nest**.
5. It the lower-left corner of the **Combining Run Filters** dialog box, click **Optimizations**.
6. On the **Plate Nesting Settings** tab, set **Plate Nesting Software** to **ProNest**.
7. Click **Save**.
8. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

   In the **Combining Run Results** dialog box, all parts show as not combined.
9. Click **Save Combining Run**.
10. Click the **Combining Run** ribbon tab.
11. On the menu, select **Export Parts for Nesting** --> **Export to ProNest**.
12. Depending on the nesting request format that you have selected in the **ProNest Settings** dialog box, do one of the following:

If you have selected	Do this
the **Work Order** format	a. To open the calendar, click the arrow on the right side of **Work order due date**, and select a date in the calendar. b. To allow ProNest to mirror plates in the nesting process, select the **Mirror Plates** checkbox. c. To allow ProNest to rotate plates in the nesting process, select the **Allow plate to be rotated** checkbox. d. To include the job number in the piece marks of items, select the

If you have selected	Do this
	Include Job Number in Piecemark checkbox. For example, the piece mark `p1.dxf` in job called `Job123` would change into `Job123-p1.dxf`. This can help you to recognize items with the same piece numbers in different jobs. e. Click **Export Parts**. The work order is automatically created and imported to ProNest. The name and location of the work order file are not important. f. After the export is complete, open ProNest and click **Add Parts**, or select **Job** in the menu. g. On the **Home** tab, select **Edit Part List** --> **Edit Part List**. h. On the **Work Orders** tab of the **Edit Part List** dialog box, select some or all of the newly imported items, and drag them to the part list. i. Click the **Close** button (**X**) to return to nesting.
the **PNL/SNL** format	a. To open the calendar, click the arrow on the right side of **Work order due date**, and select a date. b. To allow ProNest to nest onto current stock materials, select the **Include Sheets** checkbox, and define the priority for nesting onto current stock material. Priority 1 is the primary option for nesting. c. To allow ProNest to nest onto remnants, select the **Include Remnants** checkbox, and define the priority for nesting onto remnants. Priority 1 is the primary option for nesting.

If you have selected	Do this
	d. To allow ProNest to nest onto orderable inventory, select **Include Orderable Sizes** checkbox, and define the priority for nesting onto orderable inventory. Priority 1 is the primary option for nesting. e. To open the PNL file in ProNest when the file has been created, select the **Automatically Open PNL** checkbox. f. To include the job number in the piece marks of items, select the **Include Job Number in Piecemark** checkbox. For example, the piece mark `p1.dxf` in job called `Job123` would change into `Job123-p1.dxf`. This can help you to recognize items with the same piece numbers in different jobs. g. To use the ProNest setup for mirroring, select the **Auto-Tab** checkbox. h. Click **Export Parts**. The export creates two files: a PNL file, which contains the parts to nest, and an SNL file, which contains the inventory plates currently available for combining. i. If the PNL file is not automatically opened in ProNest, on the **Home** tab, select **Edit Part List** --> **Import Part List** and select the PNL file. The matching SNL file is imported automatically.

See also

Manage inventory, cut lists, and nests with ProNest (page 243)

Import nesting results to Tekla PowerFab

1. In the **Combining Run Results** dialog box, click the **Combining Run** tab.

2. On the menu, select **Import Nested Parts**.
3. In the **Open** dialog box, browse for and select the nesting results file.
4. Click **Open**.

See also

Import files to Tekla PowerFab (page 144)

Manage inventory, cut lists, and nests with ProNest (page 243)

SDS2 integration

For instructions on integration with SDS2 versions before 2022, see SDS/2 integration overview.

For instructions for SDS2 versions 2022 and newer, see SDS2 and Tekla PowerFab Data Transfer Best Practices.

Mult and nest materials with Steel Projects PLM

You can use Steel Projects PLM to mult and nest materials outside Tekla PowerFab. You can also export cut lists from Tekla PowerFab to Steel Projects PLM.

See also Set up in Steel Projects PLM.

Set up Tekla PowerFab to work with Steel Projects PLM

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Integration Settings** --> **Steel Projects**.
3. In the **Steel Projects Settings**, select the **Enable Steel Projects Integration** checkbox.
4. If you want to allow Steel Projects PLM to reserve material to a job that does not exist in Tekla PowerFab, select the **Allow Nests without a Tekla PowerFab Job** checkbox.
5. Click **Save**.
6. If you use Tekla PowerFab Go, we recommend that you create an external user.

   For detailed instructions, see Add, modify, and delete external users (page 80).
7. Give the external user the necessary remote permissions.

   For detailed instructions, see Manage remote user permissions (page 83).

8. Ensure that the Tekla PowerFab Remote Server is running.

   For detailed instructions, see Set up Tekla PowerFab Remote Server for Tekla PowerFab Go (page 58).

Note that you still need to set up Steel Projects PLM to work with Tekla PowerFab. For detailed instructions, see the Steel Projects PLM documentation.

Send a work order to Steel Projects PLM

A work order is a nesting or multing request. A work order contains the CNC files to be cut, and the available and orderable inventory on which you can nest materials.

1. Open a combining, estimating, or production control job, a requisition, or a purchase order.
2. Click the contextual ribbon tab.

   For example, if you are working on a combining job, click the **Combining** ribbon tab.
3. On the menu, select **Combine**.
4. In the **Select Combining Run** dialog box, click a desired combining option to select it.

   The options are:

   - **Mult**: combines linear items, like beams and angles.
   - **Nest**: combines items that have area, like plates or gratings.
   - **Mult & Nest**: combines all items.
5. In the lower-left corner of the **Combining Run Filters** dialog box, click **Optimizations**.
6. Depending on which items will be combined, do one or both of the following:

   - On the **Mult Settings - Linear Material** tab, set **Multing Software** to **SteelProjects**.
   - On the **Plate Nesting Settings** tab, set **Plate Nesting Software** to **SteelProjects**.
7. Click **Save**.
8. To combine the materials, click the **Mult**, **Nest**, or **Mult and Nest** button at the bottom of the **Combining Run Filters** dialog box.

   In the **Combining Run Results** dialog box, all parts show as not combined.
9. Click **Save Combining Run**.
10. Click the **Combining Run** ribbon tab.

11. On the menu, select **Export Parts for Nesting** --> **Export to Steel Projects**.
12. In the **Export Parts for Combining** dialog box, adjust the settings according to your needs:
    - To include existing inventory materials in the export, select the **Include available inventory** checkbox.
    - To include inventory materials that are on order in the export, select the **Include orderable inventory**.
    - In the **CNC Files** list, select how you want to include CNC files in the export.
13. Click **Export Parts**.

Tekla PowerFab exports the parts to be multed and nested.

You can now open Steel Projects PLM and import the `XML` file that has been created by Tekla PowerFab. For detailed instructions on multing and nesting parts, see the Steel Projects PLM documentation.

After the parts have been nested in Steel Projects PLM, you can save the nesting results. The results will be automatically imported back to Tekla PowerFab.

If the required material is not available in the Tekla PowerFab inventory, Steel Projects PLM will ask you to create a requisition, which will then appear in the **Select Requisition/Purchase Order** dialog box.

Export a cut list to Steel Projects PLM

1. Open a production control job.
2. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
3. On the menu, select **Review** --> **Cut Lists**.
4. In the **Cut Lists** dialog box, click **New Cut List**.
5. In the **Enter Value** dialog box, click the arrow on the right side of the available field, and select the production control job for which you want to create the cut list.

   When you are creating a new cut list, Tekla PowerFab by default filters the items in the new cut list, so that only items that are not yet assigned to a cut list are included.
6. In the **Production Control Purchasing Report Filters** dialog box, click **Make Report**.
7. In the **Report Progress** dialog box, click **Save Cut List**.
8. In the **Save Cut List** dialog box, type a description and due date for the cut list.

9. To allow importing the cut list to Steel Projects PLM, select the **Share Cut List** checkbox.
10. Click **Save To Cut List**.

The cut list appears in the **Cut Lists** dialog box in Tekla PowerFab. You can now import the cut list to Steel Projects PLM.

See also

Work with integrated software in Tekla PowerFab (page 235)

Enable ShopData Systems for plate nesting

Integrating Tekla PowerFab to ShopData Systems eliminates manual double-entry of parts and stock in Tekla PowerFab that are to be nested by ShopData Systems.

1. Go to **Maintenance** --> **Integration Settings** --> **Shop Data Systems**.

   The **Shop Data Settings** dialog box opens.
2. To enable the integration, select **Enable Shop Data Systems for Plate Nesting**.
3. Select the **ShopDataSystems Version**.
4. Select a **Transfer Files Directory** from the list.
5. Select the **Export Units**.
6. Click **Save**.

For instructions for using ShopData from a combining run, see Shop Data Systems PeddiNest Integration.

See also

Combine materials in the Combining module (page 377)

Combine materials in the Estimating module (page 584)

Combine materials in the Production Control module (page 996)

Combine items in the Requisition # dialog box (page 1127)

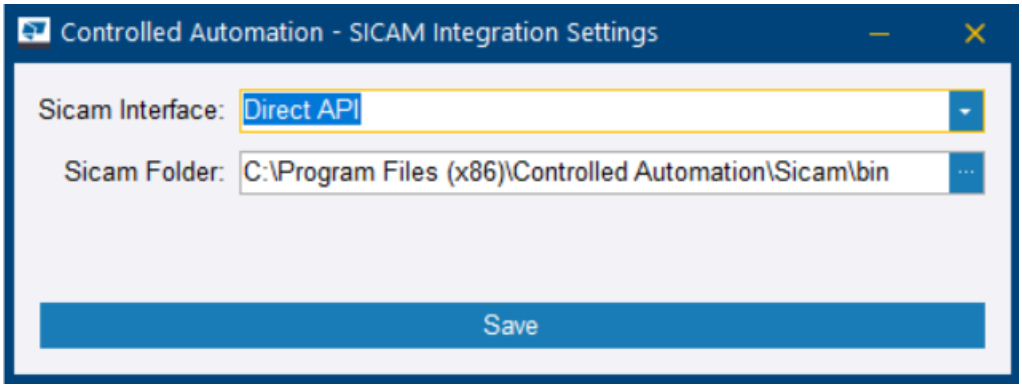
Mult, nest, or cut materials with SICAM

You can use SICAM to mult and nest materials outside Tekla PowerFab. First, you need to set up Tekla PowerFab and SICAM to work together. Then, you can send the parts to be cut as work orders from Tekla PowerFab to SICAM. When you have multed and nested the parts, you can check in the multing and nesting results back to Tekla PowerFab.

Set up Tekla PowerFab to work with SICAM

1. Go to **Maintenance** --> **Integration Settings** --> **Controlled Automation - SICAM**.

   The **Controlled Automation - SICAM Integration Settings** dialog box opens.



2. Select the desired SICAM interface and folder.
3. Click **Save**.

Note that you need to set up SICAM to work with Tekla PowerFab as well. To do so, go to Tekla PowerFab settings in **Sicam settings**.

Set up user permissions to use SICAM

In order to export nesting information from Tekla PowerFab to SICAM, Tekla PowerFab users need to have specific user permissions. It might be useful to add a new Tekla PowerFab user specifically for working with SICAM.

1. Go to **File** --> **Administration**.

   The **Administration** dialog box opens.

2. On the **Roles** tab, select the user whose permissions you want to modify, or add a new user (page 70).
3. Click **Edit Role Permissions**.

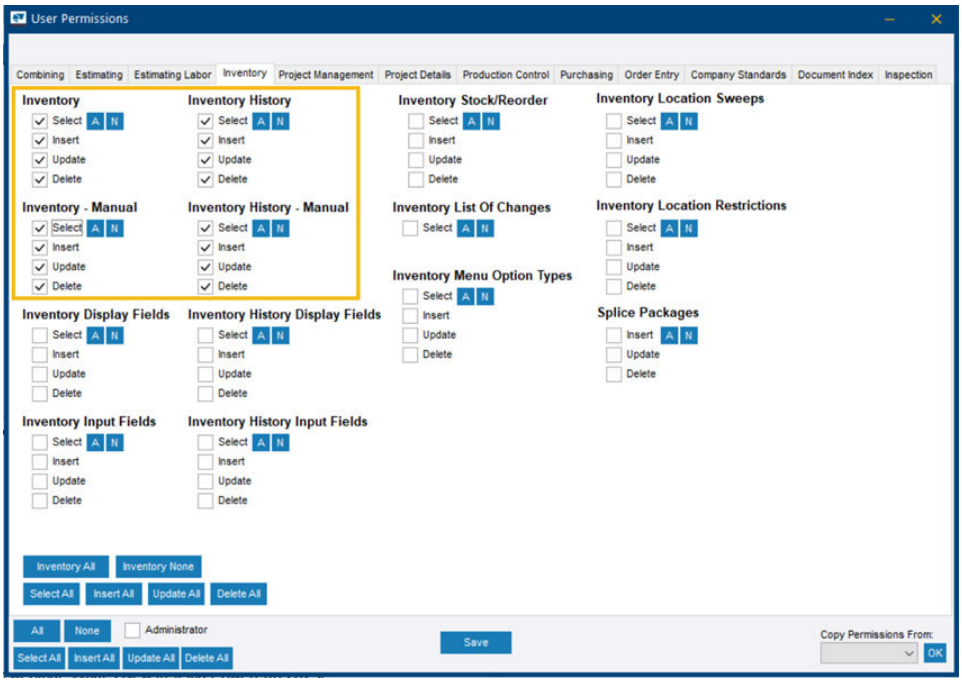
   The **User Permissions** dialog box opens.

4. Select the **Allow Tekla PowerFab Login** check box.

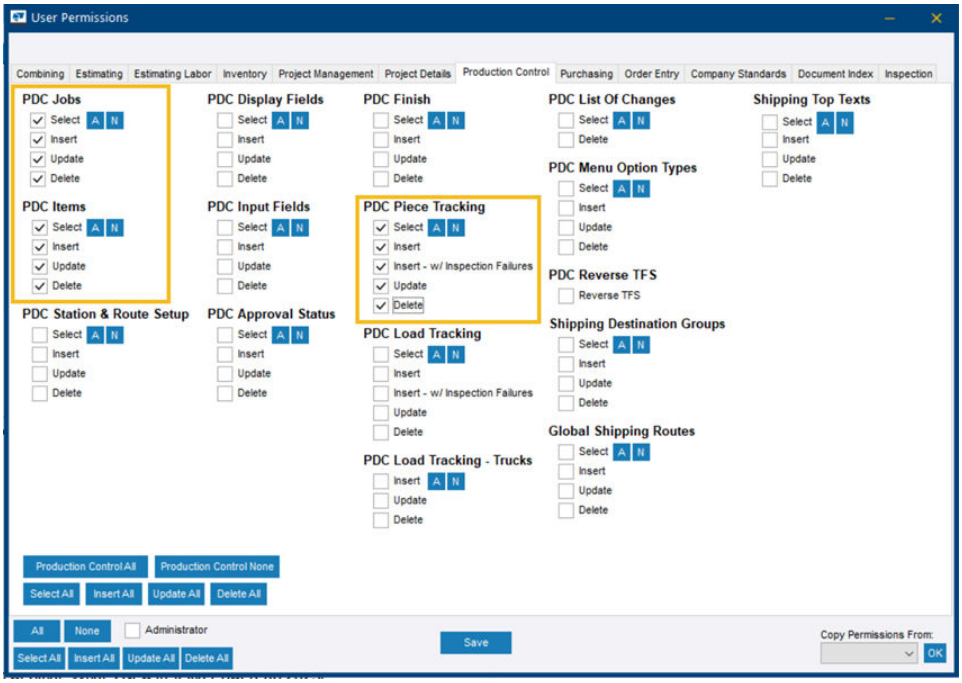
   When logging in to Tekla PowerFab has been allowed for the user, you can modify the other permissions.

5. Select at least the following check boxes:

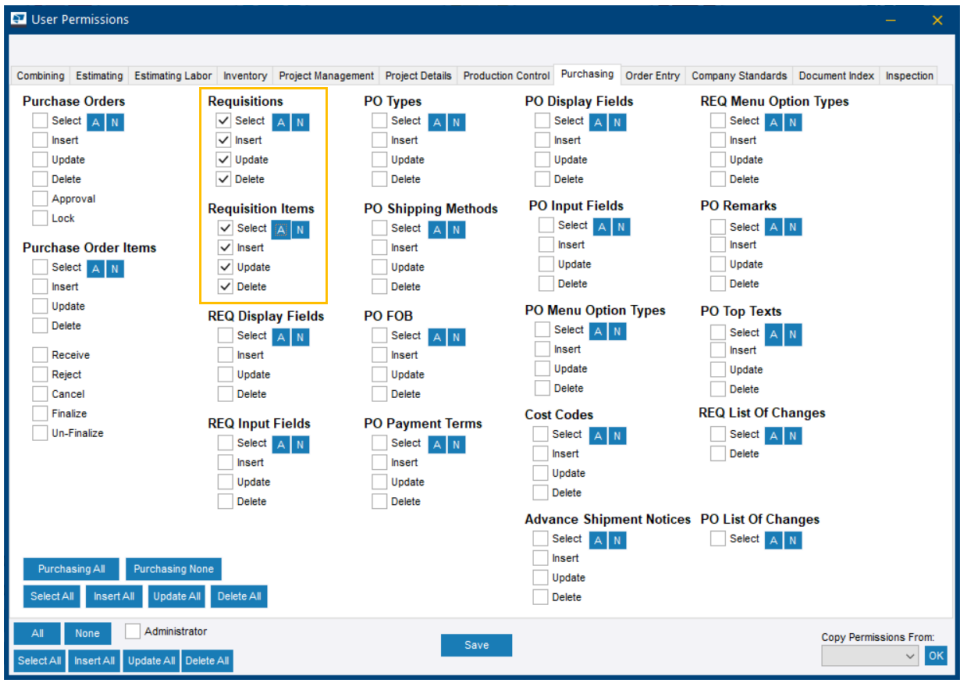
a. On the **Inventory** tab:



b. On the **Production Control** tab:



c. On the **Purchasing** tab:



6. Click **Save**.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Send a work order to SICAM

A work order is a nesting or multing request. A work order contains the CNC files to be cut, and the available and orderable inventory on which you can nest materials.

1. Open a combining, estimating, or production control job, a requisition, or a purchase order.
2. Click the contextual ribbon tab.

   For example, if you are working on a combining job, click the **Combining** ribbon tab.
3. On the menu, select **Combine**.
4. In the **Select Combining Run** dialog box, click a desired combining option to select it.

   The options are:

   - **Mult**: combines linear items, like beams and angles.
   - **Nest**: combines items that have area, like plates or gratings.
   - **Mult & Nest**: combines all items.
5. At the lower left corner of the **Combining Run Filters** dialog box, click **Optimizations**.

6. Depending on which items will be combined, do one or both of the following:
   - On the **Mult Settings - Linear Material** tab, set **Multing Software** to **Sicam**.
   - On the **Plate Nesting Settings** tab, set **Plate Nesting Software** to **Sicam**.
7. Click **Save**.
8. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

   In the **Combining Run Results** dialog box, all parts show as not combined.
9. Click **Save Combining Run**.
10. Click the **Combining Run** ribbon tab.
11. On the menu, go to **Export Parts for Nesting**, and select one of the following:

To export the multing and nesting information...	Do this
To the SICAM folder as an XML file	a. Select **Export File to Sicam**. b. In the **Export Parts for Combining** dialog box, adjust the settings according to your needs: • To include existing inventory materials in the export, select the **Include available inventory** check box. • To include inventory materials that are on order in the export, select the **Include orderable inventory**. • In the **CNC Files** list, select how you want to include CNC files in the export. c. Click **Export Parts**. d. In the **Save As** dialog box, browse to and select the folder where you want to save the XML file. e. Click **Save**. The XML file is exported to the selected folder. You can view the progress of the export in the **Status**

To export the multing and nesting information...	Do this
	dialog box. When the export has been finished, you can click **OK**. When the export is finished, you can import the XML file to SICAM manually.
Directly to SICAM	a. Select **Export Direct to Sicam**. The multing and nesting information opens directly in SICAM.

Now, you can mult and nest the materials in SICAM.

12. Save the mults and nests, and check in the multed and nested materials to Tekla PowerFab.

    For detailed instructions, see the SICAM documentation.

When the nests and mults are checked into Tekla PowerFab:

- If material needs to be ordered, a requisition is created in Tekla PowerFab. The automatic requisition number consists of the date and time when the update occurred.
- If the necessary material is in the inventory, Tekla PowerFab links it to the job. Plate and remnant images become available by double-clicking a plate.

Send a cut list to SICAM

1. Go to **Maintenance** --> **Production Control** --> **Cut Lists**.

   The **Select Production Control Jobs** dialog box opens.

2. Select the jobs whose cut lists you want to adjust.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

3. Click the arrow buttons to move the jobs to **Included**.

   The **Cut Lists** dialog box opens.

4. Select the cut list.
5. At the bottom of the dialog box, click **Send Cut List**.
6. Select **Sicam**.
7. Browse to find and select the folder where you want to save the generated cutting details and CNC files.

8. Click **OK**.

The files are exported to the selected folder. You can view the progress of the export in the **Status** dialog box. When the export has been finished, you can click **OK**.

For further information, see SICAM/Controlled Automation Integration.

See also

Import files to Tekla PowerFab (page 144)

Manage purchase orders with Trimble Viewpoint

Use the Trimble Viewpoint integration to manage your Tekla PowerFab purchase orders more efficiently. You can export your purchase orders or job costing transactions to Trimble Viewpoint, or audit the inventory information between Tekla PowerFab and Trimble Viewpoint.

Set up the Trimble Viewpoint integration

1. In the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**.
2. On the **Global Settings** tab of the **Trimble Viewpoint Integration** dialog box, adjust the following settings:

Setting	Description
Viewpoint Software	Select if you are using Trimble Viewpoint Spectrum or Trimble Viewpoint Vista.
Workflow	Select if you want to perform job costing when items are consumed, or when items are purchased or reserved.
Company Code	Type the company code that you use in Trimble Viewpoint. If you want to ensure that the company code is correct each time you export purchase orders, select the **Prompt on export** checkbox below the **Company Code** field.
Cost Center	Type the cost center that you use in Trimble Viewpoint. If you want to ensure that the cost center is correct each time you export purchase orders, select the **Prompt on export** checkbox below the **Cost Center** field.

3. To save the settings on the **Global Settings** tab, click **Save Settings**.
4. On the **Receiving** tab, to ensure that you only export the newest transactions for receiving, click **Set** and enter the number of the last exported transaction.

   Only the transactions after the last exported transaction will be exported.
5. On the **Job Costing** tab, do the following:
   a. To ensure that you only export the newest transactions for job costing, click **Set** and enter the number of the last exported transaction.

      Only the transactions after the last exported transaction will be exported.
   b. Type the batch code, the GL debit account number, and the GL credit account number.

      If you want to ensure that the batch code, GL debit account number, or GL credit account number is correct each time you export purchase orders, select the **Prompt on export** checkbox below the related fields.
   c. To update the job costing settings, click **Save Settings**.
6. If you want to create customized reports to use with the Trimble Viewpoint integration, do any of the following:

To create a customized report for	Do this
A purchase order	a. On the **Purchase Orders** tab, click **Design**. b. In the **Select Purchase Order** dialog box, double-click the purchase order. c. If you have selected the **Prompt on export** checkboxes for any properties, ensure that the values are correct, and click **OK**. d. To confirm copying the report to your custom report directory, click **Yes**. e. Use the Stimulsoft Report Designer to customize the report. For instructions, see the Stimulsoft Reports user guide.
Receiving	a. On the **Receiving** tab, click **Design**.

To create a customized report for	Do this
	b. If you have selected the **Prompt on export** checkboxes for any properties, ensure that the values are correct, and click **OK**. c. To confirm copying the report to your custom report directory, click **Yes**. d. Use the Stimulsoft Report Designer to customize the report. For instructions, see the Stimulsoft Reports user guide.
Job costing	a. On the **Job Costing** tab, click **Design**. b. If you have selected the **Prompt on export** checkboxes for any properties, ensure that the values are correct, and click **OK**. c. To confirm copying the report to your custom report directory, click **Yes**. d. Use the Stimulsoft Report Designer to customize the report. For instructions, see the Stimulsoft Reports user guide.
Inventory summary	a. On the **Inventory Summary** tab, click **Design**. b. Select the inventory date and time in the available calendar and lists and click **OK**, or click **Use Current Inventory** to use the current inventory values. c. To confirm copying the report to your custom report directory, click **Yes**. d. Use the Stimulsoft Report Designer to customize the report. For instructions, see the Stimulsoft Reports user guide.

Saving the customized report in Stimulsoft Report Designer updates the changes to Tekla PowerFab.

7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

You can now start working with the Trimble Viewpoint.

According to your needs, see any of the following instructions.

Export the selected purchase orders to Trimble Viewpoint

You can export purchase orders to both Trimble Viewpoint Vista and Trimble Viewpoint Spectrum.

Before you export the purchase order, ensure that:

- The company code of the vendor in the Tekla PowerFab **Address Book** matches the vendor in Trimble Viewpoint
- The job number of the Tekla PowerFab purchase order matches the job number in Trimble Viewpoint
- The **Cost Code** field in Tekla PowerFab purchase orders is mapped to the phase in Trimble Viewpoint purchase orders.

1. Do any of the following:
   a. At the top of the Tekla PowerFab window, click the **Purchasing** button.
   b. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**. Then, click **Export** on the **Purchase Orders** tab.
2. In the **Select Requisition/Purchase Order** dialog box, select the purchase orders that you want to export.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Purchasing** ribbon tab.
4. On the menu, select **Export Purchase Orders** --> **Trimble Viewpoint - Selected**.
5. Click **Yes** to confirm exporting the selected purchase orders.
6. If you have selected the **Prompt on export** checkboxes for any properties in the **Trimble Viewpoint Integration** dialog box, ensure that the values are correct, and click **OK**.
7. In the **Save As** dialog box, browse to the folder where you want to save the exported purchase orders.

   By default, Tekla PowerFab saves the purchase orders in the `Export` folder.
8. If necessary, change the file name.
9. Click **Save**.

The exported purchase orders are saved as a `.txt` file in the folder that you selected.

You can then import the `.txt` file to any Trimble Viewpoint solution according to your needs.

Export purchase orders with receiving transactions to Viewpoint

You can export purchase orders to both Trimble Viewpoint Vista and Trimble Viewpoint Spectrum.

Before you export the purchase order, ensure that:

- The company code of the vendor in the Tekla PowerFab **Address Book** matches the vendor in Trimble Viewpoint
- The job number of the Tekla PowerFab purchase order matches the job number in Trimble Viewpoint
- The **Cost Code** field in Tekla PowerFab purchase orders is mapped to the phase in Trimble Viewpoint purchase orders.

1. Do any of the following:
   a. At the top of the Tekla PowerFab window, click the **Purchasing** button.
   b. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**. Then, click **Export** on the **Receiving** tab.
2. In the **Select Requisition/Purchase Order** dialog box, select the purchase orders that you want to export.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Purchasing** ribbon tab.
4. On the menu, select **Export Purchase Orders** --> **Trimble Viewpoint - Receiving**.
5. In the **Save As** dialog box, browse to the folder where you want to save the exported purchase orders.

   By default, Tekla PowerFab saves the purchase orders in the **Export** folder.
6. If necessary, change the file name.
7. Click **Save**.

The exported purchase orders are saved as a `.csv` file in the folder that you selected.

NOTE To avoid errors, do not open an exported `.csv` file with Microsoft Excel. If you do so, the formatting of information changes, and the `.csv` file will fail to import to Trimble Viewpoint products.

Export job costing transactions

1. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**.
2. On the **Job Costing** tab, click **Export**.
3. If you have selected the **Prompt on export** checkboxes for any properties in the **Trimble Viewpoint Integration** dialog box, ensure that the values are correct, and click **OK**.
4. In the **Save As** dialog box, browse to the folder where you want to save the file with exported job costing transactions.

   By default, Tekla PowerFab saves the file in the **Export** folder.
5. If necessary, change the file name.
6. Click **Save**.

The exported job costing transactions are saved as a `.csv` file in the folder that you selected.

NOTE To avoid errors, do not open an exported `.csv` file with Microsoft Excel. If you do so, the formatting of information changes, and the `.csv` file will fail to import to Trimble Viewpoint products.

View the inventory summary report

To audit the inventory information between Tekla PowerFab and Trimble Viewpoint:

1. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**.
2. On the **Inventory Summary** tab, click **View**.

Integrate Tekla PowerFab to SigmaNest

Integrating Tekla PowerFab to SigmaNest eliminates manual double entry of inventory and parts.

For more information, see the following:

- Export inventory to SigmaNest (page 648)
- SigmaNest Integration

Mult and nest materials with ATek Steel Solutions

You can use ATek Steel Solutions to mult and nest materials outside Tekla PowerFab.

First, you need to set up Tekla PowerFab and ATek Steel Solutions to work together. Then, you can send the parts to be cut and the inventory as work orders from Tekla PowerFab to ATek Steel Solutions, and import the multing and nesting results back to Tekla PowerFab.

Set up Tekla PowerFab to work with ATek Steel Solutions

1. Go to **Maintenance** --> **Integration Settings** --> **Atek Steel Solutions**.

   The **Steel Solutions Settings** dialog box opens.

2. Select the **Enable Atek Steel Solutions** checkbox.

Note that you need to set up ATek Steel Solutions to work with Tekla PowerFab as well. To do so, go to Tekla PowerFab settings in ATek Steel Solutions.

For instructions, see Atek Steel Solutions Integration.

Set user permissions to use ATek Steel Solutions

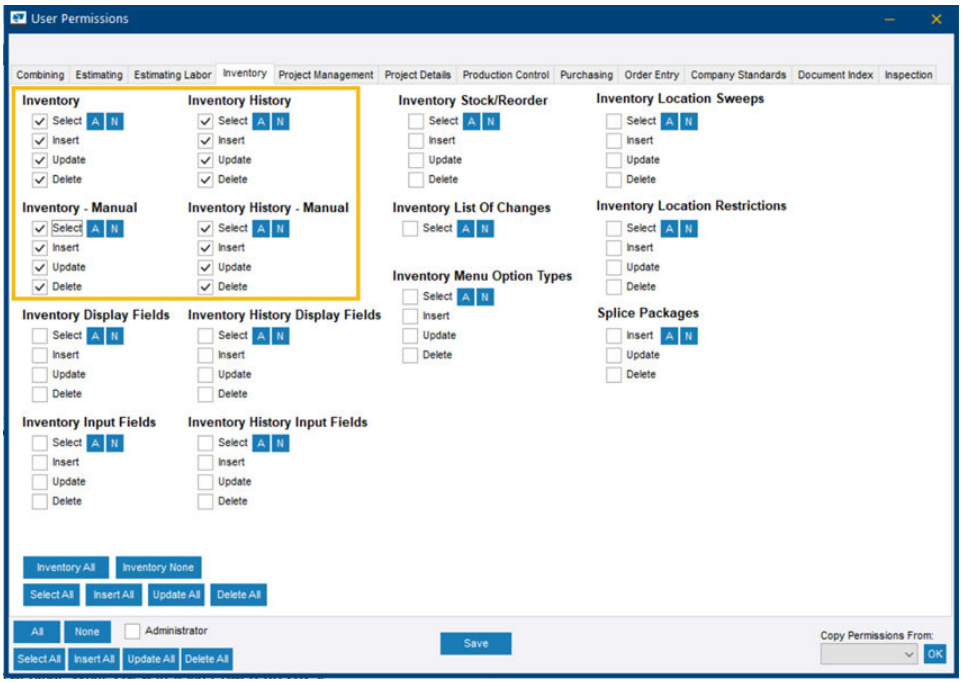
In order to export multing and nesting information from Tekla PowerFab to ATek Steel Solutions, Tekla PowerFab users need to have specific user permissions. It might be useful to add a new Tekla PowerFab user specifically for working with ATek Steel Solutions.

1. Go to **File** --> **Administration**.
2. On the **Tekla PowerFab Users** tab of the **Administration** dialog box, select the user whose permissions you want to modify, or add a new user (page 70).
3. Click **Edit Permissions**.
4. At the top of the **User Permissions** dialog box, select the **Allow Tekla PowerFab Login** check box.

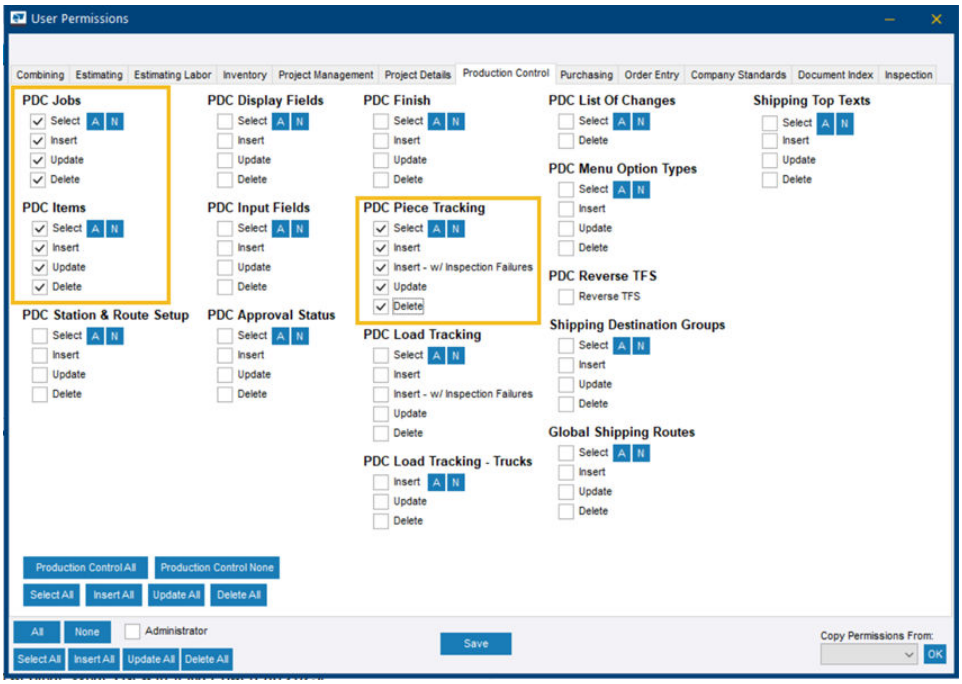
   When logging in to Tekla PowerFab has been allowed for the user, you can modify the other permissions.

5. Select at least the following check boxes:

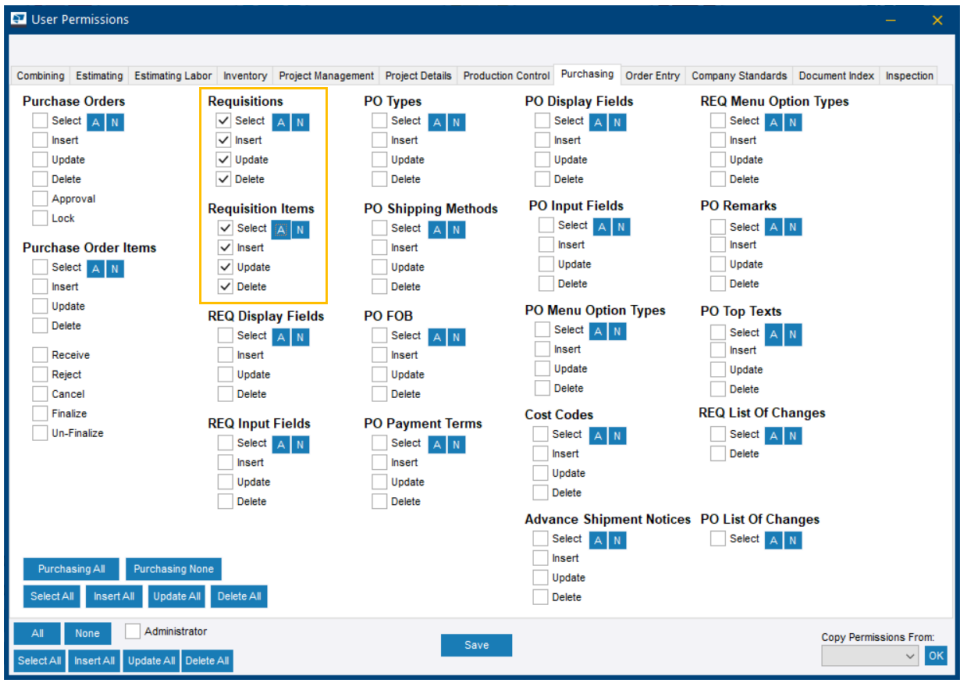
   a. On the **Inventory** tab:



b. On the **Production Control** tab:



c. On the **Purchasing** tab:



6. Click **Save**.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Send a work order to ATek Steel Solutions

A work order is a multing or nesting request. A work order contains the CNC files to be cut, and the available and orderable inventory on which you can mult and nest materials.

1. Open a combining, estimating, or production control job, a requisition, or a purchase order.
2. Click the contextual ribbon tab.

   For example, if you are working on a combining job, click the **Combining** ribbon tab.
3. On the menu, select **Combine**.
4. In the **Select Combining Run** dialog box, click a desired combining option to select it.

   The options are:

   - **Mult**: combines linear items, like beams and angles.
   - **Nest**: combines items that have area, like plates or gratings.**Mult & Nest**: combines all items.
5. At the lower left corner of the **Combining Run Filters** dialog box, click **Optimizations**.

6. Depending on which items will be combined, do one or both of the following:
   - On the **Mult Settings - Linear Material** tab, set **Multing Software** to **SteelSolutions**.
   - On the **Plate Nesting Settings** tab, set **Plate Nesting Software** to **SteelSolutions**.
7. Click **Save**.
8. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

   In the **Combining Run Results** dialog box, all parts show as not combined.
9. Click **Save Combining Run**.
10. Click the **Combining Run** ribbon tab.
11. On the menu, select **Export Parts for Nesting** --> **Export to Steel Solutions**.
12. In the **Export Parts for Combining** dialog box, adjust the settings according to your needs:
    - To include existing inventory materials in the export, select the **Include available inventory** check box.
    - To include inventory materials that are on order in the export, select the **Include orderable inventory**.
    - In the **CNC Files** list, select how you want to include CNC files in the export.
13. Click **Export Parts**.

Tekla PowerFab exports the parts to be multed and nested.

You can now open ATek Steel Solutions and import the `XML` file that has been created by Tekla PowerFab. For detailed instructions on multing and nesting parts, see the ATek Steel Solutions documentation.

After the parts have been multed and nested, you can import the information back to Tekla PowerFab.

Import multing and nesting results back to Tekla PowerFab

Before you begin, ensure that you have the right combining run open in Tekla PowerFab.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Import Nested Parts**.

3. Browse to find and select the `XML` file that contains the multing and nesting results.
4. Click **Open**.

The multing and nesting results are imported back to Tekla PowerFab.

See also

Import files to Tekla PowerFab (page 144)

Combine materials in the Combining module (page 377)

Combine materials in the Estimating module (page 584)

Combine materials in the Production Control module (page 996)

Combine items in the Requisition # dialog box (page 1127)

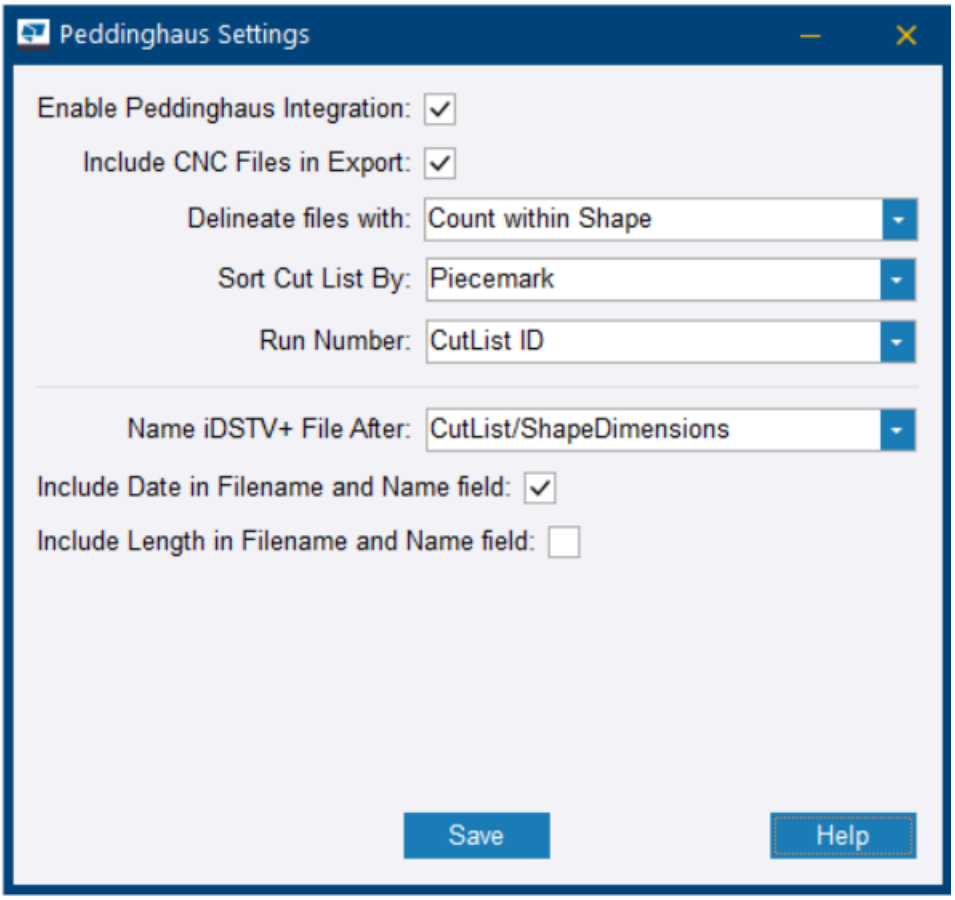
Cut materials with Peddinghaus Raptor

You can send a cut list from Tekla PowerFab to Peddinghaus Raptor for cutting. This way, you do not need to enter parts for cutting in both software.

Set up Tekla PowerFab to work with Peddinghaus Raptor

1. Go to **Maintenance** --> **Integration Settings** --> **Peddinghaus**.

   The **Peddinghaus Settings** dialog box opens.
2. Select the **Enable Peddinghaus Integration** check box.
3. Define the cut list export settings for Peddinghaus Raptor.



4. Click **Save**.

Send a cut list to Peddinghaus Raptor

1. Go to **Maintenance** --> **Production Control** --> **Cut Lists**.

   The **Select Production Control Jobs** dialog box opens.

2. Click the arrow buttons to move the jobs whose cut lists you want to adjust to the **Included** list.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

3. In the **Cut Lists** dialog box, select the cut list.
4. At the bottom of the dialog box, click **Send Cut List**.
5. Click **Raptor**.
6. Browse to find and select the folder where you want to save the generated cutting details and CNC files.
7. Click **OK**.

The files are exported to the selected folder. You can view the progress of the export in the **Status** dialog box. When the export has been finished, you can click **OK**.

You can now import the cut list to Peddinghaus Raptor and cut the materials.

For further information, see Peddinghaus Raptor Integration.

See also

Import files to Tekla PowerFab (page 144)

5.7 Job status maintenance

Job status has various functions. It allows you to group jobs, which makes reporting more effective. It also allows you to drill down selections, control automated events, and restrict the availability of jobs in Tekla PowerFab Go. For estimating jobs, you can create your own set of statuses to facilitate managing and prioritizing estimates and to provide visibility into the workflow.

You can create as many statuses as you want in Tekla PowerFab, but any status applied to a job has one of the two purposes:

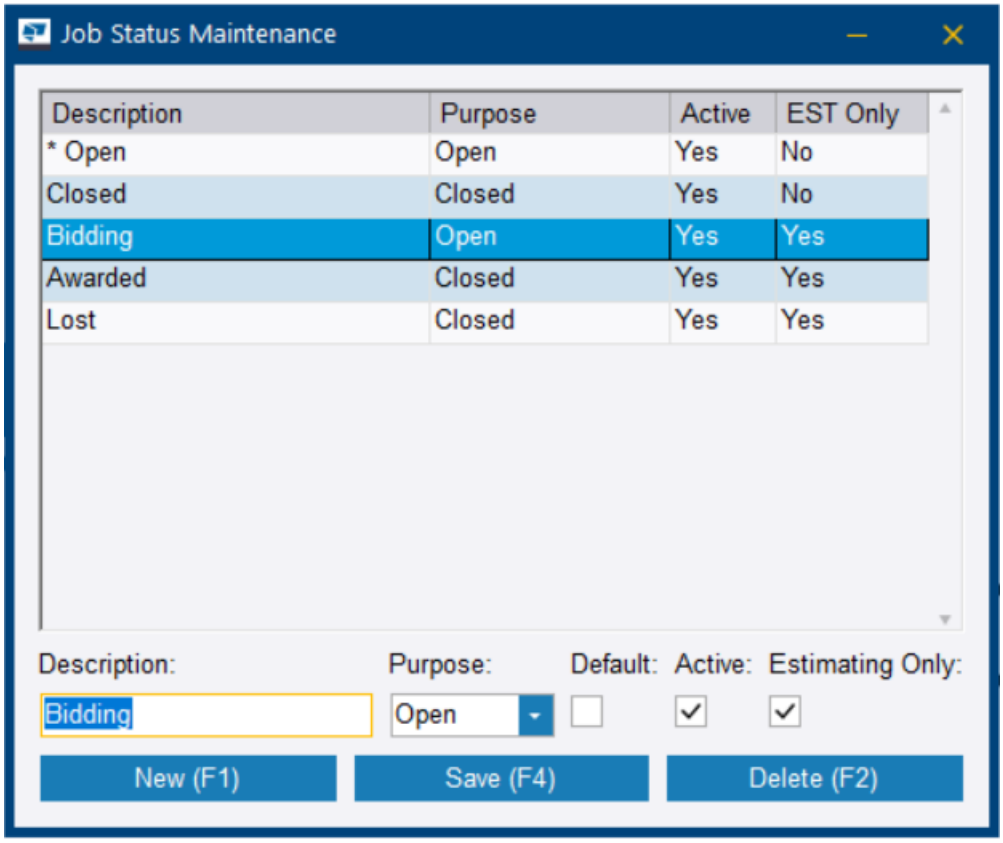
- **Open**: Active jobs
- **Closed**: Jobs that are no longer active.

Manage job statuses

You can add, edit, and delete job statuses.

1. Go to **Maintenance** --> **Job Status Maintenance**.

The **Job Status Maintenance** dialog box opens.



Bidding, **Awarded**, and **Lost** are by default **EST Only**.

2. Do one of the following:

To	Do
Add a new status	a. Click **New**. b. Type in a description. c. Select purpose. d. For statuses intended only for estimating, select **Estimating Only**. e. Click **Save**.
Edit a status	a. Select the status that you want to modify. b. Modify the status as needed: • Change the description or purpose. • To deactivate the status if it is no longer required or

To	Do
	applicable, unselect **Active**. The status is then not available when setting the job status. c. Click **Save**.
Delete a status	a. Select the status that you want to delete. b. Click **Delete**. c. To confirm, click **Yes**.

See also

Create an estimating job (page 509)

5.8 Pricing maintenance

Material pricing is maintained in the **Pricing Maintenance** database. Before you start working in Tekla PowerFab, it is important to adjust pricing to match that of your company.

We recommend that you set up the **Pricing Maintenance** database as early as possible, so that working in Tekla PowerFab becomes more seamless.

The material database used in **Pricing Maintenance** contains a variety of preloaded material shapes. However, only the most commonly used shapes are available in **Pricing Maintenance** by default.

The missing material shapes should be added to **Pricing Maintenance** to combine materials in several Tekla PowerFab modules. If the required material shapes, grades, sizes, and lengths are not available in **Pricing Maintenance**, Tekla PowerFab cannot combine materials.

You can add new shapes, grades, sizes, lengths, and pricing information to the **Pricing Maintenance** database.

NOTE You can create and use multiple pricing data sets in Tekla PowerFab.

The pricing data sets are referred to as *supplier warehouses* in Tekla PowerFab. Despite their name, supplier warehouses can also represent pricing that is for pricing tiers or other purposes. Supplier warehouses can be labeled in different ways according to their purpose.

NOTE The supplier warehouse labeled **Warehouse** is meant for items that need to be purchased, not items that are in the company's warehouse.

You can update the pricing of multiple items by importing pricing information or by using the **Global Edit** and **Global Edit Form** commands. You can also

update pricing while working in the **Purchasing** module, in the **Estimating** module, or while creating pricing forms.

Open Pricing Maintenance

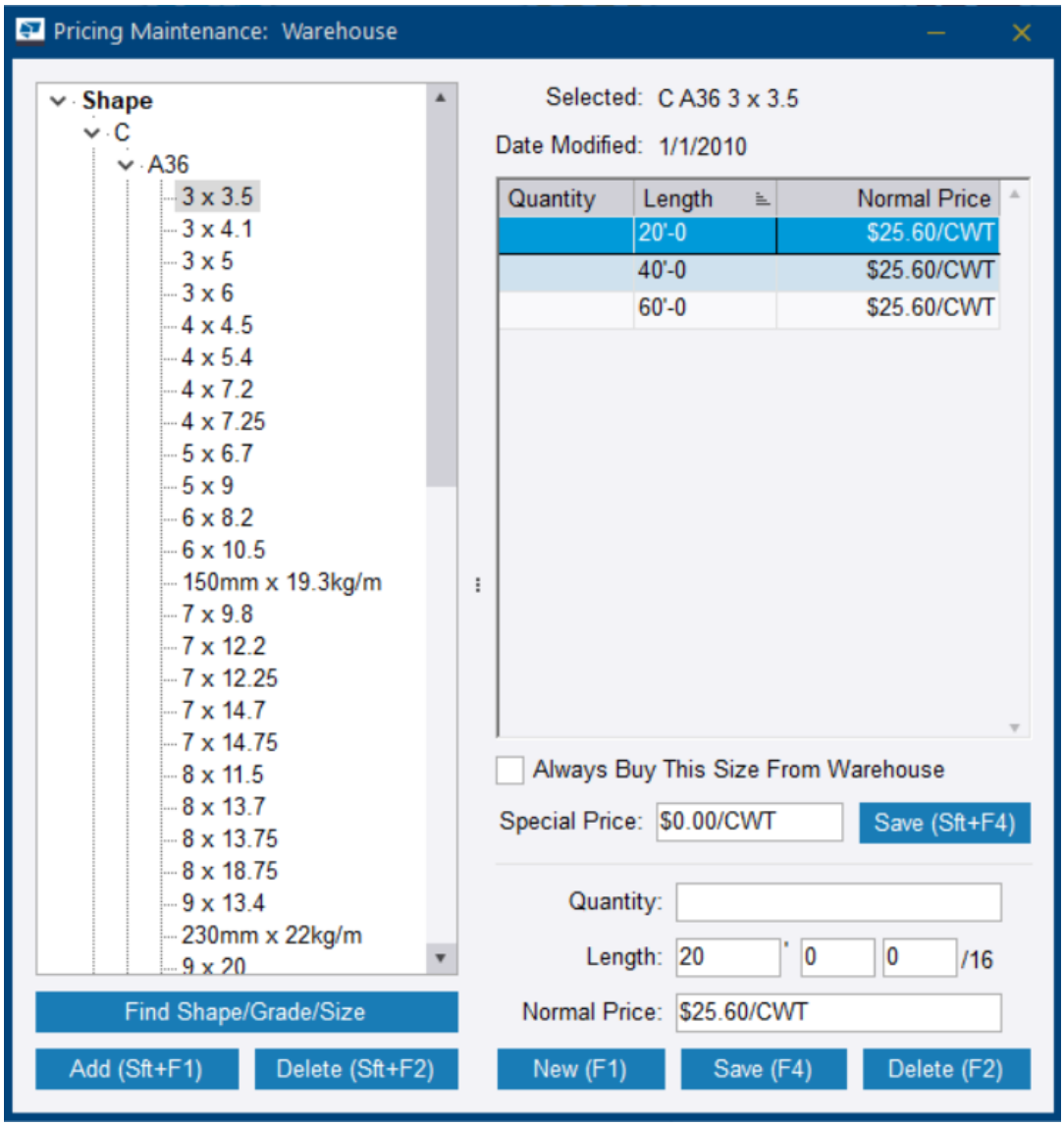
In **Pricing Maintenance**, you can add the material sizes and lengths that you want to use when combining materials in Tekla PowerFab.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
3. Select a pricing warehouse.
4. Double-click the pricing warehouse, or click **Open**.

   The **Pricing Maintenance** dialog box opens.
5. Click the **>** signs to expand the options in the navigation tree.
6. Select the material dimension that you want to view or modify.

The properties of the selected material dimension appear on the right side of the dialog box.



On the right hand side, it displays the default price and typical lengths for the selected size.

You can make changes to individual grades and sizes using the buttons at the bottom. However, most updates can be done from the pricing maintenance global edit.

See also

Find shapes, grades, and dimensions in Pricing Maintenance (page 281)

Manage material dimensions in pricing (page 281)

Job-specific pricing maintenance (page 542)

Find shapes, grades, and dimensions in Pricing Maintenance

You can use the **Find Shape/Grade/Size** command in the **Pricing Maintenance** dialog box to find a particular material shape, grade, or dimension.

1. In the **Pricing Maintenance** dialog box, click **Find Shape/Grade/Size**.
2. In the **Find** dialog box, do one of the following:
   - Type the name of the material shape, grade, or dimension in the related field.
   - Click the arrow on the right side of the related field, and select the desired material shape, grade, or dimension in the list.
3. Click **Find**.

The shape, grade, or dimension is selected in the shape list on the left side of the **Pricing Maintenance** dialog box.

Manage material dimensions in pricing

You can manage material dimensions in the pricing database in several ways. You can add material dimensions either one by one or as groups, copy dimensions from one material grade to another, or remove unnecessary material dimensions from the pricing database.

Add a single material dimension to pricing

By default, only the most commonly used shapes are available in **Pricing Maintenance**. However, you can add new shapes that you need when combining materials in Tekla PowerFab.

NOTE Only material dimensions that are available in the material database can be added to pricing.

See Material database (page 299).

1. Go to **Maintenance** --> **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
2. Select a supplier and click **Open**.

   The **Pricing Maintenance** dialog box opens.
3. Below the **Shape** list in the **Pricing Maintenance** dialog box, click **Add**.
4. In the **Shape** list, select the shape whose dimensions you want to add and click **OK**.
5. Select the **Grade** and click **OK**.

6. Double-click the dimension that you want to add.
7. Ensure that the grade in the **Grade** list is correct. If not, select the correct grade in the **Grade** list.
8. Click **OK**.

The shape, grade, and size are added to the navigation tree and the pricing database.

Now, you can add lengths and pricing information for the newly added dimension. For more information, see Add, modify, and delete material lengths and pricing information for a dimension (page 285).

Add material dimensions to pricing

By default, only the most commonly used shapes are available in the pricing database and the **Pricing Maintenance** dialog box. However, you can add new material dimensions to the pricing database, if needed.

NOTE Only material dimensions that are available in the material database can be added to pricing.

See Material database (page 299).

1. Go to **Maintenance** --> **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
2. Select a pricing warehouse and click **Open**.

The **Pricing Maintenance** dialog box opens.



3. Click **Add**.

   The **Select Shape** dialog box opens.

4. In the drop-down list, select the shape whose dimensions you want to add.

5. Click **OK**.

   The **Select Grade** dialog box opens.

6. In the drop-down list, select the material grade whose dimensions you want to add.

7. Click **OK**.

   The **Select the sizes to add** dialog box opens.

8. Click the arrow buttons to move the dimensions that you want to add to the **Included** list.

9. Click **OK**.

The selected dimensions are added to the pricing database and appear in the **Pricing Maintenance** dialog box.

Next, you need to add lengths and pricing information for the added dimensions. See Add, modify, and delete material lengths and pricing information for a dimension (page 285).

Copy material dimensions from one grade to another

Use the **Copy Sizes** command to copy a list of dimensions and their pricing information from one material grade to another.

1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. On the menu, select **Copy Sizes**.
3. In the **Select the sizes to copy** dialog box, click the arrow buttons to move the dimensions that you want to add to the **Included** list.
4. Click **OK**.
5. In the **New Grade** list, select the material grade to which the dimensions will be copied.
6. Click **OK**.
7. If the new grade already has dimensions in the current supplier warehouse, select if you want to overwrite the existing dimensions (**Yes**) or only add dimensions that do not yet exist in the supplier warehouse (**No**).

   A message appears, telling you that the selected dimensions have been copied to the new grade.
8. Click **OK** to close the message.

The pricing of the dimensions in the new material grade matches the pricing of the original material grade. If necessary, update the pricing either item by item or by using the **Global Edit** command. For more information, see Add, modify, and delete material lengths and pricing information for a dimension (page 285) or Modify the pricing of multiple items (page 288).

Delete material dimensions from pricing

You can permanently delete unnecessary material dimensions and their pricing information from the pricing database.

1. Go to **Maintenance** --> **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
2. Select a supplier and click **Open**.

   The **Pricing Maintenance** dialog box opens.

3. In the **Shape** list, do one of the following:
   - To delete one dimension, select the dimension.
   - To delete all dimensions of a particular grade, select the grade.
   - To delete all dimensions of a particular shape, select the shape.
4. Below the **Shape** list, click **Delete**.
5. To permanently delete the dimensions and their pricing information from the pricing database, click **Yes** in the confirmation dialog box.

NOTE The dimensions and the material grade are not automatically deleted from the material database. They need to be separately deleted. For more information, see Delete dimensions (page 334) and Add, modify, and delete grades (page 321).

Modify lengths and pricing

You can add, modify, and delete material lengths and pricing information in two ways: either one dimension at the time, or by selecting multiple grades and dimensions of a shape. If necessary, you can also add special prices for lengths.

For more information, see the following links:

Add, modify, and delete material lengths and pricing information for a dimension (page 285)

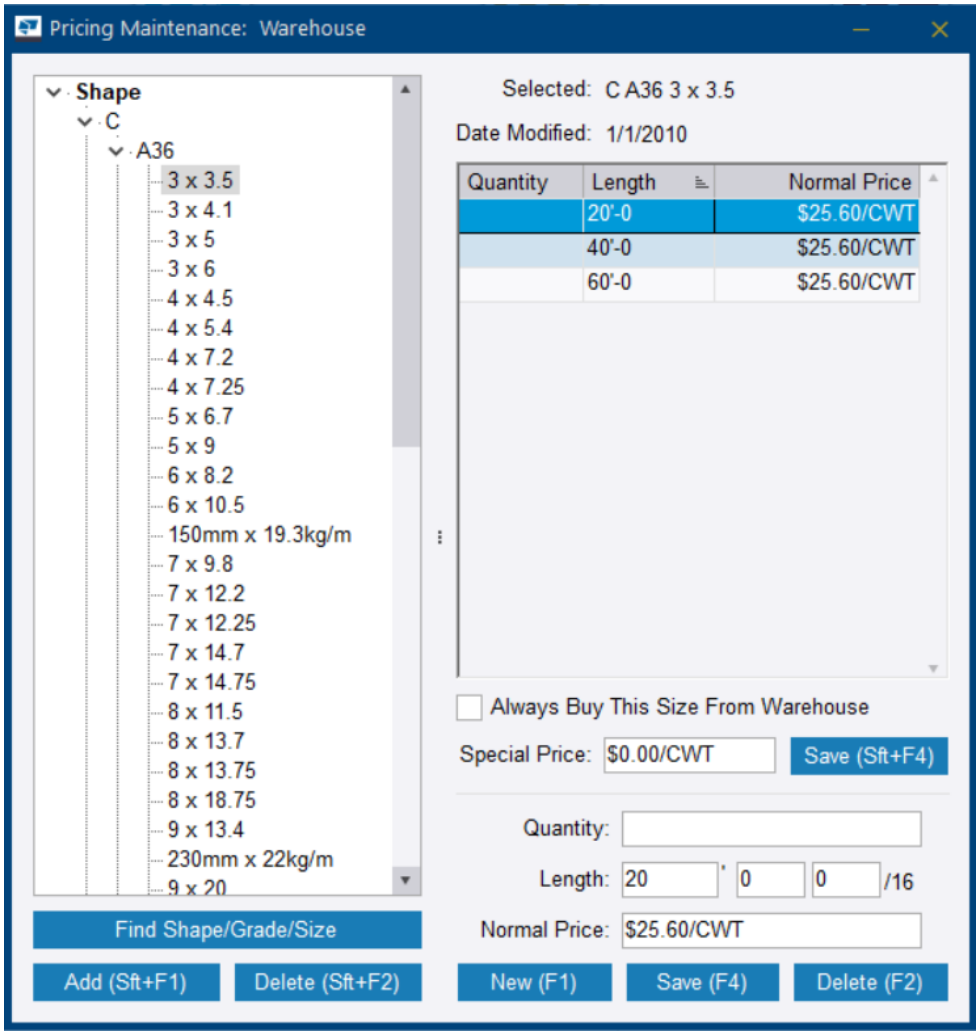
Add a special price (page 288)

Modify the pricing of multiple items (page 288)

Add, modify, and delete material lengths and pricing information for a dimension

You can add new purchasable material lengths or modify the existing lengths in **Pricing Maintenance**. Ensure that you add all lengths that you need when combining materials in the Tekla PowerFab modules. When adding lengths, it is important to also define the pricing. Otherwise, Tekla PowerFab will consider the material free. You can also delete any unnecessary lengths from the pricing database.

NOTE To make wholesale changes to multiple dimensions by shape, use the **Global Edit** command. For more information, see Modify the pricing of multiple items (page 288).



Add a material length and its pricing information

1. In the shape list in the **Pricing Maintenance** dialog box, select a shape and a dimension.

   The existing lengths of the dimension are shown in the length list on the right side of the **Pricing Maintenance** dialog box.

2. Below the length list, click **New**.

3. If only limited quantities of the material dimension are available, type a value in the **Quantity** field.

Otherwise, leave the **Quantity** field blank.

If you do not define a quantity, the **Quantity** column for the lengths of the material dimension will show an asterisk (*). This means that Tekla PowerFab allows an unlimited number of lengths.

4. In the **Length** field, type the material length.

   For some shapes, you may also need to define the material width.

5. In the **Normal Price** field, type a price for the dimension.

   TIP You can right-click the **Normal Price** field to change or convert the pricing units and currencies.

6. If necessary, type a price in the **Special Price** field and click **Save**.

   Note that the price in the **Special Price** field overrides the price in the **Normal Price** field.

7. To determine that the selected dimension is always bought from the current supplier, select the **Always Buy This Size From [Supplier]** checkbox.

   If you select the **Always Buy This Size From [Supplier]** checkbox for the material dimension in another supplier warehouse, the **Always Buy This Size From [Supplier]** checkbox is automatically cleared in the previous supplier warehouse.

8. Click **Add**.

The length and price are added for the selected dimension.

Modify a material length and its pricing information

1. In the shape list in the **Pricing Maintenance** dialog box, select a shape and a dimension.

   The existing lengths of the dimension are shown in the length list on the right side of the **Pricing Maintenance** dialog box.

2. Select a length in the length list.
3. Modify the length, the quantity, and the pricing properties according to your needs.
4. To save the changes, click **Edit** below the length list.

Delete a material length and its pricing information

1. In the shape list in the **Pricing Maintenance** dialog box, select a shape and a dimension.

   The existing lengths of the dimension are shown in the length list on the right side of the **Pricing Maintenance** dialog box.

2. Select a length in the length list.

3. Below the length list, click **Delete**.
4. To permanently delete the selected length and its pricing information from this supplier in the pricing database, click **Yes** in the confirmation dialog box.

Add a special price

If you have selected the **Use Special Price** option for the selected supplier, you can add a special price for a material dimension. Note that the special price overrides the normal price that you have defined for the dimension.

TIP If you want to add the same special price for multiple dimensions at one go, use the **Global Edit** command. For more information, see Modify the pricing of multiple items (page 288).

---

1. In the shape list in the **Pricing Maintenance** dialog box, select a shape and a dimension.

   The existing lengths of the dimension are shown in the length list on the right side of the **Pricing Maintenance** dialog box.
2. Type a price in the **Special Price** field.
3. Under the length information, click **Edit**.

The special price is saved for the selected material dimension. Note that the special price will be used instead of the normal price until you remove the special price.

Modify the pricing of multiple items

Use the **Global Edit** command to modify pricing, available lengths for linear items and available lengths and widths for nested items, and to select whether a material dimension is always bought from a particular supplier.

NOTE When you are using multiple supplier warehouses in **Pricing Maintenance**, you need to maintain the pricing of shapes in each warehouse separately.

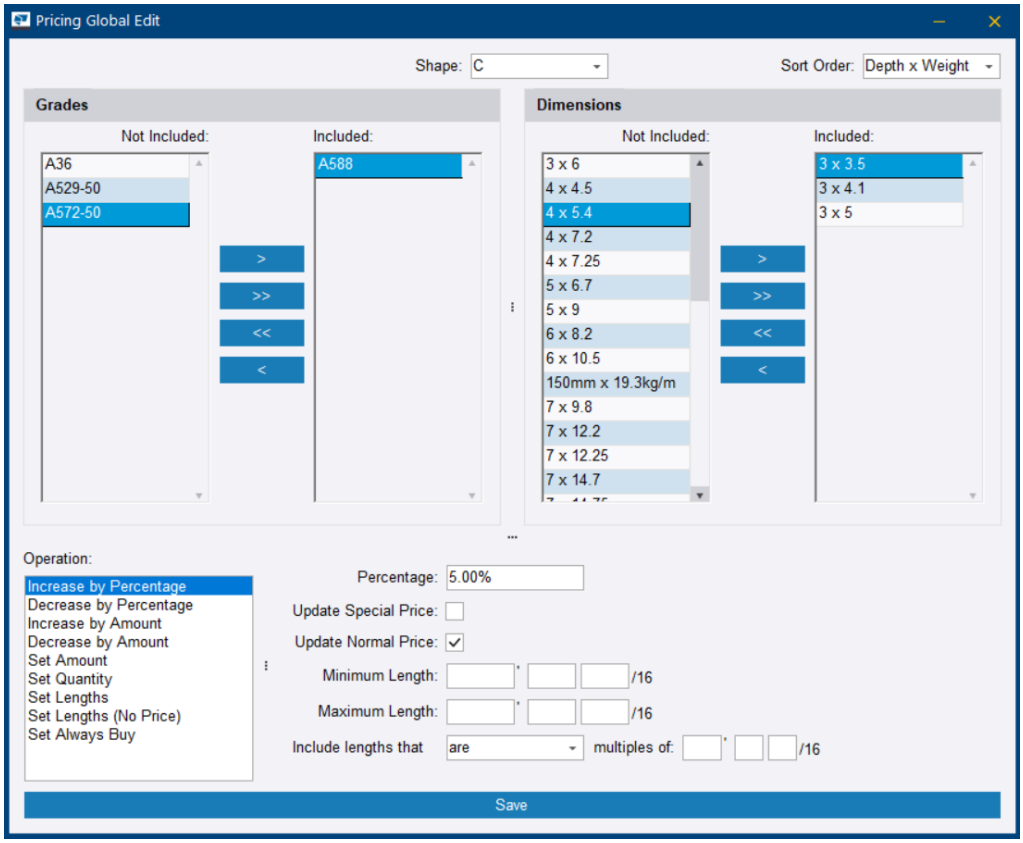
The pricing information is used for multing and nesting material in multiple Tekla PowerFab modules. You can still combine the items with updated pricing to any inventory or purchase order items, or manually combine the items in a requisition.

If you are combining material items to the specific supplier warehouse and the items in the modules do not match with the items that are available in the supplier's data set, Tekla PowerFab cannot combine the materials.

---

1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. On the menu, select **Global Edit**.

3. In the **Shape** list at the top of the **Pricing Global Edit** dialog box, select the shape whose grades and dimensions you want to modify.



The grades and dimensions of the shape appear in the dialog box.

4. In the **Grades** section, click the arrow buttons to move the grades that you want to modify to the **Included** list.
5. In the **Dimensions** section, click the arrow buttons to move the dimensions that you want to modify to the **Included** list.
6. In the **Operation** list in the lower-light corner, select an option:
   - **Increase By Percentage**: Increases the prices of the selected items by a specific percentage.
   - **Decrease By Percentage**: Decreases the prices of the selected items by a specific percentage.
   - **Increase By Amount**: Increases the prices of the selected items by a certain sum.
   - **Decrease By Amount**: Decreases the prices of the selected items by a certain sum.
   - **Set Amount**: Sets the prices of the selected items to a specific sum.
   - **Set Quantity**: Allows Tekla PowerFab to only use a specific number of the selected lengths.

- **Set Lengths**: Allows you to add lengths for the selected items either one by one or as a range.
- **Set Lengths (No Price)**: Allows you to add lengths for the selected items either one by one or as a range. No pricing information is added.
- **Set Always Buy**: Allows you to determine that the selected dimensions are always bought from the current supplier. To do so, select the **Always Buy From [Supplier]** checkbox.

  If you select the **Always Buy From [Supplier]** checkbox for the same dimensions in another supplier warehouse, the **Always Buy From [Supplier]** checkbox is automatically cleared in the previous supplier warehouse.

When you have selected the operations, the applicable fields are shown at the bottom of the dialog box.

7. Depending on the operation you selected, modify the pricing information.

   TIP You can right-click the **Amount** field to change or convert the pricing units and currencies.

8. Click **Save**.

Example: Set lengths

1. Select the **Set Lengths** option.

   A length list appears on the left side of the dialog box.
2. Click **New**.
3. Do one of the following:

To	Do this
Add lengths one by one	a. If the lengths only apply to a fixed quantity of items, type the quantity in the **Quantity** field. b. Define the length and the normal price. You can right-click the **Normal Price** field to change or convert the pricing units and currencies. c. Click **Add** to add the length and its pricing information to the list.
Add multiple lengths with the same interval	a. Click **Add Range**. b. In the **Add Range** dialog box, define the start and end lengths. c. Define the interval length.

To	Do this
	d. If necessary, define the quantity of items to which the range will apply. e. Define the normal price. **TIP** You can right-click the **Normal Price** field to change or convert the pricing units and currencies. f. Click **Add Range**.

4. When you have added all necessary lengths and pricing information, click **Save**.

   The length and pricing of the selected items are updated.

Create pricing forms

Use the **Global Edit Form** command to apply group-specific pricing for different material dimensions. For example, when updating pricing for groups of HSS shapes, the shapes that are either smaller or larger than the commonly used dimensions may need different pricing updates. By creating and using pricing forms, you can update each group of HSS shapes accordingly. You can create one pricing form that contains multiple shapes whose pricing you want to update in the current supplier warehouse, or pricing data set.

Creating pricing forms becomes even more efficient when you update the pricing from a requisition or a purchase order, as you can update multiple shapes and dimensions at one go.

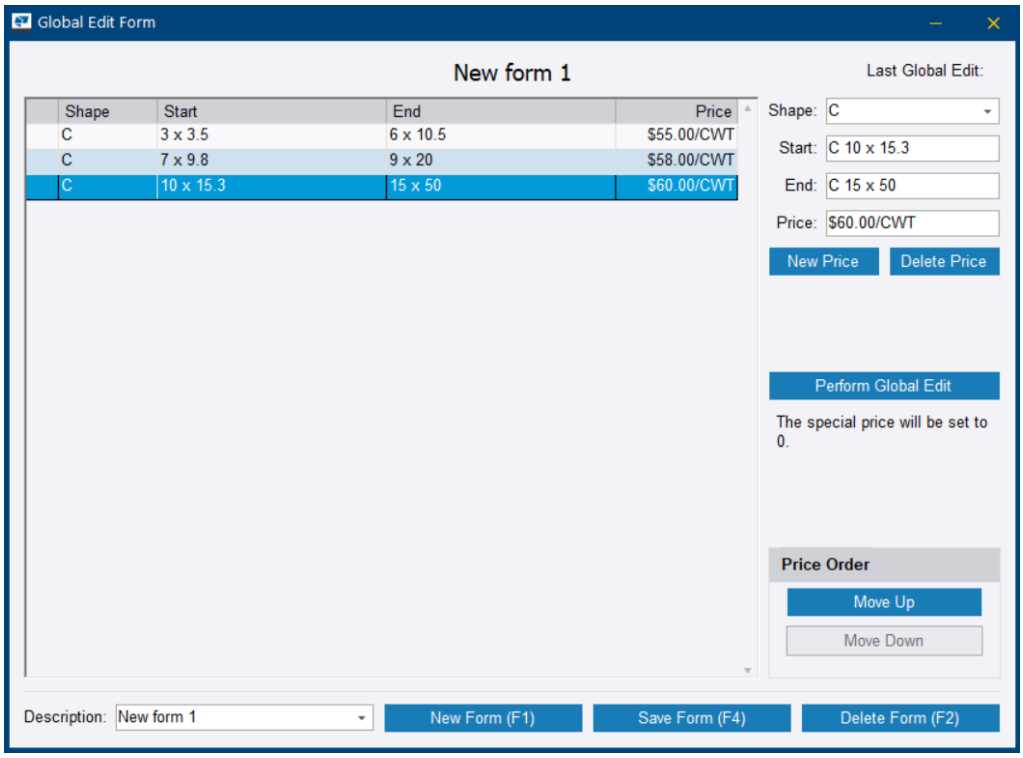
1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. On the menu, select **Global Edit Form**.
3. At the bottom of the **Global Edit Form** dialog box, click **New Form**.
4. Type a name for the new form and click **OK**.
5. If another form already exists and you want to copy its content, click **Yes** in the confirmation dialog box.
6. On the right side of the **Global Edit Form** dialog box, click **New Price**.
7. In the **Shape** list, select a shape.
8. Click the **Start** field, and double-click the smallest dimension to which the new price applies.

9. Click the **End** field, and double-click the largest dimension to which the new price applies.
10. In the **Price** field, type the price.

    TIP To change the units for the price, right-click the **Price** field and select a suitable option.

11. To save the changes, click **Save Form**.

    Repeat steps 6 to 11 for different dimensions of the selected shape and other shapes. You can see an example pricing form in the following image.



12. When you have added all the necessary forms and prices, click **Perform Global Edit**.

The pricing of the selected items is updated. The pricing forms that you created are saved for later use.

Create and manage pricing lists

You can view, email, or print the information in a supplier pricing database as a pricing list. You can filter the pricing list by shape to see a list of pricing for all dimensions of the selected shape, or leave the pricing list unfiltered to create a list containing all pricing information.

Create a pricing list

1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. If you only want to display selected items in the report, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, click the arrow buttons to move the items that you want to include in the pricing list to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.

Tekla PowerFab creates the pricing list, and the **Report Selection** dialog box opens. Here, you can view, print, or export the pricing list.

View the pricing list

1. In the **Report Selection** dialog box, click **View**.
2. In **Tekla PowerFab Report Viewer**, do any of the following according to your needs:

To	Do this
Move between pages	• Click the arrows at the top of **Tekla PowerFab Report Viewer**.
Go to a specific page of the report	• Type the page number in the empty field at the top of **Tekla PowerFab Report Viewer**.
Find a text in the report	a. Click the binocular icon. b. In the blank field, type the text that you want to find. c. Click **Find Next**. Any matching text is highlighted with a red box.
Zoom in or out	• Click the magnifying glass icon and select the zoom value in the list.

Print the pricing list

1. In the **Report Selection** dialog box, change the number of printed copies by clicking the **+** and **-** buttons.
2. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**.

   You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the used printer.

3. Click **Print**.
4. Click **Yes**.

Export the pricing list

1. Click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. Modify the file name as needed.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. To export the pricing list and save it to the selected location, click **Export**.

Email the pricing list as an Excel worksheet or a PDF file

Note that the **Email Excel** and **Email PDF** commands only allow you to send the pricing list via Microsoft Outlook email. If you use some other email service, you need to export the pricing list and attach it to an email manually.

1. In the **Report Selection** dialog box, click **View**.
2. In the upper-right corner of **Tekla PowerFab Report Viewer**, click either **Email Excel** or **Email PDF**.

   When the report is ready, the Microsoft Outlook icon appears at the bottom of the screen.
3. Click the icon to open Microsoft Outlook.
4. Modify the email according to your needs.
5. Send the email.

Import a pricing list

You can import a pricing list that has been revised by a supplier or that has user-modified pricing. Pricing lists can be imported either from Microsoft Excel or from an XML file. During the import, Tekla PowerFab overwrites the current pricing of the material items in the imported file. The pricing of material items that are not included in the file does not change.

We recommend that you start by exporting the pricing list from Tekla PowerFab, modifying it, and importing it back to Tekla PowerFab. By doing so, you can ensure that the format and header information will match the

headers in Tekla PowerFab when you import the modified pricing list back to Tekla PowerFab.

NOTE The format of the pricing list that you import needs to match the pricing format in the pricing list or in the pricing **Pricing Maintenance** dialog box.

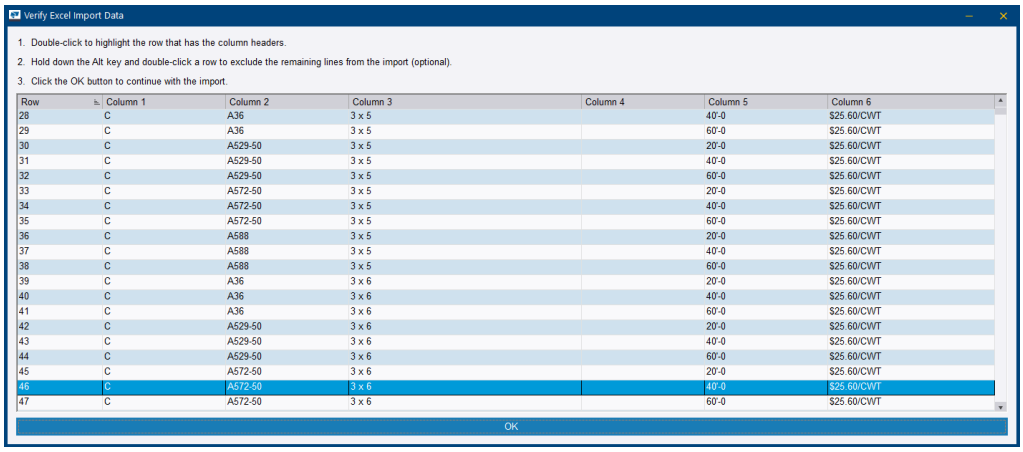
Import a pricing list from Microsoft Excel

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
3. In the **Select Supplier** dialog box, click the **Pricing** ribbon tab.
4. On the menu, go to **Import Pricing** --> **Import Pricing From Excel File**.
5. In the **Open** dialog box, browse to find the Microsoft Excel worksheet that contains the pricing list.

   For a sample file, see Excel Spreadsheet Sample Import Files.
6. Select the file and click **Open**.

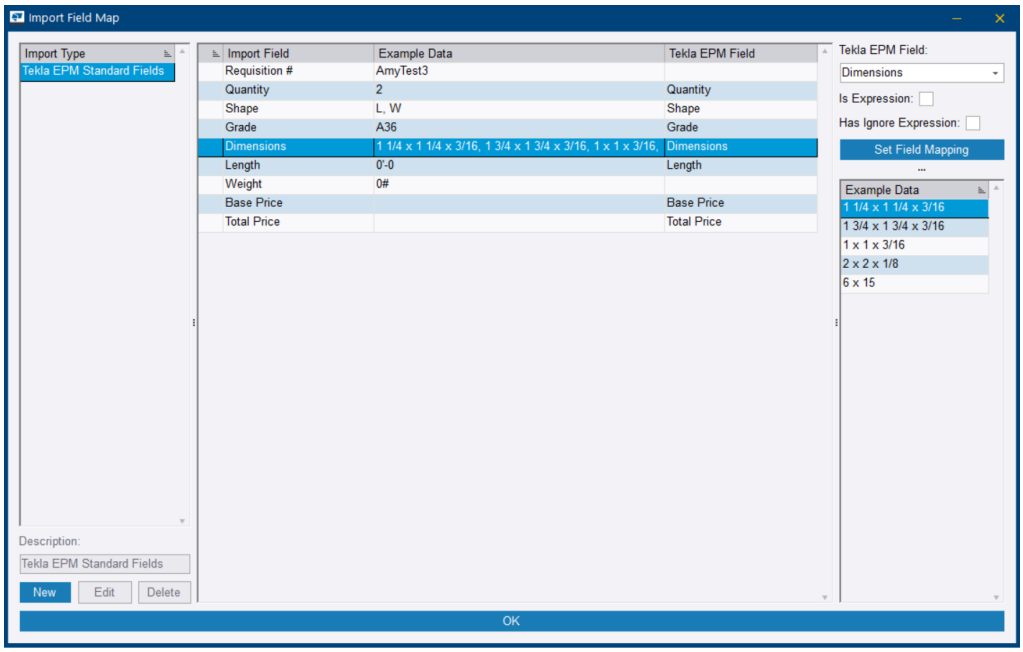
   Tekla PowerFab reads the Microsoft Excel worksheet. Once the reading is finished, the **Verify Excel Import Data** dialog box opens.



Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
28	C	A36	3 x 5		40'-0	$25.60/CWT
29	C	A36	3 x 5		60'-0	$25.60/CWT
30	C	A529-50	3 x 5		20'-0	$25.60/CWT
31	C	A529-50	3 x 5		40'-0	$25.60/CWT
32	C	A529-50	3 x 5		60'-0	$25.60/CWT
33	C	A572-50	3 x 5		20'-0	$25.60/CWT
34	C	A572-50	3 x 5		40'-0	$25.60/CWT
35	C	A572-50	3 x 5		60'-0	$25.60/CWT
36	C	A588	3 x 5		20'-0	$25.60/CWT
37	C	A588	3 x 5		40'-0	$25.60/CWT
38	C	A588	3 x 5		60'-0	$25.60/CWT
39	C	A36	3 x 6		20'-0	$25.60/CWT
40	C	A36	3 x 6		40'-0	$25.60/CWT
41	C	A36	3 x 6		60'-0	$25.60/CWT
42	C	A529-50	3 x 6		20'-0	$25.60/CWT
43	C	A529-50	3 x 6		40'-0	$25.60/CWT
44	C	A529-50	3 x 6		60'-0	$25.60/CWT
45	C	A572-50	3 x 6		20'-0	$25.60/CWT
46	C	A572-50	3 x 6		40'-0	$25.60/CWT
47	C	A572-50	3 x 6		60'-0	$25.60/CWT

7. Review the items being imported, and click **OK**.

The **Import Field Map** dialog box opens.



In the **Import Field Map** dialog box, the headings of the Microsoft Excel worksheet need to be mapped to the standard Tekla PowerFab fields.

8. If the values of an item in the **Import Field** and **Tekla PowerFab Field** columns are different, do the following:

   a. Select the unmatched **Import Field** value.

   b. On the right side of the dialog box, select a suitable field in the **Tekla PowerFab Field** list.

   c. Click **Set Field Mapping**.

   Repeat steps a to c for all import fields that are not matched.

9. Click **OK** to continue.

10. In the **Select Supplier** dialog box, select the supplier warehouse for which the new pricing list is imported.

11. Click **Import**.

    The **Import** dialog box opens, and Tekla PowerFab continues importing the information from the Microsoft Excel worksheet.

    When the import is finished, the **Import** dialog box states that the import is completed. A copy of the import log is automatically saved in the log file location determined in the **Default Directories** dialog box.

12. To close the **Import** dialog box, click the **Close** button (**X**) in the upper-right corner.

Import from an XML file

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
3. In the **Select Supplier** dialog box, click the **Pricing** ribbon tab.
4. On the menu, go to **Import Pricing** --> **From XML File**.
5. In the **Open** dialog box, browse to find the XML file that contains the pricing list.
6. Select the XML file and click **Open**.
7. In the **Select Supplier** dialog box, select the supplier warehouse for which the new pricing list is imported.
8. Click **Import**.

   Tekla PowerFab imports the items from the XML file. The import process may take some time.

   When the import is finished, the **Import** dialog box states that the import is completed. A copy of the import log is automatically saved in the log file location determined in the **Default Directories** dialog box.
9. To close the **Import** dialog box, click the **Close** button (**X**) in the upper-right corner.

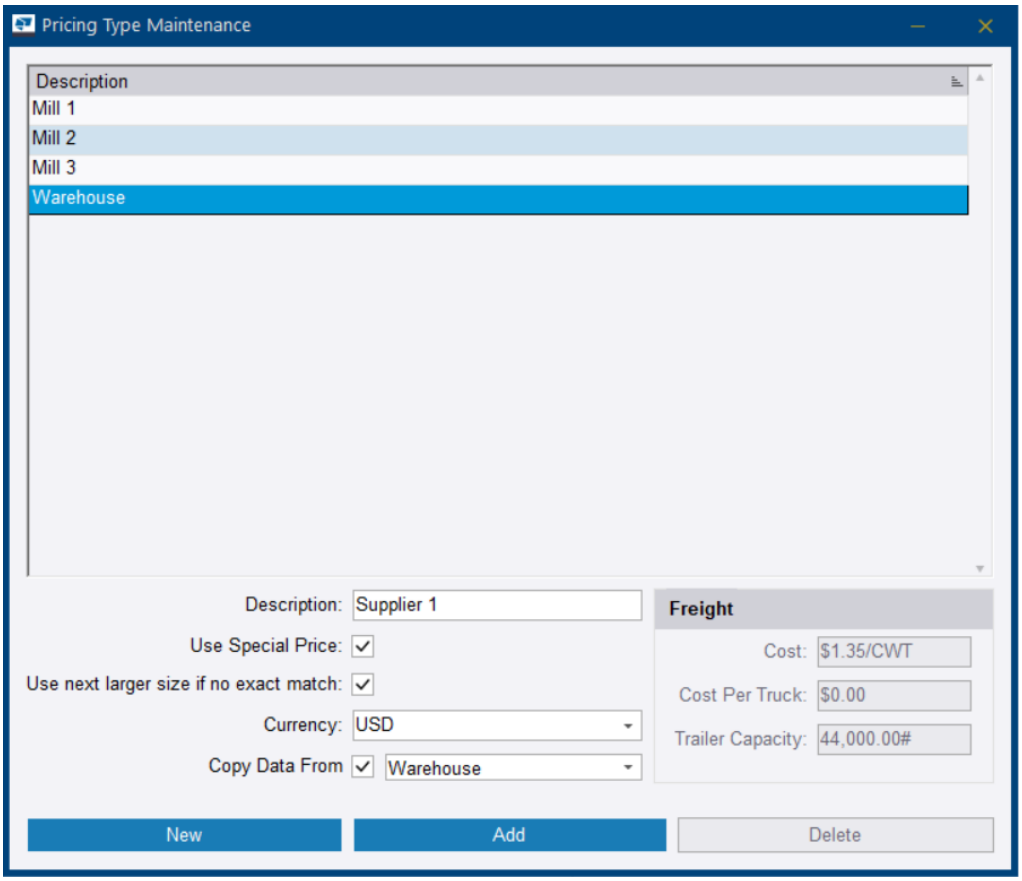
Add a supplier warehouse

Use the **Pricing Type Maintenance** command to add a supplier warehouse, or pricing set, to the pricing database.

Note that you can also modify and delete existing supplier warehouses in the **Pricing Type Maintenance** dialog box.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Pricing Maintenance**.

   The **Select Supplier** dialog box opens.
3. In the **Select Supplier** dialog box, click the **Pricing** ribbon tab.
4. On the menu, select **Pricing Type Maintenance**.
5. At the bottom of the **Pricing Type Maintenance** dialog box, click **New**.
6. In the **Description** field, type the name of the new supplier.



7. If you want the supplier warehouse to allow adding special prices for material dimensions, select the **Use Special Price** checkbox.
8. To allow pricing material dimensions in an estimate that do not exist in the selected supplier warehouse, select the **Use next larger size if no exact match** checkbox.
9. If you are using multiple currencies in Tekla PowerFab, in the **Currency** list, select the currency that the new supplier warehouse will use.
10. Select the **Copy Data From** checkbox, and select which existing supplier you want to use as the basis of the new supplier warehouse.
11. Click **Add**.

    The new supplier is added to the list.
12. To close the **Pricing Type Maintenance** dialog box, click the **Close** button (**X**) in the upper-right corner.

The new supplier warehouse is now available in the **Select Supplier** dialog box, and you can modify the pricing of the new supplier warehouse according to your needs.

See also

Manage material dimensions in pricing (page 281)

Modify lengths and pricing (page 285)

Create pricing forms (page 291)

Export a pricing list

You can export the pricing information from Tekla PowerFab as a pricing list to be viewed and updated. You can save the pricing list as a Microsoft Excel worksheet, an ASCII file, or an XML file.

1. Open the **Pricing Maintenance** dialog box.

   See Open Pricing Maintenance (page 279).
2. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
3. On the menu, go to **Export**.
4. Select the file format in which you want to export pricing.
5. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
6. If necessary, change the file name.
7. Click **Save**.

The pricing list is saved in the location you selected.

5.9 Material database

Tekla PowerFab contains a variety of materials, which are stored in the material database, or the the shapes, grades, and sizes library. These materials are the foundation of all material calculations in Tekla PowerFab, and therefore it is extremely important to adjust the material database according to the needs of your company before before you start working in Tekla PowerFab.

We recommend that access to the material database is limited to a small number of users who are experienced and familiar with the materials used by your company.

The material database is used to determine the following:

- The material sizes and grades available when creating estimates, purchase orders, and production jobs.
- Material specifications, such as pounds per foot, web and flange thicknesses, and cross-sectional area to provide accurate calculations of piece weights and surface areas.

- Material grade hierarchy to control when alternatives to the specified grade may be utilized.
- Alternative naming conventions for materials to cater variations in nomenclature between different regions, industries, and authoring (detailing) software.
- Material optimization settings, such as kerf and clamping allowances, and restock thresholds to control if remnants are scrapped or go back into inventory.

You can add any materials that you need to the material database. You can also add material items that are not steel, from equipment and consumables to office supplies. Tekla PowerFab accepts a variety of property formats used to assist with material calculations for weights, pricing, and surface area for coating.

NOTE When you add new materials to the material database, the materials still need to be added to the pricing database separately. The pricing database is where Tekla PowerFab looks for the material dimensions and lengths for combining materials.

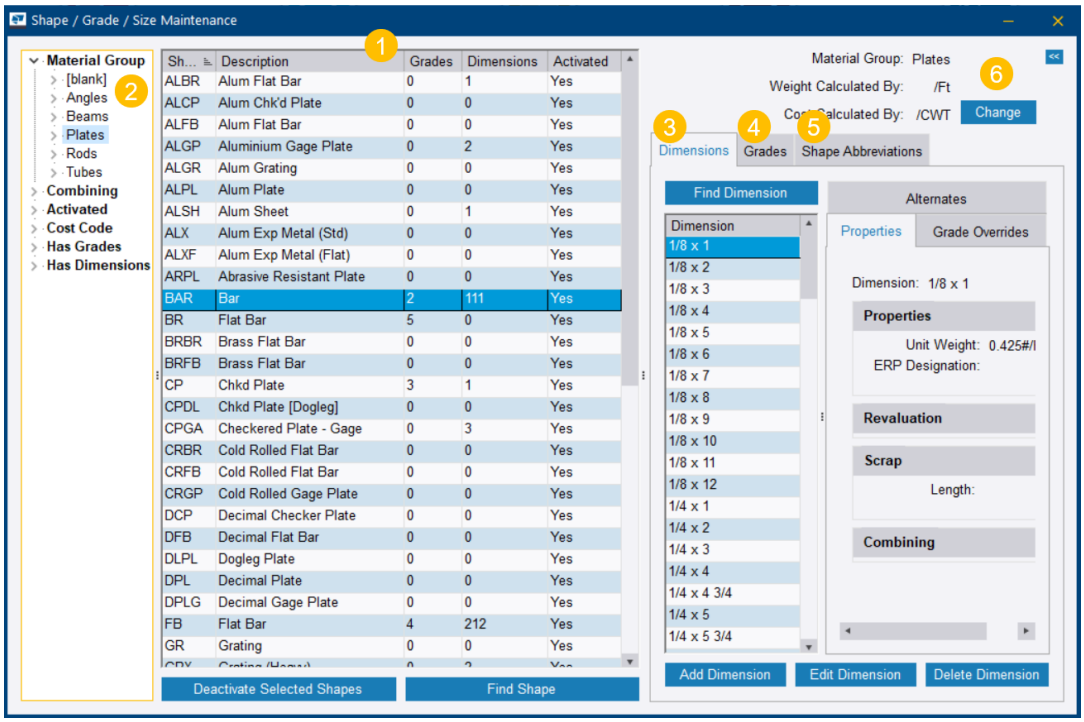
For more information, see Pricing maintenance (page 278).

Shape/Grade/Size Maintenance dialog box

You can view and manage the materials that have been added to the material database in the **Shape/Grade/Size Maintenance** dialog box. You can both add new materials, and modify, deactivate, or delete existing materials.

To start managing the materials in Tekla PowerFab, go to **Maintenance** --> **Shapes/Grades/Sizes**.

The **Shape/Grade/Size Maintenance** dialog box opens.



(1) Shape list: Lists all existing shapes in the material database in alphabetical order. You can see the abbreviation and description of the shape, the number of material grades and dimensions, and the activation status. When you select a shape in the shape list, you can start managing its dimensions, grades, and abbreviations.

For more information, see Manage shapes (page 302).

(2) Navigation tree: Filter the shapes that are shown in the shape list. You can expand the categories in the navigation tree by clicking the **+** signs on the left side of the categories. For example, if you only want to show shapes that have material grades, click **+** on the left side of **Has Grades**, and select **Yes**. You can also activate and deactivate shapes in the **Activated** category. See also Activate or deactivate shapes (page 313).

(3) Dimensions tab: Add new dimensions, modify dimension properties, add alternate dimensions and grade overides, show where particular dimensions are used in Tekla PowerFab, and delete unnecessary dimensions.

For more information, see Manage dimensions (page 325).

(4) Grades tab: Add, modify, or delete grades, and add grade substitutions or grade redirections.

For more information, see Manage grades (page 319).

(5) Shape Abbreviations tab: Add new abbreviations for shapes. By adding shape abbreviations, you can ensure that Tekla PowerFab recognizes any shapes that you import, even if the imported shapes do not use the Tekla PowerFab standard abbreviations.

For more information, see Manage shape abbreviations (page 314).

(6) When you have selected a shape, you can see the material group, weight calculation method, and cost calculation method, and the cost display units here. You can also change the cost display units.

For more information, see Change the display units of prices (page 338) and Select metric or imperial mode (page 135).

Find shapes, grades, dimensions, or shape abbreviations

Use the **Find** commands to find material shapes, grades, dimensions, and shape abbreviations in the **Shape/Grade/Size Maintenance** dialog box without scrolling.

1. In the **Shape/Grade/Size Maintenance** dialog box, do any of the following:
   - To find a shape, click **Find Shape** at the bottom of the dialog box.
   - To find a material dimension, open the **Dimensions** tab. Then, select the shape whose dimensions you want to view in the shape list, and click **Find Dimension**.
   - To find a material grade, open the **Grades** tab. Then, select the shape whose grades you want to view in the shape list, and click **Find Grade**.
   - To find a shape abbreviation, open the **Shape Abbreviations** tab. Then, select the shape whose abbreviations you want to view, and click **Find Abbreviation**.
2. In the **Find** dialog box, type the search term in the field.

   Note that when searching for a dimension, you need to leave a space on both sides of `x`. For example, `3 x 3 x 1/4`.
3. Click **OK**.

The shape, grade, dimension, or shape abbreviation that you searched for is selected in the **Shape/Grade/Size Maintenance** dialog box.

Manage shapes

You can add, delete, activate, and deactivate shapes in the Tekla PowerFab material database. In addition, you can add grades, dimensions, and abbreviations for shapes.

NOTE The shape list also contains system shapes that you cannot modify. Many of these system shapes may be missing some of the actual shape information, such as material grades or dimensions. These shapes are added for user convenience. You can add material grades or dimensions for the shapes, or deactivate the shapes.

See Activate or deactivate shapes (page 313).

You can use separate shapes for materials that may have the same or similar shape but have different grades. You can use the Tekla PowerFab system shapes for this purpose. Just can add the necessary dimensions or grades for these system shapes.

The shape list in the **Shape/Grade/Size Maintenance** dialog box in **Maintenance** --> **Shapes/Grades/Sizes** lists all existing shapes in alphabetical order.

Sh...	Description	Grades	Dimensions	Activated
F	Frame	0	0	Yes
FB	Flat Bar	4	212	Yes
GBR	Grouser Bar	0	0	Yes
GDR	Plate Girders	0	0	Yes
GR	Grating	0	0	Yes
GRX	Grating (Heavy)	0	2	Yes
HL	Angle W/Holes	0	0	Yes
HP	H-Piles	1	25	Yes
HRBR	Hot Roll Flat Bar	0	0	Yes
HRFB	Hot Roll Flat Bar	0	0	Yes
HRGP	Hot Rolled Gage Plate	1	1	Yes
HRP	Hand Rail Pipe	0	0	Yes
HS	High Strength Bolt	15	301	Yes
HSS	Hollow Structural Section	7	382	Yes
HSSR	Hollow Structural Section - R	6	157	Yes
HYD	Hyd Parts	0	0	Yes
K	Joist	0	0	Yes
L	Angle	5	144	Yes
LD	Laydown	0	0	Yes
LG	Angle (Galvanized)	0	0	Yes
LS	Angle (Decimal Input)	0	0	Yes
LST	Lag Studs	0	0	Yes
LVL	Laminated Veneer Lumber	0	0	Yes
M	Misc Beams	3	19	Yes
MB	Machine Bolt	7	148	Yes
MC	Misc Channel	2	40	Yes
MDG	Metal Deck (Galv)	0	0	Yes

Shape: The abbreviations for the material shape. See Manage shape abbreviations (page 314).

Description: The name of the shape

Grades: The number of grades included for the shape

Dimensions: The number of dimensions, or material sizes, included for the shape

Activated: **Yes** indicates that a shape is active within Tekla PowerFab.

Deactivated shapes, marked with **No**, are not available for combining or pricing.

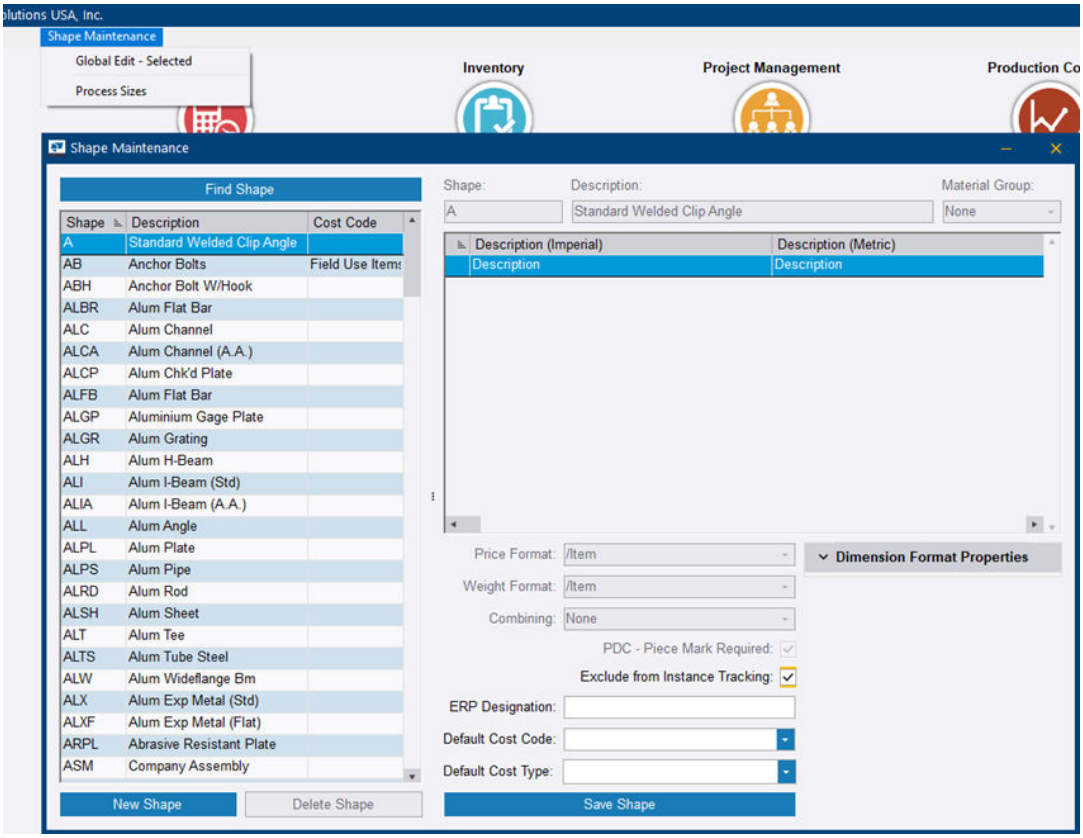
See Activate or deactivate shapes (page 313).

You can add and remove columns from the grid. See Customize the layout of a dialog box (page 131).

Add, modify, and delete shapes

You can add new shapes to the material database in the **Shape Maintenance** dialog box. You can also select which dimension properties are used for the shapes, and permanently delete unnecessary shapes.

To access **Shape Maintenance**, click the **Shape/Grade/Size Maintenance** ribbon tab and on the menu click **Shape Maintenance**.

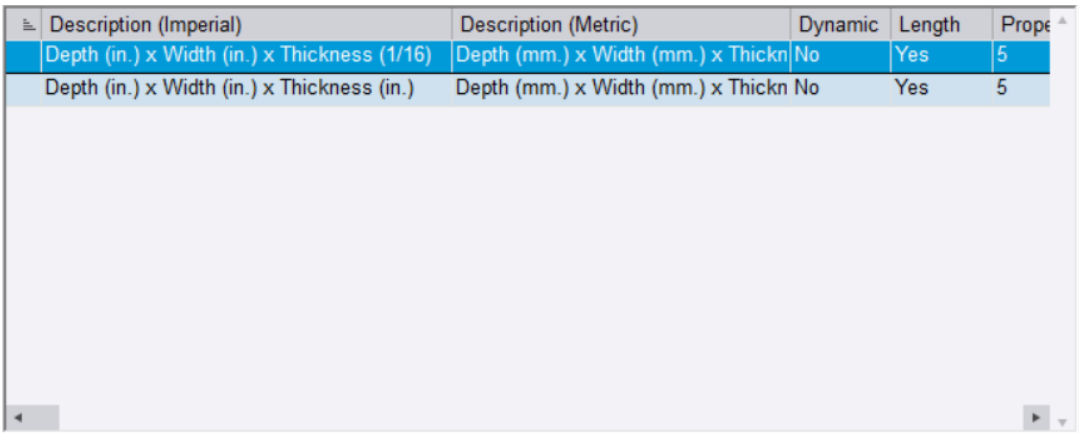


Each shape in Tekla PowerFab has the following properties:

Property	Description
Shape	An abbreviation for the shape. You can use any abbreviation that is not currently used by another shape.
Description	A description for the shape.
Material Group	Select a suitable group for the shape. Each shape belongs to one of the following material groups: • Angles • Beams • Plates • Rods • Tubes • None All material groups have their own dimension property sets that determine how Tekla PowerFab calculates the dimension properties and estimates labor. Note that if you select the **None** material group, Tekla PowerFab cannot calculate labor for the shape in the **Estimating** module.
Description (Imperial)/ (Metric)	Each dimension property has a description in both imperial and metric units.
Dynamic	Determines what kind of entries the shape accepts. If **Dynamic** is set to **Yes**, the shape accepts any entry that the user enters as dimension. If **Dynamic** is set to **No**, the dimensions of the shape need to be added to the list. Note that if you select **Yes**, you cannot assign weights or other dimension properties for the shape.
Length	Shows if the dimension has length or if the descriptions contain the length. If the dimension descriptions contain the length or the dimension does not have length, **Length** is set to **No**. If the descriptions do not contain the length, but the dimension has a length, **Length** is set to **Yes**.

Property	Description
Property	Shows the weight calculation format of the dimension. You can view the details of the format by expanding the **Dimension Format Properties** section and opening the **Property Formats** tab.
Sur. Area	Shows the surface area calculation format of the dimension. You can view the details of the format by expanding the **Dimension Format Properties** section and opening the **Surface Area Formats** tab.
Price Format, **Weight format**	Select the price and weight format for the shape
Combining	Select if the shape should be multed, nested, or not combined at all.
PDC - Piece Mark Required	When selected, Tekla PowerFab always looks for a piece mark association when importing items of the new shape. If piece marks are not used, leave the checkbox unselected. The use of piece marks is defined in **Maintenance** --> **Production Control** --> **Company Standards**.
Exclude from Instance Tracking	If you do not want to allow instance tracking for the shape, select the **Exclude from Instance Tracking** checkbox. Selecting the **Exclude from Instance Tracking** checkbox is especially useful for items like hardware.
ERP Designation	If you are adding a shape that is also used in the enterprise resource planning (ERP) software, type the shape designation that is used in that software in the **ERP Designation** field.
Default Cost Code	A code for classifying costs to match your accounting system See Manage cost codes (page 227) and Assign and view default cost codes and cost types (page 495).
Default Cost Type	A category for each classification of cost See Manage cost types (page 225).

NOTE Some shapes also have qualified alternate dimension properties that you can select to use. In this case, two or more lines are shown for the selected shape.



- Select the line whose properties you want to use, and click **Save Shape** to save the changes.

Add a shape

NOTE When you add new materials to the material database, the materials still need to be added to the pricing database separately. The pricing database is where Tekla PowerFab looks for the material dimensions and lengths for combining materials.

See Pricing maintenance (page 278). See also Adjust labor standards (page 467).

1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. On the menu, select **Shape Maintenance**.
3. In the shape list of the **Shape Maintenance** dialog box, select a shape that has as similar properties as possible to the shape that you want to add.

   For example, when adding deformed bar anchors, you may want to select the anchor bolts shape, whose properties are calculated in the same way. This way, you do not have to modify the shape properties too much.
4. At the bottom of the dialog box, click **New Shape**.
5. Define the properties.
6. Click **Save Shape**.

The new shape is added to the shape list.

Next, you can close the **Shape Maintenance** dialog box, and add dimensions (page 327), grades (page 321), additional shape abbreviations, (page 314) and other properties for the shape according to your needs.

Modify a shape

1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. On the menu, select **Shape Maintenance**.
3. In the shape list of the **Shape Maintenance** dialog box, select the shape that you want to modify.
4. Modify the properties.

   For example, you can change how the shape should be combined, and which price and weight formats are used.
5. Click **Save Shape**.
6. To confirm changing the shape properties, click **Yes** in the confirmation dialog box.

Modify multiple shapes

1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. On the menu, select **Shape Maintenance**.
3. In the shape list of the **Shape Maintenance** dialog box, select the shapes that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. On the **Shape Maintenance** ribbon tab, select **Global Edit - Selected**.

   The **Shape Maintenance - Global Edit** dialog box opens.
5. Update the properties.
6. Click **Update**.

   You are prompted to confirm the action.
7. Click **Yes**.

Delete a shape

You can delete unnecessary shapes from the material database. For example, you might need to delete a shape whose properties are incorrect.

NOTE • When you delete a shape in the **Shape Maintenance** dialog box, the shape and its properties are permanently deleted from Tekla PowerFab. Shapes that are currently used somewhere in Tekla PowerFab cannot be deleted.

- We recommend that you deactivate shapes instead of deleting them. If needed, you can easily start using deactivated shapes by activating the shapes again.

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1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. In the menu, select **Shape Maintenance**.
3. In the shape list on the left side of the **Shape Maintenance** dialog box, select the shape that you want to delete.
4. At the bottom of the dialog box, click **Delete Shape**.
5. To permanently delete the shape from Tekla PowerFab, click **Yes** in the confirmation dialog box.

Split shapes

You can split shapes to other shapes, particularly wideflange beams to wideflange tees.

Allow a shape to be split

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.
2. Click the **Shape/Grade/Size Maintenance** ribbon tab.
3. On the menu, select **Shape Maintenance**.
4. In the shape list of the **Shape Maintenance** dialog box, select a shape that you want to split.

   For example, select **W Wideflange Beams** to be split to **WT Wideflange Tees**.
5. Ensure that the **Allow Splitting** checkbox is selected.

   The **Allow Splitting** option is available for all linear shapes.
6. Click **Save Shape** and **OK**.

Create a split configuration

1. Go to **Maintenance** --> **Shapes/Grades/Sizes** The **Shape/Grade/Size Maintenance** dialog box opens.
2. Select a shape, for example, the W shape.
3. On the right, open the **Splits** tab.

The **Splits** tab is available only for shapes that have the **Allow Splitting** option selected. See Allow a shape to be split (page 309).

Most of the typical W shapes are already set to be split evenly to WT. If you select different dimensions, you can see under **Description** the WT sizes that the W shape has been configured to split to.

4. To create additional split configurations, click **Add**.

   In the **Split Configuration** dialog box, create an **Equal Split** or an **Unequal Split**. You can add shapes from what is already in **Shape/Grade/Size Maintenance**, or add new sizes for the selected shape.

   Note that the **Split Configuration** dialog box allows any linear shape to be assigned and does not limit selection to only logical splits.

5. Click **Save**.

Combining setup for split tees

In the **Combining Setup** dialog box for each module, under **Mult Settings - Linear Material**, there is an option **Allow Split T's**.

1. Open a module and open a job.
2. In the ribbon tab, select **Combine**.
3. Click **Mult**.
4. Click **Optimizations**.
5. Go to the **Mult Settings - Linear Material** tab.
6. Select **Allow Split T's**.
7. Click **Save**.

Example: Combine WTs to W in a requisition

A requisition has several WT5x15s that need to be cut from W10x30s.

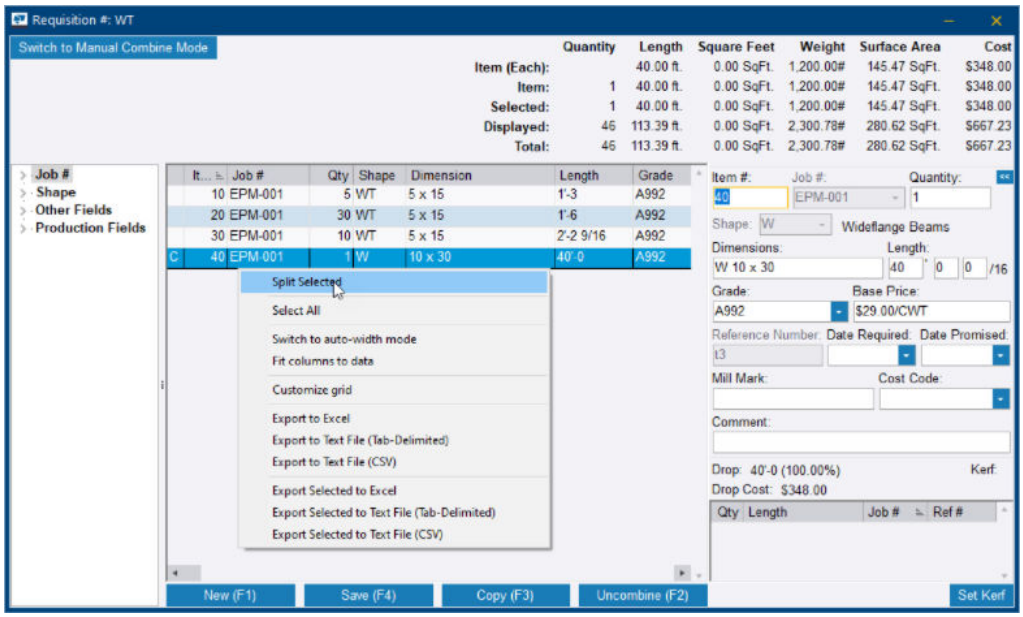
1. Run a combine on the WTs.

   As a result you have close to 80' of linear material.

2. Switch to **Manual Combine Mode**.
3. Add a 40' W10x30.

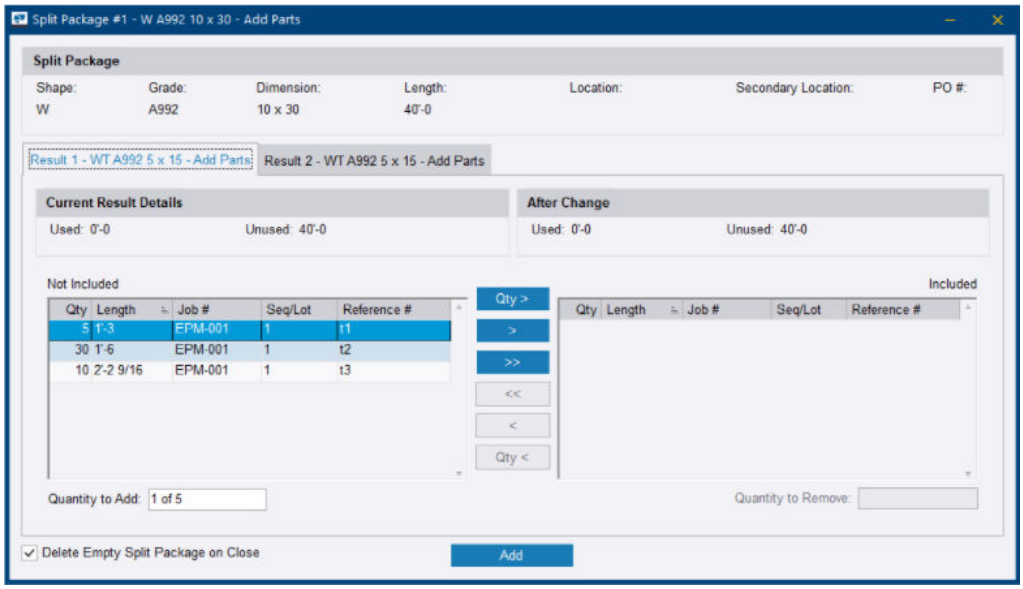
   Note that the W10 is marked as **Combined (C)** even though it does not have any parts assigned to it yet.

4. Right-click the W10x30 and select **Split Selected**.



The **Split Package** dialog box shows the parts that are available to be split from the selected material.

There are 2 tabs, one for each WT that is being split from the W.

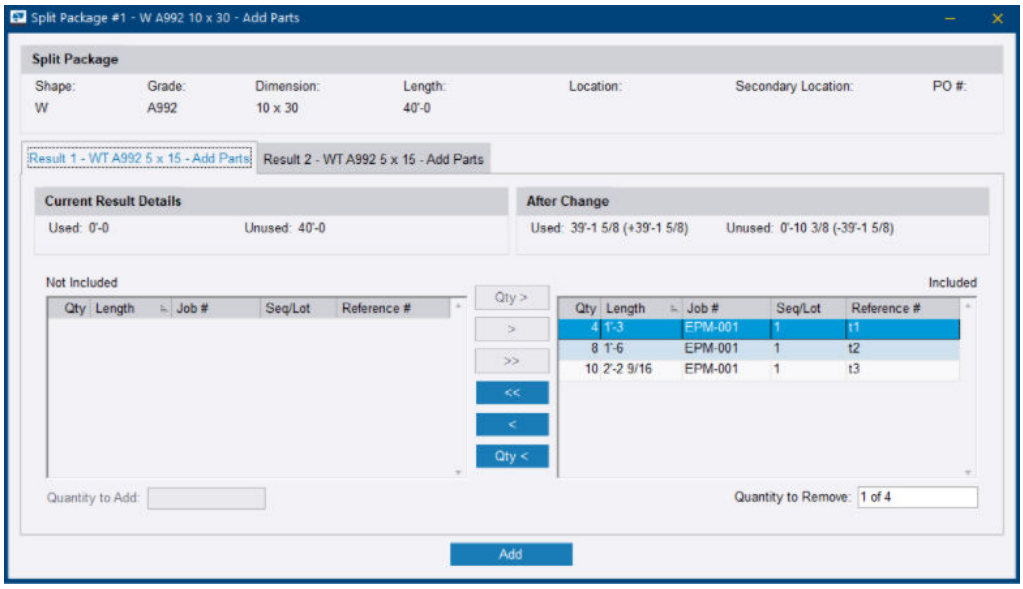


5. On the first tab, move parts from the **Not Included** column to the **Included** column and vice versa.

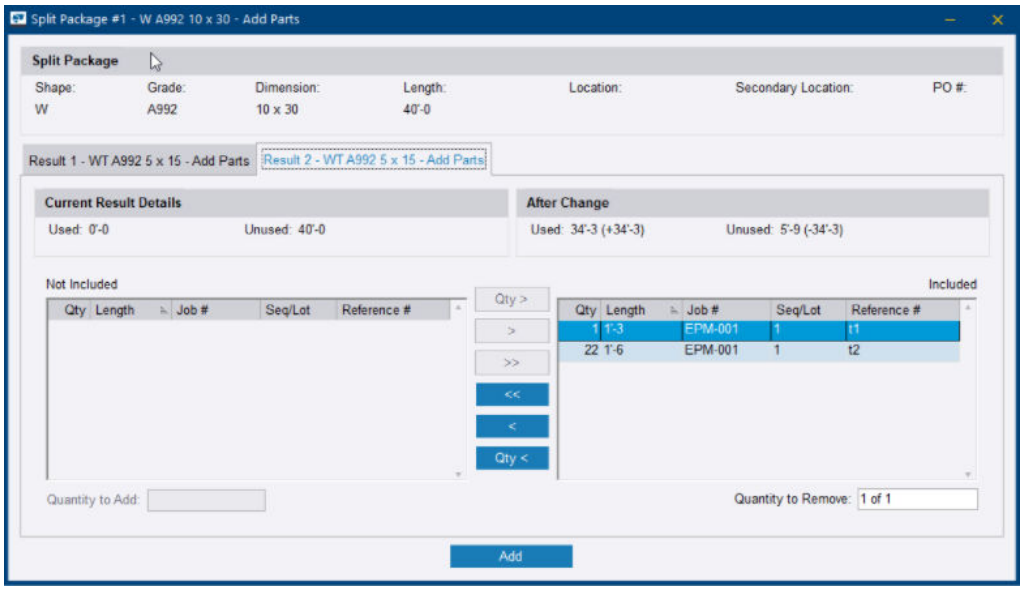
   Use the **>** button for a single item, the **>>** button for all items, or the **Qty>** button to move just the entered **Quantity to Add:** of the selected item.

   A red message will be displayed if you exceed the length of the selected material. When you are near the limit, changing **Quantity to Add:** to 1 and using the **Qty>** and **Qty<** buttons can help get the most out of the material.

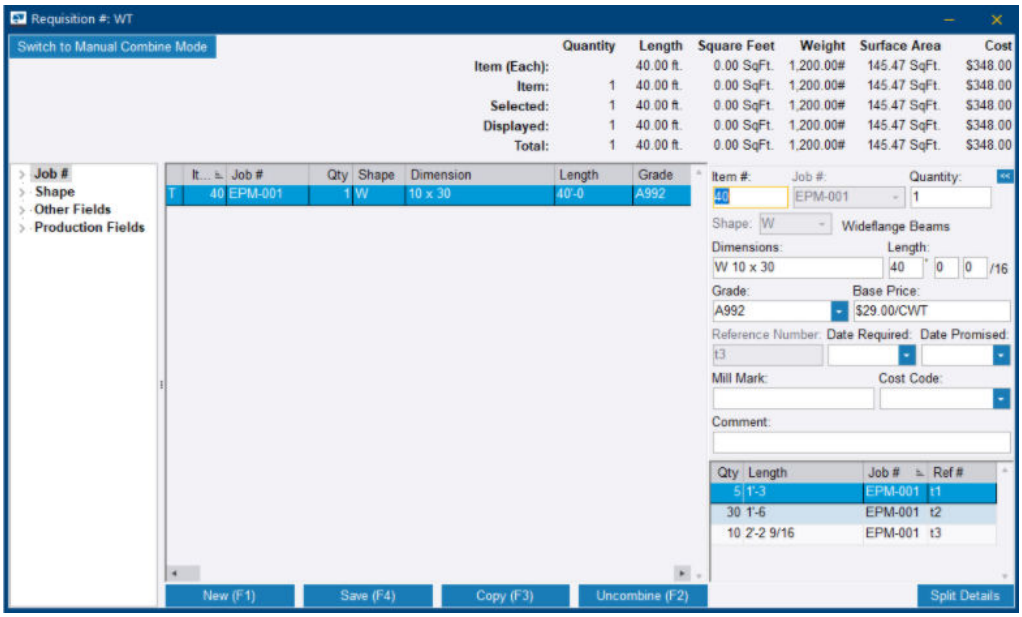
Parts to combine to Result 1:



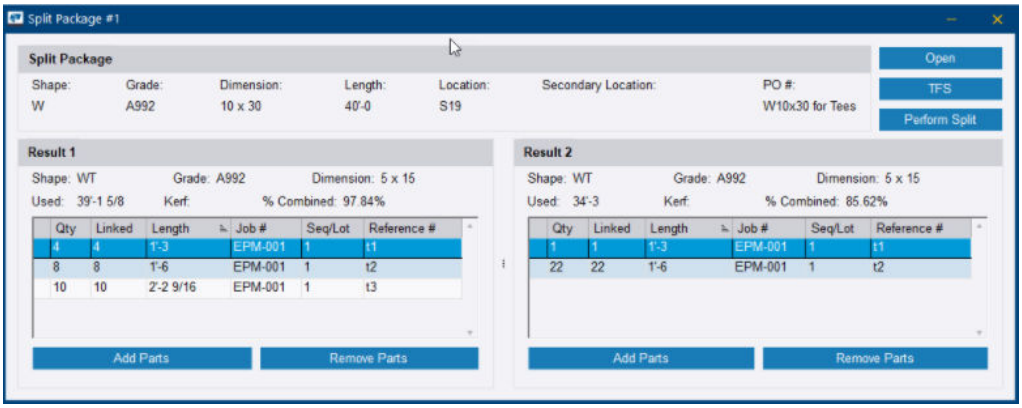
Parts to combine to Result 2:



6. When the split package is ready, click **Add** to complete the combining.



7. Click **Split Details** at the bottom right to view and modify the split package.



You can view the split details in **Purchasing** reports.

Activate or deactivate shapes

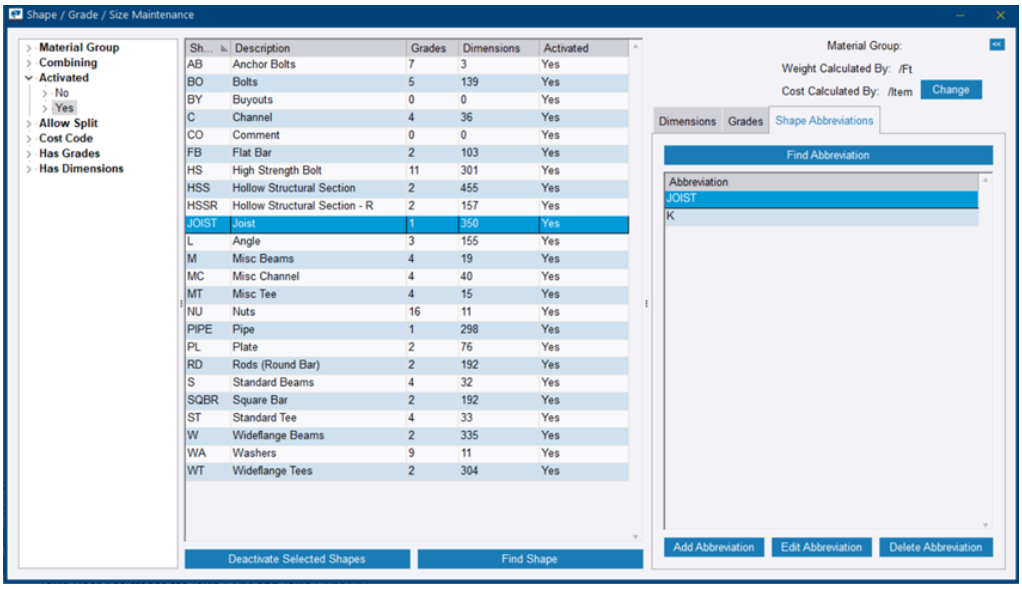
You can activate and deactivate shapes to enable or disable using the shapes in Tekla PowerFab. Shapes that are deactivated will not appear in the shape lists in Tekla PowerFab.You can also use the **Activated/Deactivated** list to select if you want to display activated, deactivated, or all shapes.

Deactivate shapes

NOTE We recommend that you deactivate shapes instead of deleting them. If needed, you can easily start using deactivated shapes by activating the shapes again.

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

The **Shape/Grade/Size Maintenance** dialog box opens.



2. In the shape list, select the shapes that you want to deactivate.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

3. Click **Deactivate Selected Shapes**.
4. To confirm deactivating the shapes, click **Yes** in the confirmation dialog box.

The deactivated shapes are no longer available for Tekla PowerFab to use in combining and pricing. You can reactivate deactivated shapes at any time.

Activate shapes

1. In the shape list, select the shapes that you want to activate.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click **Activate Selected Shapes**.
3. To confirm activating the shapes, click **Yes** in the confirmation dialog box.

Manage shape abbreviations

Shape abbreviations allow Tekla PowerFab to identify a shape. By adding shape abbreviations, you can ensure that Tekla PowerFab recognizes the shapes in any files that you import, even if the files do not use the Tekla PowerFab standard shape abbreviations.

Abbreviations are common references that Tekla PowerFab uses to recognize a particular shape. For example, when you import a bill of materials, Tekla

PowerFab searches for a match in the shape list. If no match is found, Tekla PowerFab asks you to select one. For example, this could happen if flat bars were referenced as FL instead of FB.

The material database also contains shapes that are identical but can be found under two abbreviations, such as HSS and TS. Both abbreviations are available in the database to meet the needs of companies that use different terminology. Note that even though the two options are available, you should select only one of them and use it consistently. This way, you can avoid problems when combining materials.

The abbreviation is defined when adding a new shape, see Add, modify, and delete shapes (page 304). New abbreviations can also be added to enable cross-referencing in Tekla PowerFab.

If you are importing a file and Tekla PowerFab does not recognize an abbreviation in the file, Tekla PowerFab automatically prompts you to select the shape and grade that the abbreviation should redirect to. Then, Tekla PowerFab asks you if you want to add an abbreviation for the imported shape.

We recommend that you keep detailers up to date on the used shape abbreviations, so that you can minimize the need to create new shape abbreviations.

Add, modify, or delete a shape abbreviation

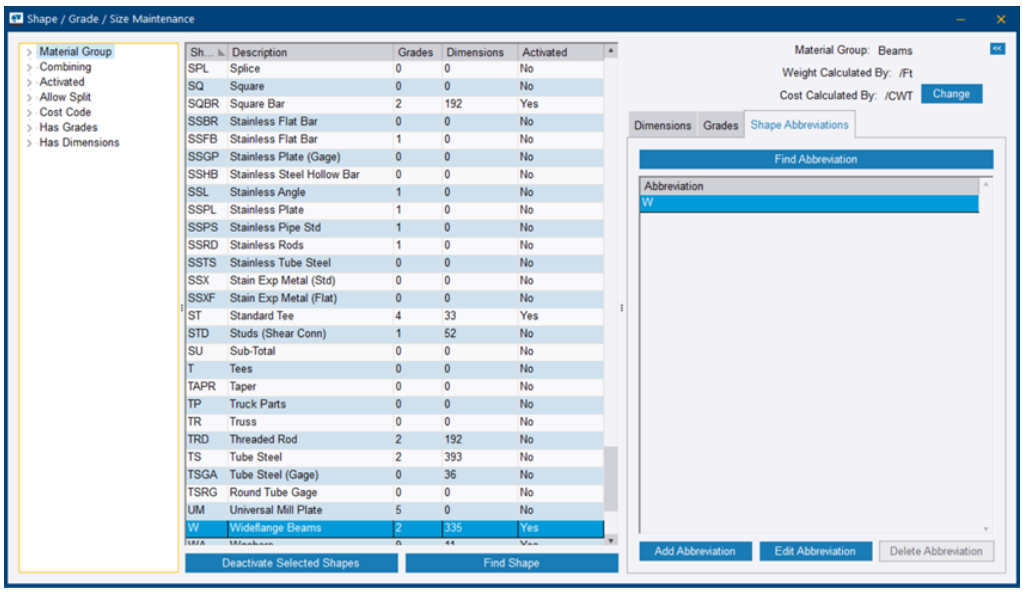
1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.

2. In the shape list, select a shape.

3. Open the **Shape Abbreviations** tab.

   You can see the existing abbreviations for the selected shape in the **Abbreviation** list.



4. Do one of the following

To	Do this
Add an abbreviation	a. Click **Add Abbreviation**. b. In the **Abbreviation** field, type a letter combination or a number. c. Click **OK**. The abbreviation is added for the selected shape. If necessary, you can delete previous abbreviations.
Modify an abbreviation	a. Select the item that you want to modify. b. Cclick **Edit Abbreviation**. c. Modify the abbreviation. d. Click **OK**. The abbreviation is updated.
Delete an abbreviation	a. Select the item that you want to delete. b. Click **Delete Abbreviation**. c. To confirm, click **Yes** in the confirmation dialog box. The abbreviation is permanently deleted.

Export shapes

Exporting shape information is useful for making shape identification changes while keeping all of the information defined in Tekla PowerFab. You can export either specific shapes or all shapes to the ASCII or XML format.

1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. On the menu, select **Export** and the export format.
3. Depending on the export format, do any of the following:

If you are exporting to	Do this
ASCII format (`.txt` file)	a. If you only want to export particular shapes, in the **Filter** dialog box, click the arrow buttons to move the shapes that you want to export to the **Included** list.

If you are exporting to	Do this
	b. Click **OK** c. In the **Save As** dialog box, browse to the folder where you want to save the file. By default, Tekla PowerFab saves the file to the `Export` folder. d. If necessary, change the file name. e. Click **Save**.
ProNest	a. In the **Save As** dialog box, browse to the folder where you want to save the file. By default, Tekla PowerFab saves the file to the `Export` folder. b. If necessary, change the file name. c. Click **Save**. You can see the progress of the export in the **Status** dialog box. After the export has finished, you can close the dialog box by clicking **OK**.
XML format	a. In the **XML Shapes Export Options** dialog box, select the checkboxes for the items that you want to include in the export. b. Click **Export**. c. If you only want to export particular shapes, in the **Select Shapes** dialog box, click the arrow buttons to move the shapes that you want to export to the **Included** list. d. Click **OK**. e. In the **Save As** dialog box, browse to the folder where you want to save the file. By default, Tekla PowerFab saves the file to the `Export` folder. f. If necessary, change the file name.

If you are exporting to	Do this
	g. Click **Save**. You can see the progress of the export in the **Status** dialog box. After the export has finished, you can close the dialog box by clicking **OK**.
SigmaNest	a. In the **Select Supplier** dialog box, select the supplier warehouse of the shapes to be exported. b. Click **OK**. You can see the progress of the export in the **Status** dialog box. After the export has finished, you can close the dialog box by clicking **OK**.

For the **Export To ASCII**, **Export To ProNest**, **Export To XML** options, the exported shapes are saved to the selected folder, where you can find them and import them to the related software.

For **Export to SigmaNest**, the shapes are imported directly to SigmaNest through SimTrans.

Example: Changing the shape abbreviation FB to FL by exporting an ASCII .txt file

For example, you could change a material shape abbreviation for `FB` (flat bar) to `FL` (also an indicator for flat bar). This change can be made outside of Tekla PowerFab, when you export the shapes into a `.txt` file. After the change, the `.txt` file can be imported back to Tekla PowerFab.

To change the shape abbreviation, do the following:

1. In the **Filter** dialog box, only move the FB shapes to the **Included** list.
2. Name and save the file to the desired location.
3. Browse to find the saved file and open it in Microsoft Notepad.
4. Open the **Edit** menu in the upper-left corner of the Microsoft Notepad window.
5. Click **Replace**.
6. In the **Find what** field, type `FB`.
7. In the **Replace with** field, type `FL`.
8. Click **Replace All** and save the file.
9. In Tekla PowerFab, click the **File** tab, and select **Import** on the **File** menu.
10. In the navigation tree of the **Import** dialog box, select **Sizes** --> **ASCII** .
11. Click **...** to browse for and select the updated file.

12. Click **OK**.
13. Click **Import**.

    Since the ASCII file only contains the flat bar shapes, you do not need to filter the shapes. Instead, you can leave all shapes in the **Included** list.
14. Click **OK**.

The new shape list is imported to Tekla PowerFab, and the abbreviation of the flat bars changes.

See also

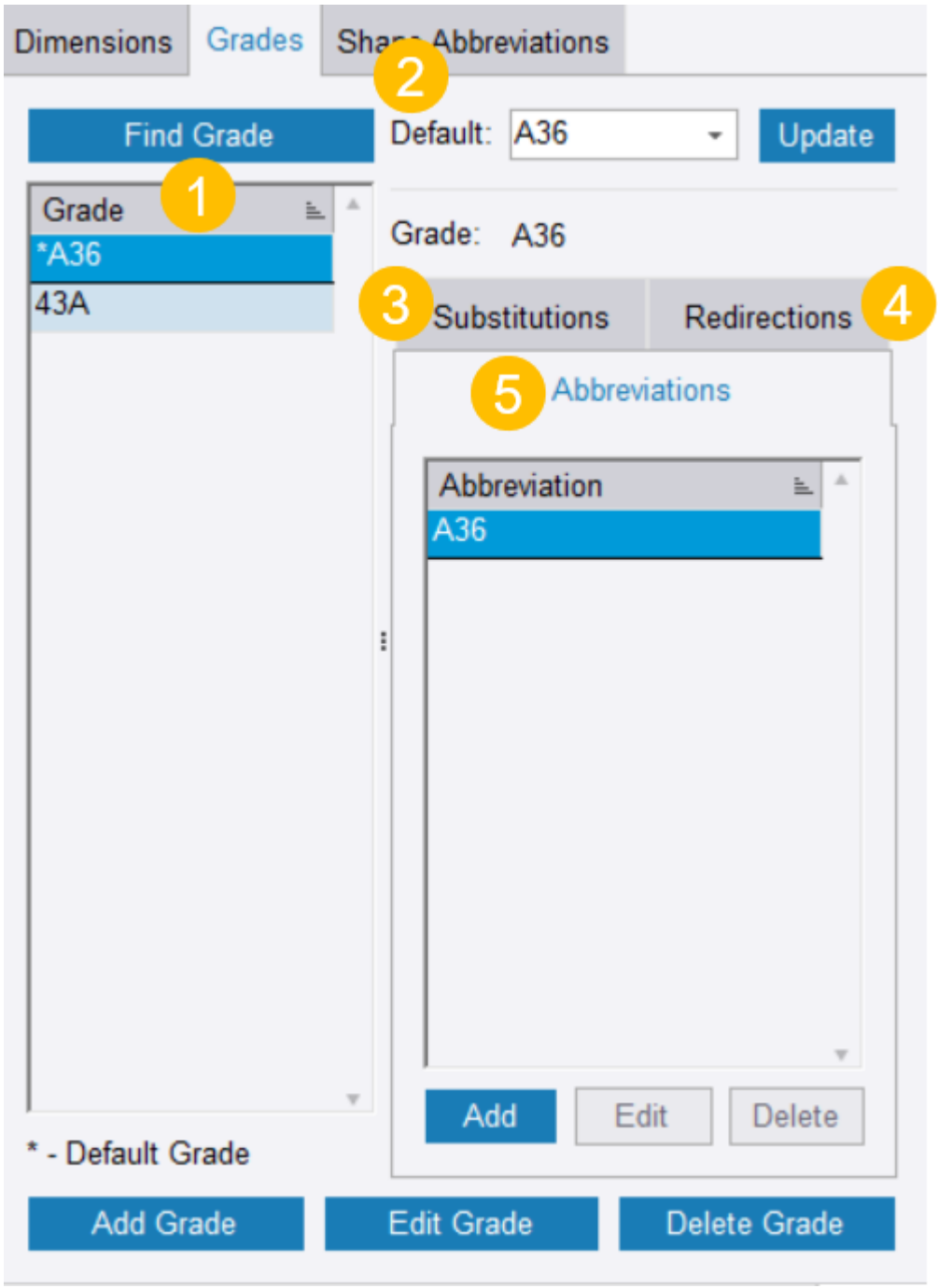
Add, modify, and delete shapes (page 304)

Manage shape abbreviations (page 314)

Manage grades

You can manage the material grades of shapes in multiple ways in the **Shape/Grade/Size Maintenance** dialog box. You can add, modify, and delete grades, set default grades for shapes, and add grade overrides, grade redirections, grade substitutions, and grade abbreviations.

- To modify grade properties, select the shape whose grades you want to modify, and open the **Grades** tab.



The **Shape/Grade/Size Maintenance** dialog box shows the different grade details of the shape:

(1) The **Grade** list shows all available material grades included for the selected shape. To view the properties of a specific material grade, select it in the **Grade** list.

(2) The default grade of the selected shape. Each shape with grades has a default grade that Tekla PowerFab uses for the shape by default. The default grade of the shape is marked with an asterisk (*).

You can change the default grade by selecting another grade in the **Default** list, and clicking **Update**.

(3) The **Substitutions** tab shows the existing grade substitutions of the selected grade. Grade substitutions allow Tekla PowerFab to combine materials to material grades in the inventory that do not match the material grades in bills of materials. Grade substitutions can be useful when very little material of a particular material grade is needed, so another grade can be used instead.

You can add and delete grade substitutions, and increase or decrease the order of grade substitutions.

(4) The **Redirections** tab shows the existing grade redirections of the selected grade. Grade redirections allow Tekla PowerFab to recognize material grades that are imported to Tekla PowerFab with names that Tekla PowerFab does not initially recognize. When you use grade redirections, the imported material grades are redirected to the appropriate material grades.

(5) The **Abbreviations** tab shows the grade abbreviations added for the selected grade. Grade abbreviations are alternative spellings that you can use for your material grades in Tekla PowerFab.

See also

Add, modify, and delete grades (page 321)

Add grade substitutions (page 324)

Add grade redirections (page 324)

Add, modify, and delete grade abbreviations (page 323)

Add, modify, and delete grades

In the **Shape/Grade/Size Maintenance** dialog box, you can add material grades for a selected shape, modify the properties of existing grades, or delete unnecessary grades.

Add grades

NOTE When you add new materials to the material database, the materials still need to be added to the pricing database separately. The pricing database is where Tekla PowerFab looks for the material dimensions and lengths for combining materials.

See Pricing maintenance (page 278). See also Adjust labor standards (page 467).

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.

2. Open the **Grades** tab.

3. In the shape list, select a shape.
4. At the bottom of the dialog box, click **Add Grade**.

   The **Grade Details** dialog box opens.
5. Type the new grade in the **Grade** field.
6. If necessary, modify the weight multiplier.
7. If you use ProNest for nesting, type the ProNest shape to which you want to associate the grade in the **ProNest Shape Designation** field.
8. To save the grade, click **Save**.

   The material grade is added to the **Grade** list of the selected shape.

Modify grades

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.
2. Open the **Grades** tab.
3. In the shape list, select a shape.
4. In the **Grade** list, select the grade that you want to modify.
5. At the bottom of the dialog box, click **Edit Grade**.

   The **Grade Details** dialog box opens.
6. Do one or more of the following to modify the grade:
   - In the **Grade** field, type a new name for the grade.
   - Modify the weight multiplier value.
   - To change the ProNest shape to which you want to associate the grade, type a new name in the **ProNest Shape Designation** field.
7. Click **Save**.

The grade properties are updated.

Delete grades

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.
2. Open the **Grades** tab.
3. In the shape list, select a shape.
4. In the **Grade** list, select the grade that you want to delete.
5. At the bottom of the dialog box, click **Delete Grade**.
6. To permanently delete the grade, click **Yes** in the confirmation dialog box.

If a single grade that you are trying to delete is used somewhere else in Tekla PowerFab, a dialog box opens, showing jobsi which the grade is used.

If multiple grades that you are trying to delete are used somewhere else in Tekla PowerFab, notification messages appear, telling you that the grades are used somewhere else in Tekla PowerFab. Then, deleting the selected grades is canceled.

7. Do one of the following:
   - View where the grades is used, and click **OK** to close the dialog box without deleting the grade. You can then change the grade used in the listed jobs, and delete the grade later.
   - If you are sure that you want to delete the grade now, click **Force Delete**, select the new grade that will be used elsewhere in Tekla PowerFab instead of the grade that you are deleting, and click **Perform Force Delete**.

Add, modify, and delete grade abbreviations

Grade abbreviations are alternative spellings that you can use for your material grades in Tekla PowerFab.

1. Go the **Maintenance**.

   The **Shape/Grade/Size Maintenance** dialog box opens.
2. Open the **Grades** tab.
3. In the shape list, select a shape.
4. In the grade list, select the grade whose abbreviations you want to manage.
5. Open the **Abbreviations** tab.

Add a grade abbreviation

1. At the bottom of the **Abbreviations** tab, click **Add**.
2. Type the abbreviation.
3. To save the abbreviation, click **OK**.

The new grade abbreviation is added in the **Abbreviation** list.

Modify a grade abbreviation

1. In the **Abbreviation**, select the abbreviation that you want to modify.
2. At the bottom of the **Abbreviations** tab, click **Edit**.
3. Modify the abbreviation according to your needs.

4. To save the abbreviation, click **OK**.

The modified grade abbreviation is updated to the **Abbreviation** list.

Remove a grade abbreviation

1. In the **Abbreviation** list, select the grade abbreviation that you want to modify.
2. At the bottom of the **Abbreviations** tab, click **Delete**.
3. To permanently delete the abbreviation, click **Yes** in the confirmation dialog box.

Add grade substitutions

Grade substitutions allow Tekla PowerFab to combine materials to material grades in the inventory that do not match the material grade in the bill of materials. Creating grade substitutions can be useful when very little material of a certain grade is needed, so another grade can be used instead. Grade substitutions need to be created separately for each job.

Note that you should only add grade substitutions that meet or exceed the requirements of the current grade.

1. In the **Shape/Grade/Size Maintenance** dialog box, open the **Grades** tab.
2. In the shape list, select a shape.
3. In the **Grade** list, select a grade.
4. On the right side of the **Grades** tab, open the **Substitutions** tab.
5. Click **Add**.
6. In the **Select a substitute grade** list, select a grade.
7. Click **OK**.

   The new grade substitution is added to the list.
8. Use the **(+) Use Order** and **(-) Use Order** to move the substitute grade up or down in the list. This way, you can define the order in which Tekla PowerFab uses the substitute grades.

If necessary, you can delete substitute grades by selecting them in the substitution list and clicking **Delete** at the bottom of the **Substitutions** tab.

See also

Add, modify, and delete grades (page 321)

Add grade redirections (page 324)

Add grade redirections

Grade redirections allow Tekla PowerFab to recognize material grades that are imported to Tekla PowerFab with names that Tekla PowerFab does not initially recognize. When you use grade redirections, the imported material grades are redirected to the appropriate material grades. For example, if an item to be imported has the grade A500-GR.B, adding a redirection allows Tekla PowerFab to recognize the grade and use the A500 grade from the material database.

1. In the **Shape/Grade/Size Maintenance** dialog box, open the **Grades** tab.
2. In the shape list, select a shape.
3. In the **Grade** list, select the grade for which you want to add a redirection.
4. Open the **Redirections** tab.
5. At the bottom of the **Redirections** tab, click **Add**.
6. In the **Shape** list of the **Grade Redirection** dialog box, select the shape.
7. In the **Grade** field, type the grade that should be redirected to the selected grade.
8. Click **Save**.

See also

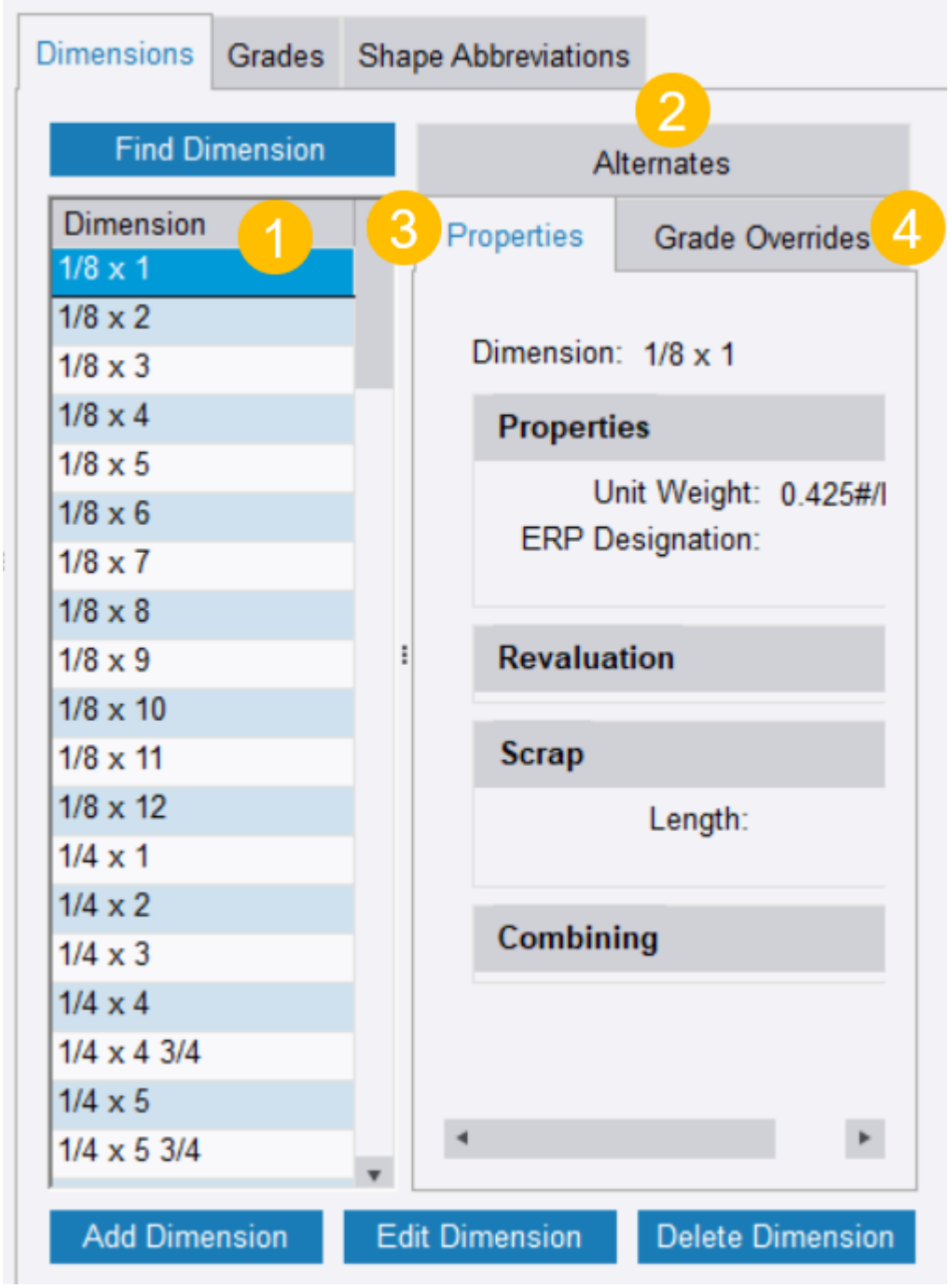
Add, modify, and delete grades (page 321)

Add grade substitutions (page 324)

Manage dimensions

You can manage material dimensions, or material sizes, in the Tekla PowerFab material database in several ways. You can add, modify, and delete dimensions, and add grade overrides or alternates for the dimensions.

- To view and modify dimension properties, go to **Maintenance** --> **Shapes/Grades/Sizes** and, in the **Shape/Grade/Size Maintenance** dialog box, open the **Dimensions** tab.



The **Shape/Grade/Size Maintenance** dialog box shows the details of dimensions:

(1) Dimension list: View all available dimensions for the selected shape. To view the properties of a specific dimension, select it in the list.

(2) Alternates tab: View, add, modify, and delete alternate dimensions. When importing a dimension with a description that Tekla PowerFab does not recognize, alternate dimensions allow Tekla PowerFab to identify the imported dimension.

(3) Properties tab: View the properties of the selected dimension.

(4) Grade Overrides tab: View, add, modify, and delete grade overrides. Grade overrides allow Tekla PowerFab to assign a specific unit weight for a specific dimension. Grade overrides should only be used for shapes that do not have linear unit weights, such as stainless steel.

See also

View the dimensions of a shape (page 327)

Add dimensions (page 327)

Modify dimension properties (page 330)

Modify the properties of multiple dimensions (page 331)

Add grade overrides (page 332)

Add alternate dimensions (page 333)

Show where grades and dimensions are used (page 334)

Delete dimensions (page 334)

View the dimensions of a shape

If necessary, you can hide shapes that do not have material dimensions. To do so, in the navigation tree on the left, click **+** on the left side of **Has Dimensions**. Then, select **Yes**.

1. In the shape list of the **Shape/Grade/Size Maintenance** dialog box, select a shape.
2. Open the **Dimensions** tab.

   The existing dimensions for the shape are shown in the **Dimension** list.

See also

Add dimensions (page 327)

Modify dimension properties (page 330)

Modify the properties of multiple dimensions (page 331)

Add dimensions

You can add material dimensions, or material sizes, to the shape list in the **Shape/Grade/Size Maintenance** dialog box.

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**. The **Shape/Grade/Size Maintenance** dialog box opens.
2. Select a shape in the shape list.
3. Open the **Dimensions** tab.

4. Click **Add Dimension** at the bottom of the dialog box.

   The **Dimension** dialog box opens.

5. Define the dimension properties.

   NOTE The available and mandatory fields the **Dimension** dialog box vary according to the shape properties.

   a. If you want to add a name for the dimension that is used in an integrated software, type the designation in the **ERP Desgn** or **ProNest Desgn** field.

   b. In the **Revaluation** section, define the revaluation properties.

      For details, see Dimension properties (page 328).

   c. In the **Scrap** section, set a scrap length.

      For details, see Dimension properties (page 328).

   d. In the **Combining** section, define the kerf, squaring amounts, and clamp allowance according to your needs.

      For details, see Dimension properties (page 328).

      NOTE The **Valid Scrap %** field should only be used in conditions where extreme fine-tuning for the combining of materials is necessary. This setting is connected to the combining algorithms of Tekla PowerFab. Set **Valid Scrap %** to 0 unless the Tekla PowerFab Support instructs you otherwise.

6. Click **Save**.

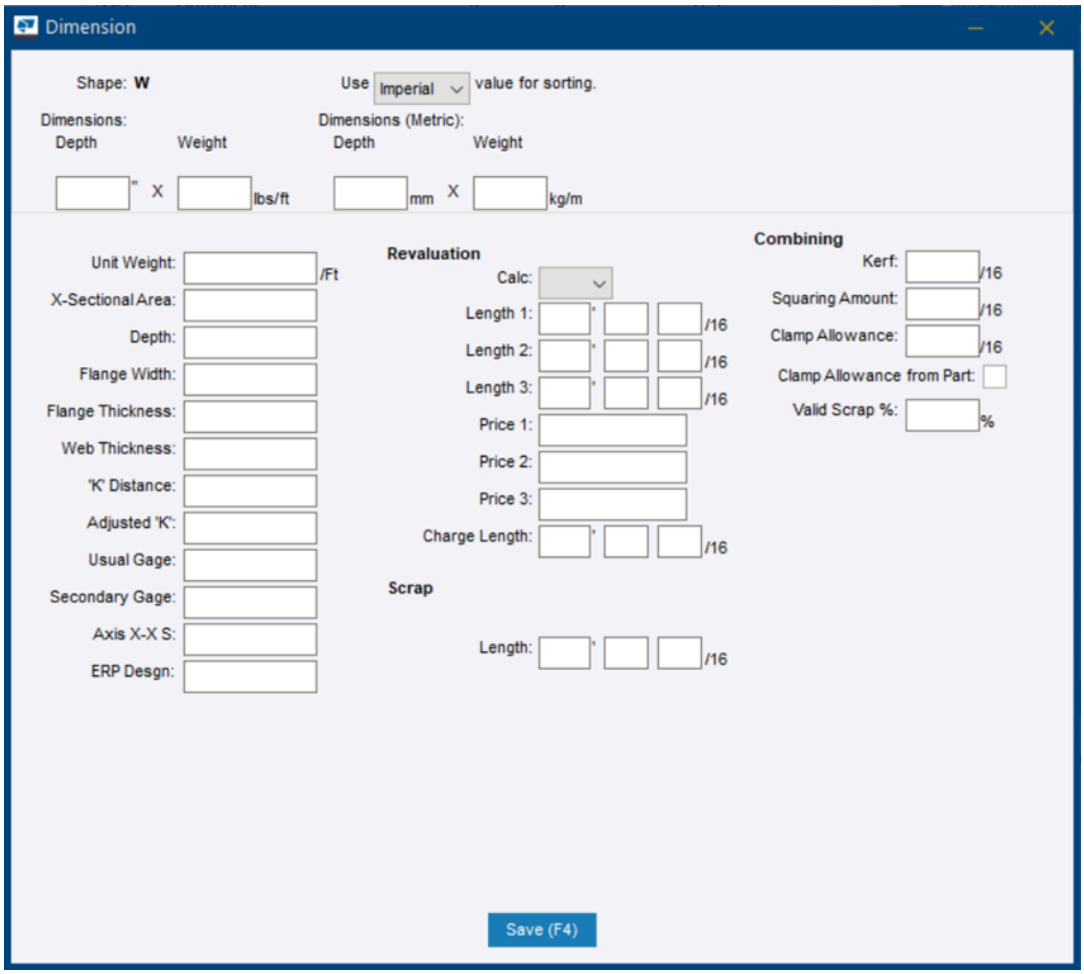
The new dimension is added to the Tekla PowerFab material database and shown in the **Dimension** list for the selected shape.

You can also import by clicking the **Shape/Grade/Size Maintenance** ribbon tab. If you add dimensions for shapes by importing, remember to check the material database for dimensions that do not have complete properties. You can easily find any dimensions with incomplete properties by creating a zero weight report. For detailed instructions on creating material reports, see Create material reports (page 335).

Dimension properties

You can modify the different properties of dimensions in the **Dimension** dialog box.

NOTE The available and mandatory fields the **Dimension** dialog box vary according to the shape properties.



ERP DesgnProNest Desgn: Name for the dimension that is used in an integrated software

Revaluation

The revaluation settings discount the drop material by length by applying a percentage of the drop cost to the job using the stock length.

You can set the revaluation calculation to either a percentage of the original value or a price for each length by selecting an option in the **Calc** list. We recommend using the % option because it is easier to maintain.

For example, the revaluation of a 15'-0 drop might be considered worth 80% of the original price, and 10'-0 might be worth 50%. These values are then used for evaluating the remaining stock materials in the inventory for accounting purposes.

If you want all the drop material below a particular length to be charged to the job where the original length was used, you can type the desired length in the **Charge Length** field. If you want all drop material to be charged to the job, typing 60' in **Charge Length** usually covers all items.

Scrap: Change scrap length.

Use the scrap length settings to automatically keep your reserved items and open stock clear of unusable lengths.

The material at scrap length or under is removed from the inventory and moved to the inventory history. The scrap information is handy in evaluating a project because it links to **Project Summary** report in **Project Management**.

Scrap settings may vary according to material size and type.

Combining (Optional)

Use the **Combining** settings to automatically calculate any material length loss due to cutting and other manufacturing requirements. The values defined in the **Combining** section are added to the cut lengths for performing the combining run. Adding the waste involved with managing materials may help to prevent material shortages.

If these settings are not defined, return to stock lengths can be adjusted within the **Take From Stock** process while working in the **Production Control** module or the **Inventory** module.

Clamp Allowance from Part: Select to allow the clamp allowance to be included in any length of the part that exceeds the clamp allowance.

For example, if 6" pieces cut are cut from a 20' piece that has a 24" clamp allowance, the 24" would be considered waste. However, if there was a 36" piece cut with the 6" pieces, the 24" clamp allowance would be part of the 36" piece.

Valid Scrap %: Use only in conditions where extreme fine-tuning for the combining of materials is necessary. This setting is connected to the combining algorithms of Tekla PowerFab. Set **Valid Scrap %** to 0 unless the Tekla PowerFab Support instructs you otherwise.

Modify dimension properties

You can modify the different properties of dimensions in the **Dimension** dialog box. These properties include the revaluation settings, the scrap length, and the combining settings. The values that you set in the **Dimension** dialog box are used for calculating material weight, pricing, and combining, so accuracy is important.

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.

2. In the shape list, select a shape.
3. Open the **Dimensions** tab.
4. In the **Dimension** list, select the dimension whose settings you want to modify.
5. Click **Edit Dimension**.

The **Dimension** dialog box opens.

NOTE The available and mandatory fields the **Dimension** dialog box vary according to the shape properties.

6. Modify the dimension properties. For details, see Dimension properties (page 328).
7. Click **Save** to update the dimension properties.

Modify the properties of multiple dimensions

Use the **Global Edit** command to modify the settings of multiple dimensions of a particular shape at once. For example, using the **Global Edit** command can be useful when changing the revaluation settings for all dimensions of a shape.

NOTE The **Global Edit** command is only available for shapes that belong to the **Plate** and **Angle** material groups. For other material groups, you need to modify each dimension separately.

1. In the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.
2. On the menu, select **Global Edit**.
3. In the **Shape** list at the top of the **Shapes/Grades/Sizes Global Edit** dialog box, select the shape whose dimensions you want to modify.
4. Click the arrow buttons to move the dimensions that you want to modify to the **Included** list.
5. Modify any dimension properties according to your needs.

   For example, you can modify the scrap length or the kerf.
6. Select checkboxes next to the properties that you want to update.
7. Click **Update**.

The dimensions in the **Included** list are updated according to the changes you made.

See also

Modify dimension properties (page 330)

Update dimension weights for newly added shapes

When material weight standards change, you can update the unit weights of material groups with the **Global Edit - Unit Weight** command. For example, you can use the **Global Edit - Unit Weight** command to update the weights of

newly added shapes. Tekla PowerFab then calculates the weights based on the existing dimensions.

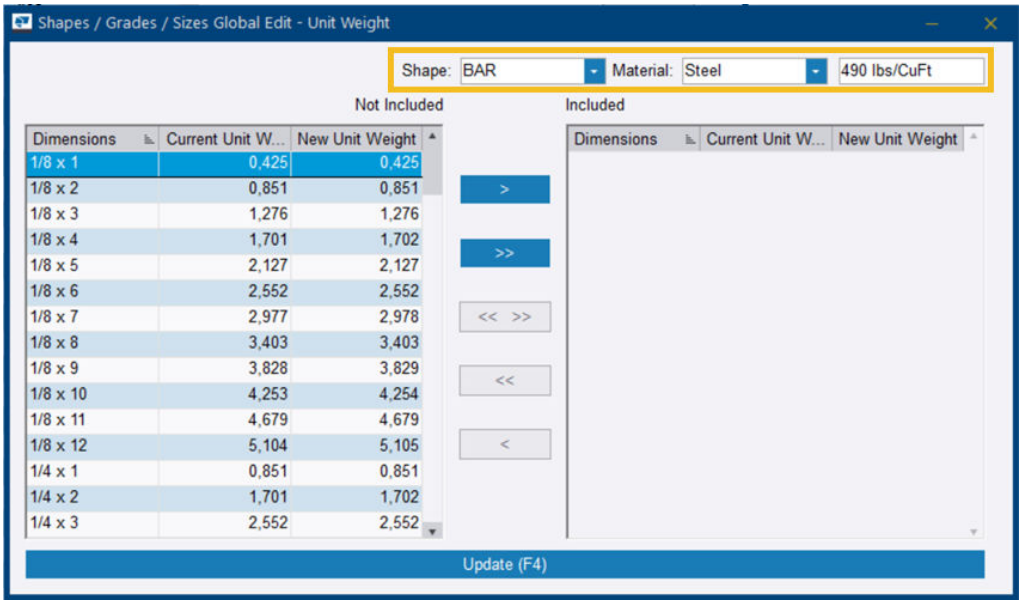
1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.

2. Click the **Shape/Grade/Size Maintenance** ribbon tab.

3. On the menu, select **Global Edit - Unit Weight**.

   The **Shapes / Grades / Sizes Global Edit - Unit Weight** dialog box opens.



4. In the **Shape** list, select the desired shape.

5. In the **Material** list, select the desired material group.

6. In the field on the right side of the **Material** list, define the weight of the material.

7. Click the arrow buttons to move the dimensions whose weights you want to update to the **Included** list.

8. Click **Update**.

Add grade overrides

Grade overrides allow Tekla PowerFab to assign a specific unit weight for a particular dimension. Grade overrides should only be used for shapes that do not have linear unit weights, such as stainless steel.

NOTE When you add a grade override, the cost to discount is still applied to the job using the original length of the dimension.

---

1. In the shape list in the **Shape/Grade/Size Maintenance** dialog box, select a shape.
2. Open the **Dimensions** tab.
3. In the **Dimension** list, select a dimension.
4. Open the **Grade Overrides** tab on the right side of the dialog box.
5. Click **Add**.
6. In the **Grade** list of the **Grade Override** dialog box, select a grade.
7. In the **Override Unit Weight**, type a weight.
8. Click **Save**.

The new grade override is added to the material database and shown in the list on the **Grade Overrides** tab.

See also

Add dimensions (page 327)

Add grade redirections (page 324)

Add alternate dimensions (page 333)

Modify dimension properties (page 330)

Delete dimensions (page 334)

Add alternate dimensions

If a dimension in a bill of materials that you want to import has a different description than in Tekla PowerFab, problems might occur when importing the file. Adding alternate dimensions enables Tekla PowerFab to cross-reference to the same dimension, and that way, identify the dimension.

1. Go to **MaintenanceShapes/Grades/Sizes**. The **Shape/Grade/Size Maintenance** dialog box opens.
2. In the shape list, select the shape.
3. Open the **Dimensions** tab.
4. In the **Dimension** list, select a dimension.
5. Open the **Alternates** tab.
6. Below the existing alternate dimensions, click **Add**.
7. Type the description that will cross-reference to the selected dimension.
8. Click **OK**.

The new alternate dimension is added to the material database and shown in the **Dimension Alternate** list.

See also

Manage dimensions (page 325)

Add dimensions (page 327)

Add grade overrides (page 332)

Show where grades and dimensions are used

If you cannot delete a grade or a dimension from the material database because it is used somewhere else in Tekla PowerFab, you can view the jobs in which the grade or dimension is used.

1. In the shape list in the **Shape/Grade/Size Maintenance** dialog box, select a shape.
2. Depending on whether you want to view the jobs that use a particular grade or a particular dimension, open the **Grades** or **Dimensions** tab.
3. Select the grade or dimension.
4. Click the **Shape/Grade/Size Maintenance** ribbon tab.
5. In the menu, select **Show Where The Selected Dimension/Grade Is Used**.

   A dialog box opens, listing the jobs where the grade or dimension is used.
6. Once you have viewed the locations, click **OK** to close the dialog box.

You can change the grade or dimension used in the listed jobs, so that it is safe to delete the selected grade or dimension from the material database.

If necessary, you can also delete the grade or dimension even if it is used somewhere else in Tekla PowerFab by using the **Force Delete** command.

See also

Delete dimensions (page 334)

Delete dimensions

If necessary, you can delete existing dimensions from the Tekla PowerFab material database.

1. In the shape list of the **Shape/Grade/Size Maintenance** dialog box, select the shape.
2. Open the **Dimensions** tab.
3. In the **Dimension** list, select the dimensions that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click **Delete Dimension** in the lower-right corner of the dialog box.

5. To permanently delete the dimensions, click **Yes** in the confirmation dialog box.

   If a single dimension that you are trying to delete is used somewhere else in Tekla PowerFab, a notification message appears and allows you to see where the dimension is used.

   If multiple dimensions that you are trying to delete are used somewhere else in Tekla PowerFab, notification messages appear, telling you that the dimensions are used somewhere else in Tekla PowerFab. Then, deleting the selected dimensions is canceled.

6. To view where the single dimension is used, click **OK**.

   A dialog box opens, displaying the jobs where the dimension is used.

7. Do one of the following:

   - View where the dimension is used, and click **OK** to close the dialog box without deleting the dimension.
   - If you are sure that you want to delete the dimension, click **Force Delete**, select the new dimension that will be used elsewhere in Tekla PowerFab instead of the dimension that you are deleting, and click **Perform Force Delete**.

See also

Add dimensions (page 327)

Manage material reports

While in the **Shape/Grade/Size Maintenance** dialog box, you can create various material reports, such as shape lists. After creating the reports, you can view, print, email, or export them in **Tekla PowerFab Report Viewer**.

See also

Create material reports (page 335)

View material reports (page 336)

Print material reports (page 337)

Send material reports via email (page 337)

Export material reports (page 338)

Create material reports

You can create various types of material reports in Tekla PowerFab, such as shape lists and size lists.

1. While in the **Shape/Grade/Size Maintenance** dialog box, click the **Shape/Grade/Size Maintenance** ribbon tab.

2. In the menu, select **Reports**.

   The **Report Filters** dialog box opens.

3. To only include specific materials in the reports, in the **Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, click the arrow buttons to move the material items that you want to include in the reports to the **Included** list.
5. Click **OK**.

   To further limit the included items, repeat steps 3 to 5 for all necessary filter types in the **Report Filters** dialog box.

6. Click **Make Report**.
7. In the **Report Selection** dialog box, click the report that you want to create.

Next, you can view the report, print or export the report, or send the report via email in Microsoft Outlook.

See also

View material reports (page 336)

Print material reports (page 337)

Send material reports via email (page 337)

Export material reports (page 338)

View material reports

Once you have created a material report, you can view it in **Tekla PowerFab Report Viewer**.

1. Create a report.

   For detailed instructions, see Create reports (page 335).

2. In the **Report Selection** dialog box, click **View**.
3. In **Tekla PowerFab Report Viewer**, do any of the following according to your needs:

To	Do this
Move between pages	• Click the arrows at the top of **Tekla PowerFab Report Viewer**.
Go to a specific page of the report	• Type the page number in the empty field at the top of **Tekla PowerFab Report Viewer**.
Find a text in the report	a. Click the binocular icon. b. In the blank field, type the text that you want to find.

To	Do this
	c. Click **Find Next**. Any matching text is highlighted with a red box.
Zoom in or out	• Click the magnifying glass icon and select the zoom value in the list.

Once you have viewed the report, you can close **Tekla PowerFab Report Viewer**, or print, email, or export the report.

See also

Print material reports (page 337)

Send material reports via email (page 337)

Export material reports (page 338)

Print material reports

To print a material report in **Tekla PowerFab Report Viewer**, do the following:

1. Create a report.

   For detailed instructions, see Create reports (page 335).
2. In the **Report Selection** dialog box, click **View**.
3. At the top of **Tekla PowerFab Report Viewer**, click **Print Report**.
4. Select the printer that you want to use.
5. Define the pages that you want to print.
6. If necessary, modify other printer settings.
7. Click **Print**.

See also

Send material reports via email (page 337)

Export material reports (page 338)

Send material reports via email

You can send material reports via email as either Microsoft Excel workheets or PDF files. Note that the **Email Excel** and **Email PDF** commands only work with Microsoft Outlook. If you use some other email service, you need to export the report and attach it to an email manually.

1. Create a report.

   For detailed instructions, see Create reports (page 335).
2. In the **Report Selection** dialog box, click **View**.

3. In the upper-right corner of **Tekla PowerFab Report Viewer**, click either **Email Excel** or **Email PDF**.

   When the report is ready, the Microsoft Outlook icon appears at the bottom of the screen.

4. Click the icon to open Microsoft Outlook.
5. Modify the email according to your needs.
6. Send the email.

Export material reports

You might need to export a report, such as a shape list, to send it to the steel detailer. This way, they will have all the shape information used in Tekla PowerFab. Having the shape list will minimize the need to create new shape descriptions and abbreviations, grade abbreviations, substitutions, and redirections in Tekla PowerFab.

1. Create a report.

   For detailed instructions, see Create reports (page 335).

2. In the **Report Selection** dialog box, click **View**.
3. In the upper-left corner of **Tekla PowerFab Report Viewer**, click **Export Report**.
4. In the **Save As** dialog box, browse to the folder where you want to save the file.
5. If necessary, change the file name.
6. If necessary, select another file format in the **Save as type** list.
7. Click **Save**.

The report is saved to the selected location.

Change the display units of prices

Use the **Change** command to change the display units of a shape used in pricing. Changing the display units is useful for items like HSS, as the pricing is often by foot rather than by pound or hundredweight. Where applicable, pricing by item is also available.

1. In the **Shape/Grade/Size Maintenance** dialog box, select the shape whose display units you want to change.
2. In the upper-right corner of the dialog box, click **Change**.
3. In the **New Display Units** list, select the desired units.
4. Click **OK**.

The units used in the pricing of the shape are updated.

The selected pricing units are used in requisitions, purchase orders, and inventory.

Apply a cost code and cost type to a material type

You can apply a cost code and cost type to a material type in **Shape Maintenance**. When you select a cost code, the linked cost type is automatically displayed and set as the default.

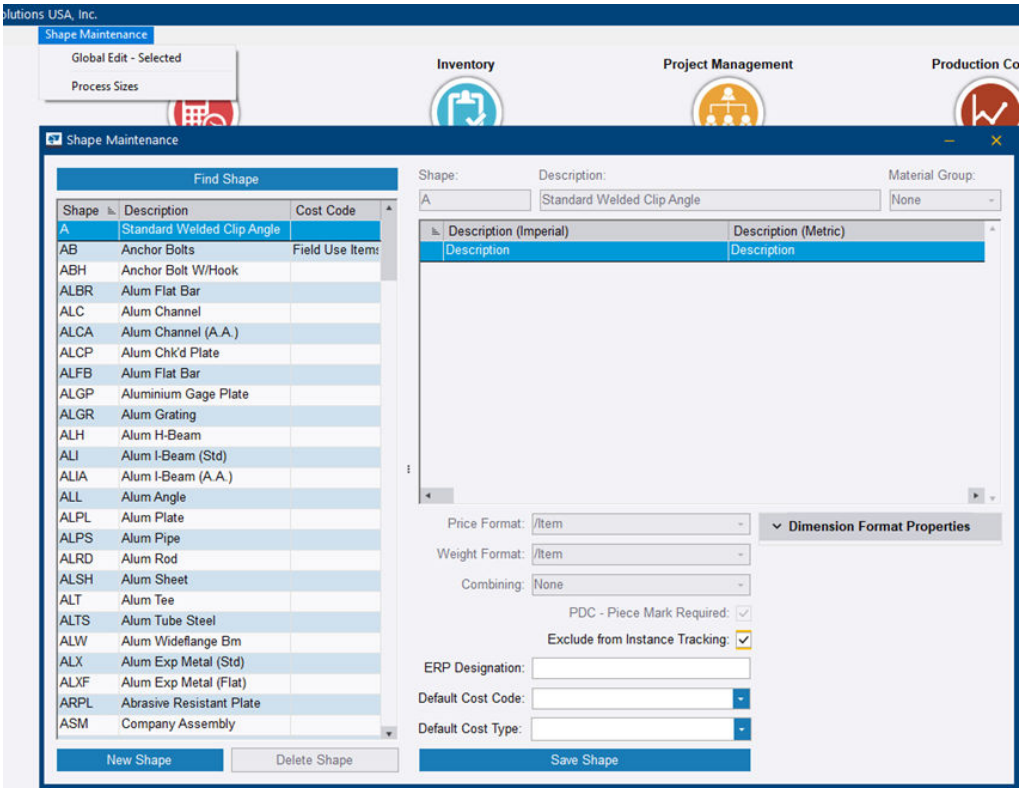
Before you start, make sure you have defined the cost types and cost codes in **Maintenance** --> **Cost Maintenance**. See Cost maintenance (page 225).

1. Go to **Maintenance** --> **Shapes/Grades/Sizes**.

   The **Shape/Grade/Size Maintenance** dialog box opens.

2. On the **Shape/Grade/Size Maintenance** ribbon tab, select **Shape Maintenance**.

   The **Shape Maintenance** dialog box opens.



3. In **Default Cost Code**, select a cost code.

The linked cost type in **Default Cost Type** is automatically populated and set as the default.

To change the cost type, select a new value from the **Default Cost Type** drop-down list.

To change the properties of multiple shapes at once, use **Global Edit - Selected**.

4. Click **Save Shape**.
5. To confirm the change, click **Yes**.

NOTE The **Cost Code** and **Cost Type** fields are dynamic, which means that these can be reassigned at any time and will not overwrite any previous records of a prior cost code or cost type.

See also

Manage cost codes (page 227)

Manage cost types (page 225)

Add, modify, and delete shapes (page 304)

Customize the layout of a dialog box (page 131)

6 Combining

You can create and import advance bills of materials, or *combining jobs* in the Tekla PowerFab **Combining** module.

You can either add combining jobs manually or import them as Microsoft Excel worksheets, KISS, or IFC files. The information in the imported files is automatically transferred into the applicable fields of the **Combining** module.

Once the materials have been entered in the **Combining** module, you can combine and recombine them using different material lengths. Then, you can compare the different combinations.

You can also send the combining materials to a requisition for pricing, or to a purchase order. Tekla PowerFab then marks the items that are sent to purchasing, so that they cannot be sent to purchasing again.

NOTE
- Before you start working in the **Combining** module, remember to set up the module (page 341) according to your needs.
- While you have the **Combining** module with jobs for advanced bill of materials, combining is also a function used for material optimization in **Combining**, **Estimating**, **Production Control**, and **Requisitions** in Tekla PowerFab.

The combining function mults linear material and nests plate-type material to assign item records in the job to inventory or purchasable material. This creates a copy of the item record and appends it to the inventory item or item from pricing maintenance that can be purchased. Material that is in inventory or in pricing maintenance (suppliers) is considered available material.

6.1 Set up the Combining module

In **Combining Maintenance**, you can create and modify the settings used when working in the **Combining** module. For example, you can set up the display and the input order listing views in **Combining Maintenance**. In addition to setting custom views, you can modify the menu setup and add keyboard shortcuts to make working more efficient.

See also

Define company standard settings for Combining (page 342)

Manage combining jobs (page 349)

Define company standard settings for Combining

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Combining** --> **Company Standards**.

   The **Company Standards** dialog box opens.
3. Modify the settings as needed.

Option	Description
Job # Increment	Allows you to select the default option for automatic job numbering. The options are: • **Increment from Last Job #**: When you create a new job, Tekla PowerFab uses the next available job number after the latest job number created. • **Increment from Largest Job #**: Tekla PowerFab uses the next available job number after the largest job number created. • **Don't Increment**: Automatic job numbering is not used. You can modify the job number when you create a new job.
Mark Input Type	Allows you to select which format is used when defining mark numbers. The **Any Input** and **Any Input - Logical Sort** options allows you to use any format when defining marks. The difference between the two options is that the **Any Input - Logical Sort** sorts the items in a different way.
Auto-Increment	When selected, Tekla PowerFab automatically populates the new mark number with the next largest available mark number when you are adding items in the **Combining** dialog box.
Auto-Increment From Last Entered Value	When selected, Tekla PowerFab automatically populates the new mark number with the next mark number from the latest added mark number when you are adding items in the **Combining** dialog box.

Option	Description
Allow Blank	When selected, Tekla PowerFab allows blank mark numbers.
Allow Duplicate	When selected, Tekla PowerFab allows duplicate mark numbers.
Keep Job Selection Screen Open	When selected, the **Select <Module> Job** dialog box stays open after a job has been opened. Otherwise, the dialog box closes when you open a job.
Open to Filter Selection	When selected, the **<Module> Filters** dialog box automatically opens when you open a job. In the dialog box, you can set filters to only show the items that you want to see in the job. The job opens when you have set the filters.
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers. For more details on regular expressions, click **Regular Expression Help.**

4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

The changes you made are saved. You can further modify the company standards by clicking the **Input/Display Units**, **Combining Optimizations**, and **Suppliers** buttons.

See also

Modify a combining job (page 369)

Define default input and display units for Combining

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

---

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.

3. Select the measurement system and the units of measurement on the drop-down menus.

4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Click **Save**.

The input and display units are saved as defaults.

You can also adjust the units used in individual jobs. For more information, see Create a combining job (page 354).

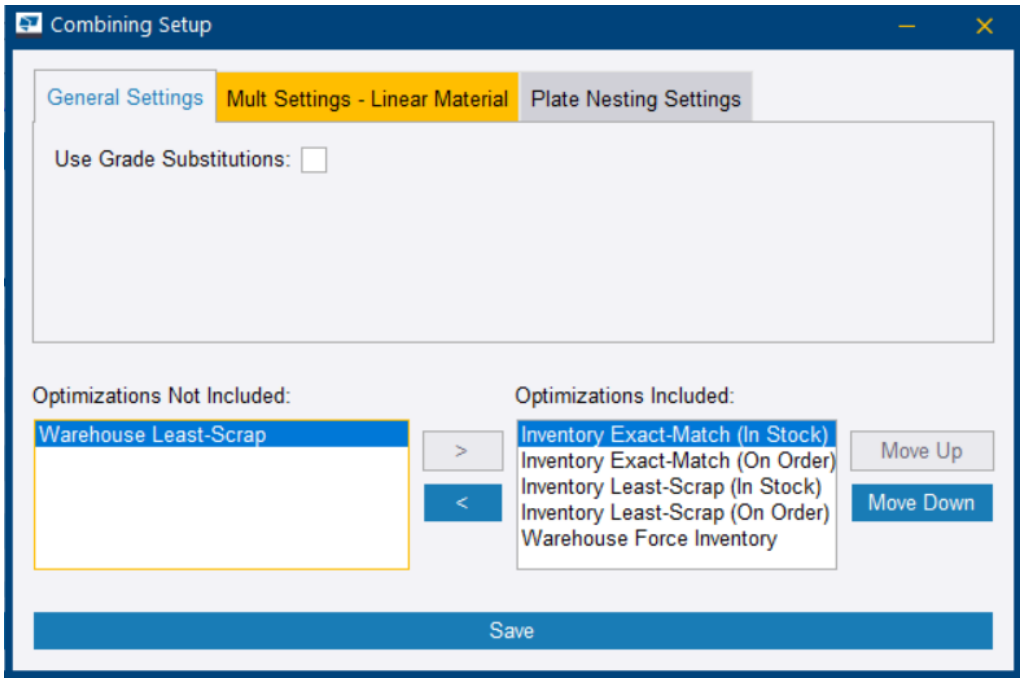
Define default combining optimizations for Combining

You can define company-level settings for material optimization.

1. To define company-level settings, go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. The **Combining Setup** dialog box opens.



3. Modify the settings on the various tabs as needed.

See also

Combine materials in the Combining module (page 377)

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.

Option	Description
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:

   - Click **Save**.

     The **Combining Setup** dialog box closes.

- Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Multing Software	Select the multing software that you are using.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Plate Nesting Software	Select the software that you are using.
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in

Option	Description
	Shape/Grade/Size Maintenance to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define combining optimizations for a combining job (page 357)

Troubleshoot combining issues (page 1235)

Define default suppliers for Combining

You can define default suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material. This way, you can use material pricing from the selected supplier pricing data sets for each material group.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Suppliers**.

   The **Suppliers** dialog box opens.
3. Select suppliers for each material group on the drop-down lists.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.
5. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the supplier settings are updated.

See also

Define company standard settings for Combining (page 342)

Define suppliers for a combining job (page 361)

Manage combining jobs

You can manage existing jobs in many ways in the **Job Maintenance** dialog box. The options available depend on the module. You can, for instance, copy and delete jobs.

To access the **Job Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
3. Select the job that you want to modify.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
4. At the bottom of the dialog box, click any of the available buttons.



See also

Delete combining jobs (page 349)

Copy a combining job (page 350)

Export combining jobs (page 350)

Merge combining jobs (page 351)

Renumber combining page items (page 351)

Set job groups for combining jobs (page 352)

Set job statuses for combining jobs (page 353)

Delete combining jobs

You can delete any unnecessary jobs. Note that the jobs are deleted permanently. To use the jobs for reference later, export them before deleting them.

For information on exporting jobs, see Export combining jobs (page 350).

NOTE When you delete jobs, Tekla PowerFab saves them in the database as KISS files. Users with administrative rights can recover the deleted jobs within 30 days from deleting them.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to delete.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Delete**.
4. To delete the job, click **Yes** in the **Confirm** dialog box.

The job is permanently deleted.

See also

Manage combining jobs (page 349)

Export combining jobs (page 350)

Recover deleted files (page 102)

Copy a combining job

You can copy an existing job to use it as the base of a new similar job. Copying an existing job makes creating the new job quicker, as you do not have to set all properties manually or create items one by one.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to copy.
3. At the bottom of the dialog box, click **Copy**. The **Enter Value** dialog box opens.
4. Type a number for the new job.
5. Click **OK**.

Tekla PowerFab creates a new job based on the selected job. You can modify the properties of the new job by using the **Edit** functionality in the module.

See also

Manage combining jobs (page 349)

Export combining jobs

Export jobs to move jobs from one database to another.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to export.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Export**.

   The **Save As** dialog box opens.
4. Browse to the folder where you want to save the file.

   Use the automatically generated name or type a new one.
5. Click **Save**.

The job is saved as a Tekla PowerFab-specific type of a KISS file. This type of file will only import back into Tekla PowerFab.

The file is exported to the selected location.

See also

Manage combining jobs (page 349)

Merge combining jobs

You can create a new job by merging two existing jobs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs that you want to merge.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Merge**.

   The **Enter Value** dialog box opens.
4. Type a number for the new job.
5. Click **OK**.

The selected jobs are merged into one new job.

See also

Manage combining jobs (page 349)

Renumber combining page items

You can change the existing page item numbering and their increments.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to renumber.
3. At the bottom of the dialog box, click **Renumber**.

   The **Select the pages to renumber** dialog box opens.
4. Click the arrow buttons to move the pages that you want to renumber to the **Included** list.
5. Click **OK**.

   The **Enter Value** dialog box opens.
6. Type the desired starting item number in the **Starting item #** dialog box.
7. Click **OK**.

   The **Enter Value** dialog box opens.
8. Type the desired item increment in the **Item increment** dialog box.
9. Click **OK**.

See also

Manage combining jobs (page 349)

Set job groups for combining jobs

Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs.

You can, for example, record the client and industry sector, but you can create your own system to best suit your needs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs for which you want to create a job group.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Set Group Name**.
4. Select if you want to add or update the primary group or the secondary group name.
5. Type a name for the group.

You can find the job groups in the navigation tree in the module and use them for filtering jobs.

See also

Manage combining jobs (page 349)

Set job statuses for combining jobs

Job status determines if a job is still in progress (**Open**) or finished (**Closed**). By setting job statuses for jobs, you can filter and view only the current jobs in the job selection dialog box in Tekla PowerFab and in Tekla PowerFab Go.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job whose status you want to change.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. Click **Update Selected** and select **Job Status**.
4. Select the desired job status in the list.
5. Click **OK**.

You can filter jobs by selecting status in the module navigation tree.

See also

Manage combining jobs (page 349)

Job status maintenance (page 276)

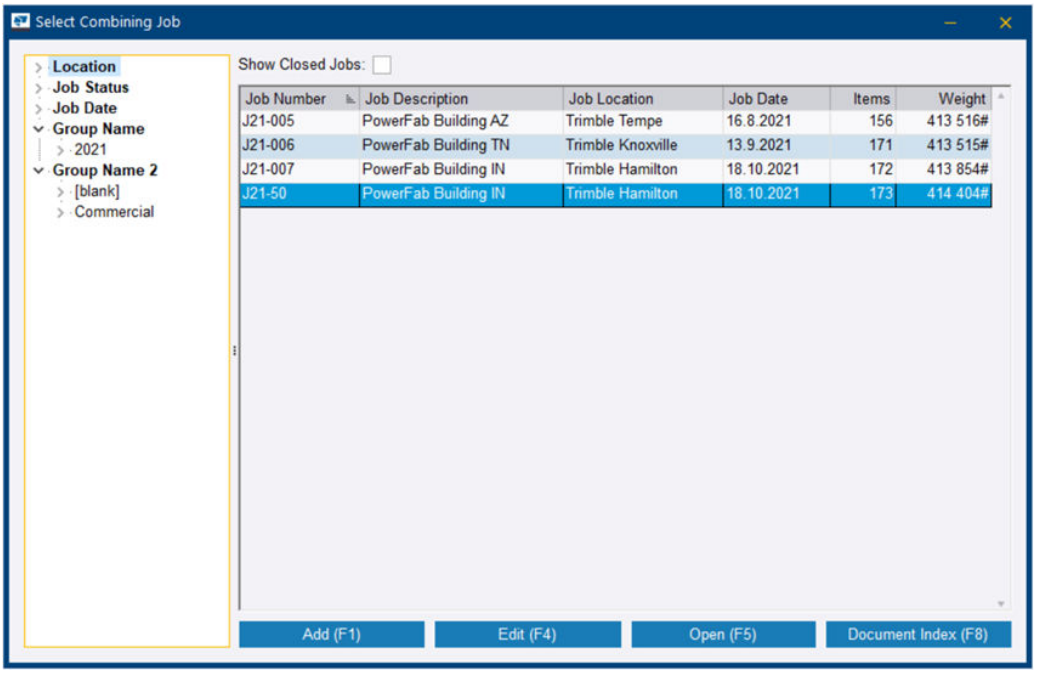
6.2 Open the Combining module

To create advance bills of material, open the **Combining** module.

- At the top of the Tekla PowerFab window, click the the **Combining** button.



The **Select Combining Job** dialog box opens. You can view all existing jobs



NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Next, you can create a new job, open or modify an existing job, or view and modify the documents attached to a job.

Create a combining job

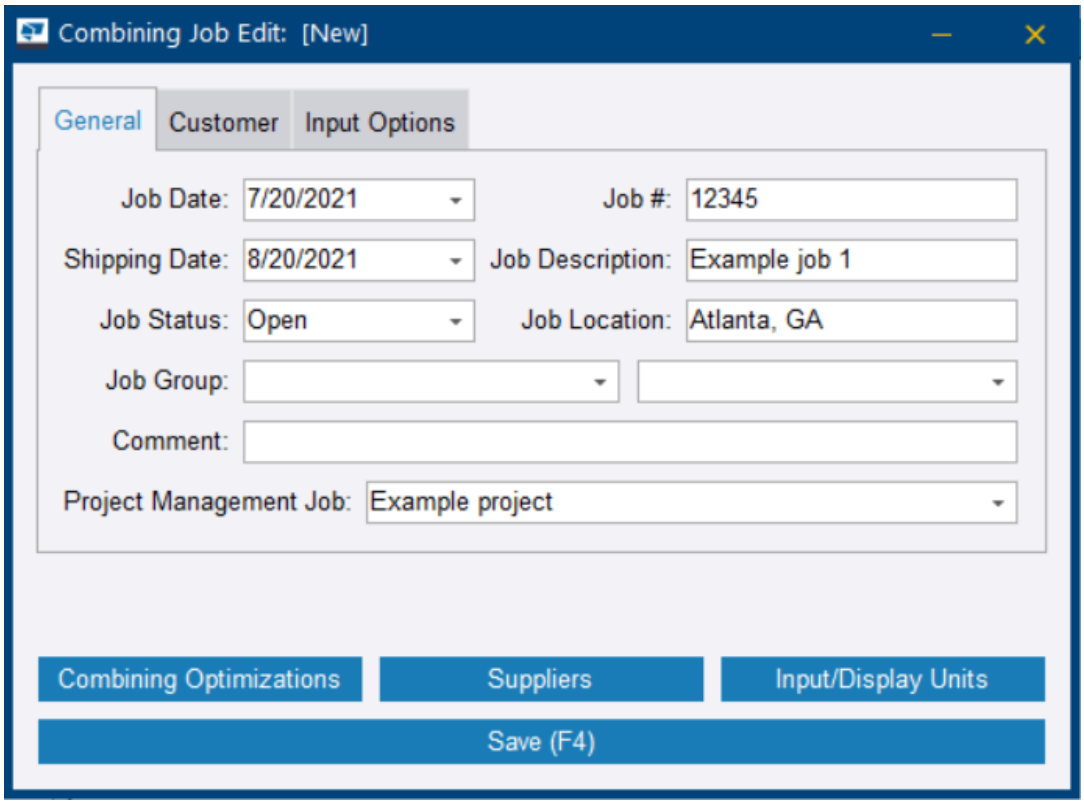
To create a new job, you need to define a few properties. If you do not define job-specific properties, Tekla PowerFab uses the default properties in **Company Standards**.

1. Open the module.

   The **Select <Module> Job** dialog box opens.

2. Click **Add**.

   The **<Module> Job Edit** dialog box opens.



Continue to defining the properties on the tabs.

By clicking the buttons, you can find more settings. Modifying them overrides the settings defined in **Maintenance** --> **Company Standards**.

NOTE Defining job-specific properties is optional. If you do not define job-specific properties, Tekla PowerFab uses the default properties defined in **Maintenance** --> **Company Standards**.

Define general settings

1. In the **<Module> Job Edit** dialog box, select the **General** tab.
2. Add or modify the properties as needed.

Option	Description
Job Date *	The date on which the bid is due. Tekla PowerFab automatically uses the date when you create the job, but you can select a different date in the associated calendar.
Job #	A unique number for the job. Note that the job number cannot be modified after the job has been created.

Option	Description
Shipping Date *	The date on which the job will be shipped. Tekla PowerFab automatically uses the date when you create the job, but you can select a different date in the associated calendar.
Job Description	The description of the job.
Job Status	The job is either still in progress (**Open**) or it has been finished (**Closed**). Estimating has three additional default values, **Bidding**, **Awarded**, and **Lost**. You can filter the **Select <Module> Job** dialog box by **Job Status**, so that only open jobs are shown. See also Job status maintenance (page 276).
Job Location	The town or city where the job takes place.
Job Group	Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs. Either type a job group directly in the blank field, or select an existing job group.
Comment	Any additional comments on the job.
Project Management Job	The project management job that is linked to the job. By linking the job in this module and project management jobs to each other, you can share nesting results with the **Project Management** module. This way, you can save data transfer time.

3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define customer settings

1. In the **<Module> Job Edit** dialog box, select the **Customer** tab.
2. Add or modify the properties as needed.
3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define input options

You can define how information is entered in the job.

1. In the **<Module> Job Edit** dialog box, select the **Input Options** tab.
2. Add or modify the properties as needed.

Option	Description
Mark Input Type	Allows you to select which format is used when defining mark numbers. The **Any Input** and **Any Input - Logical Sort** options allow you to use any format when defining marks. The difference between the two options is that the **Any Input - Logical Sort** sorts the items in a different way.
Auto-Increment	When selected, Tekla PowerFab automatically populates the new mark number with the next available mark number when you are adding items in the **Combining** dialog box.
Auto-Increment From Last Entered Value	When selected, Tekla PowerFab automatically populates the new mark number with the next mark number from the last added mark number.
Allow Blank	When selected, Tekla PowerFab allows blank mark numbers.
Allow Duplicate	When selected, Tekla PowerFab allows duplicate mark numbers.

3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Define combining optimizations for a combining job (page 357)

Define suppliers for a combining job (page 361)

Define input and display units for a combining job (page 362)

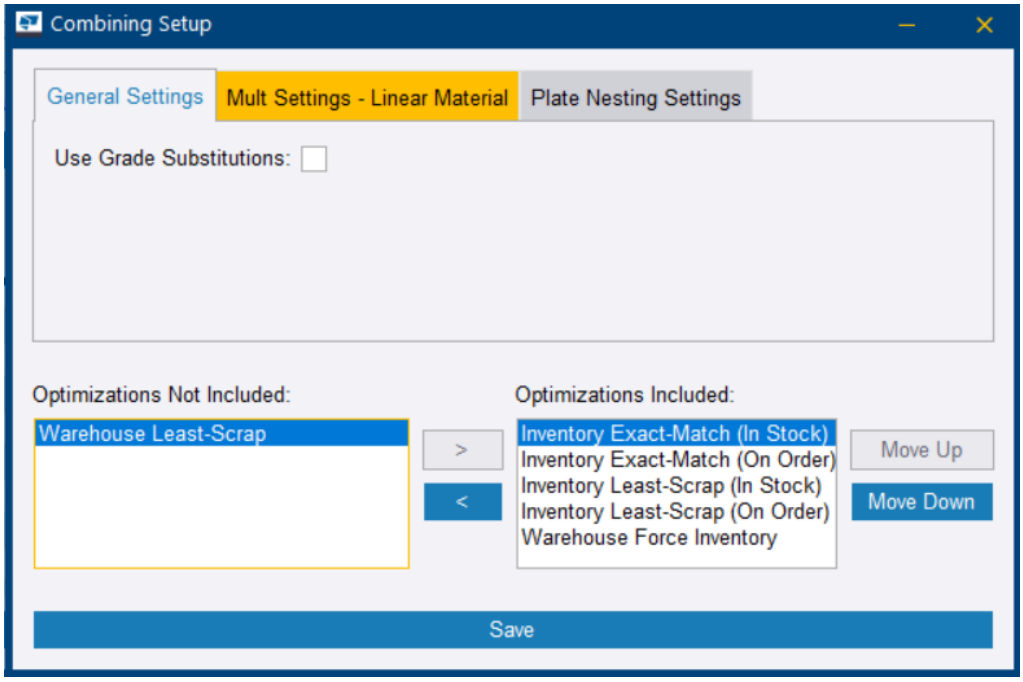
Define combining optimizations for a combining job

You can define job-specific settings for material optimization.

You are in the **Combining** module. You are either creating a new job or modifying an existing job in the **Combining Job Edit** dialog box.

1. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



2. Modify the settings on the various tabs as needed.

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data

Option	Description
	set or the inventory need to match each other exactly.
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:

- Click **Save**.

  The **Combining Setup** dialog box closes.
- Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in

Option	Description
	Shape/Grade/Size Maintenance to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define default combining optimizations for Combining (page 344)

Troubleshoot combining issues (page 1235)

Define suppliers for a combining job

You can define job-specific suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material.

You are in the **Combining** module. You are either creating a new job or modifying an existing job in the **Combining Job Edit** dialog box.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Click **Suppliers**.

   The **Suppliers** dialog box opens.
2. Select suppliers for each material group on the drop-down lists.
3. Click **OK**.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Create a combining job (page 354)

Modify a combining job (page 369)

Define default suppliers for Combining (page 348)

Define input and display units for a combining job

You can define input and display units for individual jobs. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

You are in the **Combining** module. You are either creating a new job or modifying an existing job in the **Combining Job Edit** dialog box.

1. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.

2. Select the measurement system and the units of measurement on the drop-down menus.
3. Click **OK**. You return to the **<Module> Job Edit** dialog box.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved.

See also

Create a combining job (page 354)

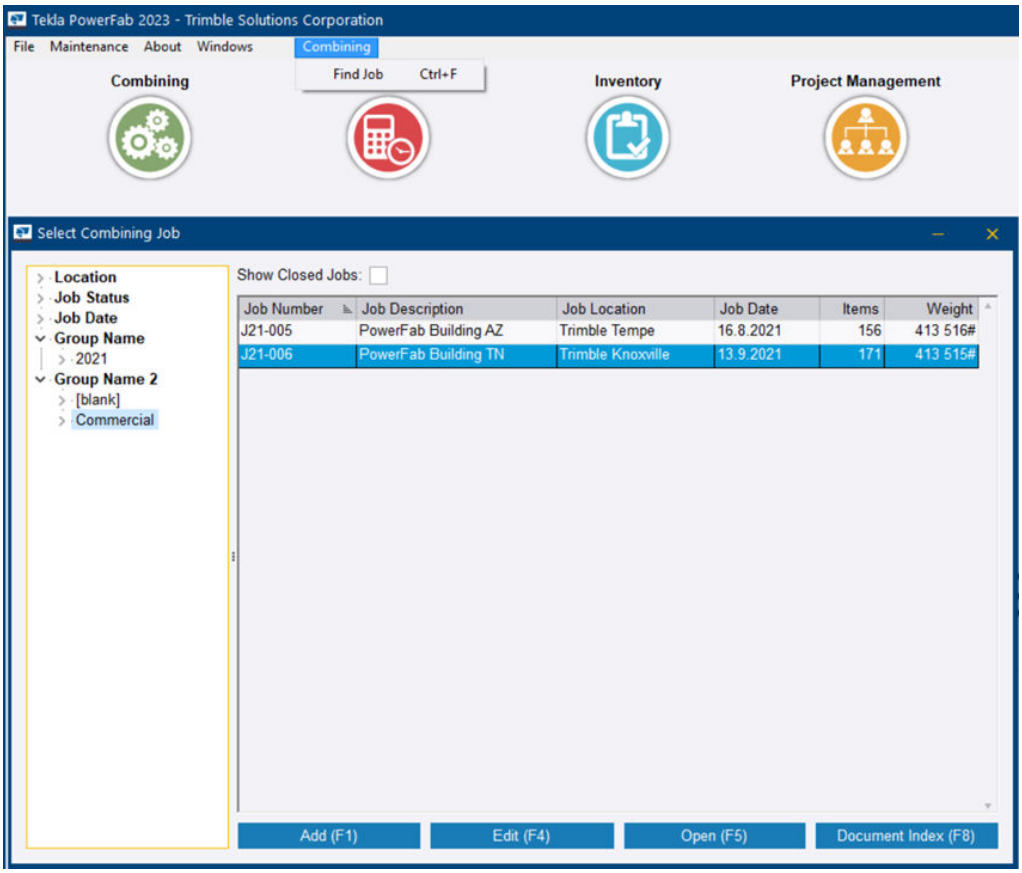
Modify a combining job (page 369)

Define default input and display units for Combining (page 343)

Find a combining job

You can search to find a specific job.

1. In the **Select Combining Job** dialog box, click the **Combining** ribbon tab.



2. Select **Find Job** or press **Ctrl+F** on the keyboard.

   The **Enter Value** dialog box opens.

3. Select the job in the drop-down menu or enter the job number in the search box.
4. Click **OK**.

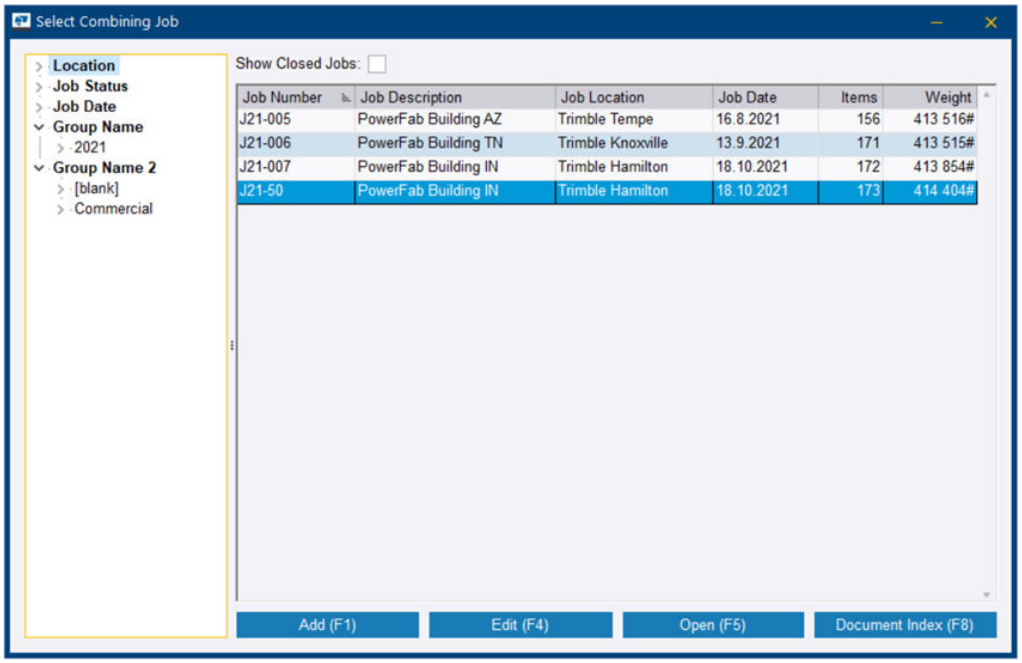
The selected job is highlighted. To open the job, double-click it or click **Open**.

NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Open a combining job

To view the details and add new items to a combining job, you need to open it in the **Combining** dialog box.

1. At the top left corner of the Tekla PowerFab window, click **Combining**.



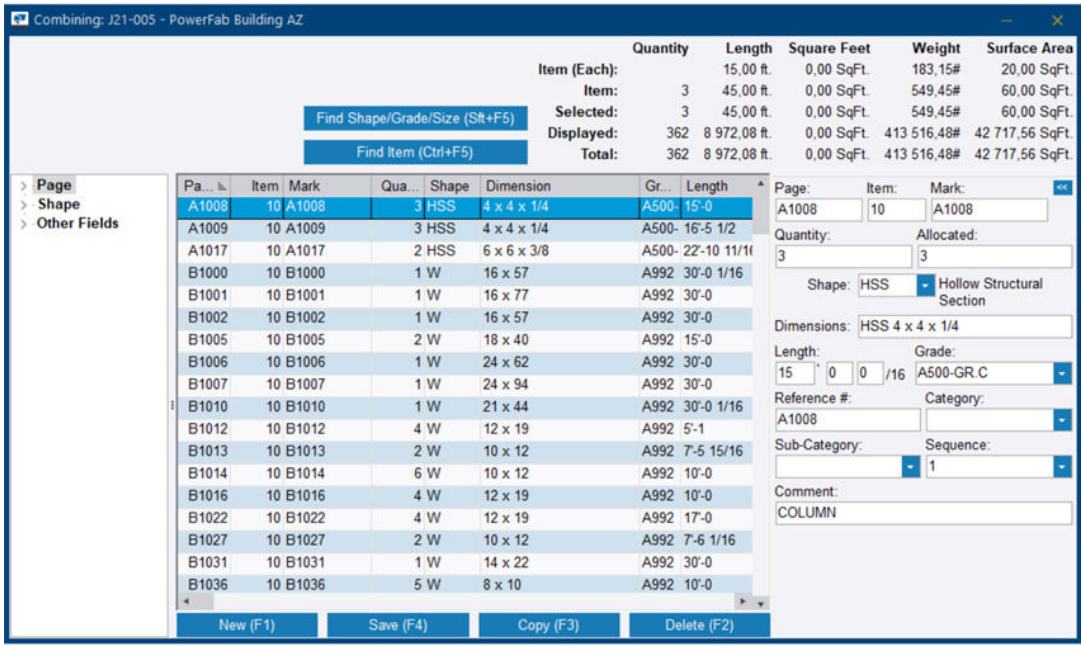
2. In the **Select Combining Job** dialog box, click the job that you want to open in the navigation tree on the left, or use the **Find Job** command.

NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

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3. Double-click the job, or select it and click **Open**.

The combining job opens in the **Combining** dialog box.



The materials are listed in the display area at the center of the dialog box.

You can add or modify information for items in the input area on the right side.

To customize the **Combining** dialog box according to your preferences, see the instructions in Define company standard settings for combining (page 342).

See also

Find a combining job (page 362)

Filter information in the Combining dialog box

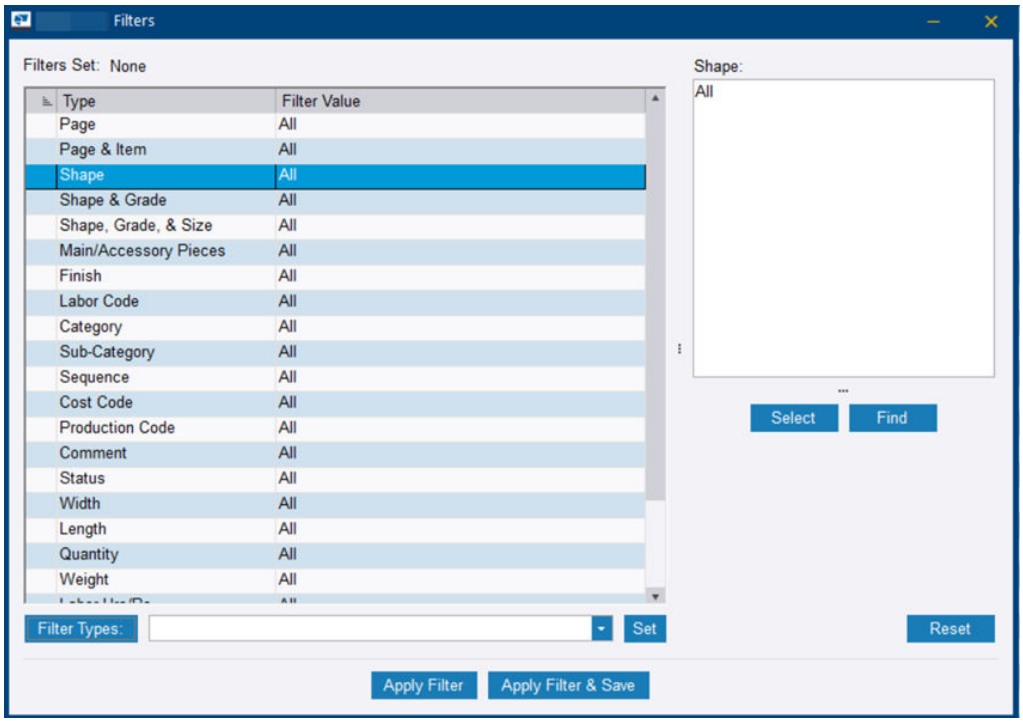
In addition to using the navigation tree for filtering items, you can set filters that determine which items are shown in the **Combining** dialog box.

If the **Open to Filter Selection** checkbox has been selected in **Maintenance** --> **<Module>** --> **Company Standards**, the **<Module> Filters** dialog box opens automatically when you open a job.

If the **Open to Filter Selection** checkbox has not been selected, open the **<Module> Filters** dialog box as follows:

1. In an open **Combining** job, click the **Combining** ribbon tab.
2. On the menu, select **Filter**.

   The **<Module> Filters** dialog box opens.



3. Select a filter type in the **Type** list and click **Select**.

The **Filter** dialog box opens.

For some filter types, you can also click **Find** and type the desired value in the search box to use it. This way, you do not have to scroll through all the available items.

4. Click the arrow buttons to move the items that you want to display to the **Included** list.
5. Click **OK**.

   If you want to further filter the information displayed , repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

   If you want to clear all filter settings, click **Reset**.
6. Click **Apply Filter**.

The **<Module> Filters** dialog box closes, and the items are filtered according to the settings you made.

To display all information again, click **Clear Filters** in the upper-left corner.

To create and save commonly used filters, see Create and modify module-wide filters (page 134).

View all changes in a combining job

To see all changes that have been made to the data in a combining job, you can create a specific type of report, called **List Of Changes**.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. On the menu, select **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user	a. Select the **User** filter type and click **Select**. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. Select the **Transaction Date** filter type and click **Select**. b. Do one of the following: • Enter the start (**Minimum**) and end (**Maximum**) dates. • Select the **Expression** checkbox for the start or end

To	Do this
	date. Then, select the base date and select how many more or less days will be taken into account. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Progress** dialog box, do one of the following:

To	Do this
View the list of changes	• Click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox.

To	Do this
	h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

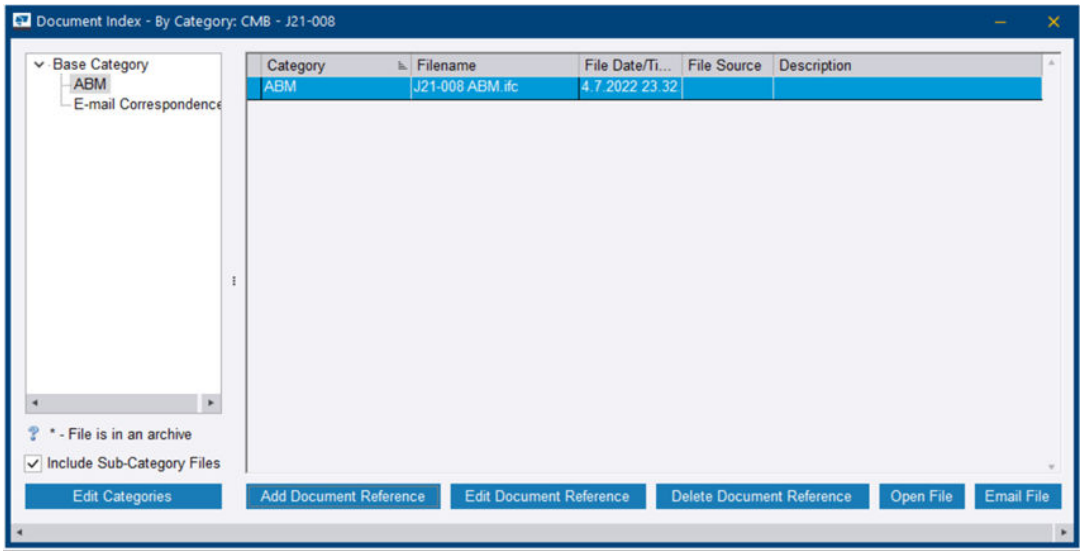
Manage files for a combining job

Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

For further information and instructions, see

Document Index (page 183)

Set the standard categories for attached documents (page 184)

Modify a combining job

You can modify the properties of an individual job at any time, no matter if the current properties have been set for all jobs in **Company Standards** or for an individual job when creating it.

The changes override the company standard settings for the current job.

NOTE	You cannot change the job number.

1. Open the module.

   The **Select <Module> Job** dialog box opens.
2. Select the job that you want to modify.
3. Click **Edit**.
4. Modify the information as needed. For details on the values, see the following:
   - Create a combining job (page 354)
   - Define combining optimizations for a combining job (page 357)
   - Define suppliers for a combining job (page 361)
   - Define input and display units for a combining job (page 362)
5. Click **Save**.

See also

Define company standard settings for Combining (page 342)

Create a combining job (page 354)

6.3 Manage combining items

You can manage combining items in many ways: add new ones, copy or modify existing ones, and delete unnecessary ones. You can modify existing combining items in a bill of materials either one by one or as a group. In addition, you can choose to modify items of a certain shape, or select the items to modify in the **Combining** dialog box. You can also copy a page of combining items onto a new page in the job.

For more information, see the following links:

Add a combining item (page 370)

Modify a single combining item (page 373)

Modify multiple combining items (page 373)

Modify the selected combining items (page 374)

Modify the shape, grade, dimensions, or length of combining items (page 375)

Modify the shape, grade, dimensions, or length of the selected combining items (page 376)

Copy a page of combining items (page 376)

Add a combining item

To add a new material item to a combining job:

1. At the bottom of the **Combining** dialog box, click **New**.
2. Define the item properties in the input fields.

   NOTE The visible input fields and their order depend on the settings that you have defined in.**Maintenance** --> **Combining** --> **Edit Input Fields**.

   The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Allocated	The items that have begun the purchasing workflow.

Option	Description
Category, **Sub-Category**	A class used for sorting items within a job You can create the available categories and subcategories in **Company Standards**. You can also assign quantity multipliers to subcategories. Select an existing **Category** or **Sub-Category** on the drop-down menu or type in a new category.
Comment	An optional comment that you can type for the item
Dimensions *	The material dimension, or material size, of each piece Depending on the shape, the dimension can also be mandatory information. Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: a. 1. Click in the **Dimensions** field. 2. Click **Add Size**. 3. Define the dimension properties. 4. Click **Save**. You can now select the dimension and use it.
Grade *	The material grade of each piece Depending on the shape, the grade can also be mandatory information. Either select the grade from the drop-down menu or type the grade indicator in the field.
Item *	The item number You can modify the item number manually or use the item number automatically determined by Tekla PowerFab. Default item increments are set in **Company Standards**, but you can modify them for each job. We recommend leaving spaces between

Option	Description
	items, so that you can later add items between existing items. You can reset the item number intervals in **Job Maintenance**. For more information, see Renumber combining page items (page 351).
Length	The length of each piece Default length input settings are set in **Company Standards**, but you can modify them for each job.
Main Pc	When selected, indicates that the item is a main piece in an assembly
Mark #	The mark number of the item. Enter a maximum of 25 characters. The maximum number of characters also depends on the **Mark Input Type** setting that you have selected in the **Combining Company Standards** dialog box.
Page	The number of the page on which the item is added
Quantity *	The number of pieces to be added Use the numeric keypad to add, multiply, divide, or subtract number of items.
Reference #	A reference number that links items in inventory or purchasing to the production control job When you load materials from a combining job to **Purchasing**, this reference number is used. Later, when the purchased items are received and imported to **Production Control**, they will have the same reference number. Type in the number. The maximum number of characters is 255.
Sequence	The sequence number assigned to the item. Type in the number or select a number from the drop-down menu.
Shape *	The material shape of each piece Either select the shape from the drop-down menu or type the shape indicator in the field (for example, HSS).

3. Click **Add**.

See also

Manage combining items (page 370)

Modify combining items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Combining** --> **Edit Input Fields**.

For more information, see the following links:

Modify a single combining item (page 373)

Modify multiple combining items (page 373)

Modify the selected combining items (page 374)

Modify the shape, grade, dimensions, or length of combining items (page 375)

Modify the shape, grade, dimensions, or length of the selected combining items (page 376)

Modify a single combining item

You can modify a single combining item in a bill of materials directly in the **Combining** dialog box.

1. In the upper navigation tree or the display area, click the item that you want to modify.

   The properties of the selected item appear on the right side of the dialog box.

2. Modify the properties according to your needs.

   For example, you can select another category in the **Category** list or change the number in the **Quantity** field.

3. Click **Edit** to save the changes.

The properties of the selected combining item are saved and updated to the **Combining** dialog box.

Modify multiple combining items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.

2. On the menu, select **Global Edit** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.

3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.

4. Do one of the following depending on the filter type:

   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

5. Click **OK**.

   To further limit the item types that you want to modify, repeat steps 3 to 5.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

Modify the selected combining items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Combining** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Combining** ribbon tab.

3. On the menu, select **Global Edit** --> **Global Edit - Selected**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

5. Click **Update**.

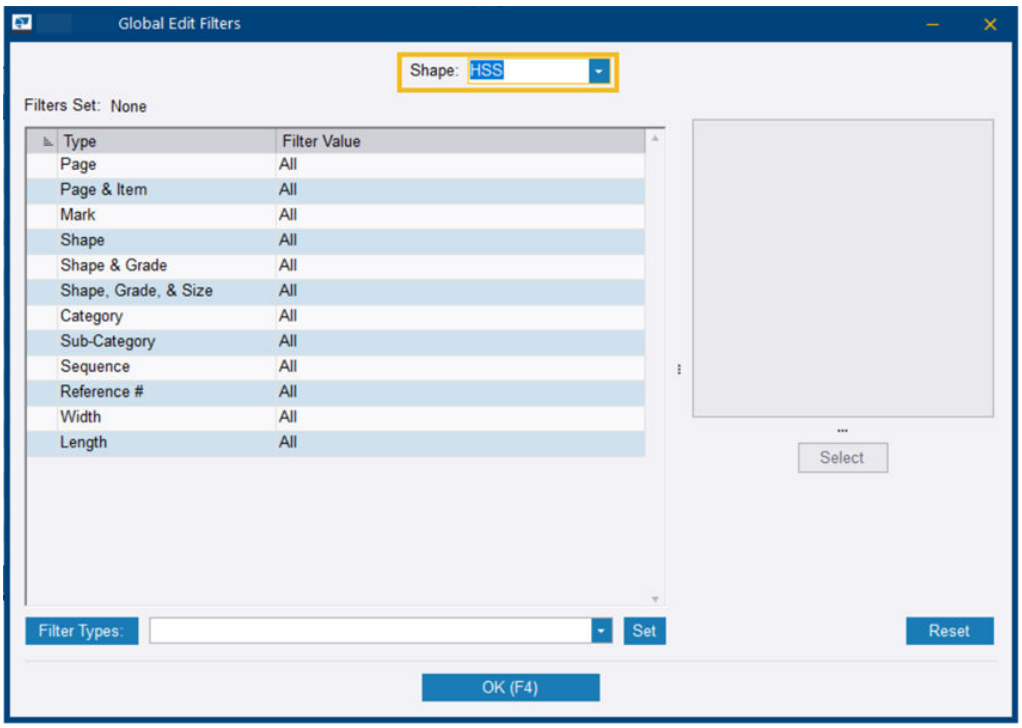
The properties of the selected items are updated.

Modify the shape, grade, dimensions, or length of combining items

Use the **Global Edit By Shape** command to modify the shape, grade, dimensions, or length of all or multiple items.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit By Shape**.

   The **Global Edit Filters** dialog box opens.
3. Select a shape on the **Shape** drop-down menu.



4. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
5. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
6. Click **OK**.

   To further limit the items that you want to modify, repeat steps 4 to 5.

7. Click **OK**.

   The **Global Edit** dialog box opens.

8. Select the properties that you want to update.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

9. Click **Update**.

   The **Confirm** dialog box opens.

10. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

Modify the shape, grade, dimensions, or length of the selected combining items

Use the **Global Edit Selected By Shape** command to modify the shape, grade, dimensions, or length of selected items.

1. In the **Combining** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Combining** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit Selected By Shape**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

5. Click **Update**.

The changes you made to the item properties are updated.

6.4 Copy a page of combining items

Use the **Copy Page** command to copy all items on a page of the combining job onto a new page.

1. In the **Combining** dialog box, select any item that is on the page that you want to copy.
2. Click the **Combining** ribbon tab.
3. On the menu, select **Copy Page**.

4. In the **Copy Page** dialog box, type the new page number in the **New Page #** field.
5. Click **Copy**.

The copied items are added to the **Combining** dialog box.

6.5 Combine materials in the Combining module

You can mult and nest materials using the **Combine** command. You can then save and review the combining results.

1. In the **Select Combining Job** dialog box, open a job.
2. Click the **Combining** ribbon tab and select **Combine**.

   The **Select Combining Run** dialog box opens. When you are performing the first combining run for a combining job, the list in the dialog box is empty.
3. Click a desired combining option to select it.

   The options are:

   - **Mult**: Combines linear items, like beams and angles.
   - **Nest**: Combines items that have area, like plates or gratings.
   - **Mult & Nest**: Combines all items.

   The **Combining Run Filters** dialog box opens.

   NOTE Filtering items is optional, so you can skip steps 4 to 7 if you do not want to filter out items from the combining run.

4. To only combine specific types of materials, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:

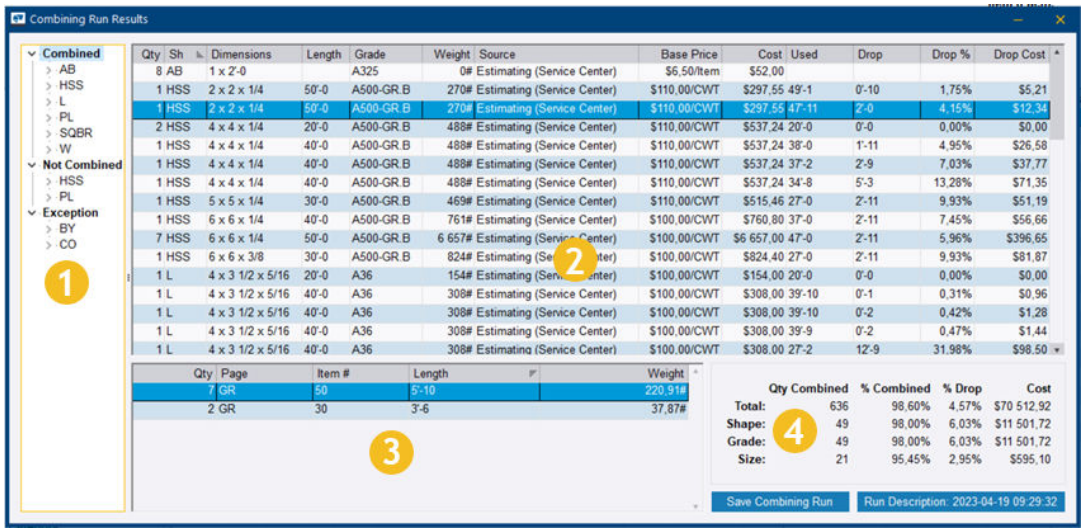
   - Click the arrow buttons to move the items that you want to combine to the **Included** list.
   - Type the maximum and minimum values for the items that you want to combine.
6. Click **OK** to apply the filter.

   Repeat steps 4 to 6 for each filter type that you want to set.
7. To ensure that you are using the correct settings, click the **Optimizations**, **INV Filter**, and **Suppliers** buttons.

   You can modify the settings.

8. In the **Combining Run Filters** dialog box, click **OK**.
9. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

Tekla PowerFab combines the materials. After the combining process is finished, the **Combining Run Results** dialog box opens.



(1) Navigation tree: Result statuses

- **Combined**: The items have been optimized successfully
- **Not Combined**: The items that failed to be optimized
- **Exception**: Items that cannot be optimized, such as comment and buyout lines. These can generally be ignored

(2) Display area: Combining results including each bar or sheet that is required

(3) Bottom area: The items that are combined to the selected item

(4) Summary area: Combining results with waste percentage and total material costs. The material cost represents the pricing of the materials in the pricing database that was used in the combining run.

TIP You can save the combining run to view it later and compare it with another combining run. To do so, click **Save Combining Run** at the bottom of the **Combining Run Results** dialog box. No cut lists are generated when you save the combining run.

See also

Rename a combining run (page 379)

Troubleshoot combining issues (page 1235)

Manage inventory, cut lists, and nests with ProNest (page 243)

Mult and nest materials with Steel Projects PLM (page 255)

Enable ShopData Systems for plate nesting (page 258)

Rename a combining run

When you save a combining run, Tekla PowerFab automatically uses the date/time stamp as the combining run name. You can also rename the combining run. Renaming the combining run makes it easier to identify a specific combining run when you want to compare combining runs.

1. In the **Combining Run Results** dialog box, click the **Run Description** button.
2. In the **Enter Value** dialog box, type a new name for the combining run.
3. Click **OK**.

The name is updated. You can see the combining run name in the **Run Description** button at the bottom of the **Combining Run Results** dialog box.

View combining run filter settings

You can view which filter settings are used in the current combining run. Note that you cannot modify the filter settings of the combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **View Filters**.
3. In the **Combining Run Filters** dialog box, do one or more of the following:
   - To view the optimization settings used for the combining run, click **Optimizations**.
   - To view the combining run inventory filter setting used for the combining run, click **INV Filter**.
   - To view the supplier settings used for the combining run, click **Suppliers**.
4. When you have viewed the settings, click the **Close** button (**X**) in the upper-right corner of the dialog box.

   The **Combining Run Filters** dialog box closes.

Modify run-specific pricing information

After performing the first combining run, you can modify length options that are only used in that specific combining job. For example, L 3 x 3 x ¼ materials have 40'0 and 20'0 lengths. If you only want to combine the 20'0 lengths, you

need to delete the 40'0 lengths from **Run-Specific Pricing Maintenance**. Any changes that you make will override the values in the global pricing database, but only for the current combining run.

You can also modify a group of items in the combining run at one go. For more information, see Modify a group of items in run-specific pricing maintenance (page 382).

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Run-Specific Pricing Maintenance**.
3. In the **Pricing Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add material shapes, grades and dimensions	a. At the bottom of the dialog box, click **Add**. b. In the **Shape** list, select the shape. c. Click the **Dimensions** field and select the dimensions that you want to add. d. In the **Grade** list, select the grades that you want to add. e. Click **Save**. The shape, its dimensions, and grades are added to the navigation tree.
Modify existing material shapes, grades, and dimensions	a. In the navigation tree, click the material dimension that you want to modify. b. At the lower-left corner of the dialog box, click **Edit**. c. In the **Shape** list, select the shape. d. Click the **Dimensions** field, and select the new dimensions in the dialog box that appears. e. In the **Grade** list, select the new grades. f. Click **Save**. The shape, its dimensions, and grades are updated to the navigation tree.
Add lengths or sizes	a. In the navigation tree, click the material dimension for which you want to add lengths. b. Click **New** under the **Normal Price** field. c. Type the length and price. d. Click **Add**. The length is added to the list of lengths.

To	Do this
Modify or delete lengths	a. In the navigation tree, click the material dimension that you want to modify or delete. b. In the list of lengths, select a length. c. Do one of the following: • To modify the length, type a new length and price, and click **Edit**. • To permanently delete the length, click **Delete**, and in the confirmation dialog box, click **Yes**.
Change the pricing of a length	a. In the navigation tree, select the material dimension whose pricing you want too change. b. In the list on the right side of the dialog box, select a length. c. Do any of the following: • To modify the special price, type a new value in the **Special Price** field, and click **Save**. • To modify the normal price, type a new value in the **Normal Price** field, and click **Edit**.You can also adjust the quantity and lengths of the material. To change the quantity to unlimited, type an asterisk (*) in the **Quantity** field. Click **Edit** to save the changes. The pricing of the length is updated.
Delete unnecessary material dimensions	a. In the navigation tree, select the material dimension that you want to delete. b. At the bottom of the dialog box, click **Delete**. c. In the confirmation dialog box, click **Yes** to confirm deleting the dimension.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The changes are saved for the current combining run. Now, you need to recombine the materials to update the combining results.

See also

Recombine all items (page 383)

Recombine items of a shape (page 384)

Recombine items of a material grade (page 385)

Recombine a material dimension (page 385)

Update combining information and recombine all items (page 386)

Modify a group of items in run-specific pricing maintenance

You can modify the properties of a group of items while you are in the **Pricing Maintenance** dialog box. For example, you can only make certain lengths available for combining by using the **Set Lengths** option. Any changes that you make will override the values in the global pricing database, but only for the current combining run.

For information on how to access the **Pricing Maintenance** dialog box, see Modify run-specific pricing information (page 379).

1. In the **Pricing Maintenance** dialog box, click the **Pricing** ribbon tab.
2. On the menu, select **Global Edit**.
3. In the **Shape** list at the top of the **Pricing Global Edit** dialog box, select the shape whose grades and dimensions you want to modify.

   The grades and dimensions of the shape appear in the dialog box.
4. In the **Grades** section, click the arrow buttons to move the grades that you want to modify to the **Included** list.
5. In the **Dimensions** section, click the arrow buttons to move the dimensions that you want to modify to the **Included** list.
6. In the lower-right corner, select an option.

   The options are:

   - **Increase By Percentage**: Increases the prices of the selected items by a specific percentage.
   - **Decrease By Percentage**: Decreases the prices of the selected items by a specific percentage.
   - **Increase By Amount**: Increases the prices of the selected items by a certain sum.
   - **Decrease By Amount**: Decreases the prices of the selected items by a certain sum.
   - **Set Amount**: Sets the prices of the selected items to a specific sum.
   - **Set Quantity**: Allows Tekla PowerFab to only use a specific number of the selected lengths.
   - **Set Lengths**: Allows you to add lengths for the selected items either one by one or as a range.

- **Set Lengths (No Price)**: Allows you to add lengths for the selected items either one by one or as a range. No pricing information is added.

New fields appear at the bottom of the dialog box.

7. Modify the values in the fields according to your needs.
8. Click **Save**.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The changes are saved for all selected material grades and dimensions. Now, you need to recombine the materials

Example: Change combining lengths of angles

In this example, we will modify all angles so that the only available length for combining is 20 inches.

1. In the **Shape** list at the top of the **Pricing Global Edit** dialog box, select **L**.
2. Click the double arrow buttons to move all grades and dimensions to the **Included** list.
3. Select the **Set Lengths** option button.
4. Click **New**.
5. Leave the **Quantity** field blank to allow Tekla PowerFab to use an unlimited quantity of the length.
6. **Length** field, enter `20'0"`.
7. In the **Normal Price** field, enter a price.

   For example, set the price to `$25,50/CWT`.
8. Click **Add**.
9. Click **Save**

Now, the only angle length available in recombining is 20'0".

See also

Recombine all items (page 383)

Recombine items of a shape (page 384)

Recombine items of a material grade (page 385)

Recombine a material dimension (page 385)

Update combining information and recombine all items (page 386)

Recombine all items

If the combining results need to be changed to fit specific material applications, such as different material lengths or plate sizes, you need to recombine items. The **Recombine All** command recombines all items in the previous combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Recombine All**.
3. In the first confirmation dialog box, click **Yes** to recombine all items.
4. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla PowerFab performs the combining run and reloads the information that you selected. The materials recombine to the lengths changed in **Run-Specific Pricing Maintenance**.

Recombine items of a shape

To recombine materials after adding new items, use the **Recombine Shape** command in the **Combining Run Results** dialog box.

1. In the **Combined** navigation tree, click the **+** sign to show available material shapes.
2. Click the material shape to which you have added items.

   Only the items of the selected shape are shown.
3. Click the items that you want to recombine to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Combining Run** ribbon tab.
5. On the menu, select **Recombine Shape**.
6. In the first confirmation dialog box, click **Yes** to recombine the selected shape.
7. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla PowerFab recombines the selected items.

Recombine items of a material grade

To recombine materials after changes have been made to material grades, use the **Recombine Grade** command in the **Combining Run Results** dialog box.

1. In the **Combined** navigation tree, click the **+** sign under a material shape to show available material grades.
2. Click a material grade to select it.

   Only the selected material grade is shown.
3. Click the items that you want to recombine to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Combining Run** ribbon tab.
5. On the menu, select **Recombine Grade**.
6. In the first confirmation dialog box, click **Yes** to recombine the selected grade.
7. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla PowerFab recombines the selected items.

Recombine a material dimension

When changes have been made to a material dimension in the combining material list, use the **Recombine Size** command to recombine the dimension. Note that you need to have the **Combining Run Results** dialog box open.

1. In the **Combined** navigation tree, click the **+** sign, and select a material dimension.

   Only the selected material dimension is shown.
2. Click the **Combining Run** ribbon tab.
3. On the menu, select **Recombine Size**.

   A confirmation dialog box appears, asking if you want to recombine the selected dimension.
4. In the first confirmation dialog box, click **Yes** to recombine the selected dimension.

5. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.

Tekla PowerFab recombines the selected material dimension.

Update combining information and recombine all items

When new materials have been added, or material pricing has changed, use the **Reload Information & Recombine All** command. Tekla PowerFab will then update the material and pricing information and perform a new combining run.

Note that all run-specific information will be lost if you use the **Reload Information & Recombine All** command.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Reload Information & Recombine All**.

   A confirmation dialog box appears, asking if you want to recombine all items.
3. In the first confirmation dialog box, click **Yes** to confirm recombining all items.
4. In the second confirmation dialog box, click **Yes** to save the previous combining run or **No** to recombine materials without saving the combining run.

   By saving the previous combining run, you can compare the differences between the previous combining run and the new one.
5. In the third confirmation dialog box, click **Yes** to reload and update the items to be recombined, or **No** to not reload and update the items.
6. In the fourth confirmation dialog box, click **Yes** to reload and update the pricing information, or **No** to keep the current pricing information.

Tekla PowerFab performs the combining run and reloads the information that you selected.

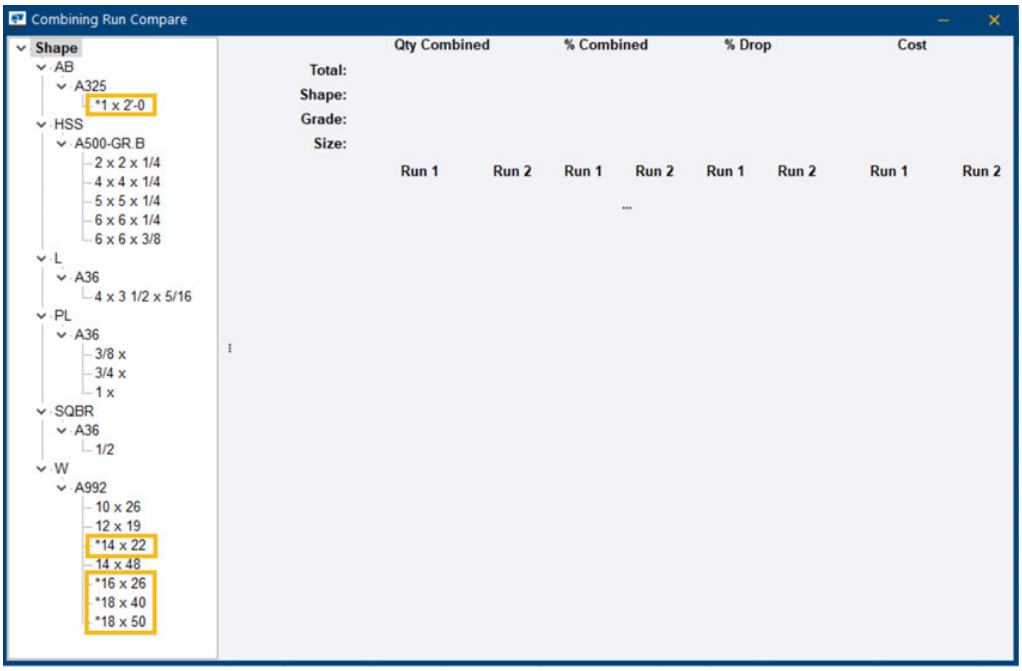
Compare combining runs

You can view and compare the changes that were made from one combining run to another. This is useful for comparing drops for the use of different stock lengths or pricing differences between two vendors.

NOTE You must have saved a previous combining run to compare it with the current combining run.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Compare With a Previously Saved Run**.
3. In the **Select Combining Run** dialog box, click a previously saved combining run in the list to select it.
4. Click **Compare**.

   The **Combining Run Compare** dialog box opens, displaying the information of both combining runs. Any differences are marked with an asterisk (*).



5. In the navigation tree in the left-hand pane, click a material size to select it.
6. View the differences for the size in the different combining runs.
7. To close the comparison view, click the **Close** button (**X**) in the upper-right corner of the **Combining Run Compare** dialog box.

See also

Rename a combining run (page 379)

View, print, or export combining run reports

You can create different kinds of reports based on the combining run results. You can then view, print, or export the reports according to your needs.

1. In the **Combining Run Results** dialog box, click the **Combining Run** ribbon tab.
2. On the menu, select **Reports**.
3. To only include particular shapes, grades, or dimensions in the reports, in the **Combining Run Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, click the arrow buttons to move the shapes, grades, and dimensions that you want to include to the **Included** list.
5. Click **Make Report**.
6. In the **Report Selection** dialog box, select the report.
7. If you want to include your company's logo in the report, select **Show Company Logo**.
8. Do any of the following:

To	Do this
View the report	• Click **View**.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the used printer. c. Click **Print**. d. Click **Yes**.
Export the report	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.

To	Do this
	g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

See also

Combine materials in the Combining module (page 377)

6.6 Load combining items into purchasing

Load materials in a bill of materials into a requisition or a purchase order, so that they can be purchased. You can either load all combining items into a requisition or a purchase order, or select the items that you want to load.

Note that Tekla PowerFab only allows you to load the same materials into purchasing once.

When the materials are sent to purchasing, Tekla PowerFab populates the reference number for both the combining job items and the purchasing items. However, the combining items and the purchasing items are not linked.

See also

Load all combining items into a requisition (page 389)

Load selected combining items into a requisition (page 390)

Load all combining items into a purchase order (page 391)

Load the selected combining items into a purchase order (page 391)

Load all combining items into a requisition

To load all items in a bill of materials into a requisition, use the **Load Material Into Requisition** command.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Requisition**.
3. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.
4. Click **OK**.

5. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

6. In the **Import Items** dialog box, click **OK** to return to the **Combining** dialog box.

Items are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

Load selected combining items into a requisition

Use the **Load Selected Material Into Requisition** command to select the items in a bill of materials that you want to load into a requisition.

1. In the **Combining** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Combining** ribbon tab.
3. On the menu, select **Purchasing** --> **Load Selected Material Into Requisition**.
4. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
5. Click **OK**
6. Click **OK** to close the **Import Items** dialog box.

Items are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

Load all combining items into a purchase order

To load all items in a bill of materials into a purchase order, use the **Load Material Into Purchase Order** command.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Purchase Order**.
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. Click **OK**.
5. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

6. Click **OK** to close the **Import Items** dialog box.

Items are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

Load the selected combining items into a purchase order

Use the **Load Selected Material Into Purchase Order** command to select the items in a bill of materials that are loaded into a purchase order.

1. In the **Combining** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. On the menu, select **Purchasing** --> **Load Selected Material Into Purchase Order** .
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. Click **OK**
5. Click **OK** to close the **Import Items** dialog box.

Items are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

6.7 Import an IFC file to a combining job

You can import IFC files to the **Combining** module to be used for a preliminary list or for advance bills of materials.

As a comparison to Microsoft Excel worksheets, or KISS files, using IFC files allows revised items to be updated, and you can report the changes (material size, quantity, and so on) during the import process.

We recommend that you use the Steel fabrication view or 2x3 EM11 IFC format, but the Coordination view or the standard IFC2x3 format works as well.

Before you start importing, ensure that you have created preliminary marks (`PRELIM_MARK`) in Tekla Structures, and included those in the IFC files. In Tekla PowerFab, map at a minimum the `PRELIM_MARK` to `Reference Number`. Other mapping is optional.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Import**.
3. In the navigation tree of the **Import** dialog box, select **IFC** under **Combining**.
4. Browse to find the file you want to import.
5. Click **Import**.

   The **Import** dialog box opens, and shortly after, the **Combining Job Edit** dialog box.
6. Select the job to which import the IFC project and click **Save**.

   The **Import Field Map** dialog box opens.

7. If the mapping is not automatically done, map the selected information from the IFC file.

   We recommend you to map at a minimum `PRELIM_MARK` to `Reference Number`. Other mapping is optional.

8. After selecting the field to be mapped to, for example to **Reference Number**,click **Set Field Mapping** and **OK**.

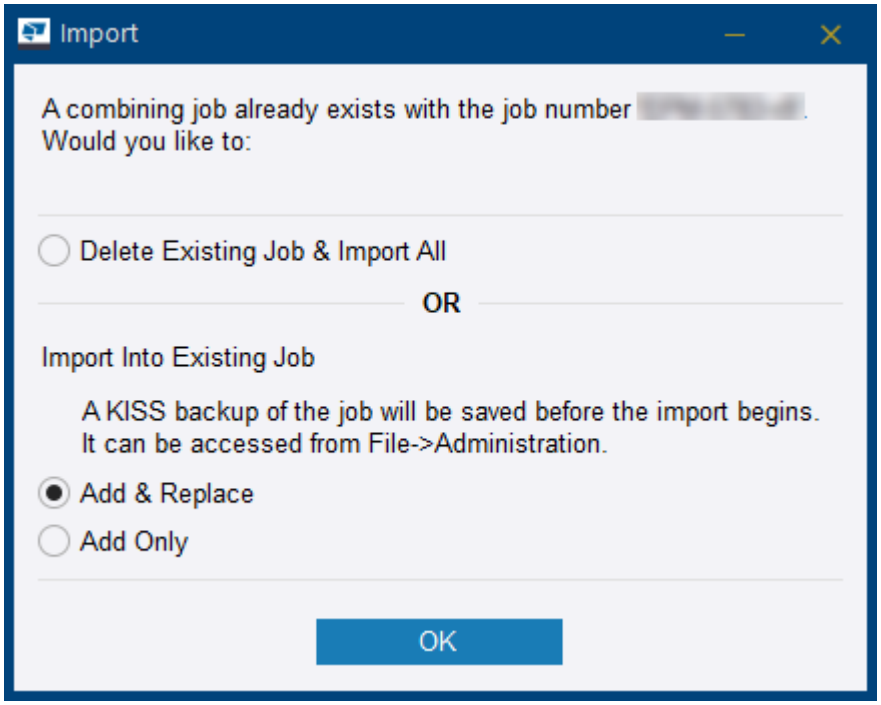
   The **Import** log is displayed.

   Ensure there are no errors, warnings, or unsuccessful files.

9. After a successful import, go to the **Combining** module. In the **Select Combining Job** dialog box, select the job, and click **Open** to open the job.

   The job shows the imported records, as well as the mappings.

If you import the IFC file to the same job, you can use the **Add & Replace** option.



If you have changed some fields in some of the records in the job, such as quantities or grades, the import reverts the changes made in the job, and the **Import** log shows that a number of items were updated.

For further information, see also the following videos:

- Preliminary List/ABM Import form IFC
- Preliminary material list (ABM) workflow from detailing to PowerFab

See also

Combining (page 341)

Import files to Tekla PowerFab (page 144)

6.8 Export a combining job to KISS

One way to save a combining job for later use is exporting it to KISS.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. On the menu, select **Export to KISS**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

A copy of the file is saved in the KISS format.

6.9 View or print combining reports

You can view or print reports that show different information about the combining job. You can create different kinds of reports and filter the items in the reports in several ways.

1. In the **Combining** dialog box, click the **Combining** ribbon tab.
2. In the menu, select **Reports**.

   The **Report Filters** dialog box opens.
3. To only include specific materials in the reports, in the **Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, click the arrow buttons to move the material items that you want to include in the reports to the **Included** list.
5. Click **OK**.

   To further limit the included items, repeat steps 3 to 5 for all necessary filter types in the **Report Filters** dialog box.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, click the report that you want to create.

8. Do one or both of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.

9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Customize reports (page 141)

7 Estimating

Use the **Estimating** module to create and modify estimates in Tekla PowerFab. You can add different items to your estimates, including accessories and assemblies. You can also mult and nest the material in an estimate, send material to purchasing, or export the estimate to KISS, among many other options.

NOTE Before you start working in the **Estimating** module, ensure that you have adjusted estimating settings to meet the standards of your shop. For more information, see Set up the Estimating module (page 396).

7.1 Set up the Estimating module

Before you start to create estimates and proposals in the **Estimating** module, take the time to set it up carefully. Once you have created and adjusted all necessary options, standard estimating items, and settings, working in the **Estimating** module is easier and more efficient.

To access the different **Estimating Maintenance** commands, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to **Estimating**.

Define company standard settings for Estimating

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Company Standards**.

   The **Company Standards** dialog box opens.

3. Modify the settings as needed.

Option	Description
Job # Increment	Allows you to select the default option for automatic job numbering. The options are: • **Increment from Last Job #**: When you create a new job, Tekla PowerFab uses the next available job number after the latest job number created. • **Increment from Largest Job #**: Tekla PowerFab uses the next available job number after the largest job number created. • **Don't Increment**: Automatic job numbering is not used. You can modify the job number when you create a new job.
Default Finish	The most typical material finish for most estimating jobs and items.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
Keep Job Selection Screen Open	When selected, the **Select <Module> Job** dialog box stays open after a job has been opened. Otherwise, the dialog box closes when you open a job.
Open to Filter Selection	When selected, the **<Module> Filters** dialog box automatically opens when you open a job. In the dialog box, you can set filters to only show the items that you want to see in the job. The job opens when you have set the filters.
Report Pricing - Automatically Select Last Combining Run	When selected, Tekla PowerFab automatically uses the pricing used in the last saved combining run.
Imports - Use Piece Mark as Part #	When selected, imported piece marks are automatically used as part number items in the estimating material list.
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically

Option	Description
	under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
Imports - Use as Production Code	Select whether you want to use assembly main marks, piece marks, drawing descriptions, or assembly descriptions as production codes. If you use piece marks as production codes, you can ensure that each item in a production control job matches the same item in a linked estimating job. This guarantees that the corresponding items have the same labor times.
IFC Import - Set status of updated items to	The estimate status is used to verify the condition or state of an estimate item. This controls the status of an estimate item, should there be a change to ensure that the item is properly reviewed.
Production Code - Default Aggregate Units	Defines the default units of measure for labor items within the production codes.
Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers. For more details on regular expressions, click **Regular Expression Help.**
Warn if accessory quantity is not a multiple of the main piece quantity	When selected, Tekla PowerFab prompts the user to confirm when adding or updating an accessory and the quantity is not a multiple of the main piece quantity.
Summary Information to Excel - Prompt for whether it is a Canadian project	Select if the **Summary Information to Excel report** option should prompt if it is a Canadian project for the purposes of applying tax rates.

4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

When you click **Save**, the changes you made are saved.

You can find further company standard settings by clicking the buttons.

Define default galvanizing settings

You can define default galvanizing costs and freight settings used in all estimating jobs. Whenever an item in an estimating job is marked as galvanized, these default costs are applied to it.

1. At the bottom of the **Estimating Company Standards** dialog box, click **Galvanizing**.

   The **Galvanizing** dialog box opens.
2. Define the cost per pound, minimum cost, and freight cost.
3. In **Trailer Capacity**, type the trailer capacity.

   If you type `0` in the field, the freight cost value will be the total cost. If you enter a greater value, the freight cost value will be the cost per truck.
4. Define the labor prep cost as price per pound.
5. In the **Weight - Percent Added** field, define the percentage of galvanizing weight to be added for each galvanized item.

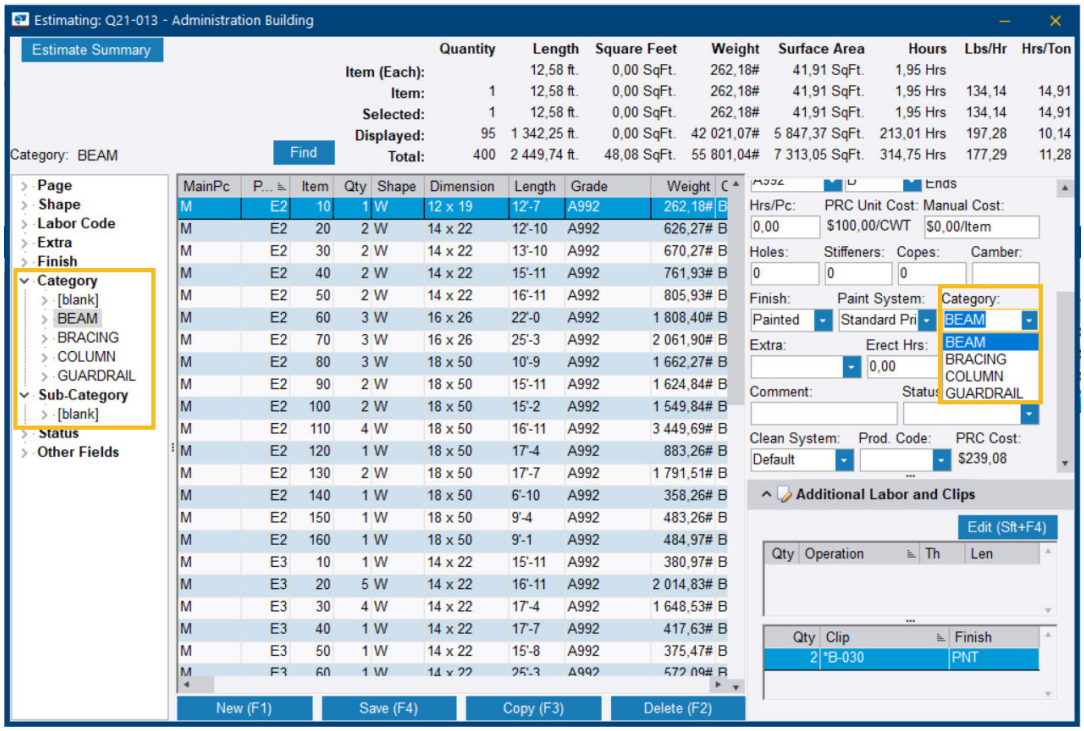
   The percentage is only used to calculate the galvanizing cost. It does not affect the weights of galvanized items in the **Estimating** module or reports.
6. Click **OK**.
7. In the **Estimating Company Standards** dialog box, click **Save**.

The default galvanizing settings are updated.

Note that you can also set job-specific galvanizing settings that override the default galvanizing settings.

Define default categories and subcategories for Estimating

Categories and subcategories are breakdown items used in reporting and scheduling. You can create and use them for sorting, tracking, and reporting. Categories also help you to quickly identify the items in your jobs. For example, you can categorize jobs by fabrication type.



See also Customize input fields (page 126).

In addition to manually creating categories, you can choose to use existing categories used in Steel Erection Bid Wizard. To further filter items, you can also add subcategories.

TIP You can also create new categories and subcategories manually when creating or modifying a job.

Manage categories

You can add new categories and modify and delete existing categories

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Categories**.

   The **Company Categories** dialog box opens.

3. Modify the settings as needed.

To	Do this
Add a new category manually	a. Click **New**. b. In the **Category** field, type a name for the category. For example, `Skewed beam`. c. Click **Add**.

To	Do this
	The new category is added to the **Category** list. Repeat steps a to c for all new categories.
Add categories used in Steel Erection Bid Wizard	a. Click **Add SEBW Categories**. b. Click the arrow buttons to move the categories that you want to add to the **Included** list. c. Click **OK**. The categories are added to the **Category** list.
Modify a category	a. Click a category name. b. Click **Edit**, change the category name, and click **Edit** again.
Delete a category	a. Click a category name. b. Click **Delete**. c. Click **Yes** to confirm deleting the category.

4. Close the **Company Categories** dialog box.
5. In the **<Module> Company Standards** dialog box, click **Save** to update the categories.

The changes in categories are saved.

Manage subcategories

You can add new subcategories and modify and delete existing subcategories

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click the **Sub-Categories** button.

   The **Company Sub-Categories** dialog box opens.
3. To add add a subcategory, click **New**.
4. In the **Sub-Category** field, type a name for the subcategory.
5. Click **Add**.

   The new subcategory is added to the **Sub-Category** list.

   Repeat steps 1 to 4 for all new subcategories.
6. To modify or delete a subcategory, click a subcategory in the **Company Categories** dialog box to select it and do either of the following:
   - Click **Edit**, change the subcategory name, and click **Edit** again.
   - Click **Delete** and then, click **Yes** to confirm deleting the subcategory.
7. Close the **Company Sub-Categories** dialog box.

8. In the **<Module> Company Standards** dialog box, click **Save** to update the subcategories.

The changes in subcategories are saved.

Define default input and display units for Estimating

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

---

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.

3. Select the measurement system and the units of measurement on the drop-down menus.

4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Click **Save**.

The input and display units are saved as defaults.

You can also adjust the units used in individual jobs. For more information, see Define input and display units for an estimating job (page 523).

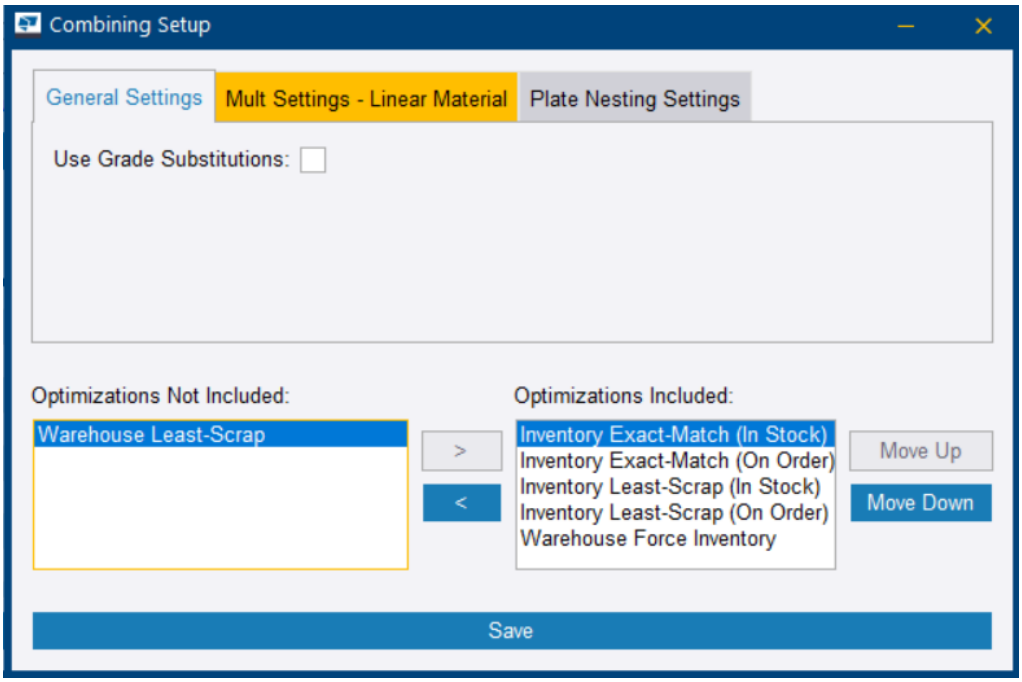
Define default combining optimizations for Estimating

You can define company-level settings for material optimization.

1. To define company-level settings, go to **Maintenance** --> **<Module> Company Standards**.

2. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



3. Modify the settings on the various tabs as needed.

See also

Combine materials in the Estimating module (page 584)

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Optimizations Not Included/ Optimizations Included	Allows you to select the optimization options that you want to use by

Option	Description
	moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Multing Software	Select the multing software that you are using.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Plate Nesting Software	Select the software that you are using.
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to

Option	Description
	the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define combining optimizations for an estimating job (page 519)

Troubleshoot combining issues (page 1235)

Define default suppliers for Estimating

You can define default suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material. This way, you can use material pricing from the selected supplier pricing data sets for each material group.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Suppliers**.

   The **Suppliers** dialog box opens.
3. Select suppliers for each material group on the drop-down lists.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.
5. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the supplier settings are updated.

Manage estimating jobs

You can manage existing jobs in many ways in the **Job Maintenance** dialog box. The options available depend on the module. You can, for instance, copy and delete jobs.

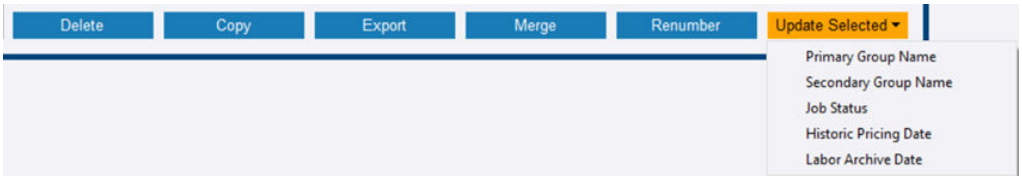
To access the **Job Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Job Maintenance**.

   The **Estimating Job Maintenance** dialog box opens.
3. Select the jobs that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. At the bottom of the dialog box, click any of the available buttons.



Delete estimating jobs

You can delete any unnecessary jobs. Note that the jobs are deleted permanently. To use the jobs for reference later, export them before deleting them.

For information on exporting jobs, see Export estimating jobs (page 408).

NOTE When you delete jobs, Tekla PowerFab saves them in the database as KISS files. Users with administrative rights can recover the deleted jobs within 30 days from deleting them.

---

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to delete.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Delete**.
4. To delete the job, click **Yes** in the **Confirm** dialog box.

The job is permanently deleted.

See also

Manage estimating jobs (page 406)

Export estimating jobs (page 408)

Recover deleted files (page 102)

Copy an estimating job

You can copy an existing job to use it as the base of a new similar job. Copying an existing job makes creating the new job quicker, as you do not have to set all properties manually or create items one by one.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to copy.
3. At the bottom of the dialog box, click **Copy**. The **Enter Value** dialog box opens.
4. Type a number for the new job.
5. Click **OK**.

Tekla PowerFab creates a new job based on the selected job. You can modify the properties of the new job by using the **Edit** functionality in the module.

See also

Manage estimating jobs (page 406)

Export estimating jobs

Export jobs to move jobs from one database to another.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to export.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Export**.

   The **Save As** dialog box opens.
4. Browse to the folder where you want to save the file.

   Use the automatically generated name or type a new one.
5. Click **Save**.

The job is saved as a Tekla PowerFab-specific type of a KISS file. This type of file will only import back into Tekla PowerFab.

The file is exported to the selected location.

See also

Manage estimating jobs (page 406)

Merge estimating jobs

You can create a new job by merging two existing jobs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs that you want to merge.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Merge**.

   The **Enter Value** dialog box opens.
4. Type a number for the new job.
5. Click **OK**.

The selected jobs are merged into one new job.

See also

Manage estimating jobs (page 406)

Renumber an estimating page item

You can change the existing page item numbering and their increments.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to renumber.
3. At the bottom of the dialog box, click **Renumber**.

   The **Select the pages to renumber** dialog box opens.
4. Click the arrow buttons to move the pages that you want to renumber to the **Included** list.
5. Click **OK**.

   The **Enter Value** dialog box opens.
6. Type the desired starting item number in the **Starting item #** dialog box.

7. Click **OK**.

   The **Enter Value** dialog box opens.
8. Type the desired item increment in the **Item increment** dialog box.
9. Click **OK**.

See also

Manage estimating jobs (page 406)

Set job groups for estimating jobs

Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs.

You can, for example, record the client and industry sector, but you can create your own system to best suit your needs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs for which you want to create a job group.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Set Group Name**.
4. Select if you want to add or update the primary group or the secondary group name.
5. Type a name for the group.

You can find the job groups in the navigation tree in the module and use them for filtering jobs.

See also

Manage estimating jobs (page 406)

Set job statuses for estimating jobs

Job status determines if a job is still in progress (**Open**) or finished (**Closed**). By setting job statuses for jobs, you can filter and view only the current jobs in the job selection dialog box in Tekla PowerFab and in Tekla PowerFab Go.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job whose status you want to change.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.

3. Click **Update Selected** and select **Job Status**.
4. Select the desired job status in the list.
5. Click **OK**.

Note that only open jobs are available in Tekla PowerFab Go.

You can filter jobs by selecting status in the module navigation tree.

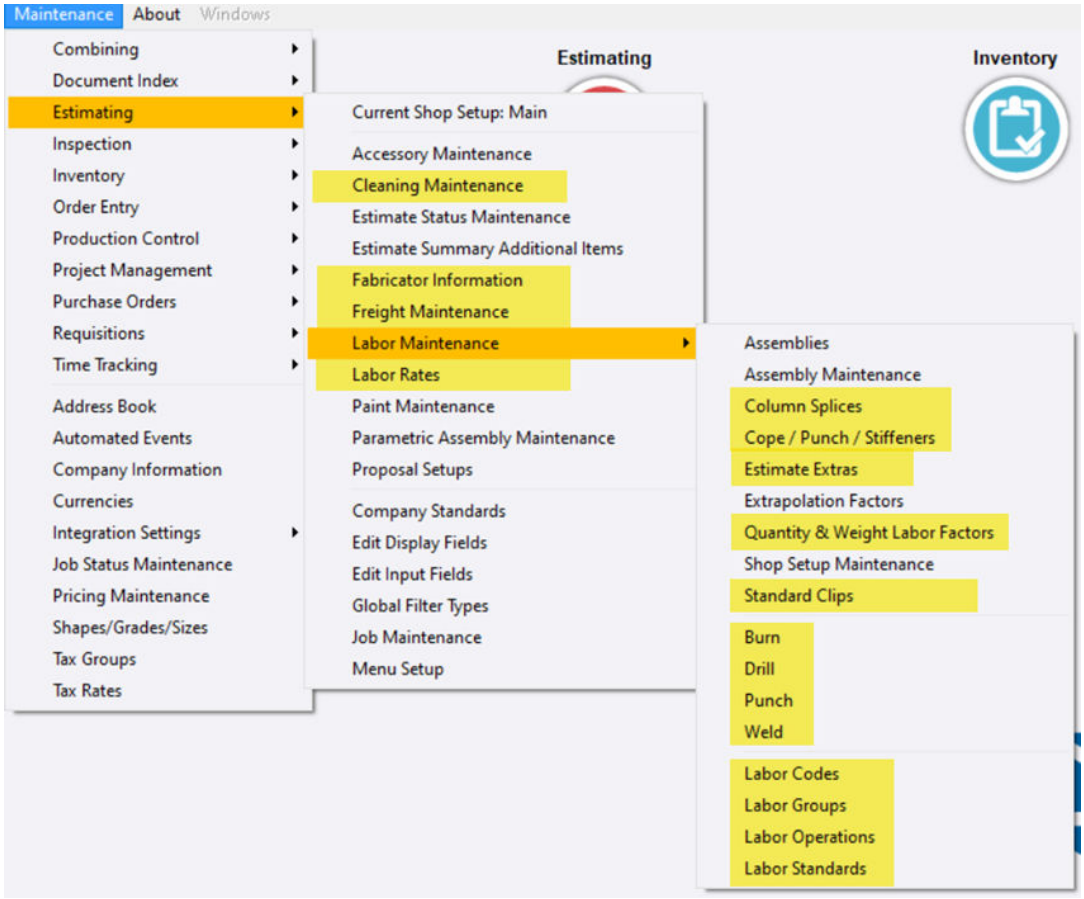
See also

Job status maintenance (page 276)
Manage estimating jobs (page 406)
Open an estimating job (page 527)
Modify an estimating job (page 546)

Set labor archive date

You can define a labor archive date that keeps the labor-related calculations that have been set up in **Maintenance** --> **Estimating**.

The related areas are the following:



Set a default labor archive date

You can set the labor archive date for multiple jobs at a time in **Maintenance**.

1. Go to **Maintenance** --> **Estimating** --> **Job Maintenance**. The **Estimating Job Maintenance** dialog box opens.
2. Select the jobs that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click **Update Selected** and select **Labor Archive Date**.
4. Type a date or select a date from the drop-down calendar.
5. Click **OK**.

You can view and select **Labor Archive Date** in the navigation tree.

Set a labor archive date for a job

1. Open an estimating job and click **Edit**. The **Estimate Job Edit** dialog box opens.
2. In **Labor Archive Date**, type a date or select a date from the drop-down calendar.
3. Click **Save**.

You can view and select **Labor Archive Date** in the navigation tree.

See also

Manage estimating jobs (page 406)

Create an estimating job (page 509)

Manage accessories

Accessories are frequently used items that can be added to any estimate. For example, stiffeners, gussets, base and cap plates, and embeds are examples of accessories.

Unlike standard clips, accessories are not applied automatically with labor codes, so they need to be applied manually.

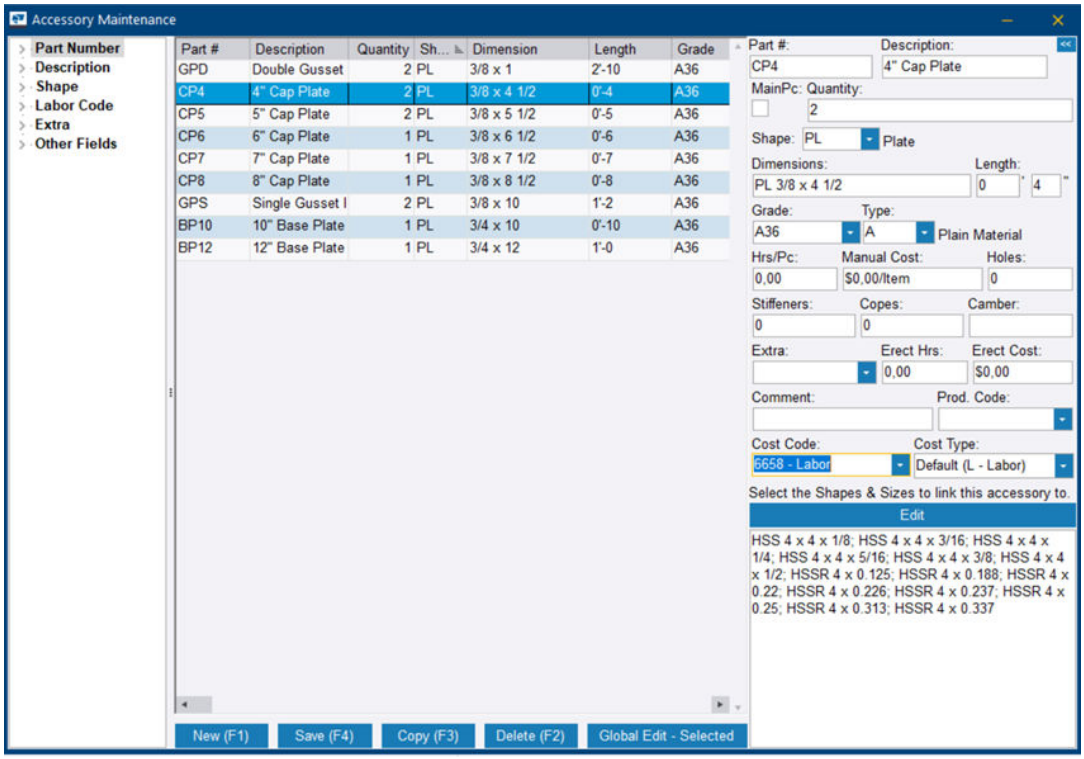
We recommend that you create, modify, and delete accessories in **Accessory Maintenance**. You can also create accessories in an estimating job, but these job-specific accessories cannot be saved to the accessory library, so they cannot be reused in other estimating jobs.

We also recommend that you create all necessary accessories at once before starting to create estimates, so that working in the **Estimating** module is as quick and efficient as possible.

To access the **Accessory Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Accessory Maintenance**.

The **Accessory Maintenance** dialog box opens.



When you select an existing accessory, its properties are displayed in the input fields on the right.

Edit: You can link the accessory to specific shapes and sizes. The list below the button contains all the shapes and sizes that the selected accessory can be applied to.

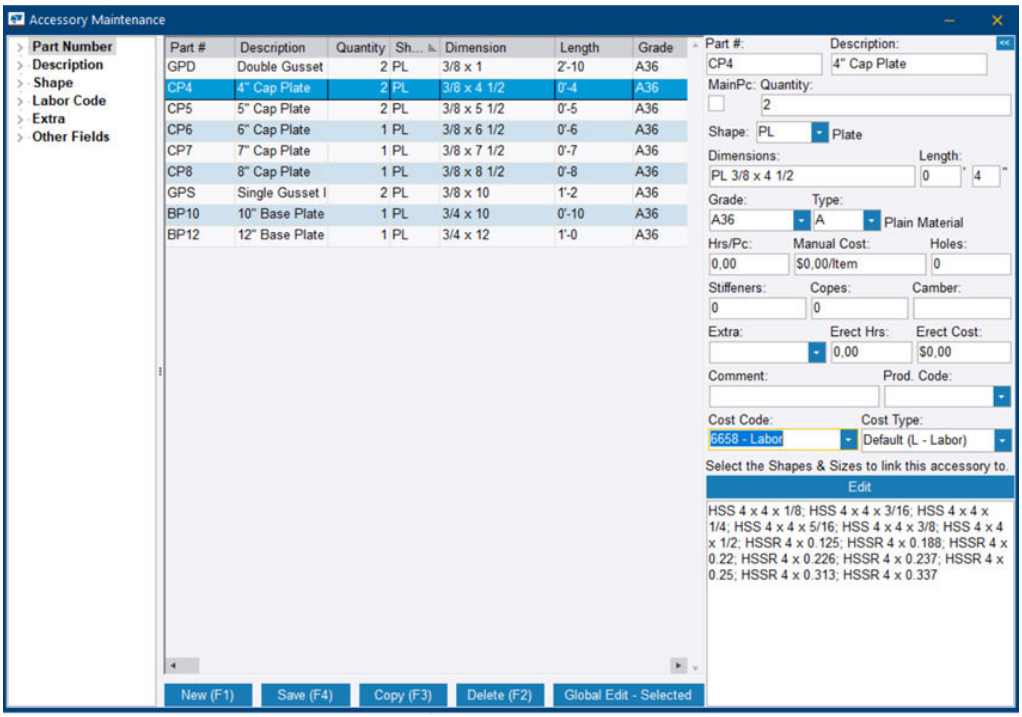
Selecting linked material shapes and sizes is optional. However, limiting the use of the accessory to the selected material shapes and sizes makes working easier, as you do not need to scroll through all existing accessory options whenever you want to add an accessory. If you do not select linked material shapes, the accessory can be added to all material items.

Create an accessory

You can define your own standard accessories. The information that you enter for the accessory identifies the accessory together with the material cost and the required labor time.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Accessory Maintenance**.

The **Accessory Maintenance** dialog box opens.



3. Click **New**.
4. If necessary, type a part number for the accessory.

   Assigning a part number allows you to add an accessory to an estimating item simply by selecting it in the item properties. Part numbers also make identifying accessories easier. However, if you add an item to the estimate by selecting the part number, you cannot modify the properties of the accessory in the estimating job.
5. Type a description for the accessory.
6. Define the remaining properties of the accessory

   For details, see Accessory properties (page 415).
7. (Optional) To select the linked material shapes and sizes to which the accessory can be added, click **Edit**.

   The **Select the sizes to link** dialog box opens.

   a. In the **Filter** dialog box, click the arrow buttons to move the desired material shapes and sizes to the **Included** list.

      Note that there are also lists at the bottom of the **Filter** dialog box that allow you to select the material shapes.

   b. Click **OK**.
8. Click **Add** to save the accessory.

Example: Create a stiffener for W12 beams

Note that the following example uses imperial units.

1. Click **New**.
2. Set the properties as follows:
   a. **Part #**: `W12m`
   b. **Description**: `W12 Stiffener`
   c. **Quantity**: `1`
   d. **Shape**: `PL`
   e. **Dimensions**: `5/16 x 4`
   f. **Length**: `0'-11`
   g. **Grade**: `A36`
   h. **Type**: `W` (Baffle)
3. Click **Edit** and link the accessory to the range `W 12 x 14 - W 12 x 152`.
4. Click **OK**.
5. Click **Add** to save the accessory.

See also

Accessory properties (page 415)

Add accessories to an estimate item (page 558)

Accessory properties

You can modify the properties of accessories in the **Accessory Maintenance** dialog box.

NOTE The visible input fields and their order partially depend on the settings that you have defined **Maintenance** --> **Estimating** --> **Edit Input Fields**.

Option	Description
Page	The drawing or sheet on which the material item has been taken off from You can modify the page number manually or use the page number automatically determined by Tekla PowerFab.
Quantity	The number of accessories per item to which they are added The number of items/parts

Option	Description
Shape	The material shape of the item/accessory/part
Dimensions	The material size of the item/accessory/part
Length	The length of the item/accessory/part
Grade	The material grade of the item/accessory/part
Camber	A text field for camber size, that is, curvature in an item so as to compensate for deflection induced by loads The camber size used with the accessory
Extra	The estimate extra applied to the item/accessory/part To add estimate extras, double-click the **Extra** field. For more information, see Create estimate extras (page 457).
Type	The labor code of the item/accessory/part For more information, see Adjust labor codes (page 447).
Copes	The number of copes in the item/accessory/part
Holes	The number of holes in the accessory/part
Stiffeners	The number of stiffeners in the item/accessory/part
Top Flg Holes	The number of top flange holes
Web Holes	The number of web holes in the accessory/part
Bot Flg Holes	The number of bottom flange holes
Welded Studs	The number of welded studs per accessory
Hrs/Pc	The number of hours spent on the item/accessory/part
Cost/Pc	A cost per piece that is added to the material cost of the accessory
Manual Cost	The cost for the item/accessory/part that you can enter manually The manual cost is optional, and it overrides the pricing information in the pricing database.
Finish	The finish type of the item/accessory/part. The default options are **Painted**, **Unpainted**, and **Galvanized**.
Clean System	A clean system allows you to apply more than one cleaning type to an item.

Option	Description
Category, **Sub-Category**	A class used for sorting items within a job You can use categories and subcategories for filtering information. You can create categories in **Company Standards**.
Sequence	The sequence number assigned to the item.
Prod. Code	The production code applied to the item/accessory/part Production codes group similar items together within jobs.
MainPc	When selected, indicates that the item is a main piece in an assembly.
Detailing Hrs	The number of hours spent on erecting the accessory
Detailing Cost	The amount of money used for erecting the accessory
Erect Hrs	The number of hours spent on erecting the item/accessory/part
Erect Cost	The cost of erecting the item/accessory/part
Holes w/o Bo	The number of holes per piece in the accessory. No bolts will be added.
Cost Code	A code for classifying costs to match your accounting system
Cost Type	A category for each classification of cost
Comment	An optional and additional comment on the accessory/part
Status	The level of completion of an item

See also

Create an accessory (page 413)

Create a job-specific accessory (page 560)

Modify accessories (page 418)

Copy accessories

You can create new accessories by copying existing accessories and modifying their properties.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Accessory Maintenance**.

   The **Accessory Maintenance** dialog box opens.

3. In the accessory list, select the accessories that you want to copy.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click **Copy**.

   Copies of the selected accessories are added to the list in the **Accessory Maintenance** dialog box.
5. If necessary, define part numbers for the copied accessories.
6. Modify the properties of the copied accessories as needed.

   For details on the properties, see Accessory properties (page 415).
7. Click **Save** to update the accessories.

See also

Accessory properties (page 415)

Manage accessories (page 412)

Add accessories to an estimate item (page 558)

Create a job-specific accessory (page 560)

Modify accessories

You can modify the properties of a single accessory or multiple accessories at once.

Modify a single accessory

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Accessory Maintenance**.

   The **Accessory Maintenance** dialog box opens.
3. In the accessory list, select the accessory that you want to modify.
4. Modify the properties according to your needs.

   For details on the properties, see Accessory properties (page 415).
5. Click **Save** to update the accessory.

Modify multiple accessories at once

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Accessory Maintenance**.

   The **Accessory Maintenance** dialog box opens.
3. In the accessory list, select the accessories that you want to modify.

To select multiple items, hold down **Ctrl**.

To select a range of subsequent items, hold down **Shift**.

4. Click **Global Edit - Selected**.

   The **Accessory Global Edit** dialog box opens.

5. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

6. Click **Update**.

The properties of the selected items are updated.

See also

Accessory properties (page 415)

Manage accessories (page 412)

Add accessories to an estimate item (page 558)

Create a job-specific accessory (page 560)

Delete an accessory

You can delete one or more accessories at a time.

1. In the accessory list, select the accessories that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click **Delete**.
3. To permanently delete the accessories, click **Yes** in the confirmation dialog box.

View, customize, print, and export accessory reports

Accessory reports show lists of existing accessories and accessory parts. You can view the reports, print them, or export them to another file format. You can also create a customizable copy of the accessory reports and modify it according to your needs.

1. In the **Accessory Maintenance** dialog box, click the **Accessory Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. In the **Report Selection** dialog box, select the report that you want to view, customize, print, or export.

4. Do one or more of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Customize the report	a. At the top right corner of the dialog box, click **Design**. A customizable copy of the report opens. b. Customize the report according to your needs.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. To confirm printing the selected report, click **Yes** in the confirmation dialog box. d. In the **Select Printer** dialog box, click a printer to select it. e. Click **Print** or press **F2** on the keyboard.
Export the report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Modify the file name as needed. e. Browse to the location where you want to save the exported file, and click **Save**. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. In the **Report Selection** dialog box, click **Export**.

5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Manage accessories (page 412)

Create and manage parametric assemblies

You can use parametric assemblies to add material to an estimate. Parametric assembly parts can be any fabricated items and they can be sized dynamically based on the part to which they are being applied. This means that the same parametric assembly part can be applied to a variety of different main parts and be automatically calculated accordingly.

For example, stairs, ladders, and handrails are common parametric assemblies that can be created in Tekla PowerFab. Existing parametric assemblies can be added to an estimate while working in the **Estimating** dialog box.

Create a parametric assembly

You can use parametric assemblies in any estimating job, and modify the variable values according to your needs. Tekla PowerFab calculates the parametric assembly according to the values you have given.

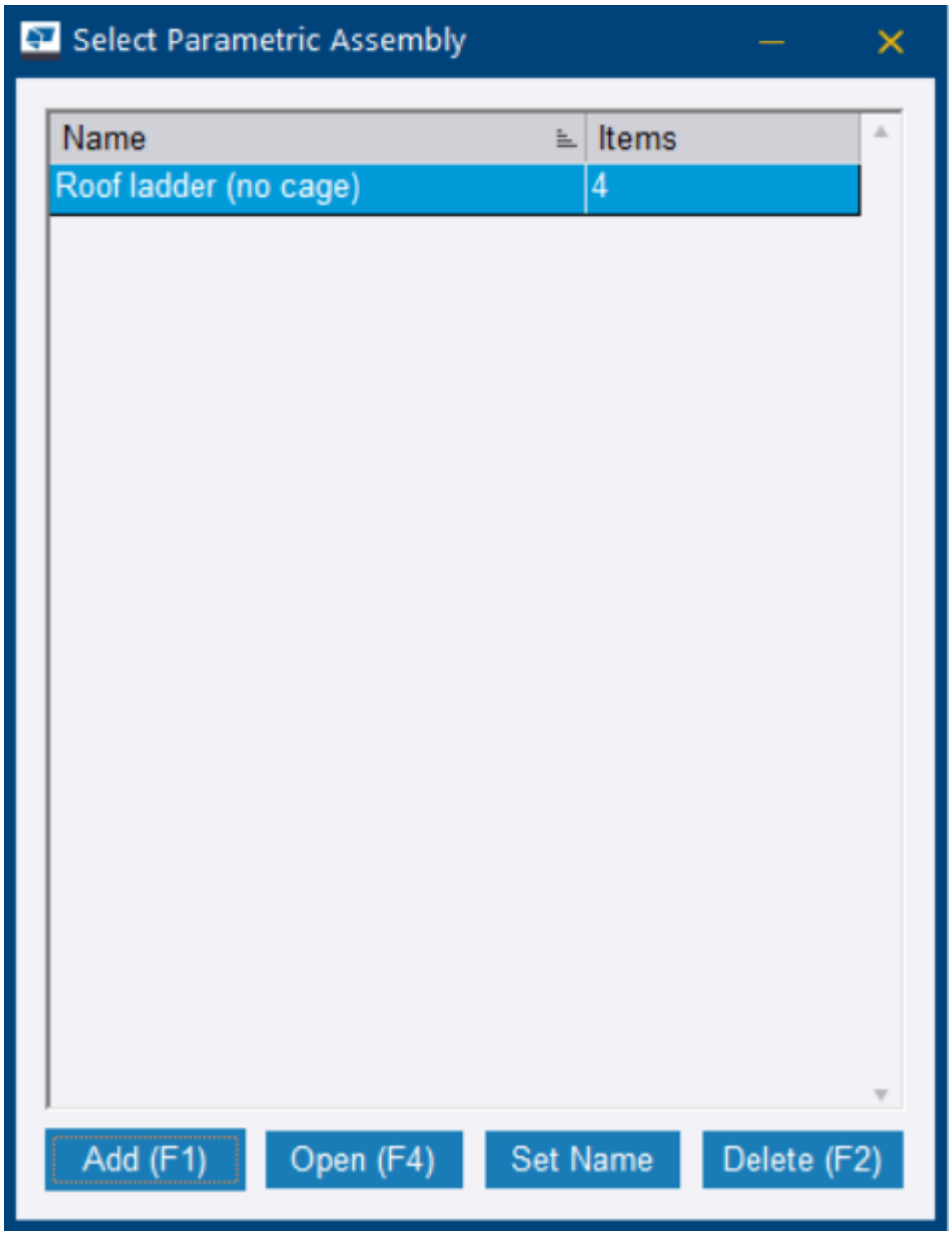
NOTE All information entered in the **Parametric Assembly** dialog box will be added to the estimate when the parametric assembly is selected.

To see a concrete example of creating a parametric assembly, see Example parametric assembly: Roof ladder without cage (page 427).

1. Create and name the assembly template

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Parametric Assembly Maintenance**.

The **Select Parametric Assembly** dialog box opens.



3. Click **Add**.
4. Name the parametric assembly.
5. To use an existing parametric assembly as the basis for the new one, select the parametric assembly in the **Template** list.

   Copying the information from an existing parametric assembly speeds up creating a parametric assembly. However, you can also create the parametric assembly from scratch.
6. Click **Add**.

2. Create variables, items, and formulas

Variables define the parametric calculations to be used.

1. Go to **Parametric Assembly Maintenance** --> **Maintenance** --> **Estimating**.

   The **Select Parametric Assembly** dialog box opens.

2. To open a parametric assembly, double-click it.
3. In the **Parametric Assembly** ribbon tab, select **Parametric Assembly Variables**.

   The **Parametric Assembly Variables** dialog box opens.

4. In the dialog box, click **New**.
5. Enter a name and description for the variable.
6. Select a suitable variable type:
   - **Integer Number**: a whole number. The **Integer Number** variable type is normally used for quantity type calculations where no fractions are required.
   - **Decimal Number**: a decimal number. The **Decimal Number** variable type has various uses.
   - **Length - Feet, Inches, Fractions - Meters**: length. The correct input format is determined in the name of the variable type.
   - **Length - Inches, Fractions - Millimeters**: length. The correct input format is determined in the name of the variable type.
   - **Length - Decimal Feet - Meters**: length. The correct input format is determined in the name of the variable type.
   - **Length - Inches, Fractions - Millimeters**: length. The correct input format is determined in the name of the variable type.
   - **Dimension**: allows you to change the dimension of the material by adding another variable. For example, you can have one material dimension for a short span and one for a long span in the assembly. The length applied to the span variable then determines which dimension variable is used. The dimension variable can also be set when adding the parametric assembly to an estimating job.
   - **Property from EST Line Item**: uses the selected property of the estimating item that was selected when the parametric assembly was added to the estimating job.
   - **Property from Assembly Line Item**: uses the selected property of an item within the parametric assembly. Note that you need to select the desired property in the **Property** list, and type the item number in the **From Item #** field.
7. If necessary, define a default value for the variable.

8. Click **Add**.

   Repeat steps 4 to 6 to add all necessary variables.

9. To close the **Parametric Assembly Variables** dialog box, click the **Close** button (**X**) in the upper-right corner.
10. To add items to the parametric assembly, click **New** at the bottom of the **Parametric Assembly** dialog box.
11. Create a comment as the first item in the parametric assembly:

    a. Set **Quantity** to `1` and press **Enter**.

    b. Set **Shape** to `CO` and press **Enter**.

    c. In the **Description** field, type the parametric assembly name and press **Enter**.

    d. Click **Add**.

    Adding a comment as the first item of the parametric assembly makes it easier to recognize the parametric assembly in an estimating job.

12. To add another item, click **New**.
13. Enter properties for the item.
14. For properties that vary in the assembly, click the **Formula** button and define a formula using the previously created variables.

    For more information on creating formulas, see Create formulas (page 433).

15. If you need to add additional labor or clips to the item, click **Additional Labor & Clips** and determine their properties.

    Additional labor operations could be, for example, welding, burning, punching, or drilling. You can either determine the properties manually, or use formulas to use conditions for the additional labor and clips.

    Note that standard clips will be added according to the selected labor code when you add the parametric assembly to an estimate.

16. Once you have determined all necessary properties for the item, click **Add**.

    Repeat steps 9 to 12 to add the remaining items to the parametric assembly.

3. Test the parametric assembly

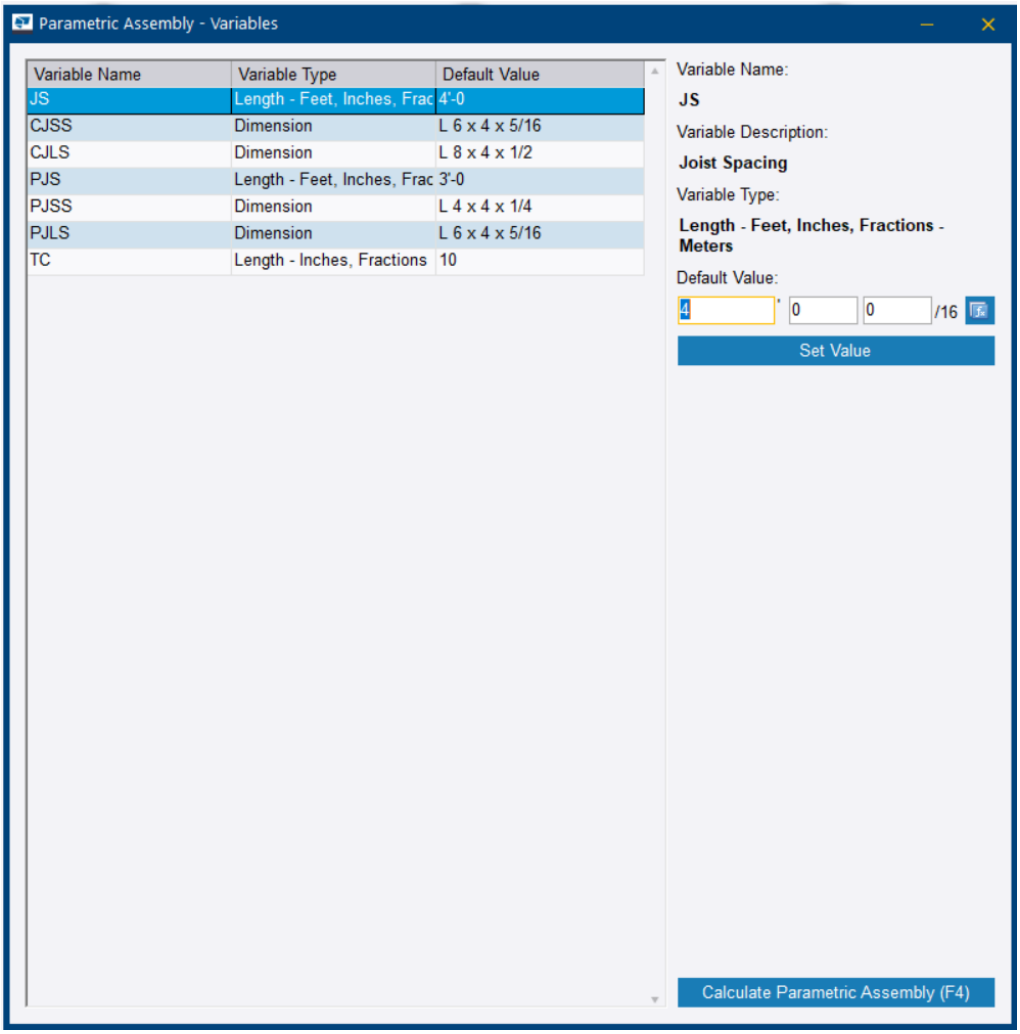
We recommend that you test all parametric assemblies that you have created to verify that the calculations work as expected.

1. Go to **Parametric Assembly Maintenance** --> **Maintenance** --> **Estimating**.

   The **Select Parametric Assembly** dialog box opens.

2. To open a parametric assembly, double-click it.
3. In the **Parametric Assembly** ribbon tab, select **Test Parametric Assembly**.

   The **Parametric Assembly Variables** dialog box opens.



4. In the dialog box, enter a value for a variable and click **Set Value**.

   For example, you could set the `Ladder Length` variable created in our example to `20'-0` and `Ladder Width` to `1'-6"`.

   Repeat step 3 for each variable in the parametric assembly.
5. Click **Calculate Parametric Assembly**.

   You can now see the results of the calculations. Verify that the information is correct.
6. To view the additional labor and clips that were added for the selected item when creating the parametric assembly, click **Additional Labor & Clips**.

7. To close the results, click the **Close** button (**X**) in the upper-right corner.
8. Do one of the following:
   - To re-test the calculations, set new values for the variables.
   - To close the **Parametric Assembly - Variables** dialog box, click the **Close** button (**X**) in the upper-right corner.

Parametric assembly properties

You can modify the properties of parametric assemblies in the **Parametric Assembly** dialog box.

NOTE The visible input fields and their order partially depend on the settings that you have defined **Maintenance** --> **Estimating** --> **Edit Input Fields** .

Option	Description
Quantity	The number of items/parts
Shape	The material shape of the item/accessory/part
Dimensions	The material size of the item/accessory/part
Length	The length of the item/accessory/part
Grade	The material grade of the item/accessory/part
Type	The labor code of the item/accessory/part
Category	A class used for sorting items within a job You can create categories in **Company Standards**.
Extra	The estimate extra applied to the item/accessory/part To add estimate extras, double-click the **Extra** field. For more information, see Create estimate extras (page 457).
Holes	The number of holes in the accessory/part
Web Holes	The number of web holes in the accessory/part
Stiffeners	The number of stiffeners in the item/accessory/part

Option	Description
Copes	The number of copes in the item/accessory/part
Finish	The finish type of the item/accessory/part. The default options are **Painted**, **Unpainted**, and **Galvanized**.
Erect Hrs	The number of hours spent on erecting the item/accessory/part
Hrs/Pc	The number of hours spent on the item/accessory/part
Manual Cost	The cost for the item/accessory/part that you can enter manually The manual cost is optional, and it overrides the pricing information in the pricing database.
Cost Code	A code for classifying costs to match your accounting system
Cost Type	A category for each classification of cost

See also

Create and manage parametric assemblies (page 421)

Example parametric assembly: Roof ladder without cage

The following example describes creating a roof ladder as a parametric assembly in Tekla PowerFab. The example can be helpful when you are learning to create parametric assemblies yourself.

1. Create a description for the parametric assembly

1. Click **New** and create an item with the following properties:
   - **Shape**: `CO`
   - **Description**: `Roof ladder (no cage)`
2. Click **Add**.

2. Create variables for calculating the ladder length and the number of rungs and collection clips

To create variables for calculating appropriate length, and the number of rungs and connection clips for the ladder, do the following:

1. Click the **Parametric Assembly** ribbon tab.
2. On the menu, select **Parametric Assembly Variables**.

3. Create the following variables without adding default values:
   - Overall length of the ladder
     - **Variable Name** and **Variable Description**: `Ladder Length`
     - **Variable Type**: `Length – Feet, Inches, Fractions – Meters`
   - Overall width of the ladder
     - **Variable Name** and **Variable Description**: `Ladder Width`
     - **Variable Type**: `Length – Feet, Inches, Fractions – Meters`
4. To close the **Parametric Assembly Variables** dialog box, click the **Close** button (**X**) in the upper-right corner.

3. Create side rails

1. Click **New** and create an item with the following properties:
   - **Quantity**: `2`
   - **Shape**: `FB`
   - **Dimensions**: `½ x 3`
2. To create a formula for calculating the length, click **Formula** next to **Length**.
3. In the **Formula** dialog box, do the following:
   a. Clear the existing text in the box at the top of the dialog box.
   b. In the **Additional Variables** list, select **Ladder Length**.
   c. Click **Add Variable**.
   d. To have the ladder project beyond the landing elevation, type `+` and the length in feet and inches without a space between.

      The formula should now read approximately: `[Ladder Length] +3'6`.
   e. Click **OK** to save the length formula and return to the **Parametric Assembly** dialog box.

      Note that whenever a property is calculated with a formula, it is marked with (F) in the **Parametric Assembly** dialog box.
4. Click **Add**.

4. Create the rungs

1. Click **New**.

2. To create a formula for calculating the number of rungs, click **Formula** next to **Quantity**.

   We want to calculate the number of rungs determined by the ladder length, starting 6 inches above the landing. The result should then be divided by 1'-0.

3. In the **Formula** dialog box, do the following:
   a. Clear the existing text in the box at the top of the dialog box.
   b. In the **Parametric Assembly Variables** list, select **Ladder Length**.
   c. Click **Add Variable**.
   d. Type `+6"`.
   e. Add parentheses () around `[Ladder Length]+6"`.
   f. Type `/12"` directly after the right parenthesis.
   g. Click **OK** to save the length formula and return to the **Parametric Assembly** dialog box.
4. Set the shape and dimension properties of the rungs as follows:
   - **Shape**: `RD` (round bar)
   - **Dimensions**: ¾"
5. To create a formula for calculating the length of the rungs, click **Formula** next to **Length**.
6. In the **Formula** dialog box, do the following:
   a. Clear the existing text in the box at the top of the dialog box.
   b. In the **Parametric Assembly Variables** list, select **Ladder Width**.
   c. Click **Add Variable**.
   d. Click **OK** to save the length formula and return to the **Parametric Assembly** dialog box.
7. Click **Add**.

5. Create the connection clips

1. Click **New**.
2. To create a formula for calculating the number of clips , click **Formula** next to **Quantity**.

   We want to calculate the number of clips based on the length of the ladder.

3. In the **Formula** dialog box, do the following:
   a. Clear the existing text in the box at the top of the dialog box.
   b. Type `CEILING`.

c. Type the left parenthesis (.

d. In the **Parametric Assembly Variables** list, select **Ladder Length**.

e. Click **Add Variable**.

f. After the variable, type `/6')`.

g. To calculate enough clips for both sides, type `*2`.

h. To include the first and last clips for both rails, type `+2`.

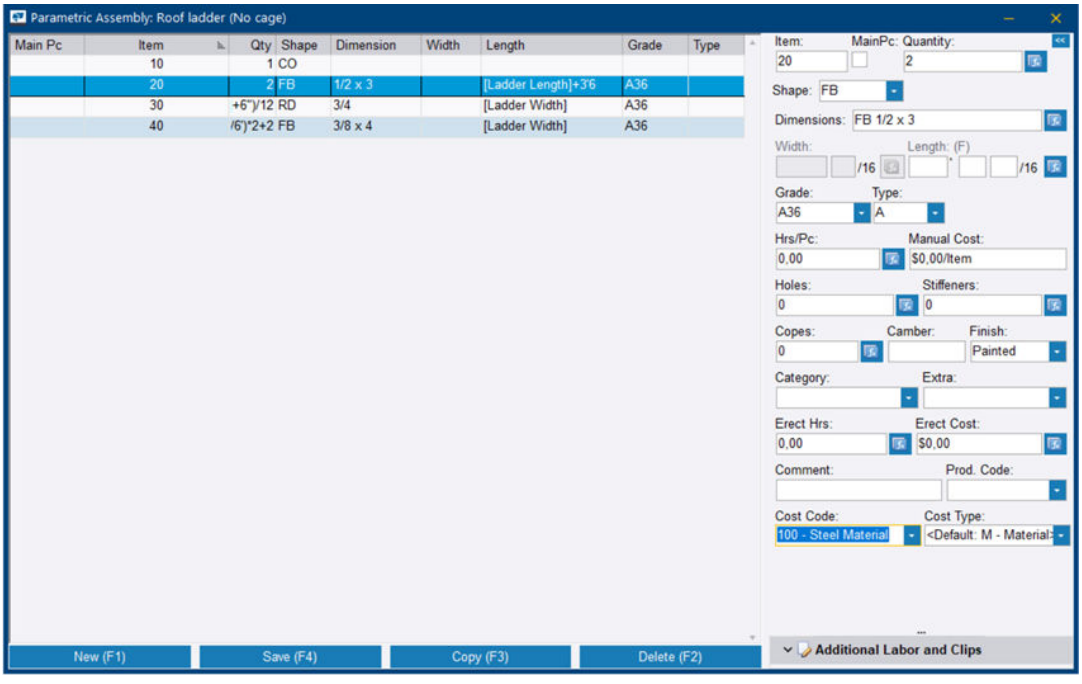
   The calculation should read `CEILING([Ladder Length]/6')*2+2`. This means that Tekla PowerFab calculates the total ladder length divided by 6'-0, rounds it to the nearest foot, multiplies the result by 2, and then adds 2 more connection clips.

i. Click **OK** to save the length formula and return to the **Parametric Assembly** dialog box.

4. Set the shape and dimension properties as follows:
   - **Shape**: `FB`
   - **Dimensions**: `3/8 x 4`
5. Click **Add**.

6. View the result

You can now view the result and test the parametric assembly.



For more information on testing a parametric assembly, see Create a parametric assembly (page 421).

Modify a parametric assembly

Existing parametric assemblies can be modified later on. You can rename the parametric assembly, or modify the items that form the parametric assembly or the variables used in calculations.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Parametric Assembly Maintenance**.

   The **Select Parametric Assembly** dialog box opens.
3. In the dialog box, select the desired parametric assembly that you want to modify.
4. Do any of the following:

To	Do this
Change the name of the parametric assembly	a. At the bottom of the **Select Parametric Assembly** dialog box, click **Set Name**. b. Type a new name for the assembly. c. Click **OK**.
Modify items	a. At the bottom of the **Select Parametric Assembly** dialog box, click **Open**. b. Select the item that you want to modify. c. Modify the properties of the item according to your needs. Among other things, you can change the quantity, shape, dimensions, or length of the item. d. Click **Edit** to save the changes.
Modify variables	a. At the bottom of the **Select Parametric Assembly** dialog box, click **Open**. b. Click the **Parametric Assembly** ribbon tab. c. On the menu, select **Parametric Assembly Variables**. d. Select the variable that you want to modify. e. Modify the variable name, description, variable type, and default value according to your needs. f. Click **Edit** to save the changes.

5. To close the **Select Parametric Assembly** dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Create a parametric assembly (page 421)

Example parametric assembly: Roof ladder without cage (page 427)

Delete a parametric assembly (page 432)

Export parametric assemblies

You can export a parametric assembly as a text file.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Parametric Assembly Maintenance**.

   The **Select Parametric Assembly** dialog box opens.
3. In the dialog box, select the parametric assembly that you want to export.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Parametric Assembly** ribbon tab.
5. On the menu, select **Export Selected Parametric Assemblies**.
6. In the **Save As** dialog box, browse to the location where you want to save the text file.
7. Name the text file.
8. Click **Save**.

   The parametric assembly is saved in the selected location as a text file.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete a parametric assembly

You can delete any parametric assemblies that you do not use. Note that deleting a parametric assembly cannot be reversed, so a deleted assembly can no longer be used in Tekla PowerFab.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Parametric Assembly Maintenance**.

   The **Select Parametric Assembly** dialog box opens.
3. In the dialog box, select the parametric assembly that you want to delete.
4. Click **Delete**.
5. To permanently delete the selected parametric assembly, click **Yes** in the confirmation dialog box.

Create formulas

You can create formulas that Tekla PowerFab uses to calculate values. For example, you can create a formula to define the size of an angle used in a parametric assembly or to define the cost of an estimate extra.

Access Formula dialog box

1. Access the **Formula** dialog box in one of the following ways:
   - For estimate extras, do the following steps:
     - **a.** Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.
     - **b.** Click the **Formula** button on any of the tabs.

     For more information, see Create estimate extras (page 457).
   - For parametric assemblies, do the following steps:
     - **a.** Go to **Maintenance** --> **Estimating** --> **Parametric Assembly Maintenance**.
     - **b.** Select a parametric assembly and click **Open**.
     - **c.** Click the **Formula** icon  on the right side of any input field.

     For more information, see Create and manage parametric assemblies (page 421).
   - For adjusting labor codes, do the following steps:
     - **a.** Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Labor Codes**.
     - **b.** Click the **Labor Code Maintenance** ribbon tab and select **Formula Maintenance**.
     - **c.** Click **Edit Formula**.

     For more details, see Add, modify, and delete formulas in Adjust labor codes (page 447)

   The **Formula** dialog box opens.



The formula functions allow you to add the following items to the formula:

- **Standard Variables**: The properties of a material item
- **Add Variable**: Any previously added variables related to the parametric assembly or the estimate extra
- **IF / THEN / ELSE / ENDIF**: IF/THEN/ELSE/ENDIF statements
- The **CEILING**, **FLOOR**, **ROUND**: Rounding functions.
  - CEILING always rounds up.
  - FLOOR always rounds down.
  - ROUND rounds up at half and down by less than half.
- Several trigonometry functions, such as **SIN**, **COS**, and **HYP**.

Example formula: Calculate the cost of an estimate extra

In this example, we want the estimate extra to add a cost of $100 if the length of the item is less than or equal to 40'. If the length is greater than 40', the added cost should be $150.

In this case, we need the following formula:

```
IF ([Length] <= 40') THEN (100) ELSE (150) ENDIF
```

1. In the **Estimate Extra** dialog box, select the **Cost Expression** option, and click **Formula**.
2. In the **Formula** dialog box, click the **IF / THEN / ELSE / ENDIF** button.
3. Go to the parenthesis after `IF`.
4. In the **Additional Variables** list, select **Length**.
5. Click **Add Variable**.

   `[Length]` appears inside the parenthesis after `IF`.
6. Enter a space after `[Length]`.
7. After the space, type: `<=40'`
8. Go to the parenthesis after `THEN`.
9. Type: `100`
10. Go to the parenthesis after `ELSE`.
11. Type: `150`
12. Click **OK** to close the **Formula** dialog box and use the formula in the estimate extra.

The formula is now ready.

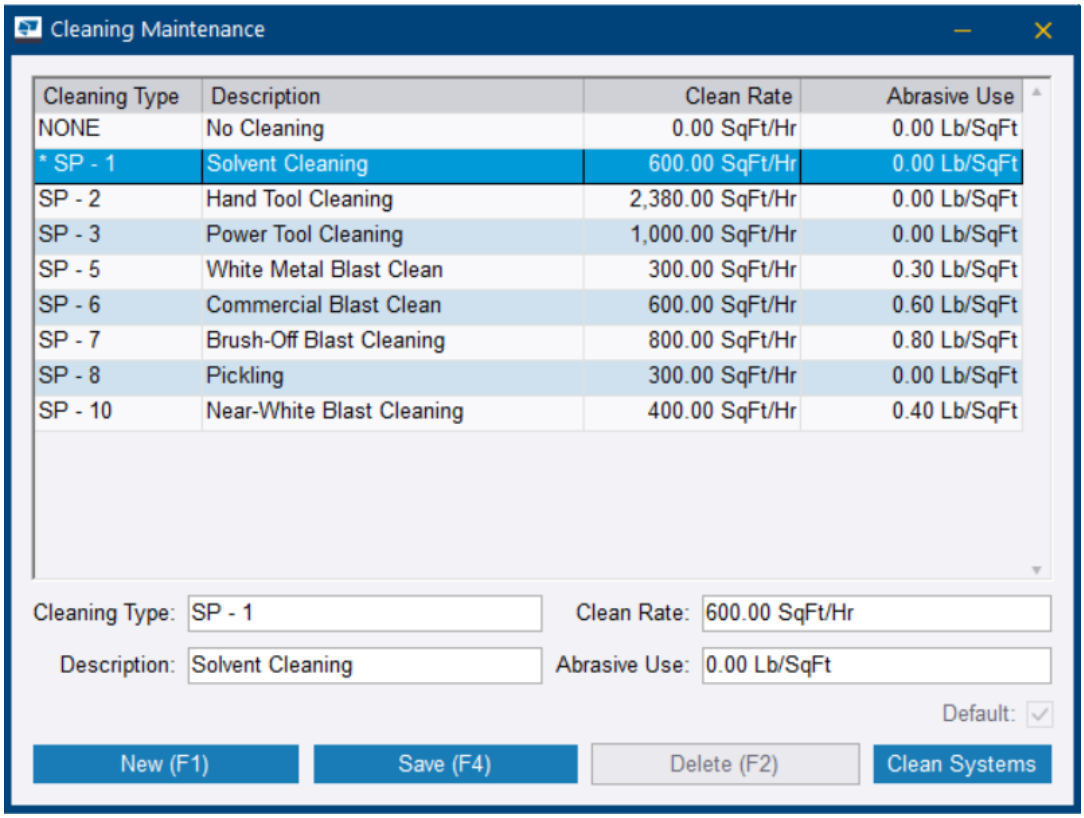
TIP You can nest IF/THEN statements by adding additional IF/THEN statements in the ELSE section. Example: `IF (Length<=40') THEN (100) ELSE (IF (<=60') THEN (150) ELSE (200) ENDIF) ENDIF`.

See also

Create estimate extras (page 457)

Manage default cleaning types and clean systems

You can add and modify default cleaning types and costs, and create default clean systems in **Cleaning Maintenance**.



Create default cleaning types

In **Cleaning Maintenance**, you can view and modify the existing cleaning types and cleaning costs, add new cleaning types, and set the default cleaning type used in all future estimating jobs.

1. Go to **Maintenance** --> **Estimating Maintenance** --> **Cleaning Maintenance**.

   The **Cleaning Maintenance** dialog box opens.

2. Modify the properties as needed.

To	Do this
Add a new cleaning type	a. Click **New**. b. In **Cleaning Type**, type an abbreviation for the cleaning type. c. In **Description**, type a description for the cleaning type. d. In **Clean Rate**, type the cleaning rate

To	Do this
	e. In **Abrasive Use**, type the amount of abrasive use. f. To set the cleaning type as the default cleaning type for new estimating items, select the **Default** checkbox. g. Click **Add**.
Modify a cleaning type	a. Select the cleaning type in the list. b. Modify the cleaning type abbreviation, description, cleaning rate, or amount of abrasive use. c. To set the cleaning type as the default cleaning type for new estimating items, select the **Default** checkbox. d. Click **Save**.
Delete a cleaning type	a. Select the cleaning type in the list. b. Click **Delete**. c. To permanently delete the cleaning type, click **Yes**.

Note that you can create cleaning systems that contain various cleaning types. For more information, see Manage default cleaning types and clean systems (page 435).

Define cleaning costs

Cleaning costs, or the cost of surface preparation for finish, is a combination of the labor hours and the required material.

1. Assign a **Clean Rate** to each cleaning type in **Maintenance** --> **Estimating** --> **Cleaning Maintenance**.
2. Assign the labor rate to the **Clean** labor group in **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Labor Groups**.
3. Determine the cost of the hours by the **Labor Rate** assigned to the labor group in **Maintenance** --> **Estimating** --> **Labor Rates**.
4. Set the cost of the abrasive material in the **Cleaning - Abrasive Price** field in **Maintenance** --> **Estimating** --> **Fabricator Information**.

Create default clean systems

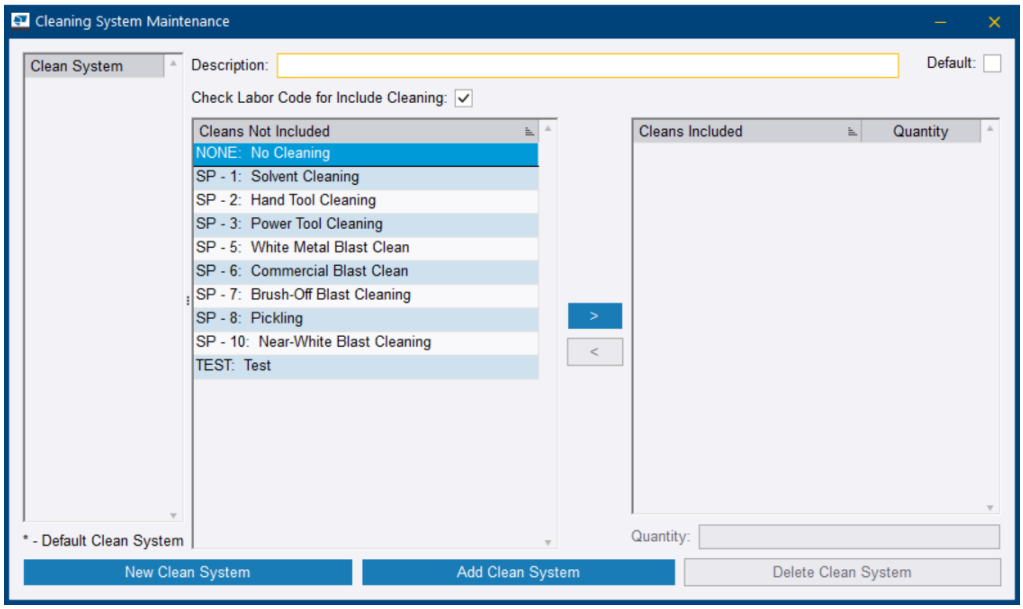
Clean systems allow you to apply more than one cleaning type to estimating items. You can create default cleaning system which can be used for all new estimating jobs.

1. Go to **Maintenance** --> **Estimating Maintenance** --> **Cleaning Maintenance**.

   The **Cleaning Maintenance** dialog box opens.

2. Click **Clean Systems**.
3. Click **New Clean System**.

   The **Cleaning System Maintenance** dialog box opens.



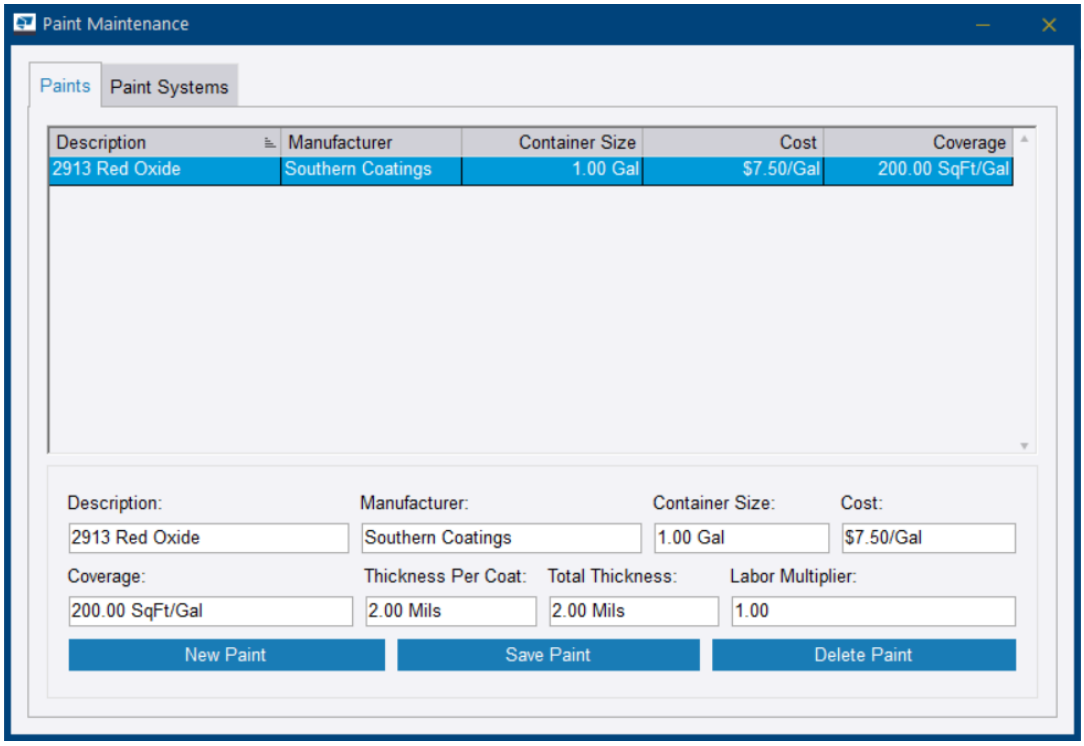
4. In **Description**, type a description for the cleaning system.
5. Use the arrow buttons to move the cleaning types that you want to include in the clean system to the **Cleans Included** list.
6. To add or reduce the number of times each cleaning type requires, change the value in the **Quantity** field.
7. If you only want to apply the cleaning system if cleaning is included in the labor code of the item, select the **Check Labor Code For Include Cleaning** checkbox.
8. To set the clean system as the default clean system used for new items, select the **Default** checkbox.
9. Click **Add Clean System**.

See also

Create an estimating job (page 509)

Manage default paint types and paint systems

You can add, modify, and delete default paint types and paint systems in **Paint Maintenance**.



Create default paint types

In the **Paint Maintenance** dialog box, you can add paint types that are regularly used in your shop. You can also modify, and delete these default paint types.

NOTE You need to define the default paint type before before creating the estimating jobs where you want to use it.

1. Go to **Maintenance** --> **Estimating** --> **Paint Maintenance**.

   The **Paint Maintenance** dialog box opens.

2. Select the **Paints** tab.
3. Add or modify the properties as needed.

To	Do this
Add a new paint type	a. Click **New Paint**. b. Define the paint properties.

To	Do this
	c. Click **Add Paint**. The new paint type is added.
Modify a paint type	a. Select the paint type. b. Modify the properties. c. Click **Save Paint**. Your changes are saved.
Delete a paint type	a. Select the paint type. b. Click **Delete Paint**. c. To permanently delete the selected paint type, click **Yes**. The paint type is permanently deleted.

The paints listed on the **Paints** tab are applied to all painted items by default unless you assign a paint system to them.

Create default paint systems

You can define a default paint system that consists of one or more paint products, for each of which you can define the number of coats needed. When you select a paint system in an estimating job, Tekla PowerFab calculates the applicable costs and adds them to the estimate.

NOTE
- You need to define a default paint system before creating the estimating jobs where you want to use it.
- If you do not assign a paint system to the items on the **Paint Systems** tab, all paints listed on the **Paints** tab will be applied to all painted items by default.

1. Go to **Maintenance** --> **Estimating** --> **Paint Maintenance**.

   The **Paint Maintenance** dialog box opens.
2. Select the **Paint Systems** tab.
3. Add or modify the properties as needed.

To	Do this
Add a new paint system	a. Click **New Paint System**. b. Type a description for the paint system in the **Description** field. c. Click the arrow buttons to move the paint types that you want to

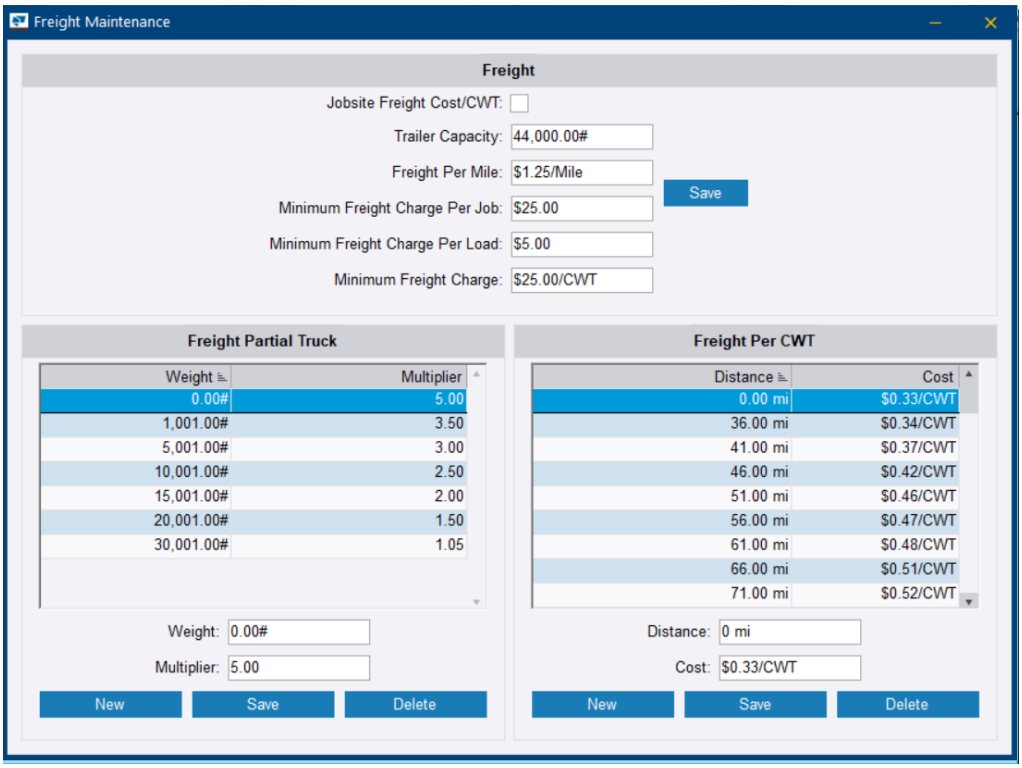
To	Do this
	include to the **Paints Included** list. d. To change the number of coats, select an included paint type and type a new value in the **Quantity** field. e. To set the paint system as the default paint system for new estimating jobs, select the **Default** checkbox. f. Click **Add Paint System.**
Modify a paint system	a. Select the paint system in the list. b. Change the description, included paints, or the number of paint coats according to your needs. c. To set the paint system as the default paint system for new estimating jobs, select the **Default** checkbox. d. Click **Save Paint System**.
Delete a paint system	a. Select the paint system in the list. b. Click **Delete Paint System**. c. To permanently delete the paint system, click **Yes**.

You can also create job-specific paint systems. For more information, see Create an estimating job (page 509).

Modify freight pricing

In the **Freight Maintenance** dialog box, you can modify freight pricing used in **Estimating**. The freight information that you set in the **Freight Maintenance** dialog box can be applied to all estimates.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Freight Maintenance**.



3. To change the costs of inbound freight and purchased items, in the **Freight** section of the **Freight Maintenance** dialog box, modify the trailer capacity, jobsite freight costs, and minimum freight charges.
4. To update the inbound freight costs, click **Save** at the bottom of **Freight** section.
5. Select or clear the **Jobsite Freight Cost/CWT** or **Jobsite Freight Cost/KG** checkbox:

When the Jobsite Freight Cost/CWT or Jobsite Freight Cost/KG checkbox is...	It means that...
selected	• Tekla PowerFab calculates freight as dollar per hundredweight or per kilogram. • When the total shipping weight is less than the trailer capacity, the **Freight Partial Truck** multipliers are added to the total calculation for **Freight Per CWT/KG**.
cleared	• Tekla PowerFab calculates freight as dollar per mile (the **Freight Per Mile** value is used).

When the Jobsite Freight Cost/CWT or Jobsite Freight Cost/KG checkbox is...	It means that...
	• When **Freight Per Mile** is less than **Minimum Freight Charge Per Job**, the **Minimum Freight Charge Per Job** is used instead.

To set the cost of inbound freight against specific suppliers, see also Add a supplier warehouse (page 297).

Add or update the weight range and multiplier for different load sizes

The **Freight Partial Truck** options are used together with the **Jobsite Freight Cost/CWT/Freight Per CWT/KG** options when the **Jobsite Freight Cost/CWT/ Jobsite Freight Cost/KG** checkbox is selected.

The **Freight Partial Truck** pricing also initiates a multiplier to the **Freight Per Mile** cost.

- Do either of the following:

To	Do this
Add a new weight range and multiplier	1. In the **Freight Partial Truck** section, click **New**. 2. Type the minimum and maximum weight. 3. In the **Multiplier** field, type the base load cost multiplier. The multiplier value is used to calculate the **Freight Per Mile** cost for loads that fall within the weight range. 4. Click **Add**.
Modify an existing weight range and multiplier	1. In the **Freight Partial Truck** section, click to select a distance in the list. 2. Modify the weight range or the multiplier value. 3. Click **Edit** to save the changes.

Add or update freight pricing per hundedweight or kilogram

- Do either of the following:

To	Do this
Add new pricing for a distance	1. In the **Freight Per CWT/KG** section, click **New**.

To	Do this
	2. Define values for minimum miles, maximum miles, and cost. 3. Click **Add**.
Modify the pricing of an existing distance	1. In the **Freight Per CWT/KG** section, click to select a distance in the list. 2. Modify the cost. 3. Click **Edit** to save the changes.

Adjust labor information

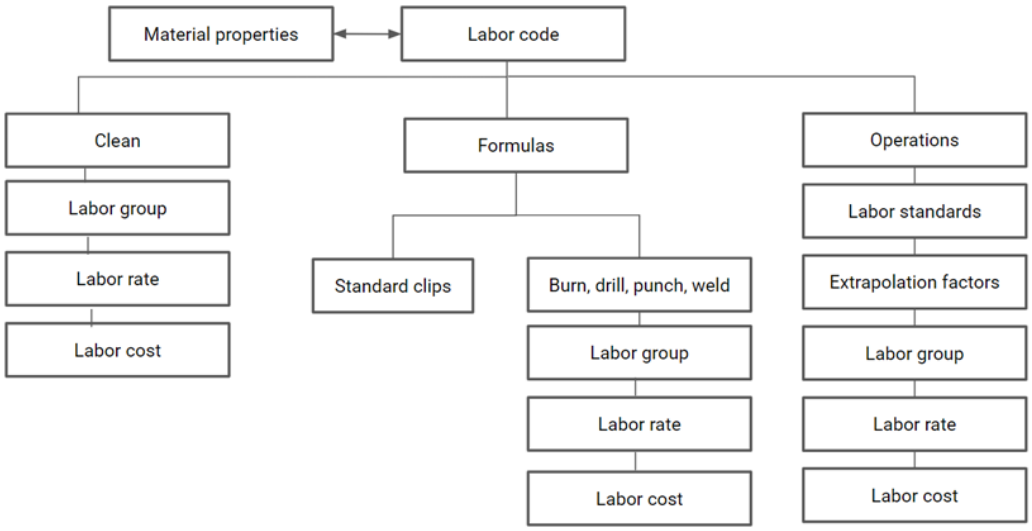
Before you start working in the **Estimating** module, we recommend that you view the information in the Tekla PowerFab labor database, including labor groups, labor codes, and material-specific labor times. If necessary, you can then adjust this information to reflect the labor data of your shop.

NOTE Before making changes to the labor information, we recommend that you export the labor information and save it in a text file. This way, you can re-import the information later, if necessary. For more information, see Export labor information (page 589).

1. Click the **Maintenance** ribbon tab.
2. On the menu, go to **Estimating** --> **Labor Maintenance**.
3. Select the desired menu command.

Calculate labor time

The labor database consists of various elements that work together to calculate accurate labor times.



Labor rates

Labor rates are hourly rates for specific fabrication functions, such as detailing, erecting, and shop labor.

Labor rates are assigned to different labor groups.

For instructions on adjusting labor rates, see Create and modify labor rates (page 490).

Labor groups

Labor groups bring together the assigned labor times and the hourly labor rates. A labor group can be described as a bucket where you put labor time and assign a labor rate.

The labor group is assigned to the labor operations. The labor from the labor operation is then summarized in the labor group, and a labor rate is applied.

For instructions on adjusting labor groups, see Create, modify, and delete labor groups (page 462).

Labor operations

Labor operations bring together the labor group and the extrapolation factor.

A labor operation is assigned an extrapolation factor and the time defined in the labor standard. Based on this information, Tekla PowerFab calculates the amount of labor based on the properties of the material.

Labor operations can be assigned through labor codes, estimate extras, or in some cases, additional labor.

To use a labor operation in an estimating job, you need to add it to a labor code in **Labor Codes**.

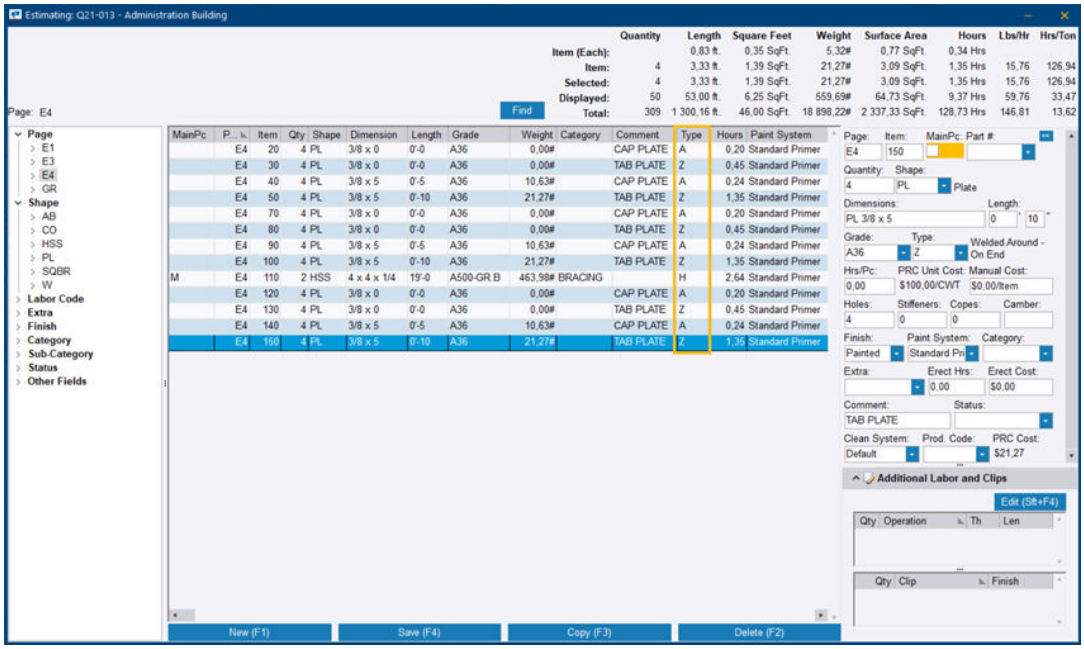
The labor time used for each labor operation is determined in **Labor Standards Maintenance**. For more information, see Adjust labor standards (page 467).

For instructions on adjusting labor operations, see Create, modify, and delete labor operations (page 464).

Labor codes

Labor codes are the primary method of applying labor timings to an estimate item.

In the **Estimating** dialog box, you can view all the estimate lines that have been added for a job, and in the **Type** column, you can see which labor code has been applied to each item.



Labor codes group labor operations together with formulas that calculate burn, drill, punch, and weld time, the material and labor for standard clips.

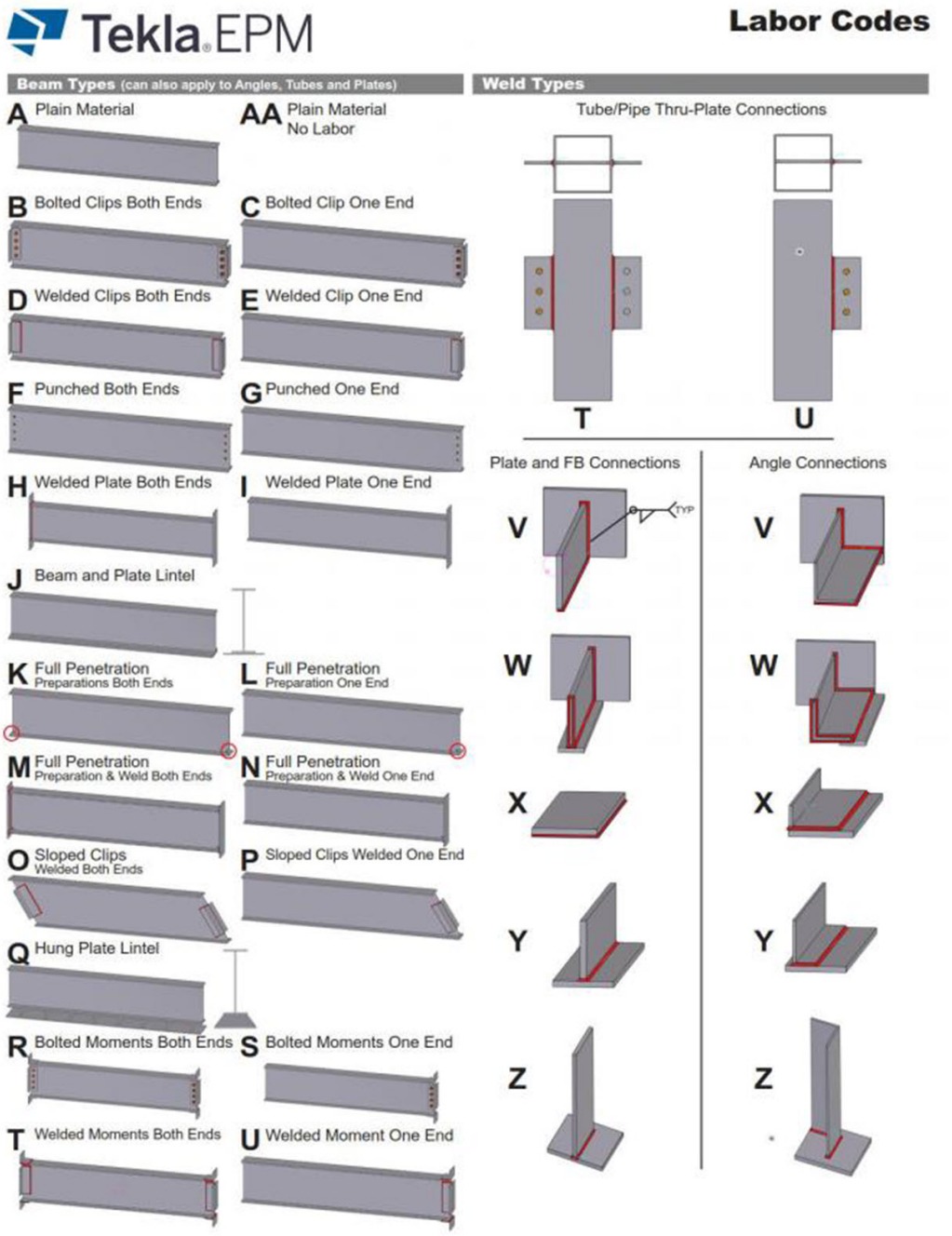
The estimating items that do not belong to any material group, such as comments, hardware, and buy-out items, are not included in labor codes.

Labor codes also include the assignment of shop or field bolts, including the cleaning and splicing when those operations are required.

For a visual representation of labor codes, see Labor codes (page 446).

Labor codes

This is a visual representation of the default labor codes in Tekla PowerFab.



See also

Adjust labor codes (page 447)

Adjust labor codes

Labor codes group labor operations together with formulas. You can also add more labor codes for common labor, such as adding sloped clips for bolted

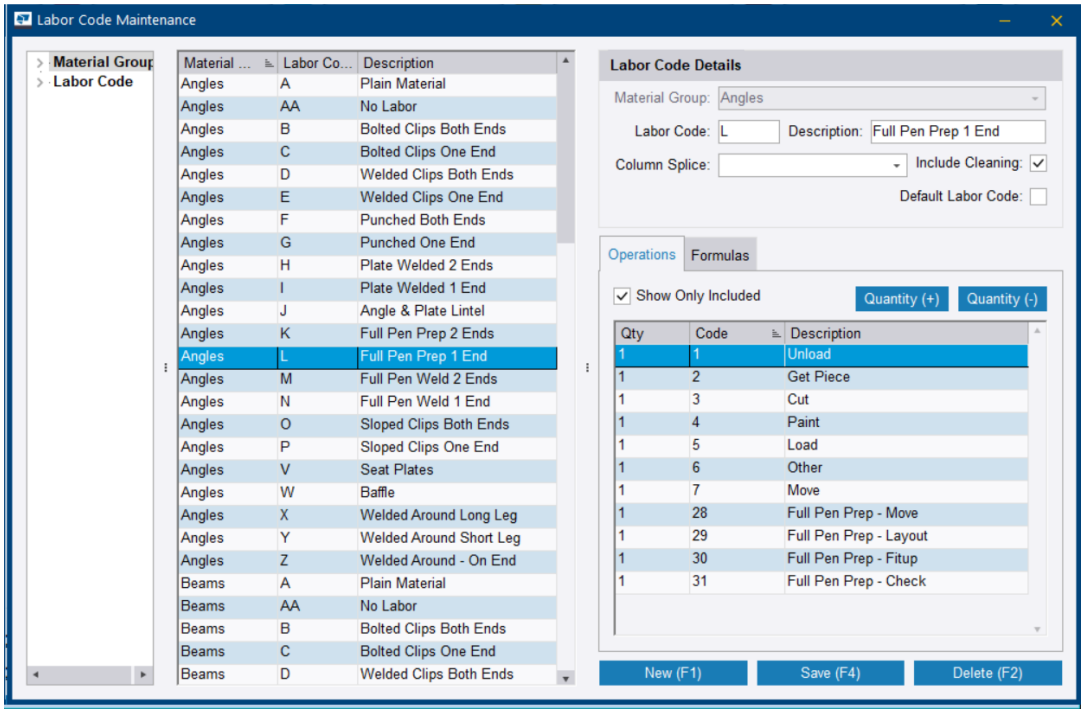
connections. In the **Estimating** module, you can use a labor code for an item by selecting it in the **Type** list.

For a visual representation on the preloaded labor codes, see Labor codes (page 446).

To access the **Labor Code Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Labor Codes**.

The **Labor Code Maintenance** dialog box opens.



Labor codes are always used by certain material groups, or types of shapes. You can view the labor codes by material group by scrolling the labor code list.

In the **Operations** section, you can set the number of times an operation is done within the labor code, or how many times the labor data from labor standards is entered for each item. When the **Qty** column is blank, the operation does not belong to the selected labor code.

In the **Formulas** section, you can see the formulas applied to calculating weld, burn, drill, and punch times, along with the labor times spent for standard clips. You can then set the number of times a formula is applied. When the **Qty** column is blank, the formula is not applied.

Change the default labor code of a material group

1. Scroll to find the material group.

2. Scroll to find and select the labor code that you want to set as the default option.
3. Select the **Default Labor Code** checkbox.
4. At the bottom of the dialog box, click **Save**.

The selected labor code is now used by default for the material group in the **Estimating** module.

Add a new labor code

1. At the bottom of the **Labor Code Maintenance** dialog box, click **New**.
2. In the **Material Group** list, select the material for which the new code is added.

   The labor code will only be available for the selected material group.
3. Type an abbreviation and description for the labor code.
4. If you want to add a column splice to the labor code, select an option in the **Column Splice** list.
5. To include cleaning in the labor code, select the **Include Cleaning** checkbox.
6. To set the new labor code as the default labor code for the material group, select the **Default Labor Code** checkbox.
7. On the **Operations** tab, ensure that the necessary operations are included to the labor code.

   If necessary, use the **Quantity (+)** and **Quantity (-)** buttons above the list to add or subtract the number of operations.
8. On the **Formula** tab, ensure that the necessary formulas are applied.

   If necessary, use the **Quantity (+)** and **Quantity (-)** buttons above the list to add or subtract the number of formulas.
9. Click **Add**.

The new labor code is created and is available in the **Estimating** module.

Add or subtract operations and formulas

1. Scroll to find and select the material group.
2. Scroll to find and select the labor code.
3. Select the operation or formula whose quantity you want to modify in the labor code.
4. Above the list, click **Quantity (+)** or **Quantity (-)** to change the quantity.
5. Click **Save**.

Add column splices to a labor code

You can apply column splices to any labor code. Tekla PowerFab calculates the labor time used in the column splice automatically.

1. Scroll to find and select the material group.
2. Scroll to find and select the labor code.
3. In the **Column Splice** list, select the column splice type that you want to use for the labor code.
4. Click **Save**.

Column splices are added to the labor code.

Note that the required splice materials need to be added manually in the **Estimating** module.

Add cleaning to a labor code

1. In the **Material Group** list, select the material group.
2. In the **Labor Code** list, select the labor code.
3. Select the **Include Cleaning** checkbox.
4. Click **Save**.

Add, modify, and delete formulas

1. Click the **Labor Code Maintenance** ribbon tab.
2. On the menu, select **Formula Maintenance**.

   The **Formula Maintenance** dialog box opens. The existing formulas are displayed in the list on the left of the dialog box.

   Each formula type includes options for quantity, weld, thickness and length.
3. Do any of the following:

To	Do this
Create a new formula	a. Click **New Formula**. b. In the **Formula Type** list, select an option. The formula type that you select determines the variables for which you need to enter values on the right side of the dialog box. For example, if you select **Burn**, you will need to determine the quantity, burn operation, thickness, and length. c. For each variable, click the **Edit Formula** button on the right side of the field, and type a value or build a formula.

To	Do this
	d. To save the formula, click **Edit Formula** at the bottom of the dialog box.
Modify an existing formula	a. Select the formula that you want to modify. b. If necessary, in the **Formula Type** list, select a different option. c. For each variable, click the **Edit Formula** on the right side of the field, and modify the value or formula according to your needs. d. To change the position of an operation in the formula, select the operation, and move it by clicking the **Move Up** and **Move Down** buttons. e. To save the changes, click **Edit Formula** at the bottom of the dialog box.
Delete an existing formula	Note that the formula will be permanently deleted and cannot be used in any labor code. a. Select the formula that you want to delete. b. Click **Delete**. c. To permanently delete the formula, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View and print a list of labor codes

1. Click the **Labor Code Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include particular material groups or labor codes, in the **Labor Code Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. Click the arrow buttons to move the material groups or labor codes that you want to include to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, do any of the following according to your needs:

To	Do this
View the labor code list	• Click **View**.

To	Do this
Print the labor code list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the labor code list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

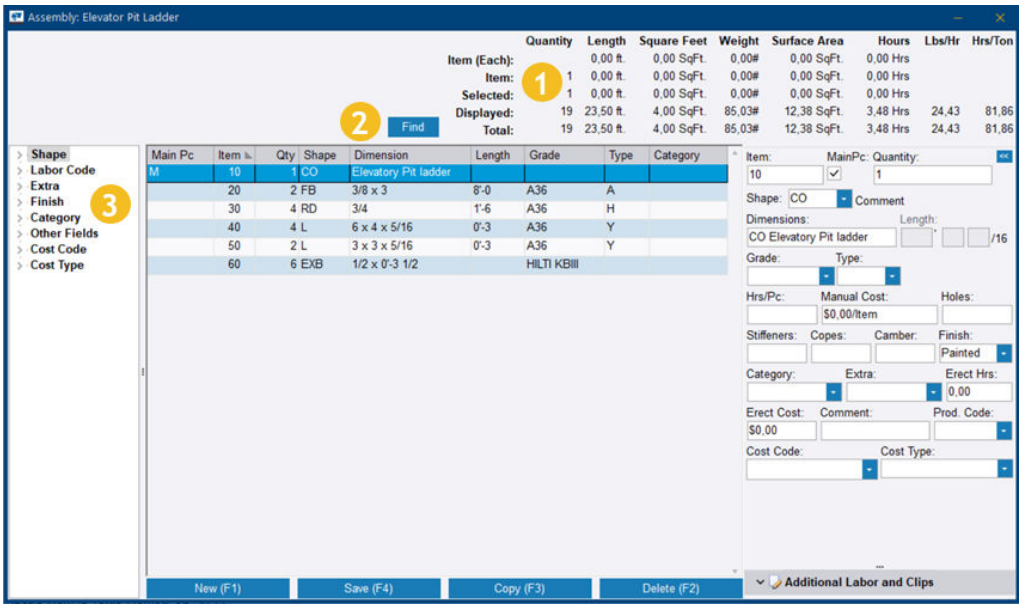
8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Create assemblies

You can create a library of commonly used assemblies, or bid items, that you can use in all estimating jobs. Assemblies can contain multiple items with different shapes, dimensions, finishes and categories, as well as accessories and parametric assemblies. By adding an assembly to your estimating job, you are actually adding all these items at once.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Assemblies**. The **Select Assembly** dialog box opens.
3. Click **Add**.
4. Type a name for the assembly, and click **OK**.

The **Assembly Maintenance** dialog box opens.



(1) Summary:

- The quantity, length, weight, surface area, and work time in hours for each of the selected items, all of the selected items, all items visible in the job, and the entire job
- The pounds per hour and hours per ton calculations for the selected items, all items visible in the job, and the entire job

(2) Find: Click to find items of a specific shape, material grade, or material dimension, or a particular item in the assembly. For instructions, see Find estimating items (page 565).

(3) Navigation tree: Filter to view specific items.

5. Click **New** to add the first item to the assembly.
6. Create a comment item as the header line of the assembly:
   a. Set **Shape** to CO.
   b. Click the **Dimensions** field.
   c. Type a description for the assembly, and press **Enter**.
   d. Click **Add**
7. To add more items:
   a. Click **New**.
   b. Define the quantity, shape, dimensions, and other properties for the item that you are adding.
   c. Click **Add**.
8. To add additional labor and clips to an item:

a. Select the item in the item list.

b. Expand the **Additional Labor and Clips** section.

c. Click **Edit**.

d. In the **Assembly Item** dialog box, click **New** under **Additional Labor** or **Clips**, depending on the type of item you are adding.

e. Define the item properties.

f. Click **Add**.

g. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

9. To add accessories or parametric assemblies to the assembly:

To	Do this
Add an accessory	a. Click the **Assembly Maintenance** ribbon tab. b. On the menu, select **Add Accessory**. c. In the **Select Accessory** dialog box, select the accessory that you want to add. d. Use the checkboxes under the accessory list to select if you want to use the finish and category of the original item, or set the category as the accessory description. e. Click **Add Selected**. The accessory is added to the assembly.
Add a parametric assembly	a. Click the **Assembly Maintenance** ribbon tab. b. On the menu, select **Add Parametric Assembly**. c. Double-click the parametric assembly that you want to add. d. If necessary, in the **Parametric Assembly - Variables** dialog box, set values for the variables. e. Click **Calculate Parametric Assembly**.

To	Do this
	f. Click **Add Parametric Assembly**. The parametric assembly is added to the assembly.

10. When the assembly is ready, click the **Close** button (**X**) in the upper-right corner.

The assembly is now available for all estimating jobs. You can also see the assembly in the **Select Assembly** dialog box.

You can also create job-specific assemblies. For more information, see Add an assembly (page 563).

See also

View, rename, copy, and delete assemblies (page 455)

View, rename, copy, and delete assemblies

You can view, rename, and delete both globally available and job-specific assemblies in the **Assembly Maintenance** dialog box. Furthermore, you can copy job-specific assemblies to the assembly library, so that they will be available in all estimating jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Assembly Maintenance**.

   The **Assembly Maintenance** dialog box opens.

   You can view the existing global assemblies in a list on the left side, and the job-specific assemblies on the right side.
3. According to your needs, do any of the following:

To	Do this
Rename an assembly	a. Select an assembly in either of the lists. b. Type a new name in the empty field under the list. c. Click **Rename**.
Delete an assembly	a. Select an assembly in either of the lists. b. Click **Delete** under the list. c. To permanently delete the assembly, click **Yes** in the confirmation dialog box.
Copy a job-specific assembly to the assembly library	a. In the **Job** list, click to select the estimating job from which you want to copy an assembly. b. Select the assembly that you want to copy.

To	Do this
	c. Click **<Copy**. The assembly is now available for all estimating jobs.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Create assemblies (page 452)

Adjust labor times for column splices

You can adjust the labor times for different times of column splices in **Column Splices Maintenance**. These labor times will be used in all estimates by default. You can also create new column splice types or modify the existing ones.

To use column splices, you need to add them to labor codes. For more information, see Adjust labor codes (page 447).

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Column Splices**.
3. In the **Column Splices Maintenance** dialog box, do any of the following:

To	Do this
Create a new column splice type	a. Click **New**. b. In the **Type** field, enter a letter indicator. c. Type a description and define the labor time in hours. d. Click **Add**.
Modify an existing column splice type	a. Select a column splice type in the list. b. Modify the letter indicator, description, and labor time according to your needs. c. Click **Edit** to save the changes.
Delete a column splice type	a. Select a column splice type in the list. b. Click **Delete**. c. To permanently delete the column splice type, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Adjust labor times for copes, punches, and stiffeners

In **Cope Punch Stiffener**, adjust the default labor times for the layout of copes, punches, and stiffeners. For stiffeners, you can also adjust the fit-up time. The labor times that you define will be used in all estimating jobs.

- To define the labor time used for cutting the cope, see Adjust labor times for burning (page 477).
- To modify cope and stiffener weld settings, see Modify labor operation settings (page 496).

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Cope / Punch / Stiffeners**.
3. In the **Cope Punch Stiffener** dialog box, type labor times for the different copes, punches, and stiffeners.
4. Click **Save**.

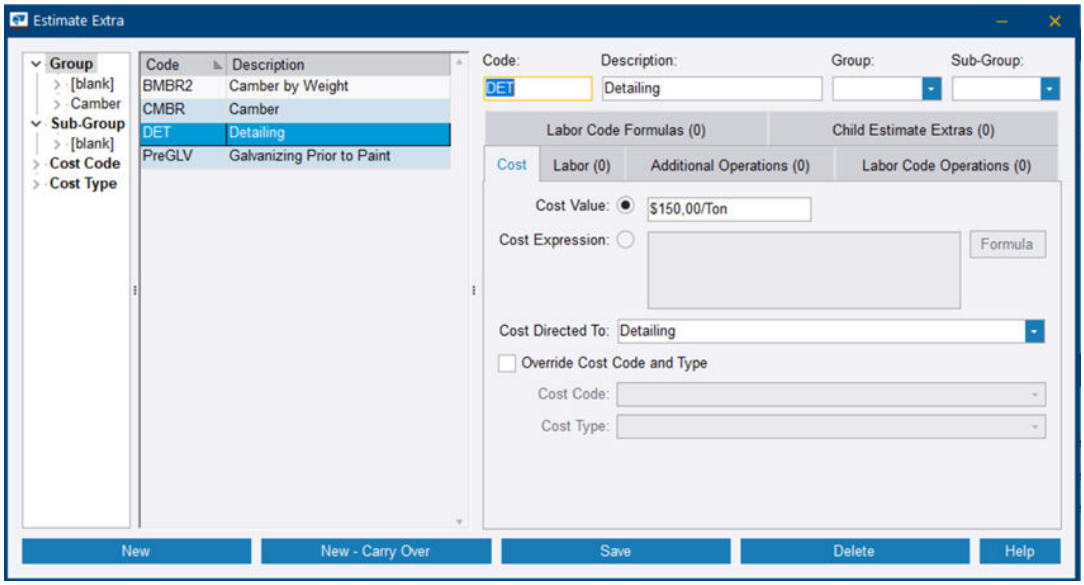
Create estimate extras

Create estimate extras to add costs and labor for commonly used special items when there are no applicable labor codes.

Estimate extras allow you to add as much labor and cost to a single item in an estimating job as needed.

Estimate extras are often used for all labor done outside of your shop. For example, you can create estimate extras for items such as camber, rolling, and forming.

You can create and modify estimate extras in the **Estimate Extra** dialog box.



Create an estimate extra

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.

2. Click **New**.

   NOTE To create copy of an estimate extra and use it as the basis of a new one, select the existing estimate extra in the list and click **New - Carry Over**.

3. In the **Code** field, type an abbreviation that helps you identify the estimate extra.

   The abbreviation will be shown when you apply estimate extras to estimating items.

4. Type a description, group, and subgroup for the estimate extra.

   Groups and subgroups are only used for filtering the estimate extras in the dialog box.

5. Click **Add**.

6. Click the other tabs to enter more information about the estimate extra.

To apply the new estimate extra to an existing estimate, open the estimate and use **Global Edit**. To apply the estimate extra to new estimate items, see Add an estimating item (page 548).

Add labor code formulas

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.

2. Open the **Labor Code Formulas** tab.

3. Click **New Formula**.

4. In the **Formula** list, select an existing labor code formula.

5. Do one of the following:

   - In the **Quantity** field, enter the number of times the formula is used for the estimate extra.
   - Click **Formula** on the right side of the **Quantity** field and create a quantity formula.

6. Click **Add Formula**.

   Add as many formulas as necessary to define the extra labor.

7. Click **Save** at the bottom of the dialog box.

See also Adjust labor codes (page 447) and Create formulas (page 433).

Add child estimate extras

Child estimate extras allow you to add more than one labor operation to the main estimate extra item. In practice, this means that you can group many labor functions together into one estimate extra.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.
2. Open the **Child Estimate Extras** tab.
3. Click **New Child Extra**.
4. In the **Child Estimate Extra** list, select an existing estimate extra that you want to add as a child item for the current estimate extra.
5. Do one of the following:
   - In the **Quantity** field, enter the number of times the formula is used for the estimate extra.
   - Click **Formula** on the right side of the **Quantity** field and create a quantity formula.
6. Click **Add Child Extra**.
7. Repeat steps 1 to 6 to add all necessary child estimate extras.
8. Click **Save** at the bottom of the dialog box.

Add costs

1. Go to **Maintenance** --> **Estimating** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.
2. Open the **Cost** tab.
3. Do either of the following:

To	Do this
Add a fixed cost	a. Select the **Cost Value** option. b. Type the cost in the **Cost Value** field. If you want to change the units, right-click in the **Cost Value** field and select the new units.
Enter a formula for calculating the cost	a. Select the **Cost Expression** option. b. Click **Formula**. c. Build the formula by entering the necessary elements and adding variables.

To	Do this
	d. Click **OK**.

4. To assign the cost to a specific category, select an option in the **Cost Directed To** list.
5. To add a cost code and cost type, select **Override Cost Code and Type**.

   See also Manage cost codes (page 227) and Manage cost types (page 225).
6. Click **Save** at the bottom of the dialog box.

Add labor times for a labor group

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.
2. Open the **Labor** tab.
3. Click **New Labor**.
4. In the **Labor Group** list, select the labor group for which you want to add labor times regarding the estimate extra.
5. Do either of the following:

To	Do this
Add a fixed amount of labor time	a. Select the **Hours Value** option. b. Type the labor time in the **Hours Value** field. If you want to change the units, right-click in the **Hours Value** field and select the new units.
Add an expression to calculate the labor time	a. Click the **Hours Expression** option. b. Click **Formula**. c. Build the formula by entering the necessary elements and adding variables. d. Click **OK**.

6. Click **Add Labor**.
7. Click **Save** at the bottom of the dialog box.

Add welding, burning, punching, or drilling

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.
2. Open the **Additional Operations** tab.
3. Click **New Operation**.
4. In the **Operation** list, select the labor operation.
5. In the **Type** list, select if the operation is manual, semi-automatic, or automatic.
6. Enter values or create formulas for **Quantity**, **Thickness**, and **Length**.
7. Click **Add Operation**.
8. Click **Save** at the bottom of the dialog box.

Add labor code operations

Labor code operations allow you to add the same operations for the selected estimate extra that are used for labor codes.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Estimate Extras**.

   The **Estimate Extra** dialog box opens.
2. Open the **Labor Code Operations** tab.
3. Click **New Operation**.
4. Select the material group and the operation in the appropriate lists.
5. Type a quantity in the **Quantity** field, or click **Formula** to define a formula that calculates the quantity.
6. Click **Add Operation**.
7. Click **Save** at the bottom of the dialog box.

View extrapolation factors

Extrapolation factors are variables that Tekla PowerFab uses in calculating the labor times when labor is applied to the materials. Extrapolation factors work together with labor operations and labor groups to properly apply labor times listed in labor standards. Extrapolation factors are also specific to certain labor operations.

You cannot create any additional extrapolation factors, but simply view the existing ones.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Extrapolation Factors**.

3. In the **Extrapolation Factor Maintenance** dialog box, view the extrapolation factors.
4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Create, modify, and delete labor groups (page 462)

Create, modify, and delete labor operations (page 464)

Adjust labor standards (page 467)

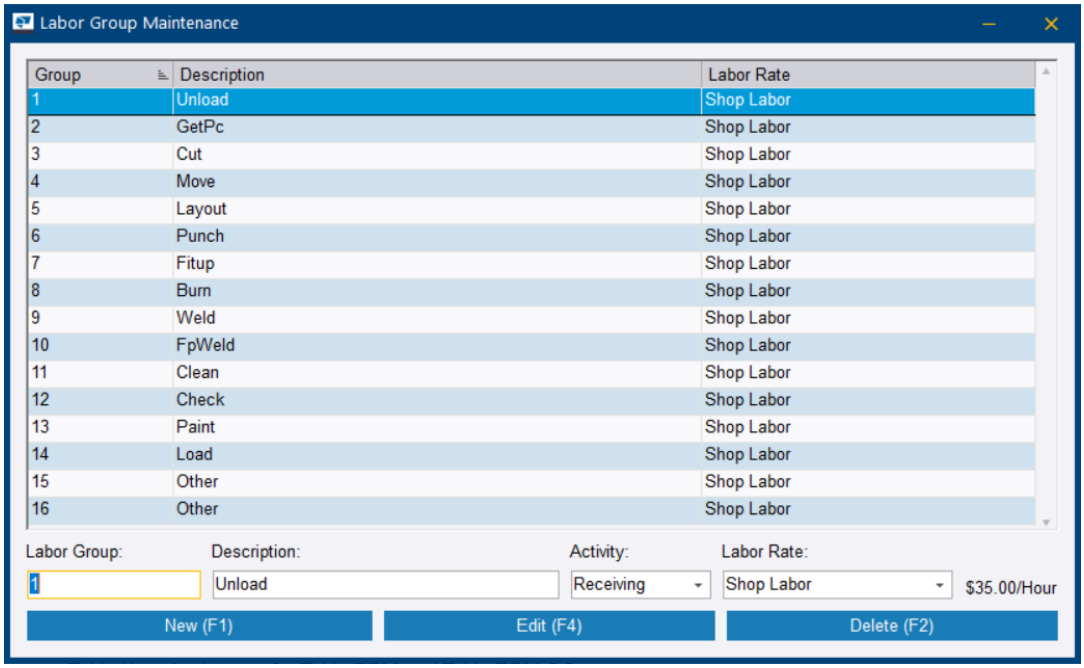
Create, modify, and delete labor groups

Labor groups define the different labor types being used in an estimating job. All labor times, except for the erection and detailing times, defined in Tekla PowerFab are assigned to a particular labor group. Tekla PowerFab already contains labor groups for labor types such as cutting, cleaning, or loading. You can view and modify the existing labor groups in the **Labor Group Maintenance** dialog box, or add new ones according to the needs of your shop.

To access the **Labor Group Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Labor Groups**.

The **Labor Group Maintenance** dialog box opens.



Create a labor group

1. Click **New**.
2. In the **Labor Group** field, type a number that is not used by any existing labor group.
3. Type a description for the labor group.
4. In the **Activity** list, select which activity the new labor group is associated to.
5. In the **Labor Rate** list, select which labor rate the new labor group is associated to.

   The labor rates are created in **Fabricator Information**. For more information, see Create and modify labor rates (page 490).

   The cost of the labor appears on the right side of the **Labor Rate** list.
6. Click **Add**.

The new labor group is created. You can now assign different labor times, such as burn time or manual labor time, to the labor group.

Modify a labor group

1. Select the labor group that you want to modify.
2. Modify the labor group number, description, activity, and labor rate according to your needs.
3. Click **Edit** to save the changes.

Delete a labor group

Deleting a labor group is permanent and cannot be undone.

1. Select the labor group that you want to delete.
2. Click **Delete**.
3. To permanently delete the labor group, click **Yes** in the confirmation dialog box.

Modify miscellaneous labor groups

In the **Miscellaneous Labor Group** dialog box, you can determine in which labor group specific operations, such as cleaning or manual labor, are included.

1. Click the **Labor Group Maintenance** ribbon tab.
2. On the menu, select **Miscellaneous Labor Groups**.
3. In the available lists in the **Miscellaneous Labor Group** dialog box, select to which labor groups the different labor times are assigned.
4. Click **Save**.

View, print, or export the labor group list

1. Click the **Labor Group Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. In the **Report Selection** dialog box, do any of the following according to your needs:

To	Do this
View the labor group list	• Click **View**.
Print the labor group list	a. Change the number of printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the labor group list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. To export the labor group list, click **Export**.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Create, modify, and delete labor operations

Labor operations are operations that take place in the fabrication process, such as unloading, painting, or moving material. A labor operation is assigned an extrapolation factor and the time in the labor standard, so that Tekla PowerFab can calculate the amount of labor based on the properties of the

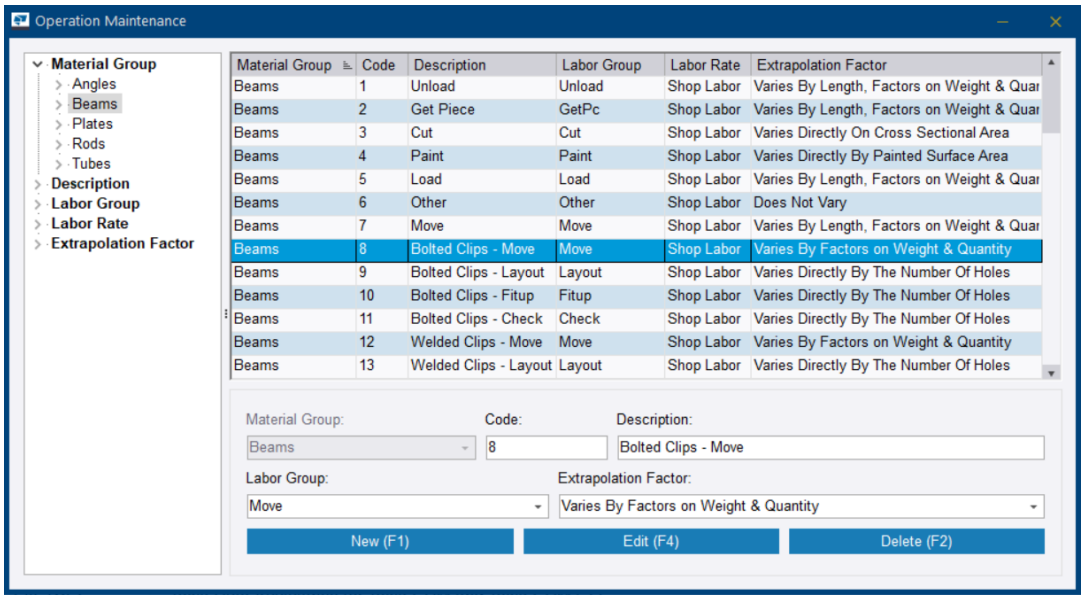
material. You can view and modify the existing labor operations in **Operation Maintenance**. You can also create new labor operations according to the needs of your shop.

To modify the burn, drill, punch, and weld settings for labor operations, see Modify labor operation settings (page 496).

To access the **Operation Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Labor Operations** .

The **Operation Maintenance** dialog opens.



Create a labor operation

1. Click **New**.
2. In the **Code** field, type a number that is not in use by another labor operation.
3. Type a description for the labor operation.
4. In the **Labor Group** list, click to select the labor group to which the labor operation is assigned.
5. In the **Extrapolation Factor** list, click to select the variable used in calculating labor times.
6. Click **Add**.

The new labor operation is created.

Note that before you can use the labor operation in estimating jobs, you need to add it to a labor code in **Labor Codes** and enter the labor time in **Labor Standards Maintenance**. For instructions, see the following:

- Adjust labor codes (page 447)
- Adjust labor standards (page 467)

Modify an existing labor operation

1. Select a labor operation in the list.
2. Modify the code, description, labor group, and extrapolation factor according to your needs.
3. Click **Edit** to save the changes.

Delete a labor operation

Note that deleting a labor operation is permanent and cannot be undone.

1. Select a labor operation in the list.
2. Click **Delete**.
3. To permanently delete the labor operation, click **Yes** in the confirmation dialog box.

View, print, or export the labor operation list

The labor operation list shows how Tekla PowerFab applies labor for each material group.

1. Click the **Labor Operation Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include particular material groups in the labor operation list, in the **Labor Operation Report Filters** dialog box, click **Edit** on the right side of **Material Group**.
4. Click the arrow buttons to move the material groups that you want to include to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, do any of the following according to your needs:

To	Do this
View the labor operation list	Click **View**.

To	Do this
Print the labor operation list	a. Change the number of printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the labor operation list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. To export the labor operation list, click **Export**.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Create, modify, and delete labor groups (page 462)

View extrapolation factors (page 461)

Adjust labor standards (page 467)

Adjust labor codes (page 447)

Adjust labor standards

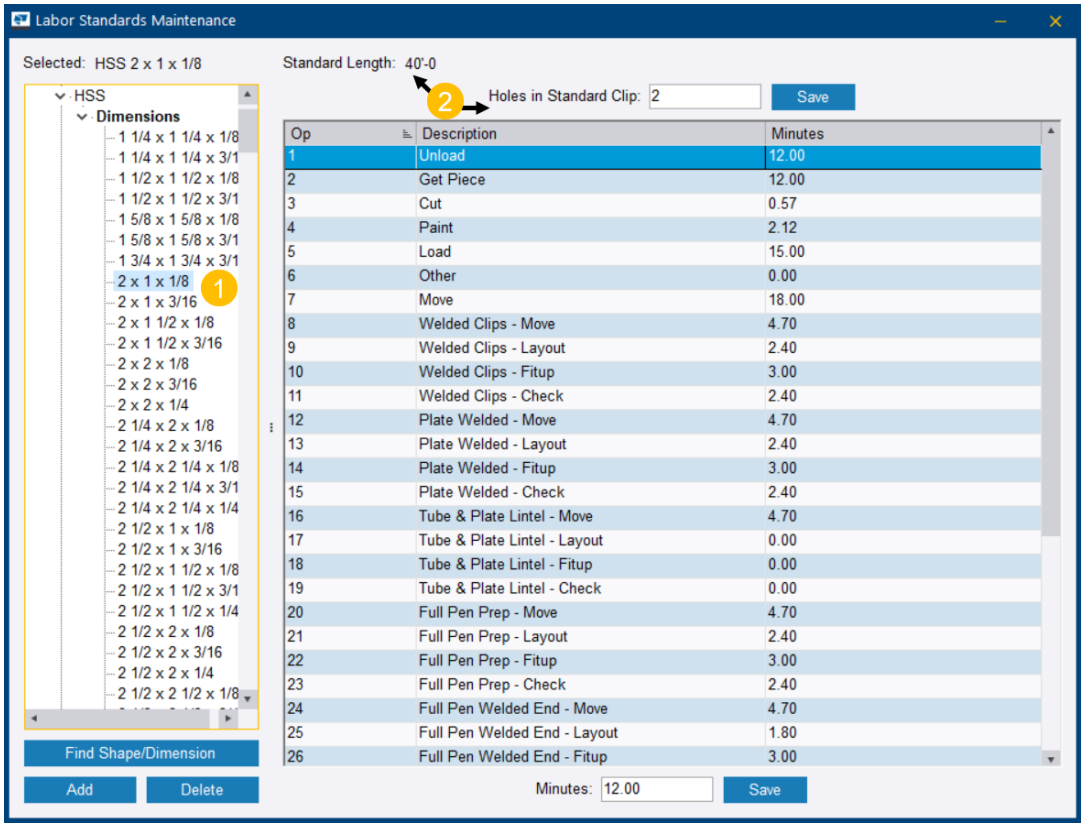
You can view the labor time spent in each material operation by material dimension and shape in the **Labor Standards Maintenance** dialog box. You can also modify the labor times, add new labor times, shapes and material dimensions, and delete shapes and the applied labor time from **Labor Standards**.

NOTE Before making changes to labor standards, we recommend that you create a new shop setup based on the original labor database. Then, modify the new shop setup, so that the original labor information remains untouched.

To access **Labor Standards Maintenance**, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Standards**.

The **Labor Standards Maintenance** dialog box opens.



(1) Navigation tree: You can browse the existing material shapes and dimensions.

When you click a dimension in the navigation tree to select it, its labor times by labor operation appear on the right side of the dialog box.

(2) The standard length and the number of standard clip holes of the selected material dimension

View the compiled labor time of a dimension

NOTE Remember to view the compiled labor time by labor code before and after making changes to the labor time by labor group.

1. Select the material dimension whose properties you want to view.

2. Click the **Labor Standards Maintenance** ribbon tab.
3. On the menu, select **View Labor Code Labor Values**.

   The **Labor Code** dialog box opens.

   The total labor time is shown at the top of the dialog box. The information on shop bolts, field bolts, weld cost, and weld weight are shown at the bottom of the dialog box. All these properties are added to an estimate when the labor code is added for an item.
4. In the labor code list on the left, click a labor code to view the labor times of the material dimension when that labor code is selected.
5. To view the labor operation times and the total hours without standard clips, clear the **Include Standard Clips** checkbox.
6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
7. If necessary, make changes to the labor times in the **Labor Standards Maintenance** dialog box.

Add shapes and dimensions

1. At the bottom of the dialog box, click **Add**.
2. In the **Shape** list, select a shape.
3. In the **Select the sizes to add** dialog box, click the arrow buttons to move the dimensions that you want to add to the **Included** list.
4. Click **OK**.

   The dimensions are added for the shape.
5. Use the **Global Edit - Operations** command to add labor times for the new dimensions.

   For more information, see *Copy labor times to multiple material dimensions*.

After the dimensions have been added, you also need to add their pricing and combining length to the pricing database in **Pricing Maintenance**. For more information, see Add a single material dimension to pricing (page 281).

Modify the number of standard clip holes for a single dimension

1. In the shape list, select a shape and a material dimension.
2. In the **Holes in Standard Clip** field, type the desired number of holes.
3. Click **Save**.

Modify the number of standard clip holes for multiple dimensions

1. While in the **Labor Standards Maintenance** dialog box, click the **Labor Standards Maintenance** ribbon tab.

2. On the menu, select **Global Edit - Holes in Standard Clip**.
3. To automatically filter which shapes and operations are modified, select a filter in the **Filter Group** list, or click **Edit Filter Groups** to create a new filter.
4. On the **Shapes** section, use the arrows to move shapes whose standard clip holes you want to modify to the **Included** list.
5. On the **Dimensions** section, use the arrows to move the dimensions whose standard clip holes you want to modify to the **Included** list.
6. Click **OK**.
7. Type the desired number of holes in the **Holes in Standard Clip** field.
8. Click **Save**.

   The number of standard clip holes of the selected material shapes and dimensions is updated.

Copy labor times to multiple dimensions

1. Change the labor times of labor operations for one dimension according to your needs.
2. In the navigation tree, select the material dimension whose labor times you want to copy to other dimensions.
3. Click the **Labor Standards Maintenance** ribbon tab.
4. On the menu, select **Global Edit - Operations**.
5. To automatically filter which shapes and operations are modified, select a filter in the **Filter Group** list, or click **Edit Filter Groups** to create a new filter.
6. On the **Shapes** section of the **Global Edit - Operations** dialog box, use the arrows to move shapes whose labor times you want to modify to the **Included** list.
7. On the **Dimensions** section, use the arrows to move the dimensions whose labor times you want to modify to the **Included** list.
8. Click **OK**.
9. Click the arrow buttons to move the operations whose labor times you want to copy to the **Included** list.
10. Click **Save**.

The labor times of the selected operations are copied for the material dimensions that you selected.

Remove an individual material dimension

You can remove all labor standards connected to a material dimension. The dimension will remain available in the **Shapes / Grades / Sizes** dialog box and

Pricing Maintenance, and you can add it back to **Labor Standards Maintenance** at any time.

NOTE If you remove a dimension from **Labor Standards Maintenance**, you will need to add labor times for all items of the dimension manually when you use that dimension in an estimating job.

1. Select the dimension that you want to remove.
2. At the bottom of the dialog box, click **Delete**.
3. To permanently delete the selected dimension, click **Yes** in the confirmation dialog box.

Remove a shape and all of its dimensions

If necessary, you can remove all labor standards connected to a shape from labor standards. The shape and dimensions will remain available in the **Shapes / Grades / Sizes** dialog box and **Pricing Maintenance**. You can add the shape and dimensions back to **Labor Standards Maintenance** at any time.

NOTE If you remove a shape from **Labor Standards Maintenance**, you will need to add labor times manually for all items that use the shape in estimating jobs.

1. Select the shape that you want to remove.
2. At the bottom of the dialog box, click **Delete**.
3. To permanently delete the selected shape and all its dimensions, click **Yes** in the confirmation dialog box.

Create labor standard reports

1. In the **Labor Standards Maintenance** dialog box, click the **Labor Standards Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only show specific shapes or dimensions, select a filter type in the **Type** list, and click **Select**.
4. Click the arrow buttons to move the shapes and dimensions that you want to modify to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.

7. In the **Report Selection** dialog box, do any of the following according to your needs:

To	Do this
View the labor standards list	• In the **Report Selection** dialog box, click **View**.
Print the labor standards list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the labor standards list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. To export the labor group list, click **Export**.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Adjust quantity and weight labor factors

Quantity and weight labor factors are used in extrapolation factors, which affect the efficiency of labor for specific labor operations. For example, for longer items, the efficiency may be greater than normal, and for heavy items,

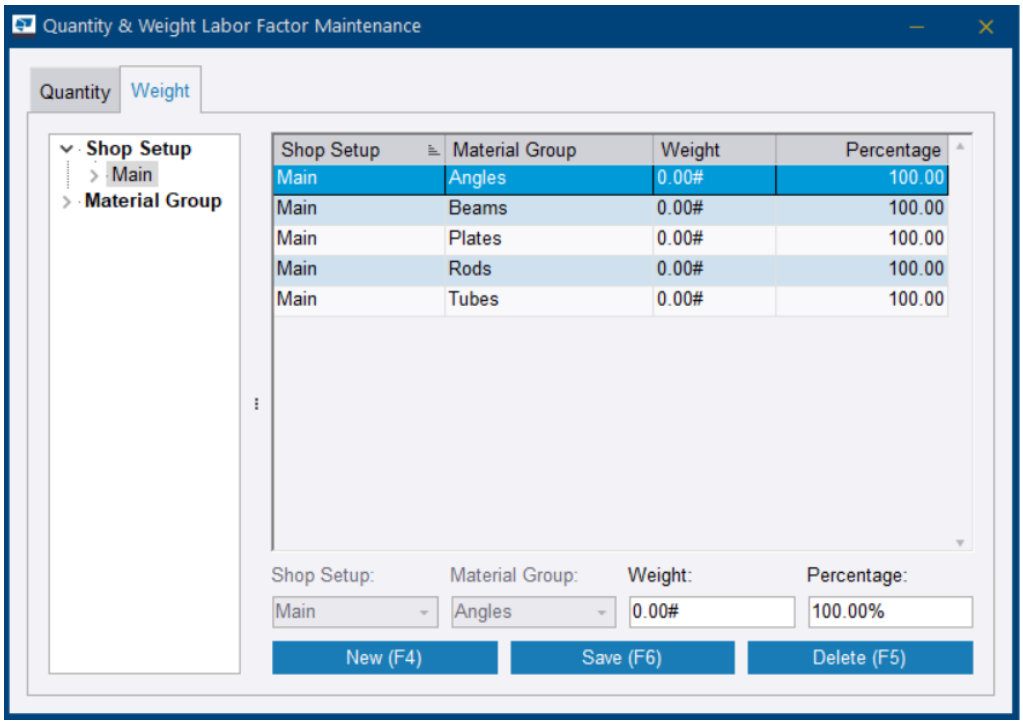
the efficiency may decrease. In **Quantity and Weight Labor Factor Maintenance**, you can add, modify, and delete these labor factors by material group.

To see which labor operations use the quantity and weight labor factors, refer to the **Operation Maintenance** dialog box.

To open the **Quantity and Weight Labor Factor Maintenance** dialog box:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Quantity & Weight Labor Factors**.

   The **Quantity and Weight Labor Factor Maintenance** dialog box opens.



   The quantity labor factors are adjusted on the **Quantity** tab, whereas the weight labor factors are adjusted on the **Weight** tab.

NOTE Quantity and weight labor factors are created separately for each shop setup in Tekla PowerFab. To switch to another shop setup, see Change the active shop setup (page 503). Remember to add the labor factors to each shop where they are needed.

Add quantity or weight labor factors

Before you add labor factors, ensure that you are on the right tab. To add quantity labor factors, you need to have the **Quantity** tab open. To add weight labor factors, you need to have the **Weight** tab open.

1. In the **Shop Setup** list, select to which shop the labor factor will be added.

2. In the **Material Group** list, select the material group whose labor factors you want to modify.
3. In the **Quantity** or **Weight** field, type a value.

   This value defines the area for efficiency.
4. In the **Percentage** field, type the efficiency percentage.

   Increasing the efficiency percentage lowers the applied labor time for an operation that contains quantity and weight extrapolation factors.
5. Click **Add**.

The new labor factor is added to the selected shop setup.

Modify quantity or weight labor factors

1. In either the **Quantity** or **Weight** list, select the labor factor that you want to modify.
2. Modify the quantity or weight and percentage.
3. Click **Save** to update the labor factor.

Delete quantity or weight labor factors

1. On either the **Quantity** or **Weight** tab, select the labor factor that you want to delete.
2. In the lower-right corner, click **Delete**.
3. To permanently delete the labor factor, click **Yes** in the confirmation dialog box.

Manage standard clips

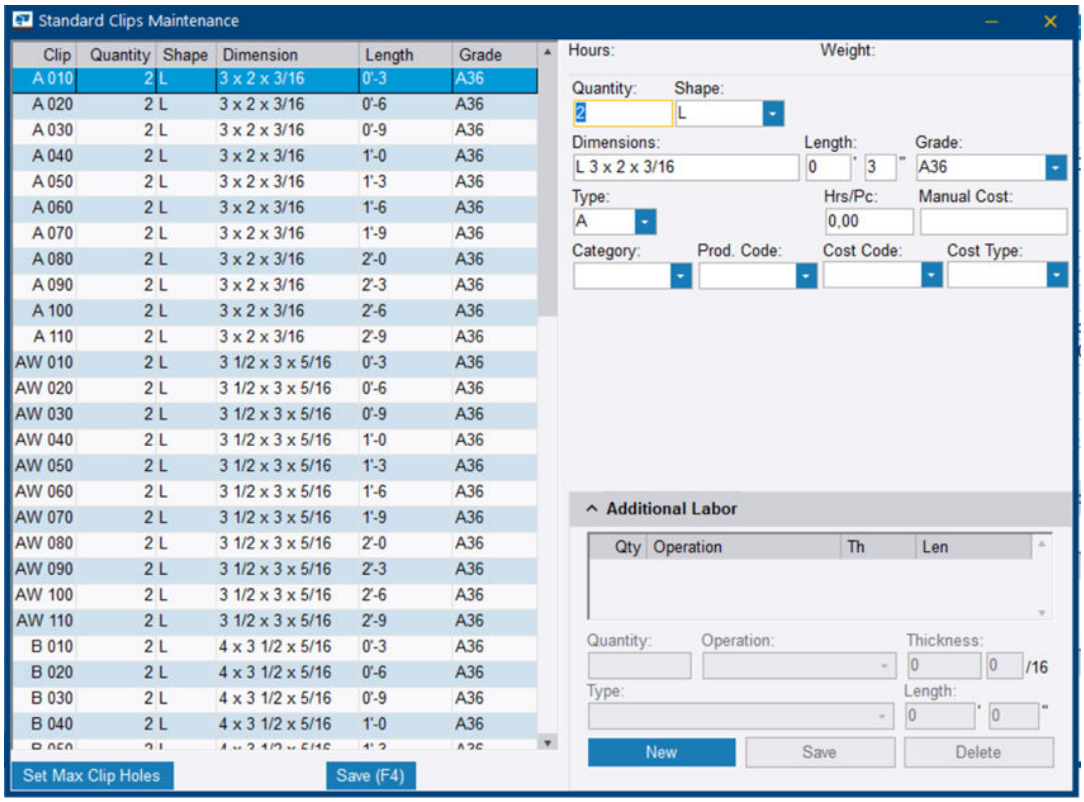
In **Standard Clips Maintenance**, you can modify existing standard clips, and add material items and additional labor for weld, burn, drill, and punch to standard clips.

NOTE Standard clips are only used if you have selected the **Auto Clip-Angles** checkbox in **Maintenance** --> **Estimating** --> **Fabricator Information**. You can also modify the standard clips on a job-by-job basis.

To access the **Standard Clips Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

The **Standard Clips Maintenance** dialog box opens.



Modify the properties of standard clips

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

   The **Standard Clips Maintenance** dialog box opens.

2. In the list on the left, select the standard clip.

3. On the right, modify the standard clip properties according to your needs.

   For example, you can change the material shape or the quantity of clips. Note that even though the shape of the clip can be changed, you can only change the shape within the original material group.

4. If you want to change the maximum number of holes in the clip, do the following:

   a. In the lower-left corner, click **Set Max Clip Holes**.

   b. Type the maximum hole number.

   c. Click **Set Max Holes**.

   d. Click **Yes** to confirm changing the maximum number of holes.

   Note that you cannot reduce the maximum number of holes if the selected clip is used in an estimating job.

5. To update the standard clip properties, click **Save** below the list of standard clips.

Modify the cost code and cost type of multiple items

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

   The **Standard Clips Maintenance** dialog box opens.
2. Select the items whose properties you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. On the **Standard Clips Maintenance** ribbon tab, select **Global Edit - Selected**.
4. Select a cost code and cost type from the dropdown lists.
5. Click **Update**.

Add additional labor or material items to a standard clip

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

   The **Standard Clips Maintenance** dialog box opens.
2. In the list on the left, select the standard clip.
3. Under the **Additional Labor** list, click **New**.
4. Determine the quantity, operation, thickness, operation type, and length.
5. Click **Add**.
6. To update the standard clip properties, click **Save** below the list of standard clips.

The additional labor is added to the clip. You can see the labor time of the additional labor at the bottom right corner of the dialog box.

Modify additional labor or material items

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

   The **Standard Clips Maintenance** dialog box opens.
2. In the list on the left, select the standard clip.
3. In the **Additional Labor** list, select the desired item.
4. Change the quantity, operation, thickness, operation type, or length.
5. To save the changes, click **Save** under the **Additional Labor** list.
6. To update the standard clip properties, click **Save** below the list of standard clips.

Delete additional labor or material items

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**.

   The **Standard Clips Maintenance** dialog box opens.
2. In the list on the left, select the standard clip.
3. In the **Additional Labor** list, select the desired item.
4. Click **Delete** to permanently delete the item.
5. To update the standard clip properties, click **Save** below the list of standard clips.

Manage burning

You can adjust labor times and burn types one by one or in batches, and view burn rate lists in **Maintenance**.

Adjust labor times for burning

In **Burn Maintenance**, you can view, add, and modify burn time information to match the time standards of your shop. If necessary, you can also add new burn types or create a list of burn rates.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Burn**.
3. In the **Burn Maintenance** dialog box, do any of the following:

To	Do this
Add new burn rate	a. Click **New**. b. In the **Shop Setup** list, select the shop to which you want to add the burn rate. c. In the **Burn Type** list, select how the burning process is executed: • Use **Automatic** for automated equipment. • Use **Semi-Automatic** for track burners. • Use **Manual**for burning by hand torch. d. Determine the thickness and rate per hour. e. Click **Add**.
Modify an existing burn rate	a. Select a burn rate in the list.

To	Do this
	b. Modify the thickness and rate per hour. c. Click **Edit** to save the changes.
Delete a burn rate	a. Select a burn rate in the list. b. Click **Delete**. c. To permanently delete the burn rate, click **Yes** in the confirmation dialog box.

Modify multiple burn details

You can modify the properties of multiple items at once using **Global Edit - Selected**.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Burn**.

   The **Burn Maintenance** dialog box opens.
2. Select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. On the **Burn Maintenance** ribbon tab, select **Global Edit - Selected**.
4. Modify the properties.
5. Click **Update**.

Add burn types

If your shop uses other burn types than the existing ones, you can add the missing burn types in **Burn Type Maintenance**. Then, you can use the new burn types in your estimating jobs.

1. In the **Burn Maintenance** dialog box, click the **Burn Maintenance** ribbon tab.
2. On the menu, select **Burn Type Maintenance**.
3. In the **Burn Type Maintenance** dialog box, click **New**.
4. Add a description and abbreviation for the burn type.
5. In the **Labor Group** list, select which labor group the burn type belongs to.

   The selection determines where Tekla PowerFab saves the labor time used in burning. Normally, burn times are saved to the **Burn** labor group.
6. Click **Add**.

The new burn type is created and will be available in **Burn Maintenance**.

Note that the new burn type will only be visible and available for filtering in the **Burn Maintenance** dialog box once you create a burn rate with the new burn type.

7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for burning (page 477)

View, print, or export a burn rate list

When you are making changes to burn times in **Burn Maintenance**, having a list of the existing burn rates organized by burn type can be helpful. You can either view the burn rate list in the **Tekla PowerFab Report Viewer**, print the list, or export the list to another file format.

1. In the **Burn Maintenance** dialog box, click the **Burn Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. Do any of the following:

To	Do this
View the burn rate list	• In the **Report Selection** dialog box, click **View**.
Print the burn rate list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the burn rate list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**.

To	Do this
	d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for burning (page 477)

Manage drilling

You can adjust labor times and drill types one by one or in batches, and view drill rate lists in **Maintenance**.

Adjust labor times for drilling

In **Drill Maintenance**, you can view, add and modify drill time information to match the time standards of your shop. You can also add new drill types or create a list of drill rates. The drill times set in **Drill Maintenance** are used when you directly apply them to an estimating job as additional labor.

The labor time entered in **Drill Maintenance** maintenance is applied according to the drill settings determined in the **Fabrication Information - Operations** dialog box. For more information, see Modify labor operation settings (page 496).

Note that when the thickness that you have defined for punching is greater than the punch capacity, Tekla PowerFab automatically switches to drill times.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Drill**.

   The **Drill Maintenance** dialog box opens.

   You can click an item in the navigation tree on the left to filter the drill information that is displayed.
3. According to your needs, do any of the following:

To	Do this
Add a new drill rate	a. Click **New**. b. In the **Shop Setup** list, select the shop for which you want to add the rate. c. In the **Drill Type** list, select if drilling is done automatically or manually. d. Determine the thickness and the number of holes per hour. e. Click **Add**. The new drill rate is added to the list.
Modify an existing drill rate	a. Select the drill rate that you want to modify. b. Modify the shop, drill type, thickness, and holes per hour information. c. Click **Edit** to save the changes.
Delete a drill rate	a. Select the drill rate that you want to delete. b. Click **Delete**. c. To permanently delete the drill rate, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Add drill types (page 481)

View, print, or export the drill rate list (page 482)

Modify multiple drill details

You can modify the properties of multiple items at once using **Global Edit - Selected**.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Drill**.

   The **Drill Maintenance** dialog box opens.
2. Select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. On the **Drill Maintenance** ribbon tab, select **Global Edit - Selected**.
4. Modify the properties.
5. Click **Update**.

Add drill types

If your shop uses other drill types than automatic and manual, you can add the necessary drill types to Tekla PowerFab. Then, you can use the new drill types in any estimating job.

1. In the **Drill Maintenance** dialog box, click the **Drill Maintenance** ribbon tab.
2. On the menu, select **Drill Type Maintenance**.
3. In the **Drill Type Maintenance** dialog box, click **New**.
4. Add a description and abbreviation for the drill type.
5. In the **Labor Group** list, select which labor group the drill type belongs to.

   The selection determines where Tekla PowerFab saves the labor time used in drilling. Normally, drill times are saved to the **Punch** labor group.
6. Click **Add**.

   The new drill type is created and will be available in **Drill Maintenance**.

   Note that the new drill type will only be visible and available for filtering in the **Drill Maintenance** dialog box once you create a drill rate with the new drill type.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for drilling (page 480)

View, print, or export the drill rate list

When you are making changes to drill times in **Drill Maintenance**, having a list of the existing drill rates organized by drill type can be helpful. You can either view the drill rate list in the **Tekla PowerFab Report Viewer**, print the list, or export the list to another file format.

1. While in the **Drill Maintenance** dialog box, click the **Drill Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. Do any of the following:

To	Do this
View the drill rate list	• In the **Report Selection** dialog box, click **View**.
Print the drill rate list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.

To	Do this
	b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the drill rate list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for drilling (page 480)

Manage punching

You can adjust labor times and punch types one by one or in batches, and view punch rate lists in **Maintenance**.

Adjust labor times for punching

In **Punch Maintenance**, you can view, add, and modify punch time information to match the time standards of your shop. If necessary, you can also add new punch types or create a list of punch rates. The punch times set in **Punch Maintenance** are used when you directly apply them to an estimating job as additional labor.

Note that when the material thickness exceeds the punch capacity, Tekla PowerFab automatically switches to drill times. You can modify the punch

capacity in the **Fabrication Information - Operations** dialog box. For more information, see Modify labor operation settings (page 496).

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Punch Maintenance**.
3. In the **Punch Maintenance** dialog box, do any of the following according to your needs.

To	Do this
Add a new punch rate	a. Click **New**. b. In the **Shop Setup** list, select the shop for which you want to add the rate. c. In the **Drill Type** list, select if punching is done automatically or manually. • Use **Automatic** for automated equipment. • Use **Manual** for punch by an iron worker. d. Determine the thickness and the number of holes per hour. e. Click **Add**. The new punch rate is added to the list.
Modify an existing punch rate	a. Select the punch rate that you want to modify. b. Modify the shop, punch type, thickness, and holes per hour information. c. Click **Edit** to save the changes.
Delete a punch rate	a. Select the punch rate that you want to delete. b. Click **Delete**. c. To permanently delete the punch rate, click **Yes** in the confirmation dialog box.

See also

Add punch types (page 485)

View, print, or export the punch rate list (page 485)

Modify multiple punch details

You can modify the properties of multiple items at once using **Global Edit - Selected**.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Punch**.

   The **Punch Maintenance** dialog box opens.

2. Select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. On the **Punch Maintenance** ribbon tab, select **Global Edit - Selected**.
4. Modify the properties.
5. Click **Update**.

See also

Manage punching (page 483)

Add punch types

If your shop uses other punch types than the existing ones, you can add the missing punch types in **Punch Type Maintenance**. Then, you can use the new punch types in any estimating job.

1. While in the **Punch Maintenance** dialog box, click the **Punch Maintenance** ribbon tab.
2. On the menu, select **Punch Type Maintenance**.
3. In the **Punch Type Maintenance** dialog box, click **New**.
4. Add a description and abbreviation for the punch type.
5. In the **Labor Group** list, select which labor group the punch type belongs to.

   The selection determines where Tekla PowerFab saves the labor time used in punching. Normally, punch times are saved to the **Punch** labor group.
6. Click **Add**.

   The new punch type is created and will be available in **Punch Maintenance**.

   Note that the new punch type will only be visible and available for filtering in the **Punch Maintenance** dialog box once you create a punch rate with the new punch type.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for punching (page 483)

View, print, or export the punch rate list

When you are making changes to punch times in **Punch Maintenance**, having a list of the existing punch rates organized by punch type can be helpful. You

can either view the punch rate list in the **Tekla PowerFab Report Viewer**, print the list, or export the list to another file format.

1. While in the **Punch Maintenance** dialog box, click the **Punch Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. Do any of the following according to your needs:

To	Do this
View the punch rate list	• In the **Report Selection** dialog box, click **View**.
Print the punch rate list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the punch rate list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

See also

Adjust labor times for punching (page 483)

Manage welding

You can adjust labor times and weld types one by one or in batches, and view weld rate lists in **Maintenance**.

Adjust labor times for welding

In **Weld Maintenance**, you can view, add, and modify weld time information to match the time standards of your shop. If necessary, you can also add new weld types or create a list of weld rates. Weld times are used when included in an estimating job within a labor code, but they may also be directly applied to an estimating job as additional labor.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Maintenance** --> **Weld**.
3. In the **Weld Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a new weld rate	a. Click **New**. b. In the **Shop Setup** list, select the shop for which you want to add the rate. c. In the **Weld Type - Process** list, select the weld type and process. • Use **Automatic** options for automated equipment. • Use **Semi-Automatic** options for wire feed machines. • Use **Manual** options for stick welding. d. Determine the thickness, rate per hour, material weight per foot, and cost per pound. e. Click **Add**. The weld rate is added to the list.
Modify an existing weld rate	a. Select the weld rate that you want to modify. b. Modify the shop, weld type and process, thickness, rate per hour, weight, and cost information according to your needs. c. Click **Edit** to save the changes.
Delete a weld rate	a. Select the weld rate that you want to delete. b. Click **Delete**.

To	Do this
	c. To permanently delete the weld rate, click **Yes** in the confirmation dialog box.

See also

Add weld types (page 488)

View, print, or export a weld rate list (page 489)

Modify multiple weld details

You can modify the properties of multiple items at once using **Global Edit - Selected**.

1. Go to **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Weld**.

   The **Weld Maintenance** dialog box opens.
2. Select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. On the **Weld Maintenance** ribbon tab, select **Global Edit - Selected**.
4. Modify the properties.
5. Click **Update**.

Add weld types

If your shop uses other weld types than the existing ones, you can add the missing weld types in **Weld Type Maintenance**. Then, you can use the new weld types in your estimating jobs.

1. While in the **Weld Maintenance** dialog box, click the **Weld Maintenance** ribbon tab.
2. On the menu, select **Weld Type Maintenance**.

   The **Weld Type Maintenance** dialog box opens.
3. Click **New**.
4. Type a type description, a type abbreviation, a process description, and a process abbreviation for the weld type.

   The type description forms the first part of the weld type description, while the process description forms the second part. The two parts of the description are connected with a hyphen.

   Similarly, the type abbreviation and the process abbreviation together form the abbreviation of the weld type. The two parts of the abbreviation are connected with a hyphen.

5. In the **Labor Group** list, select in which labor group the weld type belongs to.

   The selection determines where Tekla PowerFab saves the labor time used in welding. Normally, labor time spent on full penetration welding is saved to the **FpWeld** labor group, while other weld times are saved to the **Weld** labor group.

6. In the **Weld Type Mapping** field, type any weld descriptions that should be mapped to this weld type when importing weld information.

   Type each additional weld description on a separate line.

7. Click **Add**.

   The new weld type is created and will be available in **Weld Maintenance**.

   Note that the new weld type will only be visible and available for filtering in the **Weld Maintenance** dialog box once you create a weld rate with the new weld type.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Adjust labor times for welding (page 487)

View, print, or export a weld rate list

When you are making changes to weld times in **Weld Maintenance**, having a list of the existing weld rates organized by weld type can be helpful. You can either view the weld rate list in the **Tekla PowerFab Report Viewer**, print the list, or export the list to another file format.

1. While in the **Weld Maintenance** dialog box, click the **Weld Maintenance** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. In the **Report Progress** dialog box, do one of the following:

To	Do this
View the weld rate list	• In the **Report Selection** dialog box, click **View**.
Print the weld rate list	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer.

To	Do this
	c. Click **Print**. d. Click **Yes**.
Export the weld rate list	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

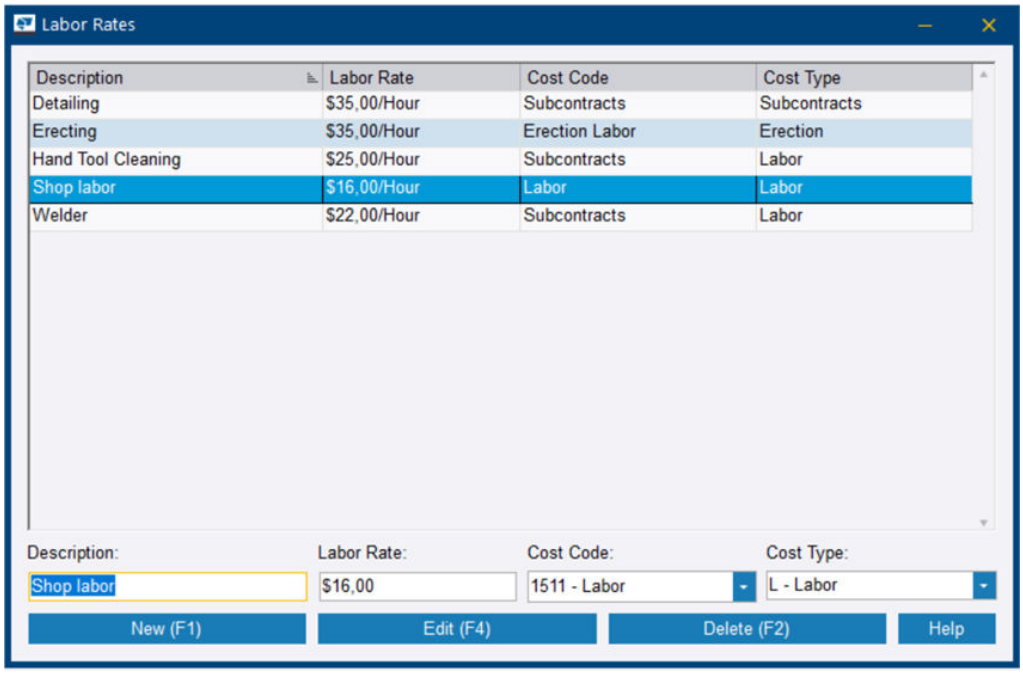
Adjust labor times for welding (page 487)

Create and modify labor rates

We recommend that you create different labor rates that match the fabrication functions and rates of your shop. By modifying labor rates to match those of your shop, you can ensure that Tekla PowerFab calculates the prices in your estimates as accurately as possible.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Labor Rates**.

The **Labor Rates** dialog box opens.



The dialog box displays the current rates per hour applied to various roles, where they can also be edited.

3. Do any of the following:

To	Do this
Add a new labor rate	a. Click **New**. b. Type a description and a price per hour. c. Define **Cost Code** and **Cost Type**. d. Click **Add**.
Modify an existing labor rate	**Note**: The **Detailing** and **Erecting** labor codes cannot be renamed or deleted. a. Select a labor rate in the list. b. Modify the description and price per hour. c. Modify **Cost Code** and **Cost Type**. d. Click **Edit** to save the changes.
Delete a labor rate	**Note:** The **Detailing** and **Erecting** labor codes cannot be renamed or deleted. a. Select a labor rate in the list. b. Click **Delete**. c. To permanently delete the labor rate, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

To modify where each labor rate is used, see Create, modify, and delete labor groups (page 462).

The labor rate assignments will be used on all summary reports that show the labor cost. For a breakdown of the labor rates, use the **Labor Rate Summary** report or the **Estimate Summary** option. For more information, see View, email, export, and print estimating reports (page 538) and Estimate summary (page 535) .

Any changes in the cost codes and cost types are reflected in **Cost Code Assignments**. See Assign and view default cost codes and cost types (page 495).

See also

Create an estimating job (page 509)

Adjust standard shop information (page 493)

Manage estimate statuses

Estimate statuses indicate the level of completion of estimate items. By using estimate statuses, you can quickly view the situation of each estimating job. You can also color-code the material items in an IFC model in Trimble Connect for Windows according to their estimate statuses. Tekla PowerFab contains four preloaded status indicators, but you can modify the list of statuses according to your needs: you can add, modify, deactivate, and delete estimate statuses.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Estimate Status Maintenance**.
3. In the **Estimate Status Maintenance** dialog box, do any of the following:

To	Do this
Add a new estimate status	a. Click **New**. b. Type a description for the status. c. In the **Purpose** list, select a purpose for the status. d. Click **Add**.
Set the default estimate status	a. Select a status in the list. b. Select the **Default** checkbox.

To	Do this
	c. Click **Save**. The new default estimate status is marked with an asterisk (*).
Deactivate an estimate status	If you deactivate an estimate status, it will no longer be available for estimates. However, you can activate the status again at any time. a. Select a status in the list. b. Clear the **Active** checkbox. c. Click **Save**. To re-activate the estimate status, select the **Active** checkbox again.
Modify an existing estimate status	a. Select a status in the list. b. Modify the description, purpose, and other properties according to your needs. c. Click **Save**.
Delete an existing estimate status	a. Select a status in the list. b. At the bottom of the dialog box, click **Delete**. c. To permanently delete the estimate status, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

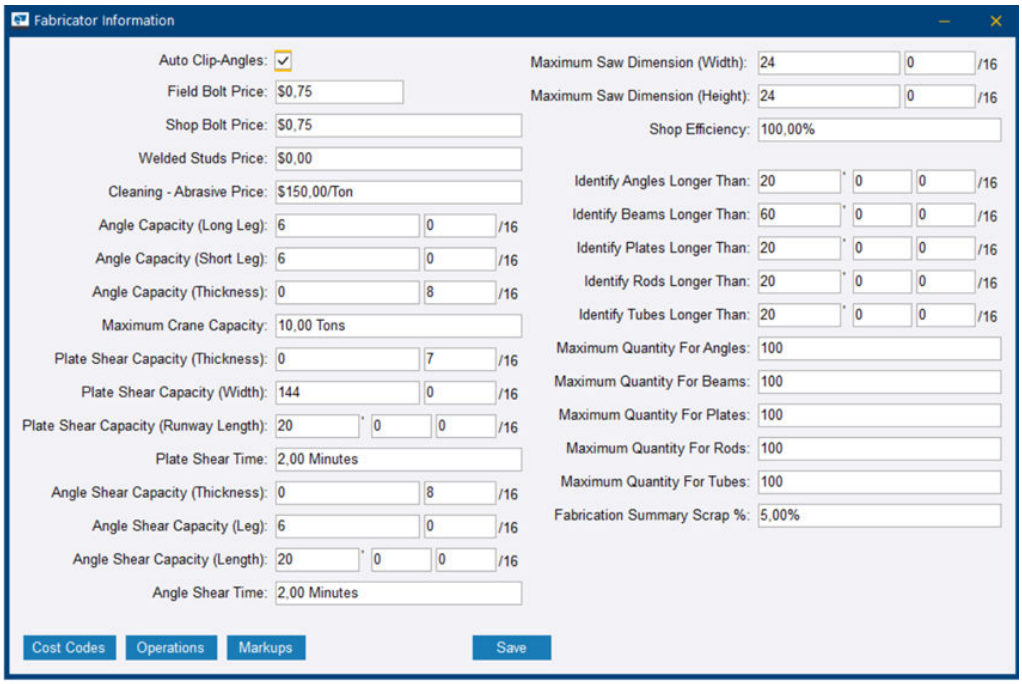
Color-code estimating items in the IFC model (page 593)

Adjust standard shop information

You can adjust all standard shop information according to your shop's actual hourly rates, pricing, equipment capacity, and efficiency in **Fabricator Information**.

When you set the standard shop information correctly, Tekla PowerFab is able to make more accurate calculations for your estimates. The sub dialog boxes of **Fabricator Information** also allow you to modify shop operations, labor rates, and markups percentages.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Fabricator Information**.



3. In the **Fabricator Information** dialog box, modify the settings to match your shop standards.

   In the following table, see details on some of the shop standard settings:

Option	Description	Further information
Auto Clip-Angles	When selected, Tekla PowerFab uses the standard clip settings, automatically adding the labor and materials for them according to the labor code.	To modify the standard clips, see Manage standard clips (page 474).
Identify [Items] Longer Than	The maximum length allowed for the named items	When the item length exceeds this value, Tekla PowerFab adds it into the **Problem Summary Sheet** report.
Maximum Quantity For [Items]	The maximum number allowed for the named items	When the item quantity exceeds this value, Tekla PowerFab adds it into the **Problem Summary Sheet** report.
Shop Efficiency	The shop efficiecy percentage used in all future estimating jobs	The shop efficiency percentage affects the labor time and can be used in different ways. For example, it may be

Option	Description	Further information
		useful to set a lower percentage if your shop is fabricating miscellaneous items instead of structural ones. Note that the shop efficiency can be manually changed for each job. Existing estimating jobs are not affected by changing the efficiency percentage. The percentage can exceed 100 percent. For example, changing the shop efficiency to 125% will reduce the standard labor time by 20%, whereas using the shop efficiency of 75% will add 33% to the standard labor time.

4. Do either of the following:
   - To save the changes, click **Save**.
   - Define default cost codes, modify labor operations, or modify markup percentages.

     For instructions, see the following:
     - Assign and view default cost codes and cost types (page 495)
     - Modify labor operation settings (page 496)
     - Define default markup percentages (page 498)

See also

Create an estimating job (page 509)

Assign and view default cost codes and cost types

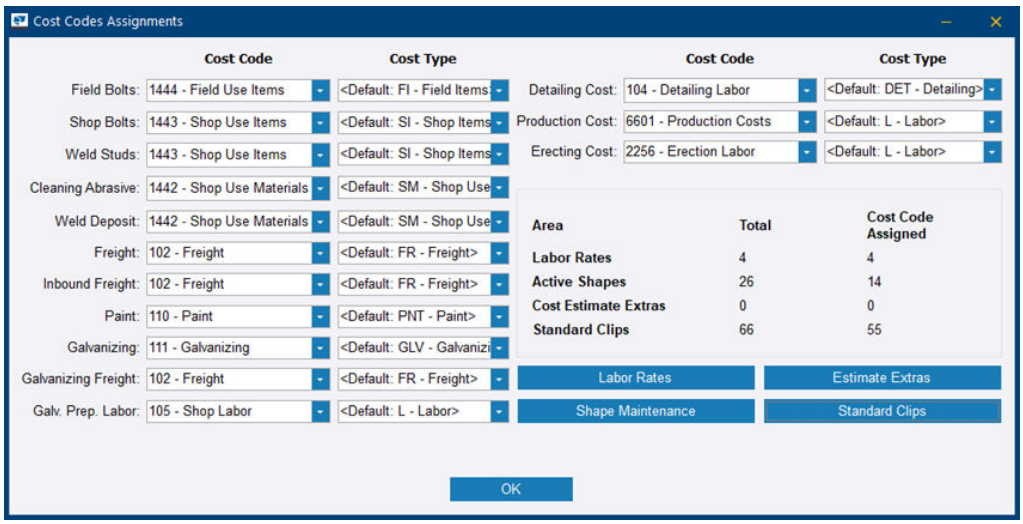
You can view, assign, and modify default cost codes and cost types across all areas within Tekla PowerFab in **Cost Codes Assignments**. You can assign default cost codes to costs that are not covered by the main steel categories or labor rates.

1. Go to **Maintenance** --> **Estimating** --> **Fabricator Information**.

   The **Fabricator Information** dialog box opens.

2. Click **Cost Codes**.

   The **Cost Codes Assignments** dialog box opens.



3. Assign or modify the cost codes and cost types.
4. Click **OK**.

   You return to the **Fabricator Information** dialog box.

5. Click **Save**.

In **Cost Codes Assignments**, you have buttons for access to other areas that you need to set up, that is, **Labor Rates**, **Estimate Extras**, **Shape Maintenance**, and **Standard Clips**.

When you make changes to the cost codes or cost types in the **Labor Rates**, for example, the changes show here in real time.

You can also change cost codes and cost types for each job separately.

See also

Manage cost codes (page 227)

Manage cost types (page 225)

Assign a cost code and cost type to an estimate item (page 543)

Assign a cost code and cost type to multiple estimate items (page 544)

Create and modify labor rates (page 490)

Create estimate extras (page 457)

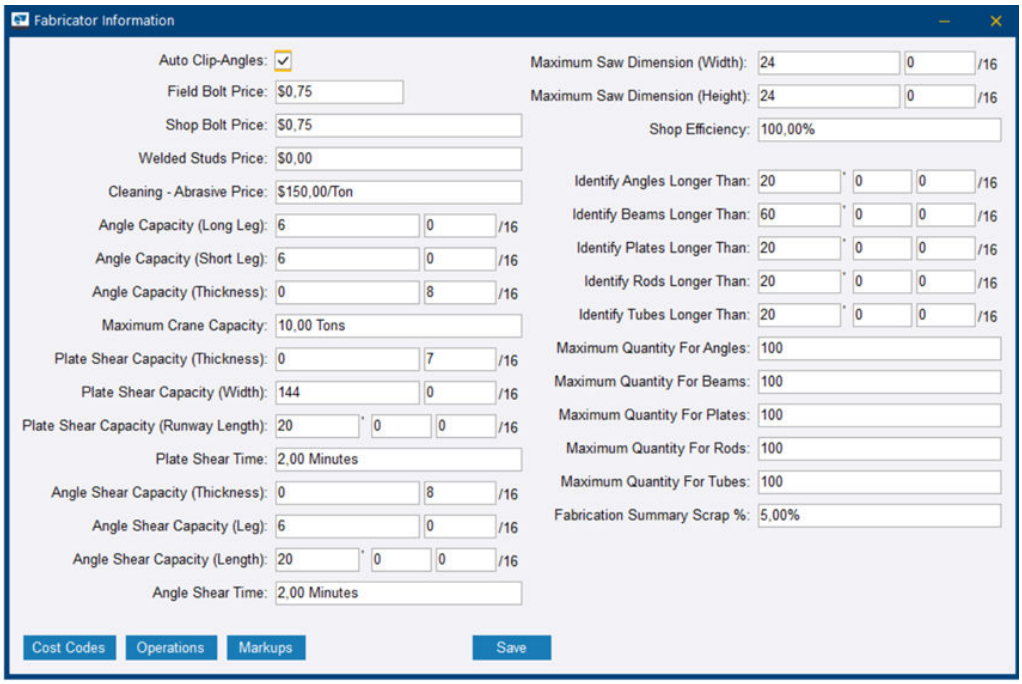
Add, modify, and delete shapes (page 304)

Modify labor operation settings

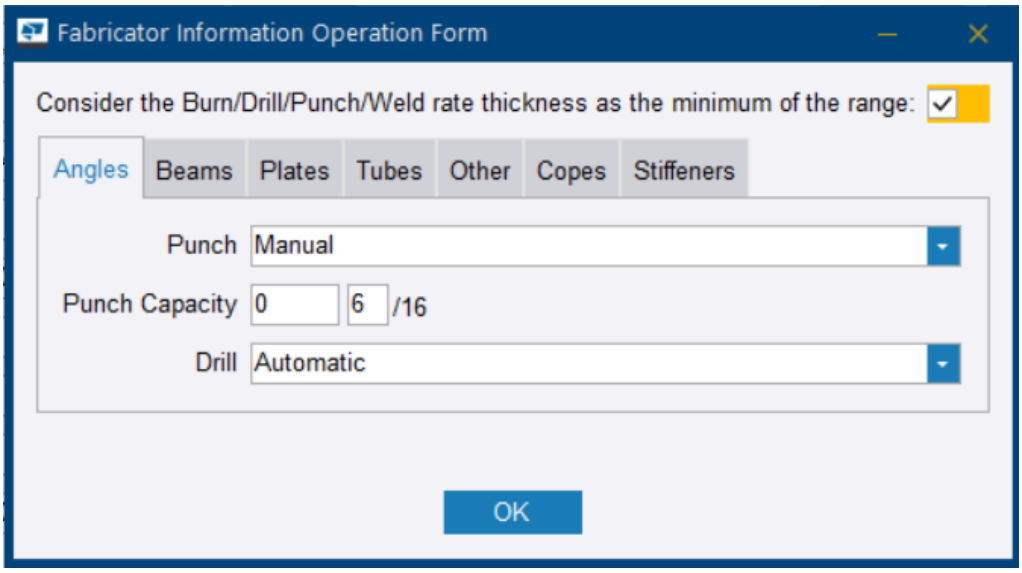
You can modify the punch and drill type and capacity for different items to match those of your shop in the **Fabricator Information Operation Form** dialog box. You can also determine how copes are burned and stiffeners are executed.

Setting an operation as automated or manual directly affects the labor time in Tekla PowerFab.

1. In the lower-left corner of the **Fabricator Information** dialog box, click **Operations**.



The **Fabricator Information Operation Form** dialog box opens.



2. Do one of the following:
   - To consider the operation rate thickness as the minimum value of the range, select he **Consider the Burn/Drill/Punch/Weld rate thickness as the minimum of the range** checkbox.
   - To consider the operation rate thickness as the maximum value of the range, clear the **Consider the Burn/Drill/Punch/Weld rate thickness as the minimum of the range** checkbox.
3. On the **Angles**, **Beams**, **Plates**, **Tubes**, and **Other** tabs, do the following:
   a. In the **Punch** list, select if punching is done automatically or manually.
   b. In the **Punch Capacity** field, type the thickness of the material.

      If an estimate requires a greater capacity, Tekla PowerFab uses the drill time information instead.

      If the material group does not have a punch process, type `0/16` to ensure that the drill operation is used instead.
   c. In the **Drill** list, select if drilling is done automatically or manually.
4. On the **Copes** tab, use the **Burn** list to select if the burn process of copes is manual, automated, or semi-automated.
5. On the **Stiffeners** tab, use the **Weld** list to select how the weld process of stiffeners is handled.
6. Click **OK**.

The changes are saved, and the **Fabricator Information Operation Form** dialog box closes.

See also

Adjust standard shop information (page 493)

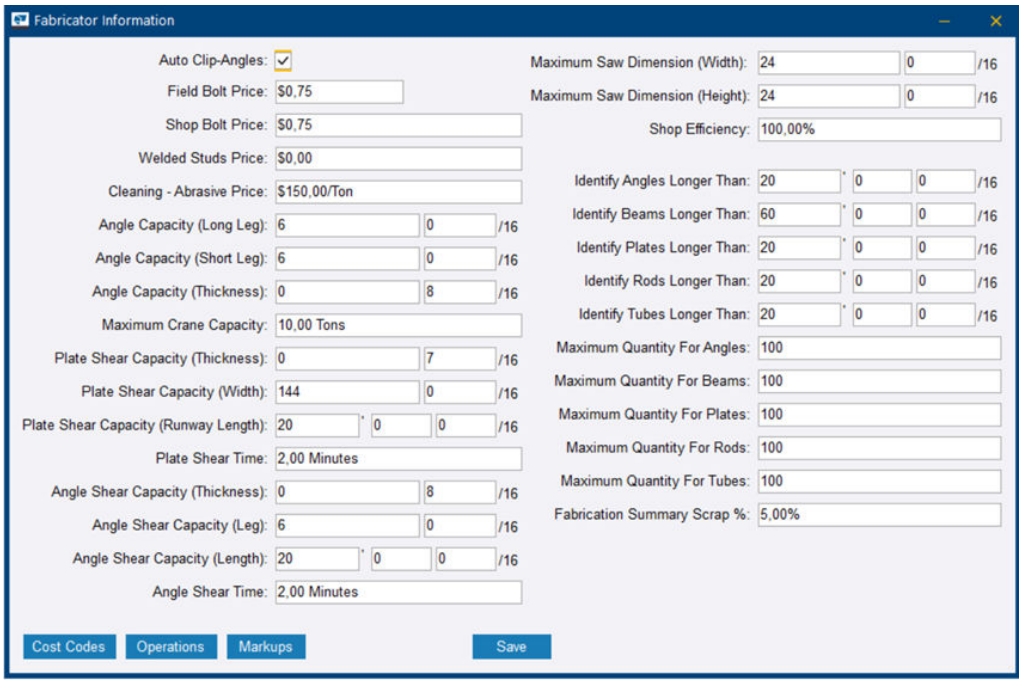
Define default markup percentages

While defining the standard shop information, you can also determine the markup percentages that you want to use in Tekla PowerFab.

There are three levels of markup: overheads, administration, and profit.

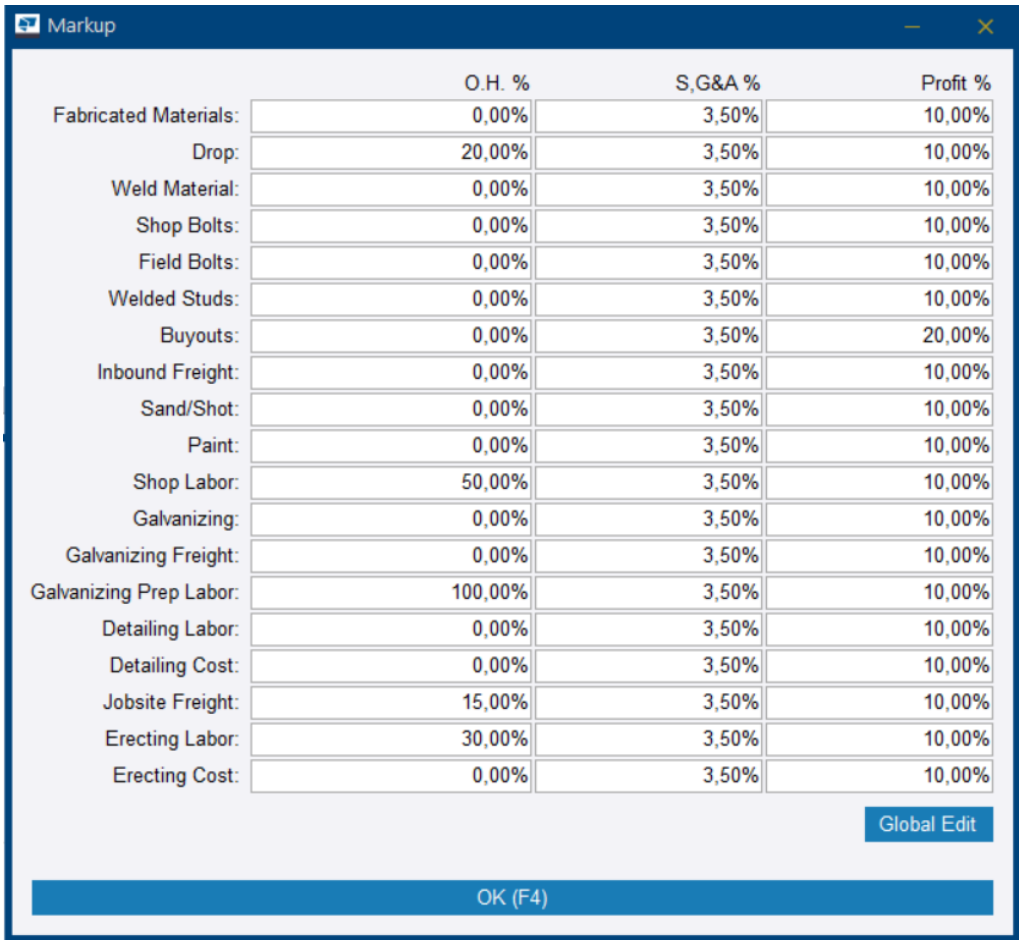
1. Go to **Maintenance** --> **Estimating** --> **Fabricator Information**.

The **Fabricator Information** dialog box opens.



2. Click **Markups**.

The **Markup** dialog box opens.



O.H. %: Overheads percentage

S,G&A %: Sales, general, and administration percentage

Profit %: Profit percentage

The list on the left: Cost groups. Every cost that you have applied to the estimate is assigned to one of these groups.

3. Modify the markup percentages in either of the following ways:

To	Do this
Add or modify percentages one by one	a. Click the field that you want to modify. b. Type a new value.
Apply the same markup percentage to multiple items at once	a. In the lower-right corner of the dialog box, click **Global Edit**. b. Click the arrow buttons to move the items that you want to modify to the **Included** list. c. Click **OK**.

To	Do this
	d. Type the markup percentage that you want to apply to all the selected items. e. Click **OK**. The markup percentages of the selected items are updated.

4. Click **OK**.

   The **Markup** dialog box closes.

5. Once you have finished modifying the properties, click **Save**.

The changes are saved, and the **Fabricator Information** dialog box closes.

See also

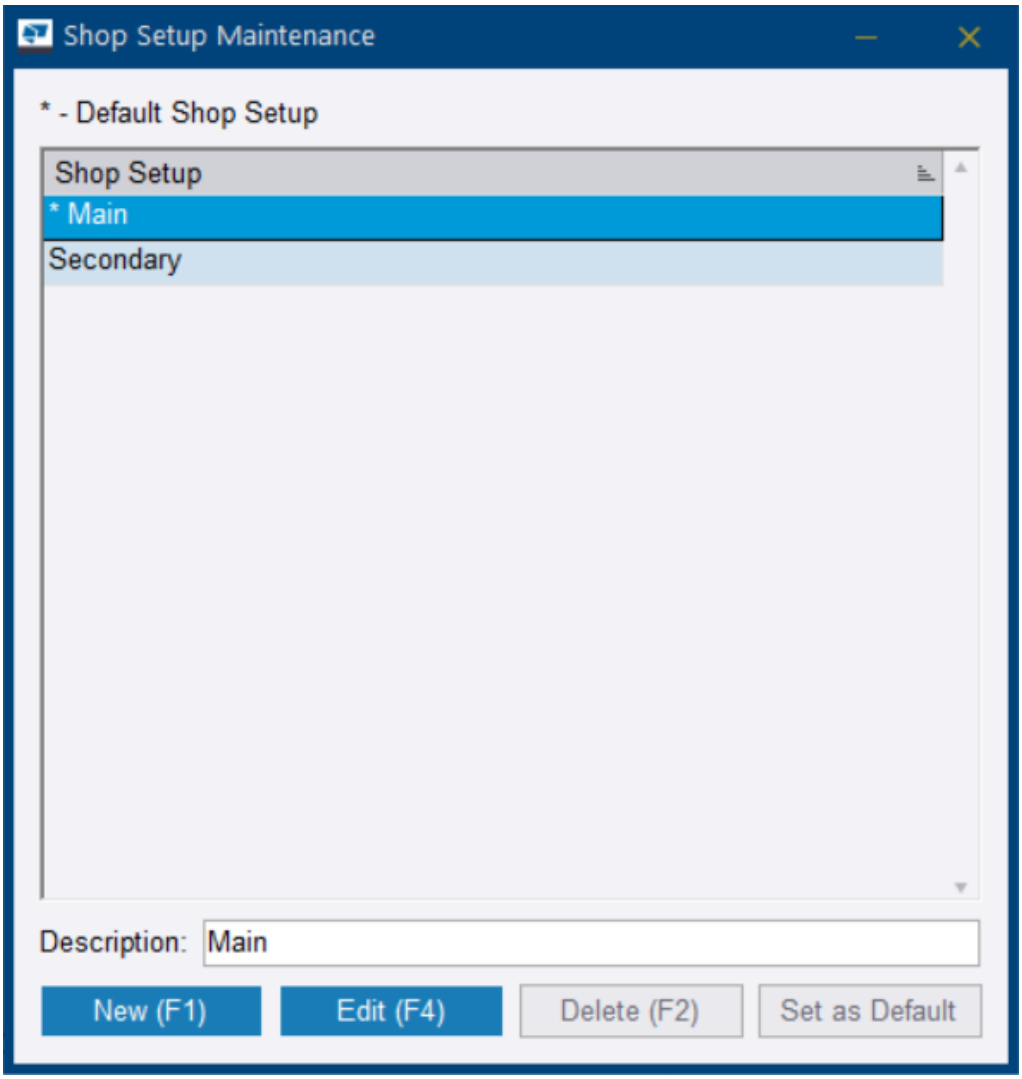
Adjust standard shop information (page 493)

Define markups for an estimating job (page 524)

Create and modify shop setups

If your company has multiple shops, you can create additional labor databases, called shop setups, in Tekla PowerFab. We also recommend that you create an additional test shop if you are still learning to use Tekla PowerFab, so that you do not accidentally make changes to the original shop.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Labor Maintenance** --> **Shop Setup Maintenance**.



3. To create a new shop setup, in the **Shop Setup Maintenance** dialog box, click **New**.
4. In the **Description** field, type a name for the shop setup.
5. If you want to use an existing shop setup as the base of the new setup, select it in the **Copy From Shop Setup** list.
6. Click **Add**.

The new shop setup is added to the list. You can now customize all the shop settings according to your needs.

TIP To modify the name of an existing shop setup, select the shop setup, rename it, and click **Edit**.

See also

Change the active shop setup (page 503)

Change the default shop setup (page 503)

Change the active shop setup

If you have created multiple shop setups, also called labor databases, in Tekla PowerFab, you can modify the **Estimating Maintenance** properties of each shop separately. If you want to modify a shop setup, you need to activate it first.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Current Shop Setup**.

   You can see the active shop setup in the **Estimating Maintenance** menu after the **Current Shop Setup** text.

   The **Select Shop Setup** dialog box opens.
3. Select a shop setup in the list.
4. Click **OK**.

The shop setup, or the labor database, is changed.

You can also change the shop setup of an individual estimating job while working in the **Estimating** module.

See also

Create and modify shop setups (page 501)

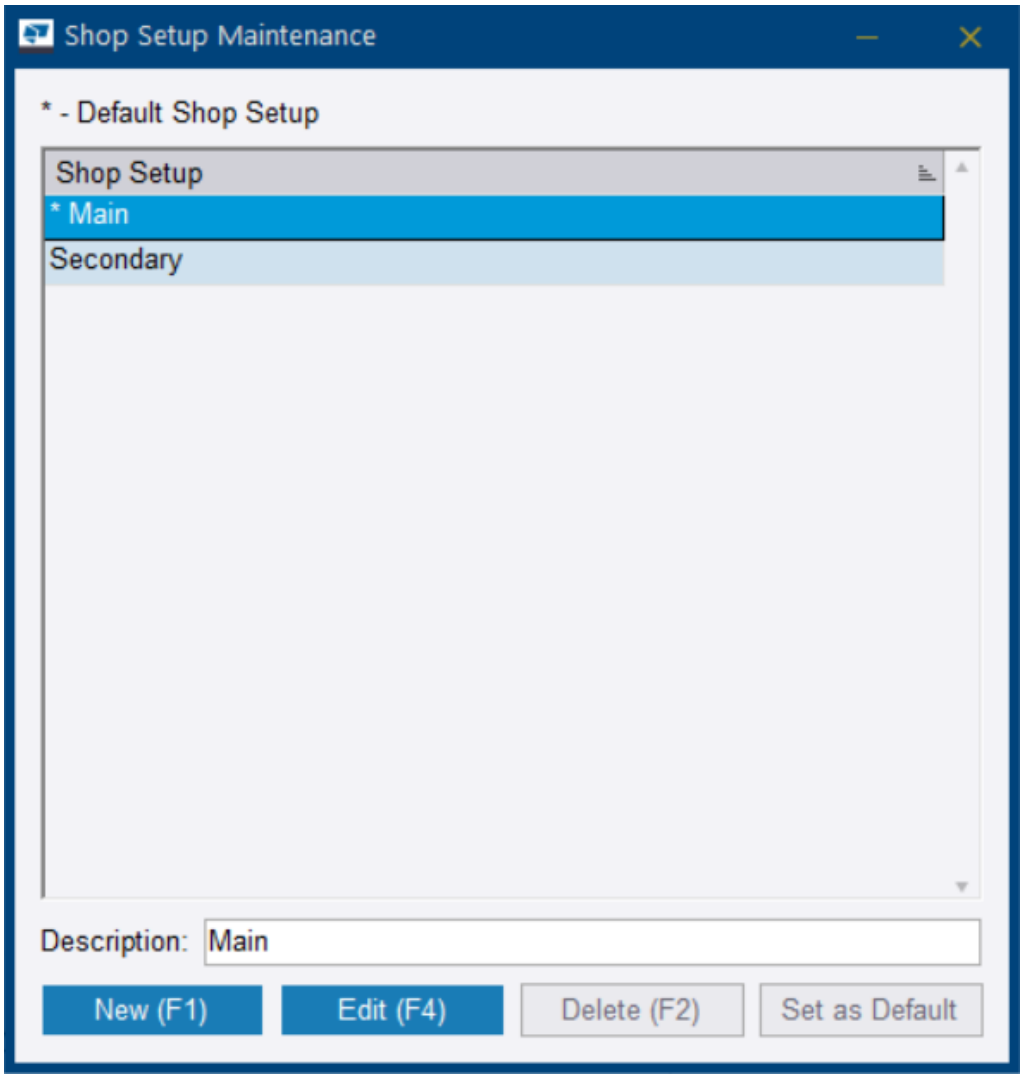
Change the default shop setup (page 503)

Change the default shop setup

The default shop setup is the default shop database used for all future estimating jobs created in Tekla PowerFab. You can change the default shop setup in **Shop Setup Maintenance**. Note that changing the default shop setup does not change the settings of existing estimating jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Labor Maintenance** --> **Shop Setup Maintenance**.

The **Shop Setup Maintenance** dialog box opens.



The current default shop setup is marked with an asterisk (*).

3. Select a shop in the list.
4. Click **Set as Default**.
5. To change the default shop setup, click **Yes** in the confirmation dialog box.

The default shop setup is updated. The new default shop is marked with an asterisk (*).

See also

Change the active shop setup (page 503)

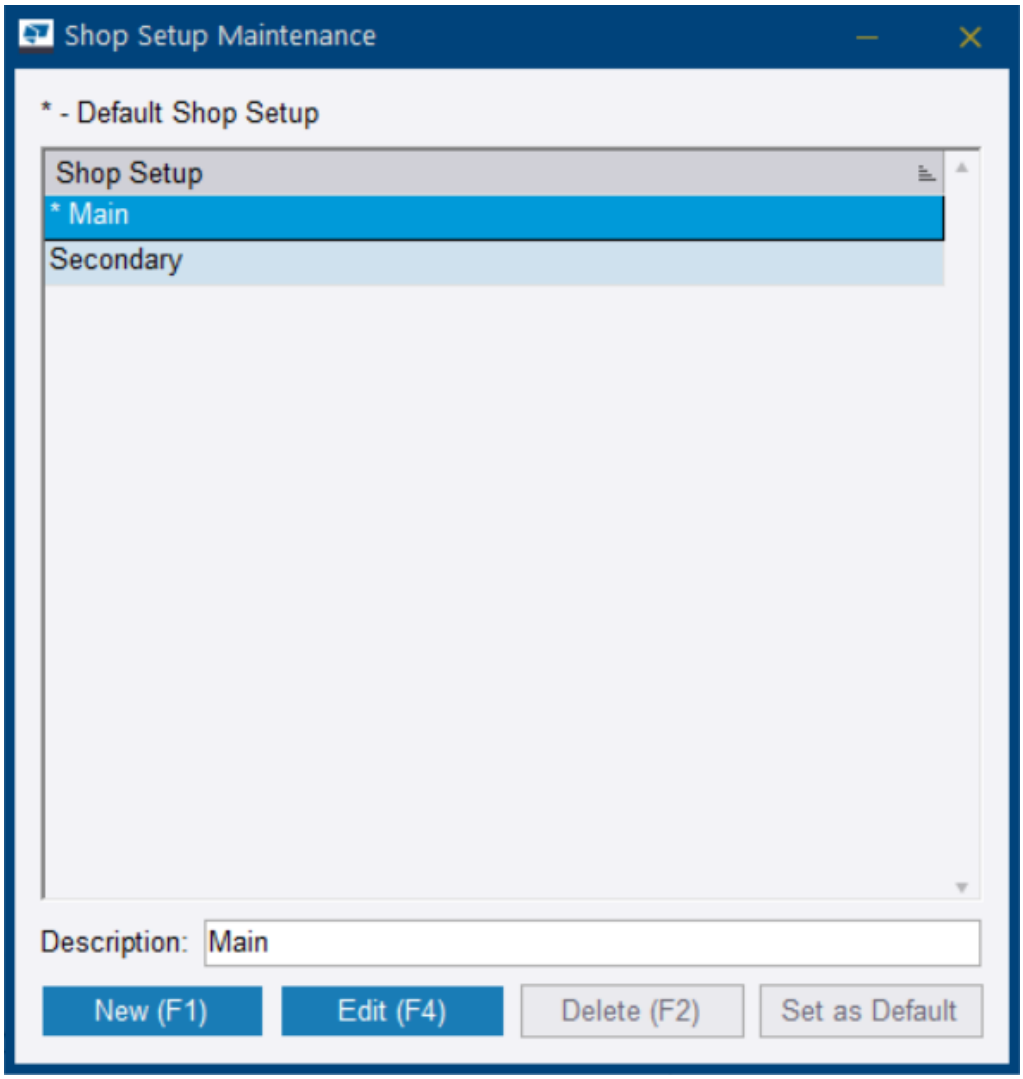
Create and modify shop setups (page 501)

Delete shop setups

You can delete any unnecessary shop setups in **Shop Setup Maintenance**. For example, you can delete a test shop database that you no longer use.

NOTE You cannot delete the current default shop, but you need to select a new shop setup first.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating Maintenance** --> **Labor Maintenance** --> **Shop Setup Maintenance**.



3. In the **Shop Setup Maintenance** dialog box, select the shop that you want to delete.
4. Click **Delete**.
5. To permanently delete the shop, click **Yes** in the confirmation dialog box.

See also

Create and modify shop setups (page 501)

Create a standard proposal setup

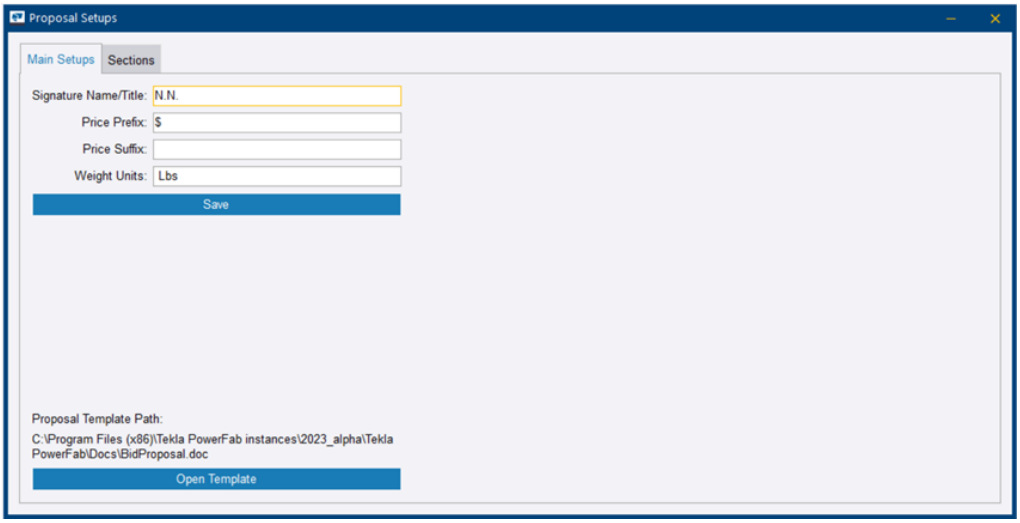
You can customize the content of bid proposals in **Proposal Setups**.

Among other things, you can create different sections for the proposals and add entries for each section. We also recommend that you modify the existing entries and delete unnecessary entries according to your needs.

You can also change the order of sections, and modify the titles and styles in the proposal. The sections and entries that you have set up are used for creating an individual bid proposal based on each estimate.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Estimating** --> **Proposal Setups**.

   The **Proposal Setups** dialog box opens.



   Main Setups tab: Controls details that affect the entire proposal

   Sections tab: Represents different sections of the proposal

3. On the **Main Setups** tab, fill in the signature name or title, price prefix, price suffix, and weight units.
4. Click **Save**.
5. Do any of the following:

Option	Description
Modify the appearance of the proposal	a. On the **Main Setups** tab, click **Open Template**. The proposal template opens in Microsoft Word. The items marked with << >> pull

Option	Description
	information from Tekla PowerFab and can be adjusted there, but the other information and font types can be changed in Microsoft Word. b. Make the necessary changes to the template. c. In the Microsoft Word window, click **File** --> **Save**. d. Save the modified proposal as a custom report in the default folder that your company uses for custom reports. To verify the default folder, go to **File** --> **Default Directories**. Note that any changes made to the proposal document outside of Tekla PowerFab are not available in Tekla PowerFab.
Add a new entry	a. On the **Sections** tab, select the section in which you want to add the new entry. b. At the bottom of the dialog box, click **New**. c. Type the desired text in the space the bottom of the dialog box. d. Click **Add**.
Modify an entry	a. On the **Sections** tab, select the section in which you want to modify an entry. b. Select the entry that you want to modify. c. Change the entry text according to your needs. d. Click **Edit** to save the changes.
Move an entry up or down in the proposal	a. On the **Sections** tab, select the section in which the desired entry is located. b. Select the entry that you want to move. c. To move the entry, click **Move Up** and **Move Down**.
Change the indentation of an entry	a. On the **Sections** tab, select the section in which the desired entry is located. b. Select the entry that you want to move. c. Click **Move Left** and **Move Right** to shift the position of the item in the proposal.
Delete an entry	a. On the **Sections** tab, select the section from which you want to delete an entry. b. Select the entry that you want to delete.

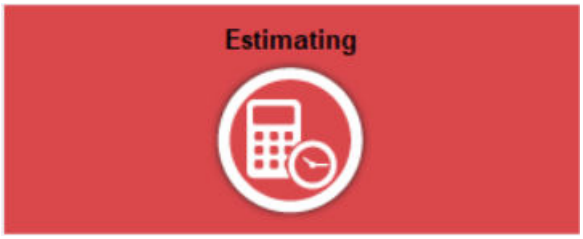
Option	Description
	c. Click **Delete**. d. To permanently delete the entry, click **Yes** in the confirmation dialog box.
Change the titles or headings of the proposal	a. On the **Sections** tab, select the section whose titles or headings you want to change. b. Do any of the following: • To change the main title of the section, type a new title in the **Title** field and click **Set Title**. • To change the style of the headings, click **Attributes** and select appropriate styles in the lists. Then, click **Save**. • To add a subtitle, click **Attributes** and type a title in the **Subtitle** field. Then, click **Save**. The subtitle appears under the title in the proposal.
Add a section	a. On the **Sections** tab, click **Add**. b. Type a title for the section. c. Click **OK**. The new tab is added at the end of the proposal setup.
Delete a section	a. On the **Sections** tab, select the section that you want to delete. b. Click **Delete**. c. To permanently delete the section, click **Yes** in the confirmation dialog box.
Move a section forward or backward in the proposal	a. On the **Sections** tab, select the section that you want to move. b. Click **Move Forward** or **Move Backward**.

6. Click **Save**.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

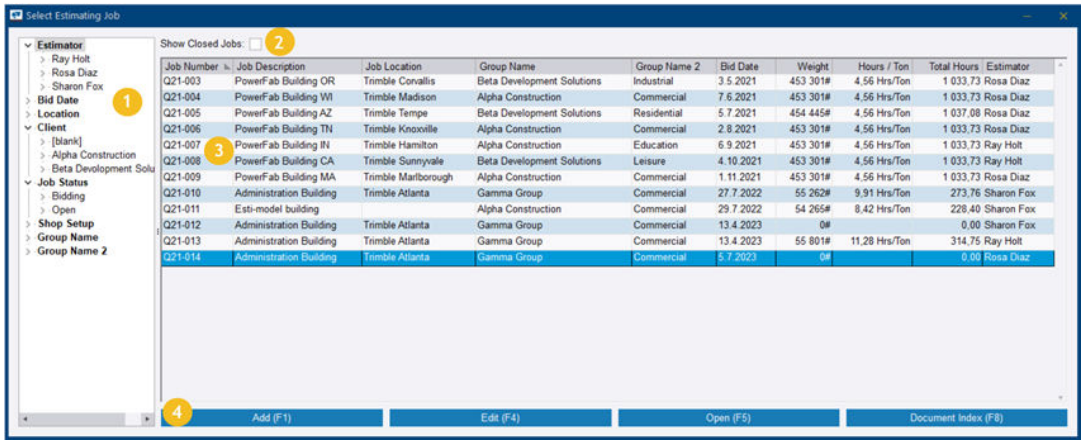
7.2 Open the Estimating module

To start creating estimates, open the **Estimating** module.

- At the top of the Tekla PowerFab window, click the **Estimating** button.



The **Select Estimating Job** dialog box opens. You can view all existing jobs



(1) Navigation tree: Use to filter out relevant jobs.

(2) Show Closed Jobs: Select to show jobs whose statuses are set to **Closed**.

(3) Existing jobs

(4) Buttons for creating a new job, editing and opening existing jobs, and modifying the documents attached to a job.

Create an estimating job

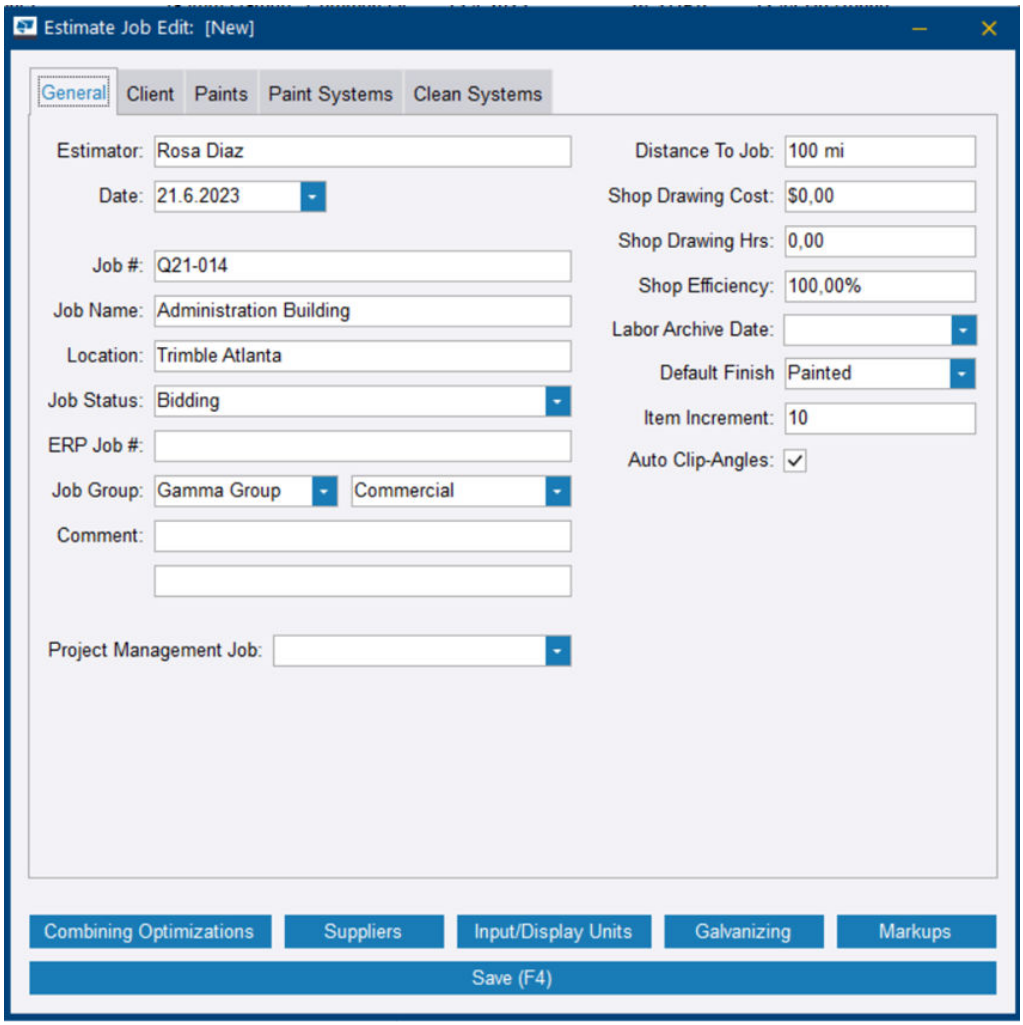
To create a new job, you need to define a few properties.

1. Open the module.

   The **Select <Module> Job** dialog box opens.

2. Click **Add**.

   The **<Module> Job Edit** dialog box opens.



Continue to defining the properties on the tabs.

By clicking the buttons, you can find more settings.

NOTE Defining job-specific properties is optional. If you do not define job-specific properties, Tekla PowerFab uses the default properties defined in **Maintenance** --> **Company Standards**.

Define general settings

1. In the **<Module> Job Edit** dialog box, select the **General** tab.
2. Add or modify the properties as needed.

Option	Description
Estimator	The name of the estimator. You can sort estimating jobs based on the estimator.

Option	Description
Date	The date on which the bid is due. Tekla PowerFab automatically uses the date when you create the job, but you can select a different date in the associated calendar.
Job #	The job number is prepopulated with the next sequential number based on the last created estimate. You can change this.
Job Name	The description of the job.
Location	The town or city where the job takes place.
Job Status	The job is either still in progress (**Open**) or it has been finished (**Closed**). Estimating has three additional default values, **Bidding**, **Awarded**, and **Lost**. You can filter the **Select <Module> Job** dialog box by **Job Status**, so that only open jobs are shown. See also Job status maintenance (page 276).
ERP Job #	The accounting system job number. Typing the accounting system job number in the **ERP Job #** field allows you to link material items properly when you export information to an accounting system, such as Trimble Viewpoint.
Job Group	Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs. Either type a job group directly in the blank field, or select an existing job group.
Comment	Any additional comments on the job.
Distance To Job	The distance to the job site. Tekla PowerFab uses the distance to calculate freight costs if you have selected the **Freight Per Mile** option

Option	Description
	in **Freight Maintenance**. For more information, see Modify freight pricing (page 441).
Shop Drawing Cost	The total cost of the shop drawings. The value is used in the fabrication summary report.
Shop Drawing Hrs	The total labor hours used in shop detail drawings. The value is used in the fabrication summary. Costs automatically include the **Detailing** labor rate set in **Labor Rates**.
Shop Efficiency	The efficiency percentage of the shop, used for calculating labor times. Shop efficiency is calculated by dividing the labor times accordingly. For example, typing `75%` would increase overall labor times by 33.3%, whereas entering `125%` would reduce the labor times by 20%. Note that shop efficiency cannot be set to `0`.
Labor Archive Date	Allows you to select a labor archive date that holds the labor-related calculations that have been set up in **Maintenance** --> **Estimating**. The labor archive date holds the numbers for the following areas: • **Cleaning Maintenance** • **Fabricator Information** • **Labor Rates** • **Weld**, **Drill**, **Punch**, and **Burn** tables • **Labor Standards**, **Labor Operations**, and **Labor Groups**
Default Finish	The default finish used for new items in the estimating job. You can change the finish item by item.

Option	Description
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
Auto Clip-Angles	When selected, Tekla PowerFab adds standard clips in the estimating items according to their labor codes. When cleared, standard clips are not used.
Project Management Job	The project management job that is linked to the job. By linking the job in this module and project management jobs to each other, you can share nesting results with the **Project Management** module. This way, you can save data transfer time.
Edit: **Trimble Connect Project**	The Trimble Connect project that is linked to the current estimating job. To link the estimating job to a Trimble Connect project, click **Link**, select a project in the **Link Project to Trimble Connect** dialog box, and click **Link Project**. For more information, see Use Trimble Connect with an estimating job (page 591).

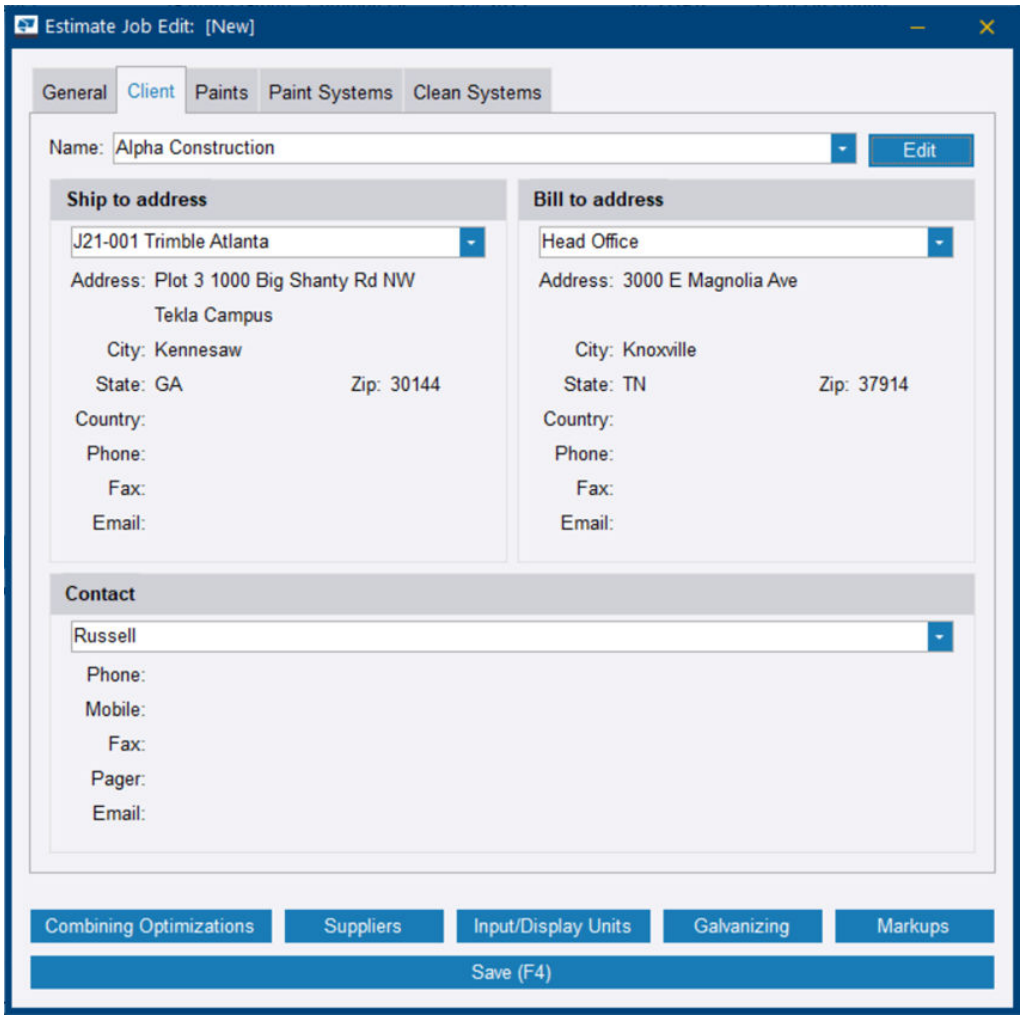
3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define client settings

On the **Client** tab, you can record the client and the primary contact for the job, which makes finding a specific estimate much easier.

1. In the **Estimate Job Edit** dialog box, select the **Client** tab.



2. Add or modify the properties as needed.

   To add or modify contacts, click **Edit**, which opens the **Address Book**.

   For information on managing contacts, see Manage the address book (page 199).

3. Do either of the following:

   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.

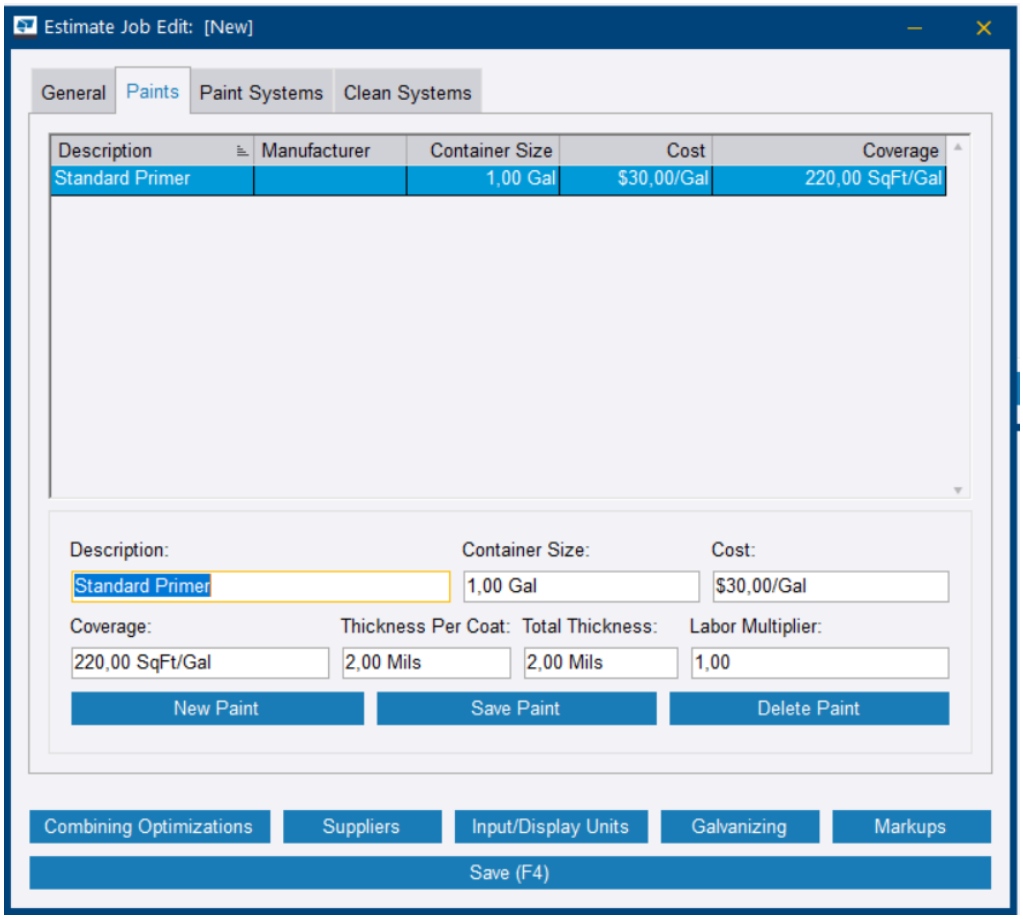
   - Continue to add or modify properties.

Define paint settings

On the **Paints** tab, you can create and edit the paints used for an estimating job.

For information on creating default paint settings, see Manage default paint types and paint systems (page 439).

1. In the **Estimate Job Edit** dialog box, select the **Paints** tab.



2. Add or modify the properties as needed.

To	Do this
Add a new paint type	a. Click **New Paint**. b. Define the paint properties. c. Click **Add Paint**. The new paint type is added.
Modify a paint type	a. Select the paint type. b. Modify the properties. c. Click **Save Paint**. Your changes are saved.
Delete a paint type	a. Select the paint type. b. Click **Delete Paint**.

To	Do this
	c. To permanently delete the selected paint type, click **Yes**. The paint type is permanently deleted.

3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

The paints listed on the **Paints** tab are applied to all painted items by default unless you assign a paint system to them.

Define paint systems

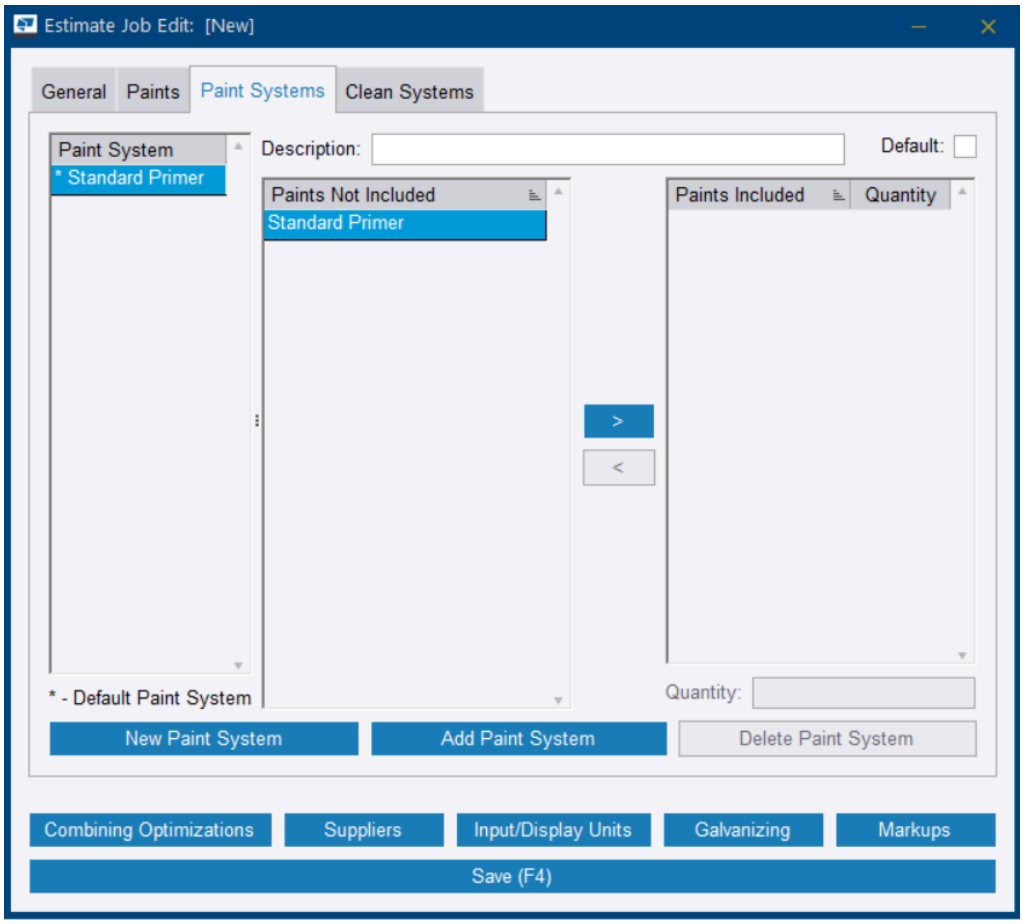
You can define a default paint system that consists of one or more paint products, for each of which you can define the number of coats needed. When you select a paint system in an estimating job, Tekla PowerFab calculates the applicable costs and adds them to the estimate.

If you do not assign a paint system to the items on the **Paint Systems** tab, all paints listed on the **Paints** tab will be applied to all painted items by default.

NOTE To use job-specific paint types in paint systems, you first need to define them on the **Paints** tab in the **Estimate Job Edit** dialog box.

For information on creating default paint systems, see Manage default paint types and paint systems (page 439).

1. In the **Estimate Job Edit** dialog box, select the **Paint Systems** tab.
2. Click **New Paint System**.



3. Add or modify the properties as needed.

To	Do this
Add a new paint system	a. Click **New Paint System**. b. Type a description for the paint system in the **Description** field. c. Click the arrow buttons to move the paint types that you want to include to the **Paints Included** list. d. To change the number of coats, select an included paint type and type a new value in the **Quantity** field. e. To set the paint system as the default paint system for new estimating jobs, select the **Default** checkbox. f. Click **Add Paint System.**

To	Do this
Modify a paint system	a. Select the paint system in the list. b. Change the description, included paints, or the number of paint coats according to your needs. c. To set the paint system as the default paint system for new estimating jobs, select the **Default** checkbox. d. Click **Save Paint System**.
Delete a paint system	a. Select the paint system in the list. b. Click **Delete Paint System**. c. To permanently delete the paint system, click **Yes**.

4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define clean systems

You can create and modify job-specific clean systems.

For information on creating default clean systems, see Manage default cleaning types and clean systems (page 435).

1. In the **Estimate Job Edit** dialog box, select the **Clean Systems** tab.
2. Click **New Clean System**.
3. Type a description for the cleaning system.
4. Use the arrow buttons to move the cleaning types that you want to include in the clean system to the **Included** list.
5. To add or reduce the times each cleaning type requires, change the value in the **Quantity** field.
6. If you only want to apply the cleaning system if cleaning is included in the labor code of the item, select the **Check Labor Code For Include Cleaning** checkbox.
7. To set the clean system as the default clean system used for new items, select the **Default** checkbox.
8. Click **Add Clean System**.

After creating a job, you can attach any associated documents and add materials to it.

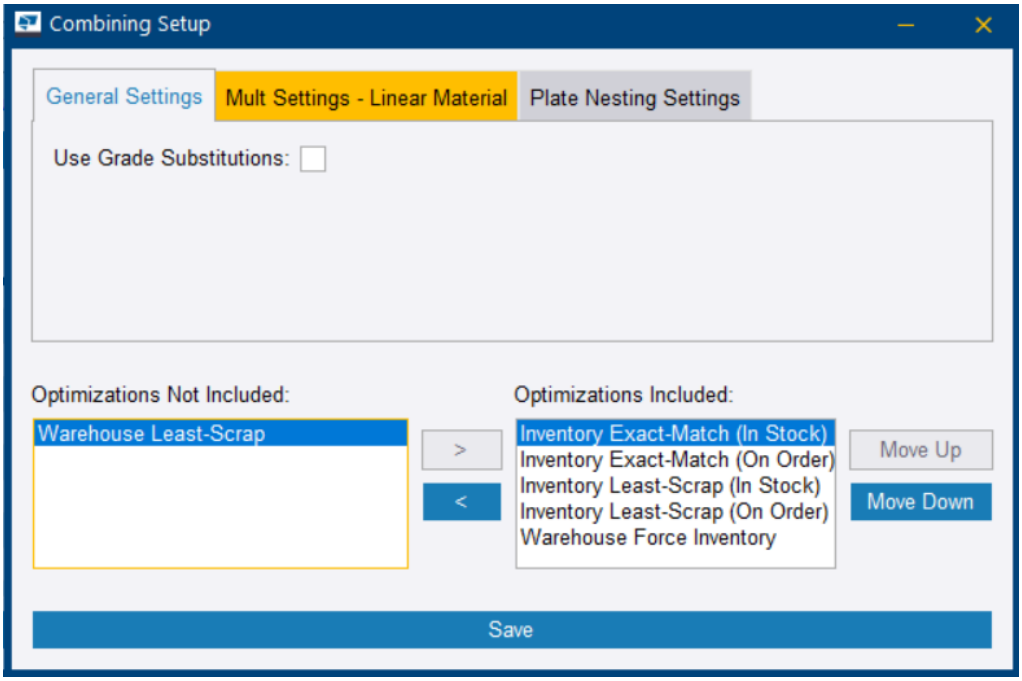
Define combining optimizations for an estimating job

You can define job-specific settings for material optimization.

You are in the **Estimating** module. You are either creating a new job or modifying an existing job in the **Estimate Job Edit** dialog box.

1. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



2. Modify the settings on the various tabs as needed.

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining

Option	Description
	run and in the supplier pricing data set or the inventory need to match each other exactly.
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.

Option	Description
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define default combining optimizations for Estimating (page 402)

Troubleshoot combining issues (page 1235)

Define suppliers for an estimating job

You can define job-specific suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material.

You are in the **Estimating** module. You are either creating a new job ormodifying an existing job in the **Estimate Job Edit** dialog box.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Click **Suppliers**.

   The **Suppliers** dialog box opens.
2. Select suppliers for each material group on the drop-down lists.
3. Click **OK**.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Create an estimating job (page 509)

Modify an estimating job (page 546)

Define default suppliers for Estimating (page 406)

Define input and display units for an estimating job

You can define input and display units for individual jobs. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

You are in the **Estimating** module. You are either creating a new job or modifying an existing job in the **Estimate Job Edit** dialog box.

1. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
2. Select the measurement system and the units of measurement on the drop-down menus.
3. Click **OK**. You return to the **<Module> Job Edit** dialog box.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved.

See also

Create an estimating job (page 509)

Modify an estimating job (page 546)

Define default input and display units for Estimating (page 402)

Define galvanizing settings for an estimating job

In the **Galvanizing** dialog box, you can modify the pricing, minimum costs and freight information that is applied to a galvanized item in a specific estimating job. If you do not want to modify these settings for a single estimating job, Tekla PowerFab will automatically use the galvanizing settings that you defined in **Estimating Company Standards**.

1. In the **Select Estimating Job** dialog box, do one of the following:
   - To define or modify galvanizing settings of a new estimating job, click **New**.

- To define or modify galvanizing settings of an existing estimating job, select the job in the list, and click **Edit**.

2. At the bottom of the **Estimate Job Edit** dialog box, click the **Galvanizing** button.
3. In the **Galvanizing** dialog box, modify the galvanizing costs, the trailer capacity, the labor prep costs per pound, and the weight percent added.
4. Click **OK** to save the changes.
5. Click **Save** in the **Estimate Job Edit** dialog box.

The changes that you made to galvanizing settings are saved for the selected estimating job.

See also

Define default galvanizing settings (page 398)

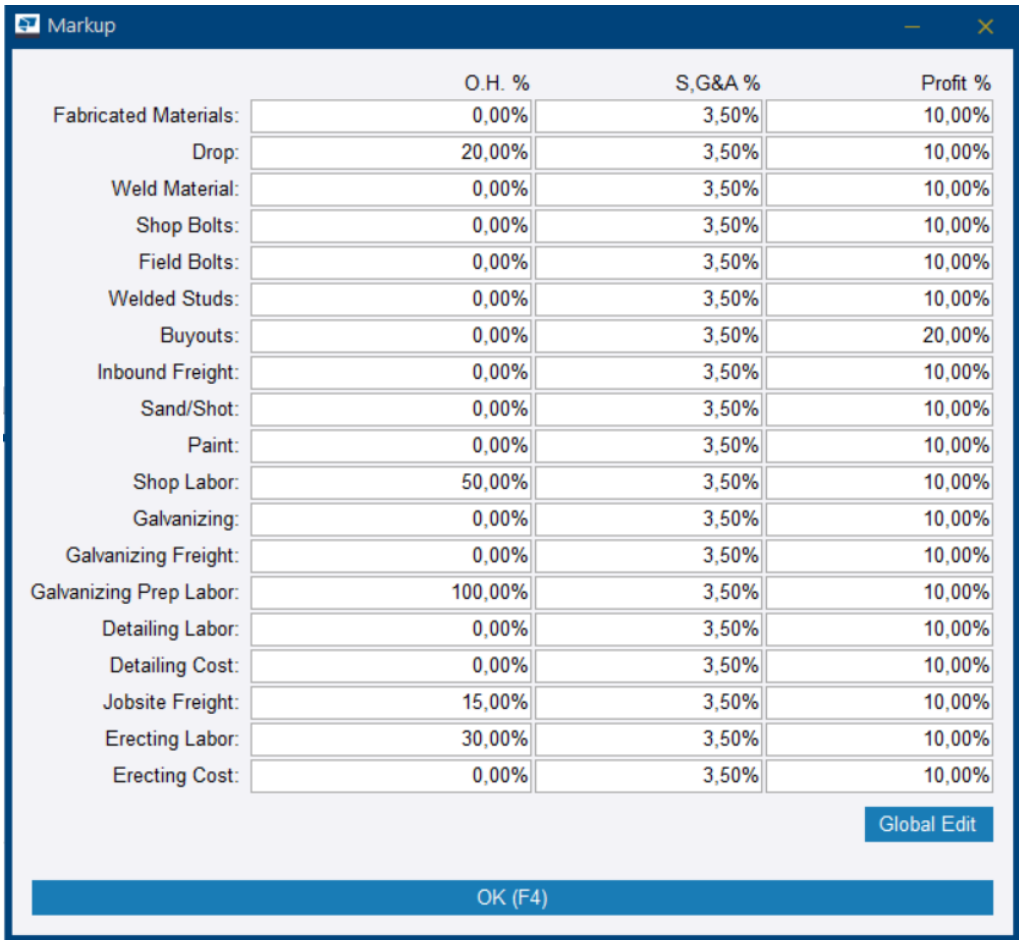
Define markups for an estimating job

There are three levels of markup: overheads, administration, and profit.

You are in the **Estimating** module. You are either creating a new job or modifying an existing job in the **Estimate Job Edit** dialog box.

1. Click **Markups**.

The **Markup** dialog box opens.



O.H. %: Overheads percentage

S,G&A %: Sales, general, and administration percentage

Profit %: Profit percentage

The list on the left: Cost groups. Every cost that you have applied to the estimate is assigned to one of these groups.

2. Modify the markup percentages in either of the following ways:

To	Do this
Add or modify percentages one by one	a. Click the field that you want to modify. b. Type a new value.
Apply the same markup percentage to multiple items at once	a. In the lower-right corner of the dialog box, click **Global Edit**. b. Click the arrow buttons to move the items that you want to modify to the **Included** list. c. Click **OK**.

To	Do this
	d. Type the markup percentage that you want to apply to all the selected items. e. Click **OK**. The markup percentages of the selected items are updated.

3. Click **OK**.

   The **Markup** dialog box closes.

4. Once you have finished modifying the properties, click **Save**.

The changes you made for the job are saved.

You return to the **Select Estimating Job** dialog box.

See also

Create an estimating job (page 509)

Define default markup percentages (page 498)

Link an estimating job to a project management job

By linking an estimating job to a project management job, you can share the labor and material information with the **Project Management** and **Production Control** modules. This allows you to compare the estimate information with the actual production information.

1. At the top of the Tekla PowerFab window, click the **Estimating** button.
2. In the **Select Estimating Job** dialog box, select the estimating job that you want to link to a project management job.
3. Click **Edit**.
4. In the **Estimate Job Edit** dialog box, click the arrow on the right side of the **Project Management Job** list, and select the desired project management job in the list.

   The project names and job numbers do not need to match.

5. Click **Save**.

Note that you also need to link the production control job to the project management job.

NOTE To unlink an estimating job from a project management job:

1. Erase the job number in the **Project Management Job** field.
2. Click **Save**.

See also

Link a production control job to an estimating job and a project management job (page 922)

Find an estimating job

You can search to find a specific job.

NOTE Sometimes sorting estimating jobs by estimator, bid date, or other properties in the navigation tree of the **Select Estimating Job** dialog box can be quicker than using the **Find Job** command.

1. In the **Select Estimating Job** dialog box, click the **Estimating** ribbon tab.
2. Select **Find Job** or press **Ctrl+F** on the keyboard.

   The **Enter Value** dialog box opens.
3. Select the job in the drop-down menu or enter the job number in the search box.
4. Click **OK**.

The selected job is highlighted. To open the job, double-click it or click **Open**.

NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

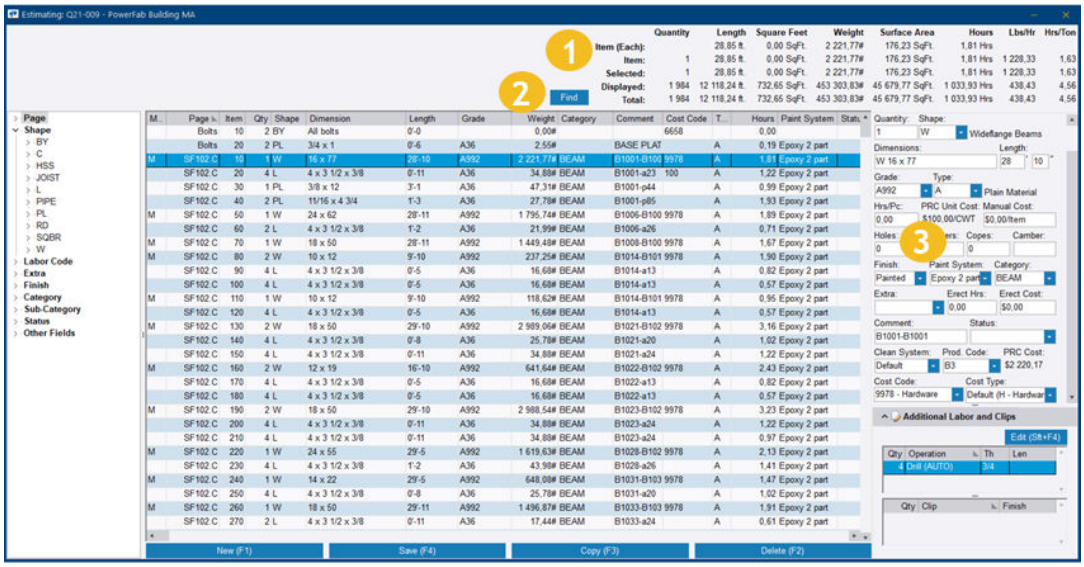
Open an estimating job

To open an existing estimating job, do the following:

1. At the top of the Tekla PowerFab window, click the **Estimating** button.
2. In the **Select Estimating Job** dialog box, select the job that you want to open.

   NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.
3. Double-click the job, or click **Open**.

The **Estimating** dialog box opens.



(1) Summary:

- The quantity, length, weight, surface area, and work time in hours for each of the selected items, all of the selected items, all items visible in the job, and the entire job.
- Pounds per hour and hours per ton calculations for the selected items, all items visible in the job, and the entire job.

(2) Find: Click to find items in the job. You can select if you want to find items of a specific shape, material grade, or material dimension, or a particular item in the job. For more information, see Find estimating items (page 565).

(3) Input fields. For details, see Estimating item properties (page 549).

You can now continue to adding new items, or modifying and deleting existing items.

See also

Filter information in the Estimating dialog box (page 528)

Create a dedicated estimating pricing file (page 540)

Add a supplier warehouse (page 297)

Manage cost codes (page 227)

Customize input fields (page 126)

Filter information in the Estimating dialog box

In addition to using the navigation tree for filtering items, you can set filters that determine which items are shown in the **Estimating** dialog box. For example, you can view labor totals by category to check averages, or view the

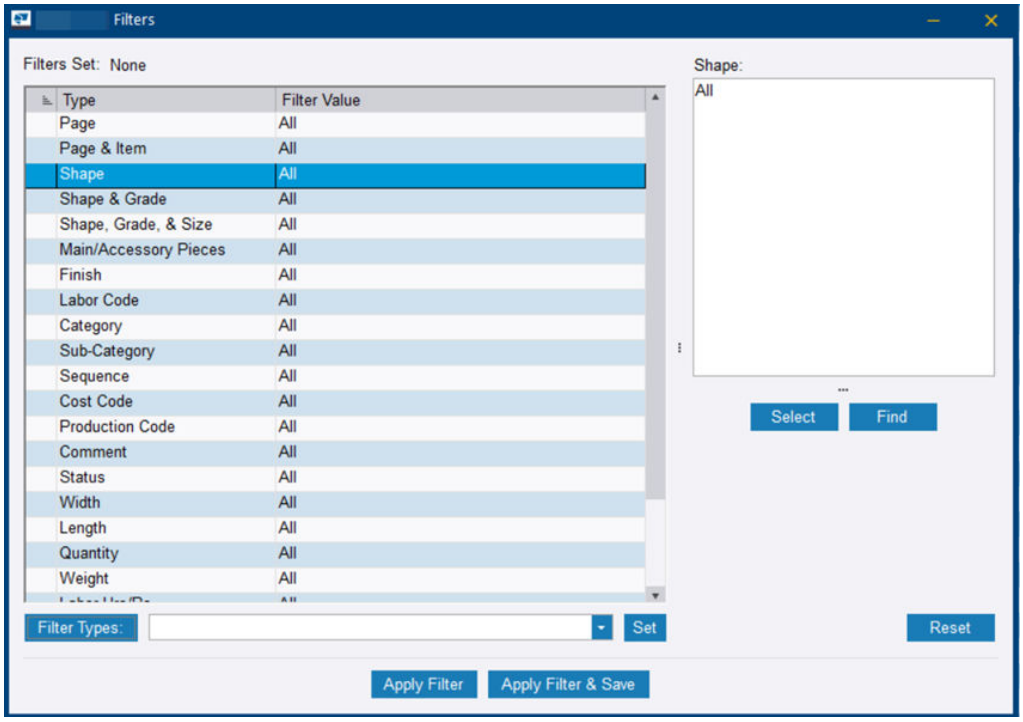
totals for items with a specific finish. You can also save the filter settings for later use.

If the **Open to Filter Selection** checkbox has been selected in **Maintenance** --> **<Module>** --> **Company Standards**, the **<Module> Filters** dialog box opens automatically when you open a job.

If the **Open to Filter Selection** checkbox has not been selected, open the **<Module> Filters** dialog box as follows:

1. In an open **Estimating** job, click the **Estimating** ribbon tab.
2. On the menu, select **Filter**.

   The **<Module> Filters** dialog box opens.



3. Select a filter type in the **Type** list and click **Select**.

   The **Filter** dialog box opens.

   For some filter types, you can also click **Find** and type the desired value in the search box to use it. This way, you do not have to scroll through all the available items.

4. Click the arrow buttons to move the items that you want to display to the **Included** list.
5. Click **OK**.

   If you want to further filter the information displayed , repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

   If you want to clear all filter settings, click **Reset**.

6. Click **Apply Filter**.

The **<Module> Filters** dialog box closes, and the items are filtered according to the settings you made.

To display all information again, click **Clear Filters** in the upper-left corner.

To create and save commonly used filters, see Create and modify module-wide filters (page 134).

View the labor times of items

Use the **View Labor Details** command to easily review the labor time of an item or a group of items, as well as the labor time of the entire estimating job. If necessary, you can override the labor time calculated by Tekla PowerFab and enter the labor time manually instead.

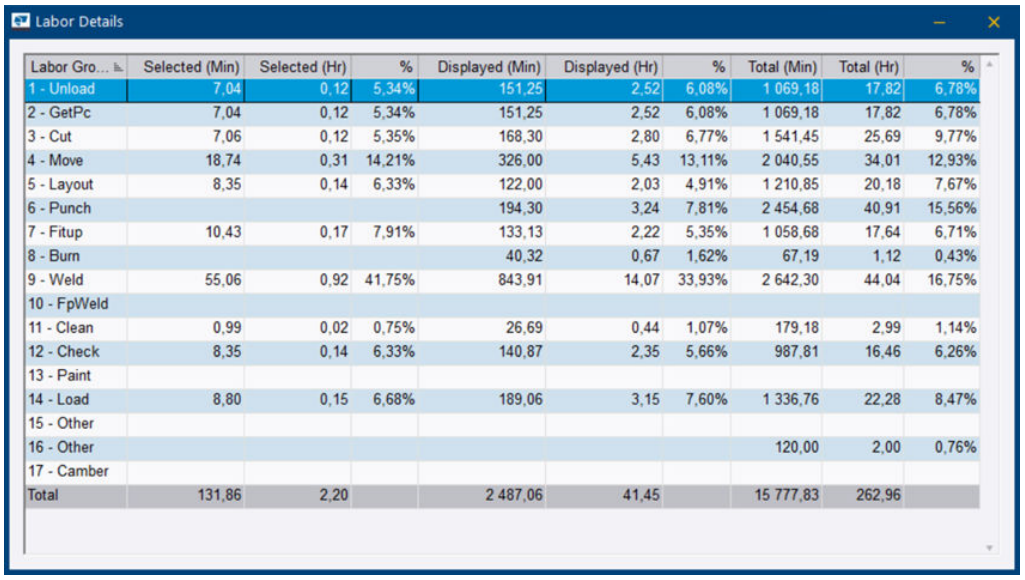
1. In the **Estimating** dialog box, select the items whose labor details you want to view.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Estimating** ribbon tab.
3. On the menu, select **View Labor Details**.

   The **Labor Details** dialog box opens.



Labor Gro...	Selected (Min)	Selected (Hr)	%	Displayed (Min)	Displayed (Hr)	%	Total (Min)	Total (Hr)	%
1 - Unload	7,04	0,12	5,34%	151,25	2,52	6,08%	1 069,18	17,82	6,78%
2 - GetPc	7,04	0,12	5,34%	151,25	2,52	6,08%	1 069,18	17,82	6,78%
3 - Cut	7,06	0,12	5,35%	168,30	2,80	6,77%	1 541,45	25,69	9,77%
4 - Move	18,74	0,31	14,21%	326,00	5,43	13,11%	2 040,55	34,01	12,93%
5 - Layout	8,35	0,14	6,33%	122,00	2,03	4,91%	1 210,85	20,18	7,67%
6 - Punch				194,30	3,24	7,81%	2 454,68	40,91	15,56%
7 - Fitup	10,43	0,17	7,91%	133,13	2,22	5,35%	1 058,68	17,64	6,71%
8 - Burn				40,32	0,67	1,62%	67,19	1,12	0,43%
9 - Weld	55,06	0,92	41,75%	843,91	14,07	33,93%	2 642,30	44,04	16,75%
10 - FpWeld									
11 - Clean	0,99	0,02	0,75%	26,69	0,44	1,07%	179,18	2,99	1,14%
12 - Check	8,35	0,14	6,33%	140,87	2,35	5,66%	987,81	16,46	6,26%
13 - Paint									
14 - Load	8,80	0,15	6,68%	189,06	3,15	7,60%	1 336,76	22,28	8,47%
15 - Other									
16 - Other							120,00	2,00	0,76%
17 - Camber									
Total	131,86	2,20		2 487,06	41,45		15 777,83	262,96	

Labor Details summarizes the amount of fabrication labor against each labor group for the selected items, the displayed items, and the entire estimate. It also displays the contribution percentage of each labor group.

4. If you want to enter labor time manually, do the following:

   a. In the table, select and right-click the labor time that you want to override.

b. In the context menu, click **Set Manual Override**.

c. Select if you want to enter the labor time in hours or minutes.

d. Enter the desired labor time in the **Manual Override** field.

e. Click **Set Manual Override**.

The items whose values have changed are highlighted with yellow. Other items affected by the change are highlighted with blue.

If you want to remove the manual override and revert to the labor time calculated by Tekla PowerFab, right-click the item and select **Remove Manual Override**.

5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

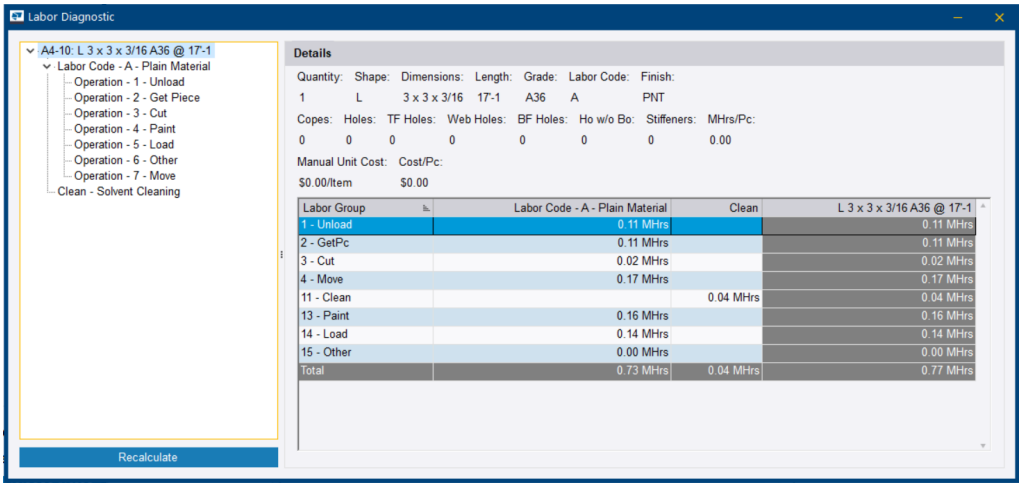
To print, email, or export the information in the **Labor Details** dialog box, create a **Labor Detail** report. For more information on creating reports, see View, email, export, and print estimating reports (page 538).

View and modify the labor time of an item

In the **Labor Diagnostic** dialog box, you can view and modify the labor time of an item. The labor time is divided into categories based on the different labor operations used for the item.

1. In the **Estimating** dialog box, double-click the item whose labor time you want to view.

   The **Labor Diagnostic** dialog box opens, displaying all labor time used on the selected item.



   In the navigation tree on the left, you can view all labor operations that the selected item goes through. These labor operations are defined by the labor code that is used. Each labor operation has buttons that allow you to access the settings that affect how the labor operation is calculated.

2. In the navigation tree, select a labor operation to view the labor operation details.
3. According to your needs, do any of the following:

To	Do this
Add a labor time manually	a. Right-click the labor time that you want to modify. b. In the context menu, click **Set Manual Override**. c. Select if you want to enter the labor time in hours or minutes. d. Enter the desired labor time in the **Manual Override** field. e. Click **Set Manual Override**. The manual override is created. Note that the override only applies to the selected item, not other items of the same shape, grade and size. If you want to remove the manual override and revert to the labor time calculated by Tekla PowerFab, right-click the item and select **Remove Manual Override**.

View and modify labor codes, labor operations, labor standards, or labor factors	**Note**: Modifying the following settings will affect all new estimating jobs.
	• Click one of the buttons on the right side of the dialog box:
	  • Click **Labor Codes** to modify labor codes.
	  For more information, see Adjust labor codes (page 447).
	  • Click **Labor Operations** to modify the labor operations.
	  For more information, see Create, modify, and delete labor operations (page 464).
	  • Click **Labor Standards** to view and modify labor times for

To	Do this
	different material dimensions and shapes. For more information, see Adjust labor standards (page 467). • Click **Labor Factors** to modify the extrapolation factors used for specific labor operations. For more information, see Adjust quantity and weight labor factors (page 472).

4. Click **Recalculate**.

   Tekla PowerFab applies the changed values.

5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
6. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
7. On the menu, select **Recalculate Estimate**.

   Tekla PowerFab recalculates the current estimating job to ensure accurate total values. The changes you made are applied to the estimating job.

View all changes in an estimating job

Tekla PowerFab records every change made in the system. This is useful because you can view all changes made in the current estimating job at once. You can filter the information to see changes made by a particular user, or on a particular date. You can also print or export the list of changes.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user	a. Select the **User** filter type and click **Select**. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. Select the **Transaction Date** filter type and click **Select**.

To	Do this
	b. Do one of the following: • Enter the start (**Minimum**) and end (**Maximum**) dates. • Select the **Expression** checkbox for the start or end date. Then, select the base date and select how many more or less days will be taken into account. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Selection** dialog box, do one of the following:

To	Do this
View the list of changes	• Click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed.

To	Do this
	f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View, email, export, and print estimating reports (page 538)

Estimate summary

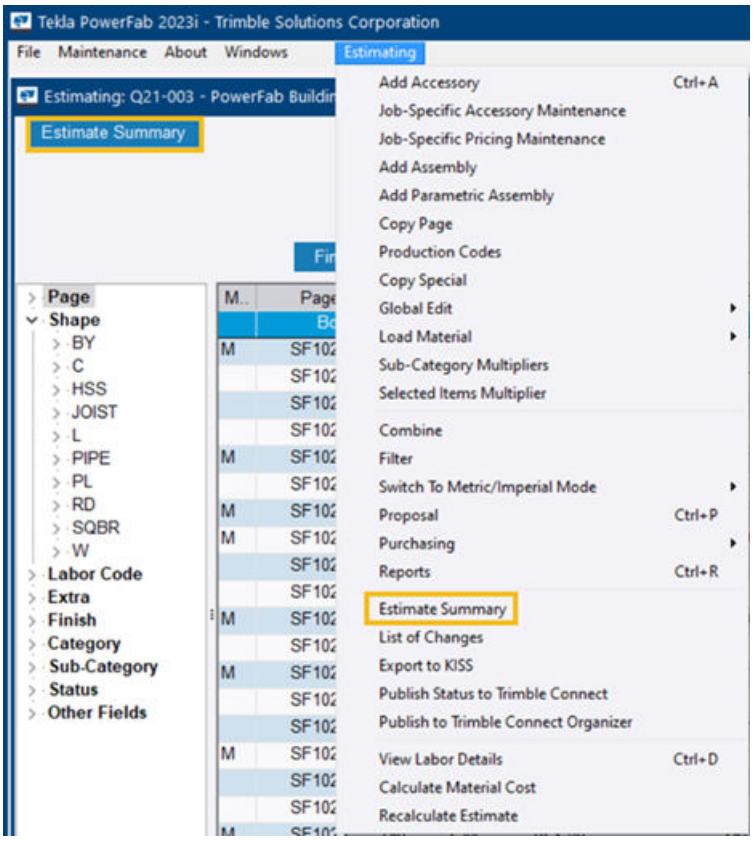
The estimate summary allows you to see the planned and actual estimates in real time, to input and modify items, and to fully control your final results without leaving the estimate job.

You can view the real-time final estimate results when you are viewing the estimate job. While in the summary, you can view and modify data that affect the final numbers. You can add adiitonal lines for costs such as subcontracts and plant hires. You can group the data efficiently and view the summary by cost codes and cost types. The summary report allows you to recalculate and lock prices.

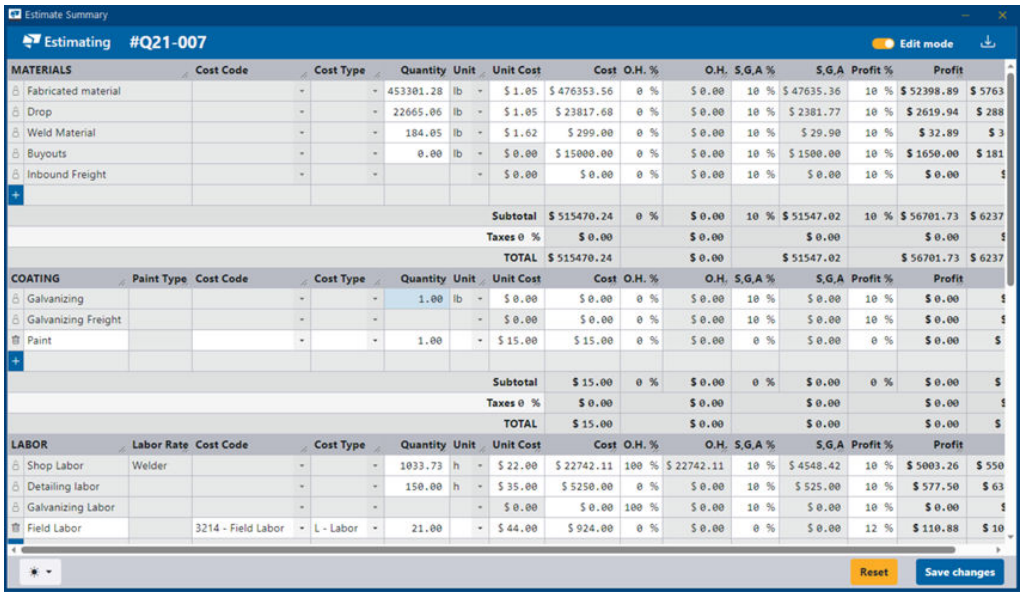
NOTE
- Estimate summary is available only to customers that have a Tekla PowerFab Go license.
- The Administrator must add the user's **PowerFab Go Site Address** in **File --> Administration**. See Define Tekla PowerFab administration settings (page 91).
- The user must have a Tekla PowerFab subscription.

Create a live summary

1. Open a estimating job.
2. Do either of the following:
   - In the **Estimating** dialog box, click **Estimate Summary**.
   - On the **Estimating** ribbon tab, click **Estimate Summary**.



The **Estimate Summary** dialog box opens.



Within the estimate summary, you can enter, override and remove fields. You can enter fields manually or by selecting commonly used items (estimate additional items) from a drop-down list.

3. To change from read mode to edit mode, toggle the **Edit mode** switch.

   The editable fields turn white. The read-only rows are grey.

4. Add or modify the data.

   You can add line items by clicking the plus button. You can add an item manually or by selecting standard items from a drop-down list.

   The modified cells turn yellow.

5. Click **Save changes**.

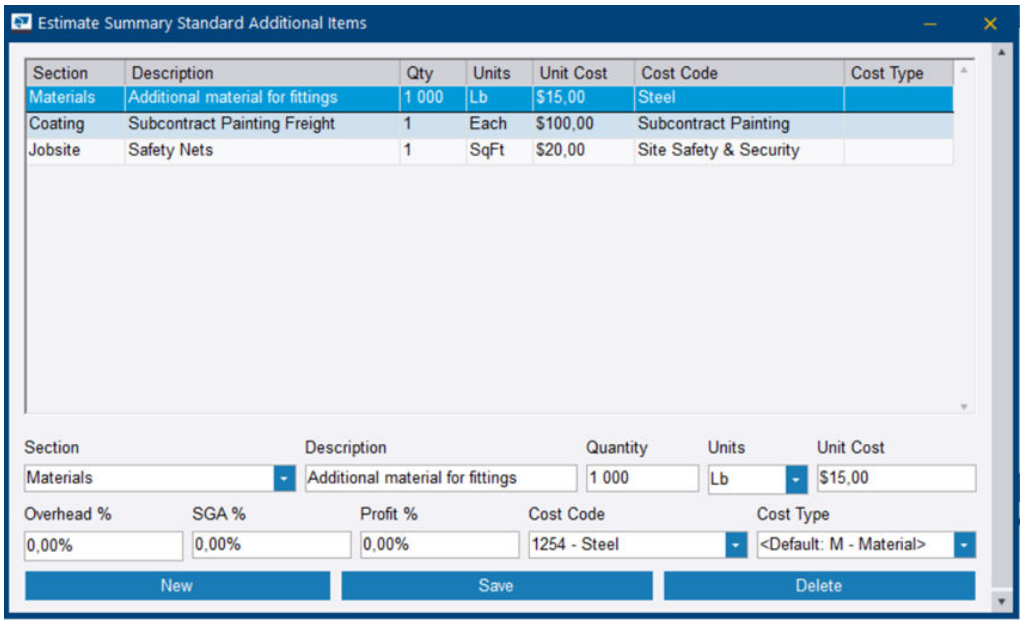
   The changes you made are available in the estimate.

Create a standard item in estimate summary

You can create standard items that have default values. You can add these standard items from a drop-down list in estimate summaries. To create a new standard item, do the following:

1. Go to **Maintenance** --> **Estimating** --> **Estimate Summary Additional Items**.

   The **Estimate Summary Additional Items** dialog box opens.



2. Click **New**.
3. Define the values for the item.
4. Click **Add**.

Download, save, and share the summary

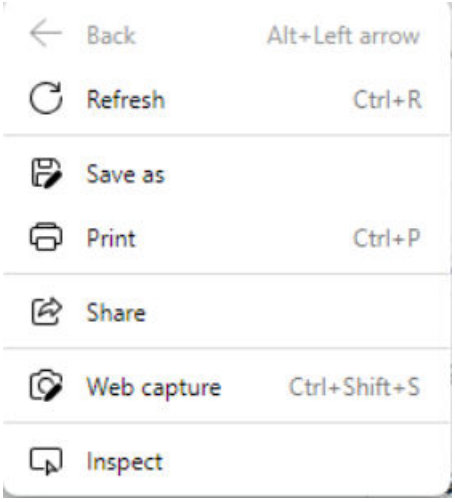
- To download and save the summary in Microsoft Excel format, do the following:

1. Click the dowload button  in the upper-right corner.
2. To open the file, click **Open file**.



3. Click **Save**.

- To save the summary in .html format, print, or share the summary do the following:
  1. Right-click the summary.
  2. In the menu that opens, select the desired option.



  3. Follow the instructions on the screen.

View, email, export, and print estimating reports

You can create multiple types of reports based on your estimating jobs. Some examples of available reports are estimates, fabrication summaries, job summaries, and material pricing reports. Once you have selected which report you want to create, you can view, email, export, or print it.

To create estimating reports, do the following:

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only display certain items in the report, in the **Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:

- Click the arrow buttons to move the items that you want to include in the reports to the **Included** list.
- Type the maximum and minimum values for the items that you want to include in the reports.

5. Click **OK**.

   Repeat steps 3 to 5 for every filter type that you want to use.

6. In the **Use Pricing Data From** list, select which pricing information you want to use.
7. Click **Make Report**.

   The **Report Selection** dialog box opens.

   Note the purpose of the following buttons:

   - If you want to include your company logo in the report, select the **Show Company Logo** checkbox.
   - If you want to modify the filters you set for the reports, click **Change Filters**.
   - If you want to modify the design of a report, select it and click **Design**.
   - If you want to create a customized report list, click **Edit Report Types**.

   According to your needs, see any of the following instructions:

View or email estimating reports

1. Select the report that you want to view.

   To select more than one report at a time, hold down the **Ctrl** key while clicking reports in the list.

2. In the **Report Selection** dialog box, click **View**.
3. In the **Tekla PowerFab Report Viewer** window, view the report.
4. If you want to attach the report to a Microsoft Outlook email, click either **Email Excel** or **Email PDF** at the top of the window.

   Microsoft Outlook automatically opens and creates a new email. You can then modify the message, add the recipient, and send the email.

5. Once you have viewed all necessary report details, click **Close** in the upper-right corner of the **Tekla PowerFab Report Viewer**.

Print estimating reports

1. Select the report that you want to print.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **+** and **-** buttons to increase or decrease the number of copies.

3. Click **Print**.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Tekla PowerFab prints the report.

Export estimating reports

1. Select the report that you want to export.

   To select more than one report at a time, hold down the **Ctrl** key while clicking reports in the list.
2. In the **Report Selection** dialog box, click **Export**.
3. In the **Export Format** list, select an export format.
4. Click **Browse**.
5. Modify the file name as needed.
6. Browse to the location where you want to save the exported file, and click **Save**.
7. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
8. To open the file after exporting it, select the **Open Exported Document** checkbox.
9. In the **Report Selection** dialog box, click **Export**.

Tekla PowerFab saves the report to the selected location in the selected file format.

See also

Customize reports (page 141)

Create a dedicated estimating pricing file

You can create a new pricing maintenance file that can be used exclusively for estimating. This allows you to maintain your own list of default material pricing that will not impact any other department.

1. Go to **Maintenance** --> **Pricing Maintenance**.

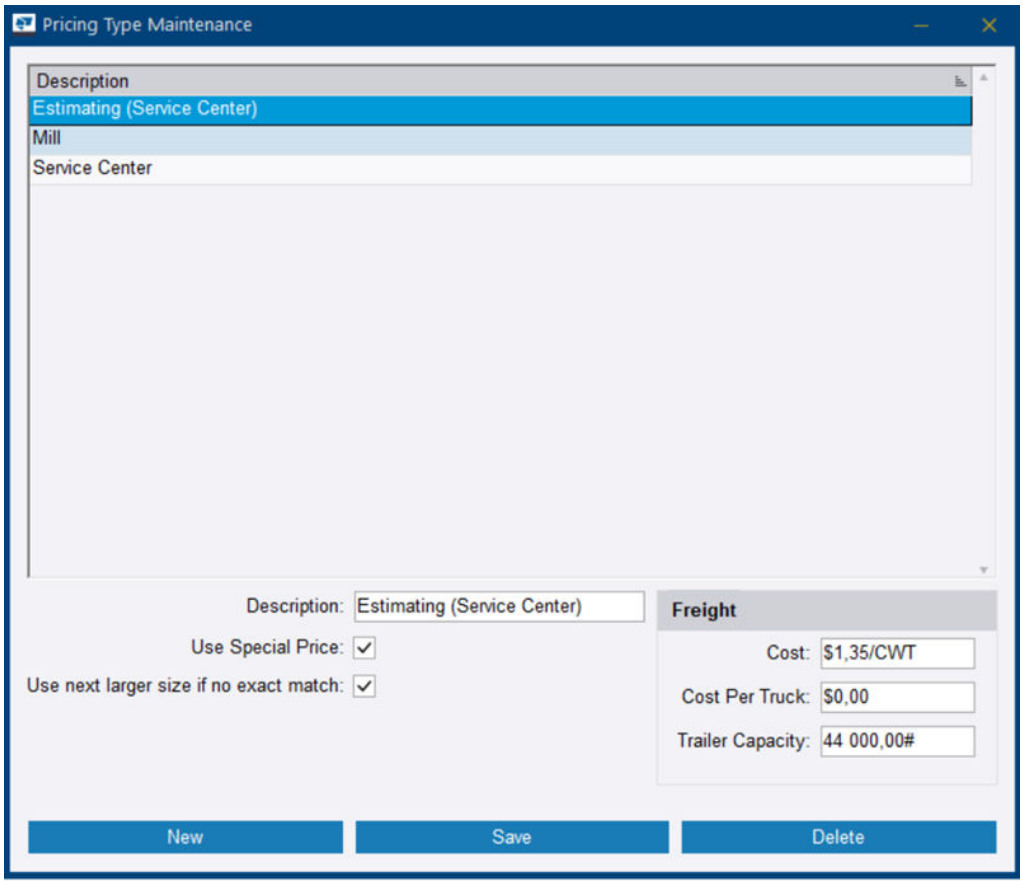
   The **Select Supplier** dialog box opens.
2. Click the **Pricing** ribbon tab. and select **Pricing Type Maintenance**

   The **Pricing Type Maintenance** dialog box opens.
3. Click **New**.
4. In **Description**, type, for example, **Estimating (Service Center)**.

5. In **Copy Data From**, select **Service Center**.

   This copies all the standard lengths and pricing information into the new estimating pricing file.

6. Click **Add**.



7. Close the **Pricing Type Maintenance** dialog box to return to the **Select Supplier** dialog box.

   Now you can open the **Estimating (Service Center)** to modify pricing. See Modify lengths and pricing (page 285).

8. To use the dedicated pricing file, do the following:

   a. In the estimating job, click **Edit**.

      The **Estimate Job Edit** dialog box opens.

   b. Click **Suppliers**.

      The **Suppliers** dialog box opens.

   c. To set the pricing file for each material group, select the dedicated pricing file (**Estimating (Service Center)**).

   d. Click **OK**.

   e. Click **Save**.

Job-specific pricing maintenance

You can use job-specific pricing maintenance alongside a dedicated pricing file or as an alternative as you can update the material prices to reflect current pricing without affecting any other estimates. It also allows you to build in a tolerance for anticipated price increases if you know the job is not likely to start for a period of time.

NOTE Job-specific pricing maintenance overrides global pricing maintenance within the specific estimate.

Manage job-specific pricing maintenance

1. Open an estimate.
2. On the **Estimating** ribbon tab, select **Job-Specific Pricing Maintenance**.

   The **Pricing Maintenance** dialog box opens.
3. To add sizes, on the **Pricing** ribbon tab, select **Add Sizes from Estimate**.

   The **Select the sizes to add** dialog box opens.
4. Use to the arrows to move the shapes, sizes and grades that require adding to the job-specific pricing from **Not Included** to **Included**.
5. Click **OK**.
6. When prompted to copy prices, click **Yes** to add the sizes to the **Pricing Maintenance** dialog box.

   If you click **No**, the sizes are added with all prices set to 0.
7. To edit the prices of selected items, select a shape in the navigation tree.

   To modify multiple items at once, see Modify the pricing of multiple items (page 288).
8. Modify the price.
9. Click **Save**.
10. Close the **Pricing Maintenance** dialog box.

Note that you can also update pricing from the **Purchasing** module. See Update pricing information (page 1125).

See also

Pricing maintenance (page 278)

Modify the pricing of an estimate item manually (page 567)

Modify the pricing of multiple items (page 288)

Create pricing forms (page 291)

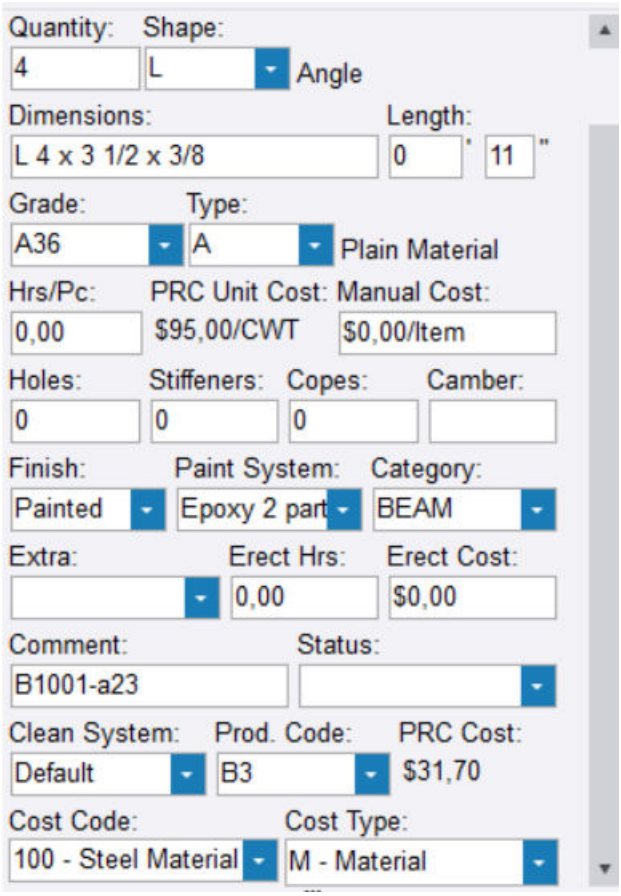
Update pricing information (page 1125)

Assign a cost code and cost type to an estimate item

You can assign cost codes and cost types to items in estimates. By establishing cost codes and cost types at the estimating stage of your project, you have better summary reporting of your project that aligns with your job costing practices.

Before you start, make sure you have created cost codes and cost types in **Maintenance** --> **Purchasing**. See Manage cost codes (page 227) and Manage cost types (page 225).

1. In the **Select Estimating Job** dialog box, open a job.
2. To assign a cost code or cost type to a single item, select the item.
3. In the input area, select the cost code or cost type from the drop-down list.



4. Click **Save**.

See also

Manage cost codes (page 227)

Manage cost types (page 225)

Assign a cost code and cost type to multiple estimate items (page 544)

Assign a cost code and cost type to multiple estimate items

You can assign cost codes and cost types to items in estimates. By establishing cost codes and cost types at the estimating stage of your project, you have better summary reporting of your project that aligns with your job costing practices.

Before you start, make sure you have created cost codes and cost types in **Maintenance** --> **Purchasing**. See Manage cost codes (page 227) and Manage cost types (page 225).

1. In the **Select Estimating Job** dialog box, open a job.
2. To assign a cost code or cost type to multiple items, select a group of items.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. In the **Estimating** ribbon tab, select **Global Edit Selected**. The **Global Edit - Selected** dialog box opens.
4. Select the **Cost Code** or **Cost Type** checkbox.
5. Select the values from the drop-down list.
6. Click **Update**.

See also

Assign a cost code and cost type to an estimate item (page 543)

Manage cost codes (page 227)

Manage cost types (page 225)

Calculate an estimating job

Use the **Calculate Material Cost** command to view the total material cost of the displayed or selected estimating items, or use the **Recalculate Estimate** command to update the estimating job value after making changes to the labor or material databases.

See also

Calculate an estimating job (page 544)

Recalculate an estimate (page 545)

Calculate the total material cost

To view the current total material cost of the displayed or selected items, use the **Calculate Material Cost** command. Note that the total material cost does not contain costs that have been applied to items by adding estimate extras.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Calculate Material Cost**.

   The **Material Cost** dialog box opens and displays the total material cost of selected, displayed, and all items in the estimating job.
3. View the material costs.
4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Recalculate an estimate

By recalculating the entire estimating job, you can ensure accurate total value even after making multiple changes to the labor and material databases.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Recalculate Estimate**.
3. To recalculate the estimate, click **Yes** in the confirmation dialog box.

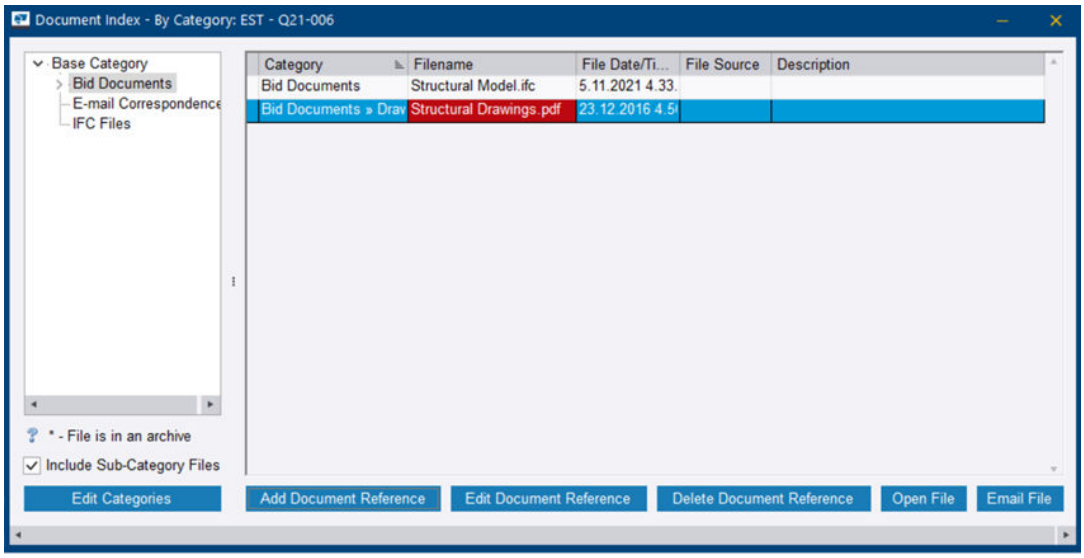
Manage files for an estimating job

Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

For further information and instructions, see

Document Index (page 183)

Set the standard categories for attached documents (page 184)

Modify an estimating job

You can modify the properties of an individual job at any time, no matter if the current properties have been set for all jobs in **Company Standards** or for an individual job when creating it.

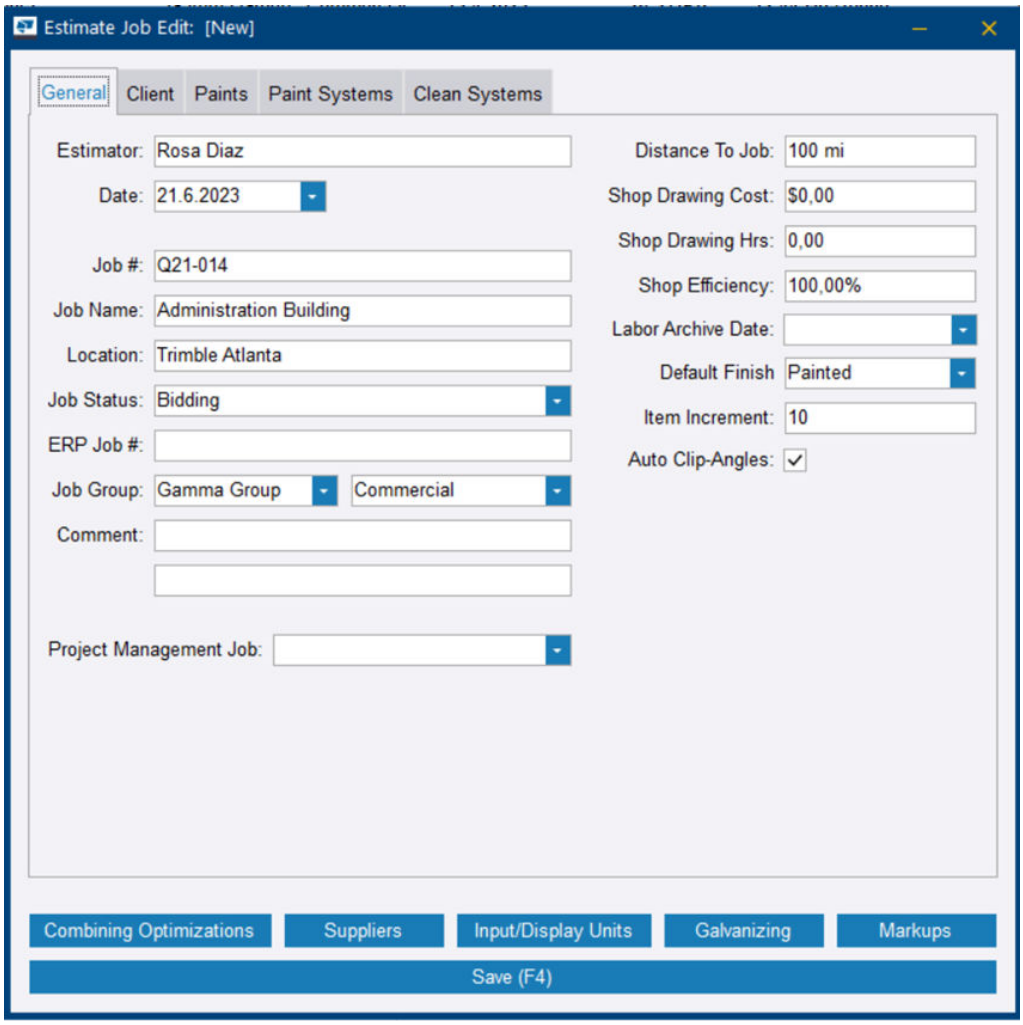
The changes override the company standard settings for the current job.

NOTE You cannot change the job number.

1. Open the module.

   The **Select <Module> Job** dialog box opens.
2. Select the job that you want to modify.
3. At the bottom of the dialog box, click **Edit**.

   The **Estimate Job Edit** dialog box opens.



4. Add or modify the properties as needed.

   For details on the properties, see Create an estimating job (page 509).
5. Click **Save**.

The **Estimate Job Edit** dialog box closes. The estimating job is updated to match the changes that you made.

See also

Create an estimating job (page 509)

Define combining optimizations for an estimating job (page 519)

Define suppliers for an estimating job (page 522)

Define default input and display units for Estimating (page 402)

Define galvanizing settings for an estimating job (page 523)

Define markups for an estimating job (page 524)

Set up the Estimating module (page 396)

7.3 Manage estimate materials

You can manage the material items in an estimating job in multiple ways.

Add materials to an estimating job

In addition to manually added estimating items, you can add accessories, assemblies, and parametric assemblies to estimating jobs.

See also

Add an estimating item (page 548)

Add accessories to an estimate item (page 558)

Add an assembly (page 563)

Add a parametric assembly (page 564)

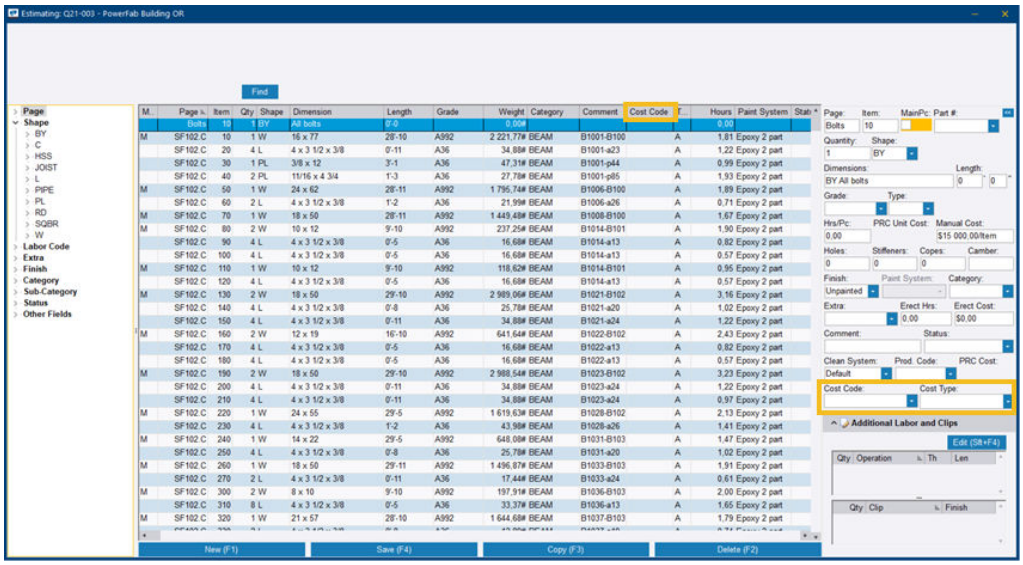
Add an estimating item

You can manually enter the material for the estimate.

To add a new material item to an estimating job, do the following:

1. In the **Select Estimating Job**, open an **Estimating** job.

The **Estimating** dialog box opens.



2. To enable the input fields, click **New**.
3. Define the item properties in the input fields. For details on properties, see Estimating item properties (page 549).
4. If necessary, apply additional labor and clips to the item.

   For more information, see Apply additional labor and clips (page 556).
5. Click **Add**.

The item is added to the display area.

See also

Apply additional labor and clips (page 556)

Modify a single estimating item (page 567)

Copy estimating items (page 570)

Delete an estimating item (page 572)

Estimating item properties

You can define the estimating item properties in the **Estimating** dialog box.

NOTE The visible input fields and their order depend on the settings that you have defined in. **Maintenance** --> **Estimating** --> **Edit Input Fields**.

The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Camber	A text field for camber size, that is, curvature in an item so as to compensate for deflection induced by loads Type the labor time used in cambers in the **Hrs/Pc** field. Do not define the cost of cambers in the **Manual Cost** field. The cost entered in the **Manual Cost** overrides the material cost of cambers. Instead, you can type the cost in the **Cost/Pc** field.
Category, **Sub-Category**	A class used for sorting items within a job You can also use them for color-coding or filtering items in Trimble Connect. You can create the available categories and subcategories in **Company Standards**. You can also assign quantity multipliers to subcategories. Select an existing **Category** or **Sub-Category** on the drop-down menu or type in a new category.
Clean System	The clean system applied to the item Click the arrow on the right side of the **Clean System** field to select an existing clean system. For more information, see Manage default cleaning types and clean systems (page 435).
Comment	An optional comment that you can type for the item
Copes	The number of copes per piece When you define the number of stiffeners, Tekla PowerFab automatically calculates and adds the labor time spent on copes to the item. For more information on the labor time for copes, see Adjust labor times for copes, punches, and stiffeners (page 457).
Cost Code	A code for classifying costs to match your accounting system Select a cost code from the drop-down menu. For more information about cost codes, see Manage cost codes (page 227).
Cost Type	A category for each classification of cost

Option	Description
Cost/Pc	A cost per piece that is added to the material cost of the item
Detailing Cost	The amount of money used for erecting the item The **Detailing Cost** field is identical with the **Erect Cost** field.
Detailing Hrs	The number of hours spent on erecting the item The **Detailing Hrs** field is identical with the **Erect Hrs** field.
Item *	The item number You can modify the item number manually or use the item number automatically determined by Tekla PowerFab. Default item increments are set in **Company Standards**, but you can modify them for each job. We recommend leaving spaces between items, so that you can later add items between existing items. You can reset the item number intervals in **Job Maintenance**. For more information, see Renumber an estimating page item (page 409).
Grade *	The material grade of each piece Depending on the shape, the grade can also be mandatory information. Either select the grade from the drop-down menu or type the grade indicator in the field.
Dimensions *	The material dimension, or material size, of each piece Depending on the shape, the dimension can also be mandatory information. Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: 1. Click in the **Dimensions** field. 2. Click **Add Size**.

Option	Description
	3. Define the dimension properties. 4. Click **Save**. You can now select the dimension and use it.
Erect Hrs	The number of hours spent on erecting the item/accessory/part
Erect Cost	The amount of money used for erecting the item
Extra	The estimate extra applied to the item. Estimate extras are additional costs and labor that you can add to an estimating item. Estimate extras can also contain formulas that calculate the additional costs and labor. To apply estimate extras to the item, do one of the following: • To apply one estimate extra to the item, select the extra that you want to apply. • To apply multiple extras to the item, double-click in the **Extra** field, and click the arrow buttons to move the desired extras to the **Included** list. For more information, see Create estimate extras (page 457).
Finish	The finish type of the item Select the finish type from the drop-down menu. The finish type can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with an estimating job (page 591). You can apply paint systems to an item whose finish type is **Painted** to use other finishes than the standard ones.
Holes, **Web Holes**, **Top Flg Holes**, **Bot Flg Holes**	The number of the holes, web holes, top flange holes, or bottom flange holes per piece Bolts are automatically added for beams and tubes with holes. When you define the number of holes, Tekla PowerFab automatically adds the labor time spent on holes to the item.

Option	Description
Holes w/o Bo	The number of holes per piece. No bolts will be added. When you define the number of holes, Tekla PowerFab automatically adds the labor time spent on holes to the item.
Hrs/Pc	The number of hours spent on the item/accessory/part This time will be added to the labor time already calculated by Tekla PowerFab.
Length	The length of each piece Default length input settings are set in **Company Standards**, but you can modify them for each job.
MainPc	When selected, indicates that the item is a main piece in an assembly Marking items as main pieces allows you to consider whole assemblies in fabrication. If you use main pieces, you can create reports that show the properties for each main piece, or assembly. Selecting the **MainPc** checkbox is optional, but be consistent: Either select the checkbox for all main pieces in the estimating job or do not select it for any of them.
Manual Cost	The cost for the item/accessory/part that you can enter manually If necessary, you can change and convert the units by right-clicking in the **Manual Cost** field. Select a suitable option in the context menu. See also Modify the pricing of an estimate item manually (page 567).
Page *	The number of the drawing or sheet on which the material item has been taken off from The page number can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with an estimating job (page 591). You can modify the page number manually or use the page number automatically determined by Tekla PowerFab.

Option	Description
Paint System	The paint system applied to an item whose finish type is **Painted**. Click the arrow on the right side of the **Paint System** field to select an existing paint system. If no paint system is selected for a painted item, the default paints defined in the **Estimate Job Edit** dialog box are applied. For more information, see Modify an estimating job (page 546). To modify the available paint systems, see Manage default paint types and paint systems (page 439).
Part #	The part number that identifies the accessory item. The selected part number populates the applicable fields with the information from **Accessory Maintenance**. The applicable fields need to be modified in the **Accessory Maintenance** dialog box. For more information, see Manage accessories (page 412).
PRC Unit Cost, **PRC Cost**, **PRC Date**	The current pricing information of the selected item from the selected supplier If no date is displayed in the **PRC Date** field, the material does not exist in the selected supplier's pricing data set. Double-click one of the fields to open the **Pricing Maintenance** dialog box and enter pricing information.
Prod. Code	The production code applied to the item/ accessory/part Production codes group similar items together within jobs. Production codes group items so that you can apply hour per ton and per labor group percentages to items in the linked production control job. The production code can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with an estimating job (page 591). Select a production code from the drop-down menu or type in a new code.

Option	Description
Quantity *	The number of pieces to be added Use the numeric keypad to add, multiply, divide, or subtract number of items.
Sequence	The sequence number assigned to the item The sequence can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with an estimating job (page 591). Select a sequence number from the drop-down menu or type in the number.
Shape *	The material shape of each piece Either select the shape from the drop-down menu or type the shape indicator in the field (for example, HSS).
Status	The estimate status of the item. The status indicates the level of completion of the item. The status can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with an estimating job (page 591). To modify the available estimate statuses, see Manage estimate statuses (page 492).
Stiffeners	The number of stiffeners in the item/accessory/part When you define the number of stiffeners, Tekla PowerFab automatically calculates and adds the labor time spent on stiffeners to the item. For more information on the labor time for stiffeners, see Adjust labor times for copes, punches, and stiffeners (page 457). Note that you need to add the material for the stiffeners separately because such material is not added automatically.
Type	The labor code of the item/accessory/part Note that the available labor codes depend on the material group of the selected shape. The labor code can be used to color-code or filter items in Trimble Connect. Select a labor code from the drop-down menu or type the labor code abbreviation in the field.

Option	Description
Welded Studs	The number of welded studs per piece The price per welded stud is defined in **Fabricator Information** for a typical stud price. You can also add welded studs as separate items. Tekla PowerFab will then price them accordingly.

See also

Add an estimating item (page 548)

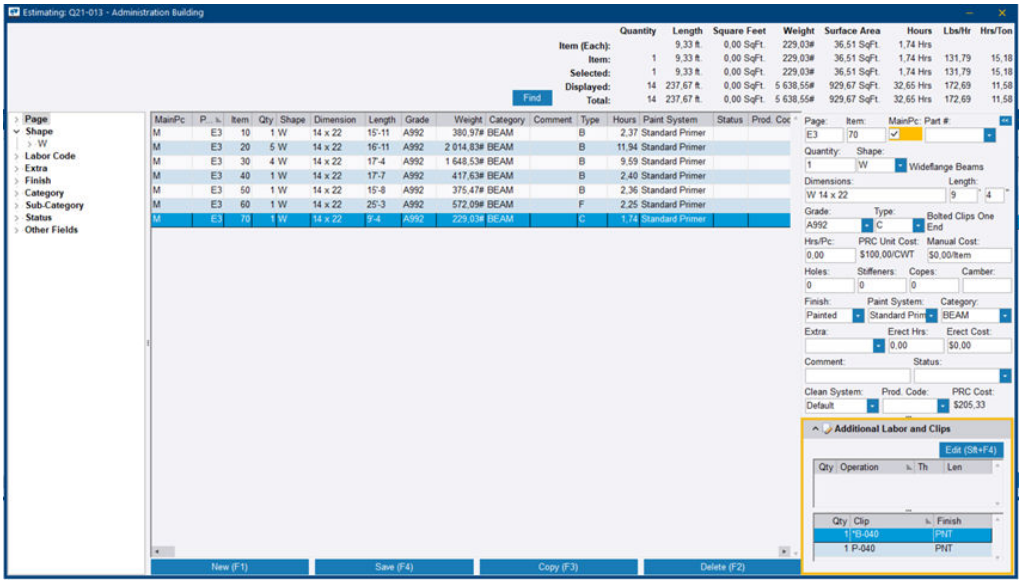
Modify estimating items (page 566)

Apply additional labor and clips

You can apply additional labor operations, such as welding or burning, or standard clips to an estimating item.

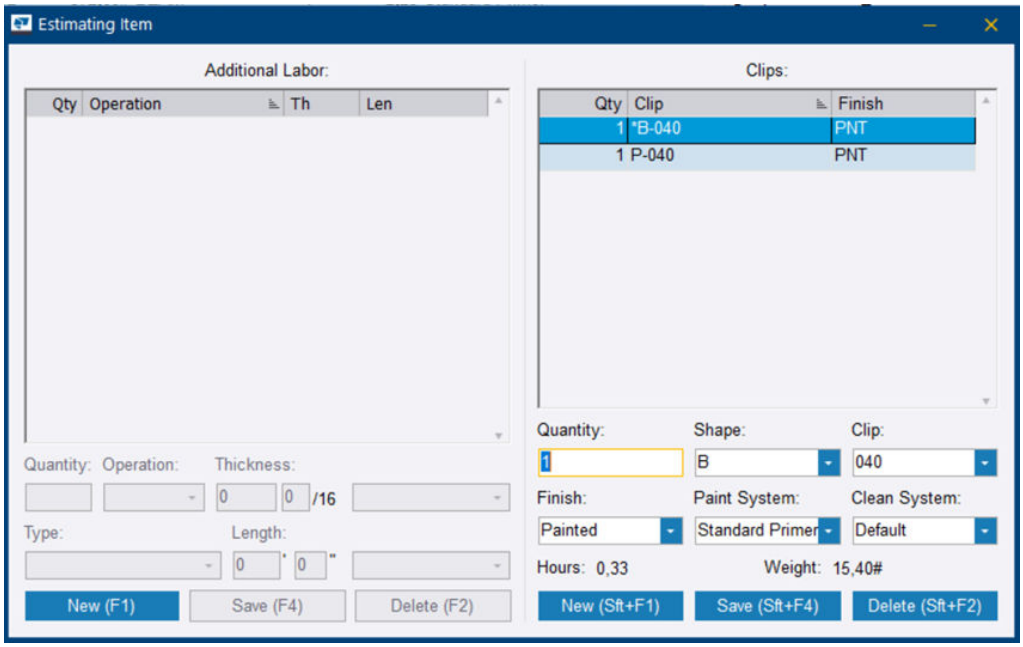
To apply additional labor and clips, do the following:

1. In the **Estimating** dialog box, select the item to which you want to apply additional labor or clips.
2. In the lower-right corner of the dialog box, expand the **Additional Labor and Clips** section.



3. Click **Edit**, or press **Shift+F4**.

   The **Estimating Item** dialog box opens.



You can add additional labor on the left side of the dialog box, and clips on the right side of the dialog box.

Apply additional labor

1. In the **Additional Labor** section of the dialog box, click **New**.
2. In the **Quantity** field, enter the number of operations that you want to add.
3. In the **Operation** list, select which labor operation you want to add.
4. To define the material thickness, do either of the following:
   - Type the desired material thickness in the **Thickness** field.
   - In the list on the right side of the **Thickness** field, select **Thickness** to apply the thickness defined in the material dimensions.

   Note that the available options for thickness depend on the shape of the selected item. If the selected item is a beam, the list on the right side of **Thickness** allows you to select if the applied thickness is the flange thickness or the web thickness.
5. Select the operation type in the **Type** list.
6. If necessary to define the length, do either of the following:
   - Type the desired length in the **Length** field.
   - In the list on the right side of the **Length** field, select an option to apply a value defined in the material dimensions.

   Note that the available options for length depend on the shape of the selected item. If the selected item is a beam, the list on the right side of

Length allows you to select if the applied thickness is the flange thickness or the web thickness.

7. Click **Add**.

   The additional labor operations are added to the list and applied to the selected item.

   You can view the labor time, cost, and weight associated with the additional labor at the bottom of the **Additional Labor** section in the **Estimating Item** dialog box.

8. To close the **Estimating Item** dialog box, click **X** in the upper-right corner.

Add standard clips to an estimate item

Standard clips cover the most common end connections on horizontal beams, including both welded and bolted clip angles and shear plates.

The clip angles come prespecified in the database based on AISC standards so you do not need to create them before they can be applied.

The standard clips can be modified in **Maintenance** --> **Estimating** --> **Labor Maintenance** --> **Standard Clips**. For more information, see Manage standard clips (page 474).

The most common method of applying clip angles is via labor codes, but they can also be applied manually. To apply them manually, do the following:

1. In the **Clips** section of the **Estimating Item** dialog box, click **New**.
2. In the **Quantity** field, enter the number of clips that you want to add.
3. Select the shape, clip, and finish in the available list.
4. If you set the clip finish to **Painted**, select the paint system in the **Paint System** list.
5. If necessary, select a cleaning system for the clip in the **Clean System** list.
6. Click **Add**.

   The clips are added to the list and applied to the selected item.

   You can view the labor time associated with the clips and the clip weights in the list at the bottom of the **Clips** section in the **Estimating Item** dialog box.

7. To close the **Estimating Item** dialog box, click **X** in the upper-right corner.

See also

View the labor times of items (page 530)

Add accessories to an estimate item

Accessories are commonly used items that you can add to items in your estimating jobs. You can create accessories for items such as stiffeners, base plates, or embeds. Accessories can also be linked to specific material shapes

and sizes, so that they can only be added to items of that shape and size. Accessories need to be applied manually.

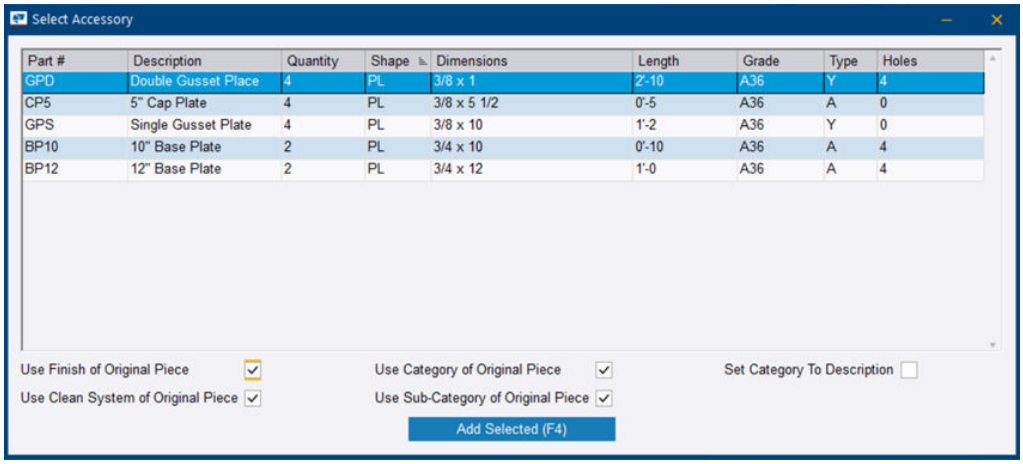
NOTE You can also add an accessory by typing the part number of the accessory in the **Part #** field.

1. Open an **Estimating** job.

   The **Estimating** dialog box opens.

2. Select the item for which you want to add an accessory.
3. Click the **Estimating** ribbon tab.
4. On the menu, select **Add Accessory**.

   The **Select Accessory** dialog box opens.



   The dialog box lists all of the predefined accessories that can be applied to the selected part on the estimate.

   If the accessory list is empty, there are no accessories linked to the selected material shape and size. In these cases, you can either create a new accessory or create a job-specific accessory. See Create an accessory (page 413) and Create a job-specific accessory (page 560).

5. In the accessory list, select the accessory that you want to add.
6. Select or clear the checkboxes at the bottom of the dialog box according to your needs.
7. Click **Add Selected**.

The **Select Accessory** dialog box closes.

The accessory is added as the last item of the selected page in the **Estimating** dialog box.

Accessories have the same input fields and properties as other estimating items. In addition, accessories have a description.

See also

Manage accessories (page 412)

Create a job-specific accessory (page 560)

Create a job-specific accessory

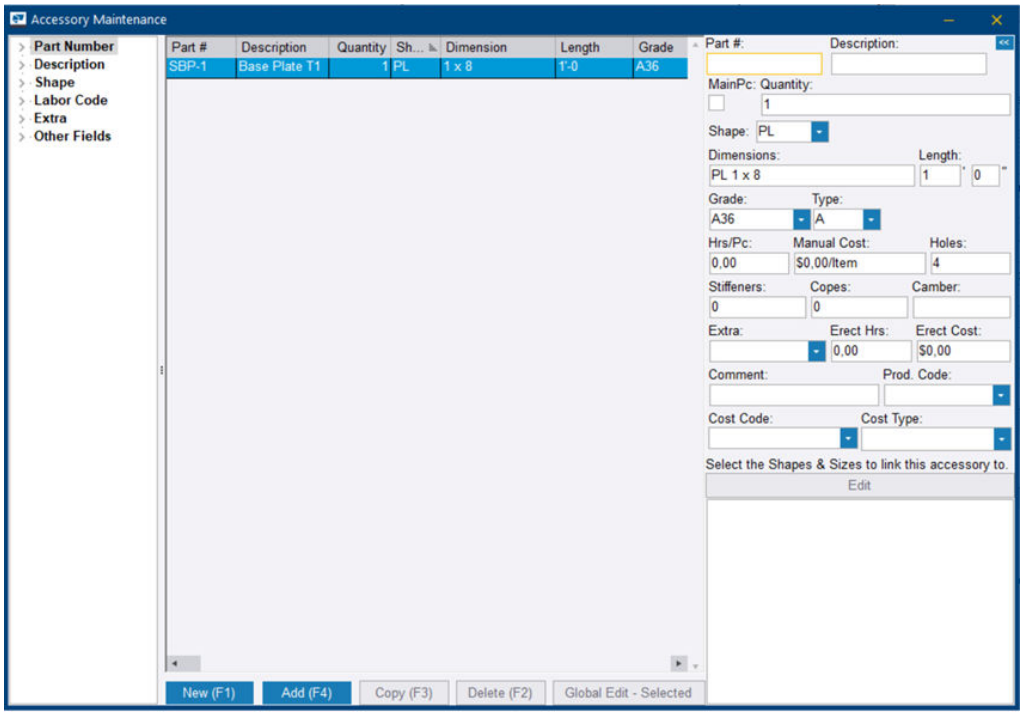
You can create accessories that are only used within the current estimating job. Remember that all labor and material costs associated with the accessory will be added to the estimating job.

NOTE We recommend that you create, modify, and delete accessories in **Accessory Maintenance**. You can also create accessories in an estimating job, but these job-specific accessories cannot be saved to the accessory library, so they cannot be reused in other estimating jobs.

---

1. Open a job.
2. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
3. On the menu, select **Job-Specific Accessory Maintenance**.

   The **Accessory Maintenance** dialog box opens.



4. Click **New**.

   The input fields are enabled.

5. If you want to use the accessory multiple times in the current estimating job, enter a part number.

6. Type a description for the accessory.
7. Enter the remaining properties for the accessory.

   For details, see Accessory properties (page 561).
8. Click **Add**.

   The accessory is added to the list, and you can add it to the current estimating job.

   You can also use the other buttons at the bottom of the **Accessory Maintenance** to modify the job-specific accessories:

   - Click **Edit** to modify the selected accessory.
   - Click **Copy** to create a new accessory based on the selected accessory.
   - Click **Delete** to permanently delete the selected accessory.
   - Click **Global Edit Selected** to modify the properties of multiple selected accessories at once.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
10. Add the accessory to an item in the estimating job.

    For more information, see Add accessories to an estimate item (page 558).

See also

Manage accessories (page 412)

Add accessories to an estimate item (page 558)

Accessory properties

You can modify the properties of accessories in the **Accessory Maintenance** dialog box.

NOTE The visible input fields and their order partially depend on the settings that you have defined **Maintenance** --> **Estimating** --> **Edit Input Fields** .

Option	Description
Page	The drawing or sheet on which the material item has been taken off from You can modify the page number manually or use the page number automatically determined by Tekla PowerFab.
Quantity	The number of accessories per item to which they are added The number of items/parts

Option	Description
Shape	The material shape of the item/accessory/part
Dimensions	The material size of the item/accessory/part
Length	The length of the item/accessory/part
Grade	The material grade of the item/accessory/part
Camber	A text field for camber size, that is, curvature in an item so as to compensate for deflection induced by loads The camber size used with the accessory
Extra	The estimate extra applied to the item/accessory/part To add estimate extras, double-click the **Extra** field. For more information, see Create estimate extras (page 457).
Type	The labor code of the item/accessory/part For more information, see Adjust labor codes (page 447).
Copes	The number of copes in the item/accessory/part
Holes	The number of holes in the accessory/part
Stiffeners	The number of stiffeners in the item/accessory/part
Top Flg Holes	The number of top flange holes
Web Holes	The number of web holes in the accessory/part
Bot Flg Holes	The number of bottom flange holes
Welded Studs	The number of welded studs per accessory
Hrs/Pc	The number of hours spent on the item/accessory/part
Cost/Pc	A cost per piece that is added to the material cost of the accessory
Manual Cost	The cost for the item/accessory/part that you can enter manually The manual cost is optional, and it overrides the pricing information in the pricing database.
Finish	The finish type of the item/accessory/part. The default options are **Painted**, **Unpainted**, and **Galvanized**.
Clean System	A clean system allows you to apply more than one cleaning type to an item.

Option	Description
Category, **Sub-Category**	A class used for sorting items within a job You can use categories and subcategories for filtering information. You can create categories in **Company Standards**.
Sequence	The sequence number assigned to the item.
Prod. Code	The production code applied to the item/accessory/part Production codes group similar items together within jobs.
MainPc	When selected, indicates that the item is a main piece in an assembly.
Detailing Hrs	The number of hours spent on erecting the accessory
Detailing Cost	The amount of money used for erecting the accessory
Erect Hrs	The number of hours spent on erecting the item/accessory/part
Erect Cost	The cost of erecting the item/accessory/part
Holes w/o Bo	The number of holes per piece in the accessory. No bolts will be added.
Cost Code	A code for classifying costs to match your accounting system
Cost Type	A category for each classification of cost
Comment	An optional and additional comment on the accessory/part
Status	The level of completion of an item

See also

Create an accessory (page 413)

Create a job-specific accessory (page 560)

Modify accessories (page 418)

Add an assembly

Assemblies are commonly used bid items that can contain multiple pieces with different shapes, labor codes, finishes, and other properties, as well as accessories and parametric assemblies. By adding the assembly to your estimating job, you can add all these pieces at once. We recommend that you add assemblies at the end of the page in an estimating job.

NOTE Assemblies often begin with a comment line that describes and labels the assembly. This makes it easier to recognize assemblies.

1. Scroll to the end of the page in the **Estimating** dialog box.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Add Assembly**.
4. In the **Add Assembly** dialog box, type the number of assemblies you want to add in the **Quantity** field.
5. If you want to be able to select from assemblies that are available for all jobs, ensure that the **Show Global Assemblies** checkbox is selected.

   If the **Show Global Assemblies** checkbox is not selected, you can only select assemblies that have been added in the current estimating job.
6. Do one of the following:
   - In the **Assembly** list, select the assembly that you want to add.

     If you have selected the **Show Global Assemblies** checkbox, the **Assembly** list contains all assemblies that are available in **Assembly Maintenance**.
   - If you want to create a new assembly, click **New**, type a name for the assembly, and click **OK**. For further instructions, see Create assemblies (page 452).

     NOTE The new assembly will initially only be available in the current estimating job, but you can later add it to the assembly library. For instructions, see View, rename, copy, and delete assemblies (page 455).
   - If you want to modify an existing assembly, select the assembly in the **Assembly** list, and click **Edit**.
7. If you want to assign a sub-category to the assembly, select the **Set Sub-Category** checkbox, and select an option in the **Sub-Category** list.

   Assigning a sub-category to the assembly allows you to easily identify and filter assemblies.
8. Click **Add Assembly**.

The **Add Assembly** dialog box closes, and the assembly is added at the end of the item list in the current estimating job.

Add a parametric assembly

You can use parametric assemblies to add material to an estimate.

Parametric assembly parts can be any fabricated items and they can be sized dynamically based on the part to which they are being applied. This means that the same parametric assembly part can be applied to a variety of different main parts and be automatically calculated accordingly.

We recommend that you add assemblies at the end of the page in an estimating job.

Note that parametric assemblies often begin with a comment line that describes and labels the assembly.

1. Scroll to the end of the page in the **Estimating** dialog box.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Add Parametric Assembly**.

   The **Select Parametric Assembly** dialog box opens, displaying all parametric assemblies.
4. Select the parametric assembly that you want to add.
5. Click **OK**.

   The **Parametric Assembly - Variables** dialog box opens, displaying all variables in the parametric assembly.
6. Select a variable in the list.
7. In the **Value** field, type a value for the variable.
8. Click **Set Value**.

   Repeat steps 6 to 8 for all variables.
9. Click **Calculate Parametric Assembly**.

   Tekla PowerFab calculates the parametric assembly. When the calculation process is finished, the **Parametric Assembly - Results** dialog box opens.
10. Verify that the calculations are correct.
11. If you want to assign a sub-category to the parametric assembly, click the arrow button on the right side of the **Sub-Category** list and select a sub-category.

    Assigning a sub-category to the assembly allows you to easily identify and filter assemblies.
12. Click **Add Parametric Assembly**.

The parametric assembly is added at the end of the estimating job.

See also

Create and manage parametric assemblies (page 421)

Find estimating items

Use the **Find** button in to quickly find estimating items. You can search for items by material shape, grade, and dimensions, or by page and item number.

1. In an open estimating job, click **Find**.
2. Do one of the following:

To	Do this
Find all items that have a particular shape, grade, and dimensions	a. In the **Find** menu, select **Find Shape/Grade/Size**. b. In the **Find** dialog box, select the right shape, grade, and dimensions in the available lists. You can also start typing the shape, grade, or dimensions. Tekla PowerFab will suggest options that match what you have typed. c. Click **Find**. The **Find** dialog box closes. Only the items that match your search are now shown in the current production control job.
Find the right item on a particular page of the job	a. In the **Find** menu, select **Find Item**. b. In the **Find** dialog box, select the main mark and piece mark in the available list. You can also start typing the main mark or piece mark. Tekla PowerFab will suggest options that match what you have typed. c. Click **Find**. The **Find** dialog box closes. Only the items that match your search are now shown

See also

Manage estimate materials (page 548)

Modify estimating items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Estimating** --> **Edit Input Fields**.

For instructions, see Customize input fields (page 126).

For more information, see the following links:

Modify a single estimating item (page 567)

Modify multiple estimating items (page 568)

Modify the selected estimating items (page 569)

Estimating item properties (page 549)

Modify a single estimating item

You can modify a single estimating item directly in the **Estimating** dialog box.

1. In the **Estimating** dialog box, select the item that you want to modify.
2. In the input area on the right side of the dialog box, modify the item properties.

   For details on item properties, see Estimating item properties (page 549).
3. To save the changes, click **Save**.

See also

Estimating item properties (page 549)

Modify multiple estimating items (page 568)

Modify the selected estimating items (page 569)

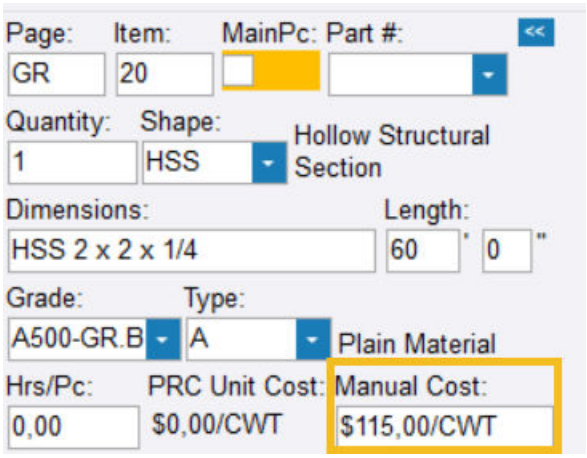
Modify the pricing of an estimate item manually

You can modify the pricing of an individual estimate item manually. This can be used to price one-off items or sizes that do not have a default price in the pricing maintenance file.

NOTE Manual modification of the pricing of an individual estimate item overrides both job-specific and global pricing maintenance.

---

1. Open an estimate and select the item whose pricing you want to modify.
2. In the **Manual Cost** in the input fields, add the appropriate material cost.



3. To modify the unit, right-click the **Manual Cost** and select the desired option.
4. Click **Save**.

See also

Pricing maintenance (page 278)

Job-specific pricing maintenance (page 542)

Modify multiple estimating items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.
3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
4. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
5. Click **OK**.

   To further limit the item types that you want to modify, repeat steps 2 to 5 for all necessary filter types.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

   For details on the item properties, see Estimating item properties (page 549).

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.The properties of the selected items are updated.

Modify the selected estimating items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Estimating** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Estimating** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit - Selected**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

   For details on the item properties, see Estimating item properties (page 549).

5. Click **Update**.

The properties of the selected estimating items are updated to the **Estimating** dialog box.

Copy and multiply estimating items

Creating an estimate becomes quicker when you use the available commands for copying and multiplying items. By doing so, you can avoid having to enter

the same items one by one on different pages, and modifying the quantities of items one by one.

Copy estimating items

You can copy estimating items in the **Estimating** dialog box and use them as the basis of a similar item. Then, modify the properties of the new items according to your needs. By copying items, you can save time and avoid entering the same information multiple times in an estimating job.

1. In the **Estimating** dialog box, select the items that you want to copy.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Copy**.

   Copies of the selected items appear at the bottom of the current page.
3. Adjust the properties of the new items according to your needs.
4. Click **Edit** to save the changes.

See also

Copy a page of estimating items (page 570)

Copy and multiply a group of estimating items (page 570)

Copy a page of estimating items

Use the **Copy Page** command to copy all items on a page of the estimating job onto a new page.

1. In the **Estimating** dialog box, select any item on the page that you want to copy.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Copy Page**.
4. In the **Copy Page** dialog box, type the new page number in the **New Page #** field.
5. Click **Copy**.

Copy and multiply a group of estimating items

Use the **Copy Special** to copy a group of items on a page and multiply their quantity while copying. You can either copy the items on the same page or on another page.

1. In the lower navigation tree of the **Estimating** dialog box, select a page.
2. In the display area, select the items that you want to copy.

To select multiple items, hold down **Ctrl**.

To select a range of subsequent items, hold down **Shift**.

3. Click **Estimating**.
4. On the menu, select **Copy Special**.
5. In the **Qty Multiplier** field, type a number by which all selected items will be multiplied.
6. In the **New Page #** field, type a page name.
7. Click **Copy**.

The items are copied at the end of the selected page, and their quantity is multiplied. To view the items, click the page number in the lower navigation tree.

See also

Copy a page of estimating items (page 570)

Multiply the quantity of the selected estimating items

Use the **Selected Items Multiplier** command to multiply specific items in the estimating job. This is a quick way to you can increase the quantity of multiple estimating items at once.

1. In the **Estimating** dialog box, select the items that you want to multiply.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Selected Items Multiplier**.
4. In the **Multiplier** field, type the number by which you want to multiply the selected items.
5. Click **Save**.

The quantities of the selected items are multiplied.

See also

Multiply the quantity of all estimating items in a sub-category (page 571)

Multiply the quantity of all estimating items in a sub-category

Use the **Sub-Category Multipliers** command to multiply the quantity of all items that are associated with a specific sub-category in an estimating job.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Sub-Category Multipliers**.

   The **Sub-Category Multipliers** dialog box opens.
3. In the list, select a sub-category.

4. In the **Multiplier** field, type the number by which you want to multiply the quantity of items.
5. Click **Save**.

   The quantity of each item in the sub-category is multiplied.
6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Note that the quantity of the items in the **Quantity** field of the **Estimating** dialog box remains the same. The multiplication factor appears on the right side of the **Quantity** field.

See also

Multiply the quantity of the selected estimating items (page 571)

Delete an estimating item

You can delete one or multiple unnecessary items from an estimating job. Note that deleting the items is permanent and cannot be undone.

1. In the **Estimating** dialog box, select the item that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Delete** or press **F2** on the keyboard.
3. To permanently delete the items, click **Yes** in the confirmation dialog box.

Manage production codes

Use production codes to group similar items together within estimating jobs. If necessary, you can then override the hours of all items in that production code.

Production codes also allow you to link estimating items to production control job items. This way, the estimate information can be more specifically applied to the production control items. Production codes also allow you to plan production more accurately.

Production codes can be as broad or as specific as you like. For example, you can use one production code for the entire estimating job to add the labor estimates to the production control job. The hours will then be calculated based on all the work that must be done for the entire job. However, you can also set every piece mark to have its own production code, so that hours in the estimating job and in the production control job match for each item.

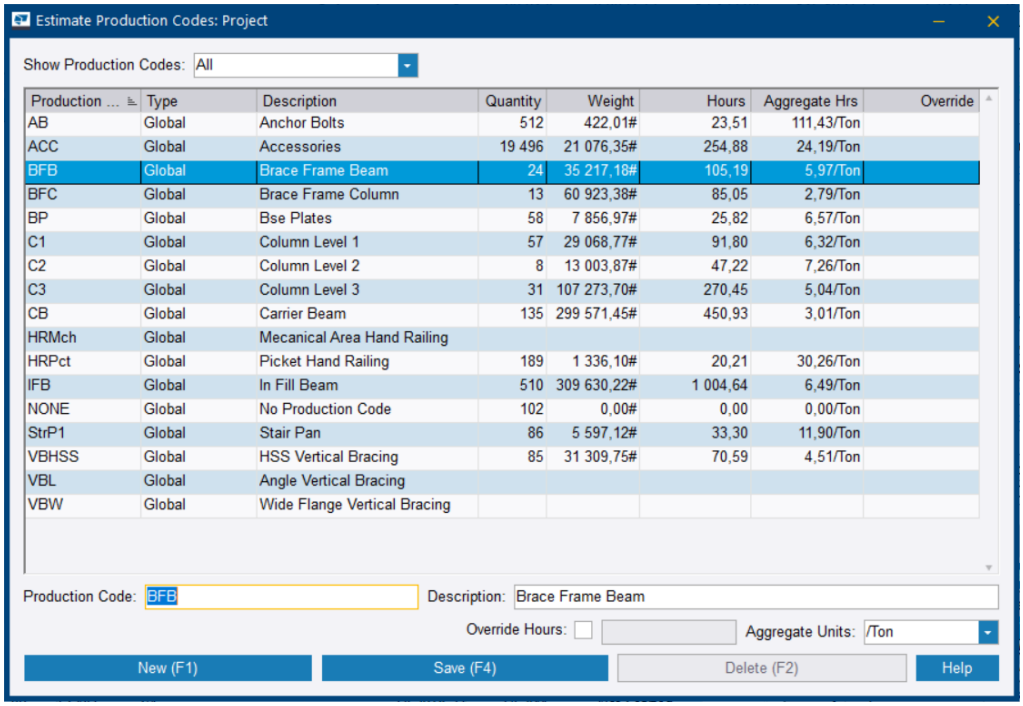
You can also create a report that lists all production codes used in an estimating job. The report is called **Production Code Summary**. For more

information on creating reports, see View, email, export, and print estimating reports (page 538).

Access the Production Codes dialog box

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Production Codes**.

   The **Production Codes** dialog box opens.



Show Production Codes: Select an option to filter the production codes that are displayed:

- **Global**: Production codes that can be used in all jobs in both **Production Control** and **Estimating**
- **Estimate-Specific**: Production codes that can only be used within a specific estimating job and the linked production control job. These are the production codes that you can create in the current dialog box.
- **In Use**: Production codes that are in use

Production Code: An abbreviation for the production code

Description: A description for the production code. For example, you can use `B1` for beams or `C1` for columns.

Override Hours: Select if you want to use aggregate units for the planned hours instead of the original estimated hours. Then type the hours in the field.

However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the labor group percentages cannot be applied to any production control stations.

Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule.

Manually overriding hours can also prevent you from comparing the linked production control job with the estimating job.

Aggregate Units: Select the suitable units in the drop-down menu.

The planned hours that you define here are automatically used in the project schedule. However, if you link the production control to a matching estimate, the estimated hours are automatically used in the project schedule.

The hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the hours is to pull labor information from the estimate in the form of hours per ton and labor percentages by labor group.

Create a production code

When you create production codes within the **Estimating** module, they only apply to the current estimating job. Globally available production codes are created in **Maintenance** --> **Production Control** --> **Global Production Code Maintenance**.

1. At the bottom of the dialog box, click **New**.
2. Name the production code and type a description.
3. Do any of the following:

To	Do this
Use the estimated labor times of items within the production code in **Production Control**	The hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the hours is to pull labor information from the estimate in the form of hours per ton and labor percentages by labor group. • In the **Aggregate Units** list, select a calculation option.
Override the estimated labor time of items within the production code in **Production Control**	Manually overriding hours applies an aggregate unit, hours per ton, that can be applied to production control items. However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the

To	Do this
	labor group percentages cannot be applied to any production control stations. Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule. Manually overriding hours can also prevent you from comparing the linked production control job with the estimating job. a. Select the **Override Hours** checkbox. b. Type the labor time in the field on the right side of the checkbox. To change the units, right-click in the field and select a suitable option in the context menu.

4. Click **Add**.

The new production code is added.

Modify a production code

1. Select the production code that you want to modify.
2. Modify the properties.
3. To update the production code properties, click **Save**.

Delete a production code

1. Select the production code that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the production code.

See also

Manage global production codes (page 877)

Manage production codes used in a production control job (page 962)

Link a production control job to an estimating job and a project management job (page 922)

View, email, export, and print estimating reports (page 538)

Apply a production code

You can apply an existing production code to the estimating job.

1. Ensure that you have the **Prod. Code** display and input fields visible in the **Estimating** dialog box.

   If not, follow the instructions in Customize display fields (page 124) and Customize input fields (page 126) to include the **Production Code** field.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit**.
4. To only apply the production code to specific types of items, in the **Estimating Global Edit Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the items whose properties you want to modify to the **Included** list.
6. Click **OK** to apply the filter.
7. In the **Estimating Global Edit Filters** dialog box, click **OK**.
8. In the **Global Edit** dialog box, select the checkbox on the left side of **Prod. Code**.
9. In the **Prod. Code** list, select the production code that you want to use for the selected item types.
10. Click **Update**.
11. To update the production code for the selected items, click **Yes** in the confiramtion dialog box.
12. Repeat steps 2 to 10 to assign a production code for each item in the estimating job.

See also

Manage production codes (page 572)

Load estimating materials into Production Control

You can send items from the currently open estimating job to a new or existing production control job by using the **Load Material Into Production Control** and **Load Selected Material Into Production Control** commands.

Load all items into a production control job

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Load Material Into Production Control**.
3. In the **Select Production Control Job** dialog box, do either of the following:

To	Do this
Load the items to an existing production control job	• Select the production control job in the list.
Load the items to a new production control job	a. Click **Add**. b. In the **Production Control Job Edit** dialog box, type a job number. c. Modify the other properties of the production control job according to your needs. Note that you can also modify the properties later. d. Click **Save**. e. To create the production control job, click **Yes** in the confirmation dialog box. The **Production Control Job Edit** dialog box closes. f. Select the new production control job in the list.

4. If you want to use the item number as the piece mark in the production control job, select the **Use Item # as Piece Mark** checkbox at the bottom of the dialog box.
5. Click **OK**.

   The **Estimating Import Filters** dialog box opens.
6. To only load specific types of items, in the **Estimating Import Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
7. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to load to the **Included** list.
   - Type the maximum and minimum values for items that you want to load.
8. Click **OK**.

   To further limit the items to be loaded, repeat steps 6 to 9 for the necessary filter types.
9. Click **Import**.

The material is loaded into the selected production control job. After the process is finished, click **OK** to close the **Import Items** dialog box.

Load selected items into a production control job

1. In the **Estimating** dialog box, select the items that you want to load to a production control job.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Load Selected Material Into Production Control**.
4. In the **Select Production Control Job** dialog box, do either of the following:

To	Do this
Load the items to an existing production control job	• Select the production job in the list.
Load the items to a new production control job	a. Click **Add**. b. In the **Production Control Job Edit** dialog box, type a job number. c. Modify the other properties of the production control job according to your needs. Note that you can also modify the properties later. d. Click **Save**. e. To create the production control job, click **Yes** in the confirmation dialog box. f. Select the production job in the list.

5. If you want to use the item number as the piece mark in the production control job, select the **Use Item # as Piece Mark** checkbox at the bottom of the dialog box.
6. Click **OK**.

The material is loaded into the selected production control job. After the process is finished, click **OK** to close the **Import Items** dialog box.

Load estimating materials into another estimate

Use the **Load Material Into Estimate** and **Load Selected Material Into Estimate** commands to copy material from an estimating job to either another existing estimating job or to a new one. These commands are particularly useful when more than one person is working on a bid, or when you are making pricing breakouts on adds or deducts. You can load all items into another estimating job or select the items that you want to load manually.

NOTE To create pricing for the added material, you need to delete the copied items manually from the original location. Tekla PowerFab does not automatically remove items from any estimate.

Load all or filtered items into an estimate

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Load Material** --> **Load Material Into Estimate**.
3. In the **Select Estimating Job** dialog box, do either of the following:

To	Do this
Load the material into an existing estimating job	Double-click the estimating job to which you want to load the material.
Load the material into a new estimating job	a. Click **Add**. b. In the **Estimate Job Edit** dialog box, type a job number. c. Define any other necessary properties for the new estimating job. Note that you can also change the estimating job properties later. d. Click **Save**. e. Double-click the new estimating job in the **Select Estimating Job** dialog box.

4. In the **New Page #** field, type the page where you want to copy the material.
5. Click **OK**.
6. To only load specific types of items, in the **Estimating Import Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
7. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to load to the **Included** list.
   - Type the maximum and minimum values for items that you want to load.
8. Click **OK**.

   To further limit the items to be loaded, repeat steps 6 to 9 for the necessary filter types.

9. Click **Import**.

Tekla PowerFab loads all or filtered items into the selected estimating job. You can see the progress of the process in the **Import Items** dialog box. After loading the material has finished, click **OK** to close the **Import Items** dialog box.

Load selected items into an estimate

1. In the **Estimating** dialog box, select the items that you want to load to another estimate.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Load Material** --> **Load Selected Material Into Estimate**.
4. In the **Select Estimating Job** dialog box, do either of the following:

To	Do this
Load the material into an existing estimating job	Double-click the estimating job to which you want to load the material.
Load the material into a new estimating job	a. Click **Add**. The **Estimate Job Edit** dialog box opens. b. Type a job number. c. Enter any other necessary properties for the new estimating job. Note that you can also change the estimating job properties later. d. Click **Save**. e. Double-click the new estimating job in the **Select Estimating Job** dialog box.

5. In the **New Page #** field, enter the page where you want to copy the material.
6. Click **OK**.

Tekla PowerFab loads the selected items into the selected estimating job. You can see the progress of the process in the **Import Items** dialog box. After loading the material has finished, click **OK** to close the **Import Items** dialog box.

Load estimating materials into purchasing

You can load material items in an estimating job into a purchase order or a requisition. Either send material items into a purchase order in order to purchase the items, or send material items to a requisition in order to get pricing information from suppliers and apply the received pricing to the estimating items.

You can either load all estimating items into a requisition or a purchase order, or select the items that you want to load to purchasing.

See also

Load all estimating items into a requisition (page 581)

Load all estimating items into a purchase order (page 582)

Load the selected estimating items into a requisition (page 583)

Load the selected estimating items into a purchase order (page 583)

Load all estimating items into a requisition

To load all material in an estimating job into a requisition, use the **Load Material Into Requisition** command. This way, you can get pricing information from a supplier and apply it to the estimate-specific pricing. You can either add the items into an existing requisition or create a new one.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Requisition**.
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Estimating** dialog box.

Items are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load all estimating items into a purchase order (page 582)

Load the selected estimating items into a requisition (page 583)

Load all estimating items into a purchase order

Use the **Load Material Into Purchase Order** command to load all estimating material items into a purchase order. You can either add the items into an existing purchase order or create a new one.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Purchase Order**.
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Estimating** dialog box.

Items are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

See also

Load all estimating items into a requisition (page 581)

Load the selected estimating items into a purchase order (page 583)

Load the selected estimating items into a requisition

To select the items in an estimating job that are loaded into a requisition, use the **Load Selected Material Into Requisition** command. This way, you can get pricing information from a supplier and apply it to the estimate-specific pricing. You can either add the items into an existing purchase order or create a new requisition.

1. In the **Estimating** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Purchasing** --> **Load Selected Material Into Requisition**.
4. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.
5. Click **OK** to close the **Import Items** dialog box.

Items are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load all estimating items into a requisition (page 581)

Load the selected estimating items into a purchase order (page 583)

Load the selected estimating items into a purchase order

Use the **Load Selected Material Into Purchase Order** command to select the items in an estimating job that are loaded into a purchase order. You can either add the items into an existing purchase order or create a new one.

1. In the **Estimating** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Estimating** ribbon tab.
3. On the menu, select **Purchasing** --> **Load Selected Material Into Purchase Order**.

4. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.

5. Click **OK** to close the **Import Items** dialog box.

Items are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

See also

Load all estimating items into a purchase order (page 582)

Load the selected estimating items into a requisition (page 583)

7.4 Combine materials in the Estimating module

You can mult and nest materials using the **Combine** command. You can then save and review the combining results.

1. In the **Select Estimating Job** dialog box, open a job.
2. Click the **Estimating** ribbon tab. and select **Combine**.

   The **Select Combining Run** dialog box opens. When you are performing the first combining run for a combining job, the list in the dialog box is empty.

3. Click a desired combining option to select it.

   The options are:

   - **Mult**: Combines linear items, like beams and angles.
   - **Nest**: Combines items that have area, like plates or gratings.
   - **Mult & Nest**: Combines all items.

   The **Combining Run Filters** dialog box opens.

   NOTE Filtering items is optional, so you can skip steps 4 to 7 if you do not want to filter out items from the combining run.

4. To only combine specific types of materials, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:

   - Click the arrow buttons to move the items that you want to combine to the **Included** list.

- Type the maximum and minimum values for the items that you want to combine.

6. Click **OK** to apply the filter.

   Repeat steps 4 to 6 for each filter type that you want to set.

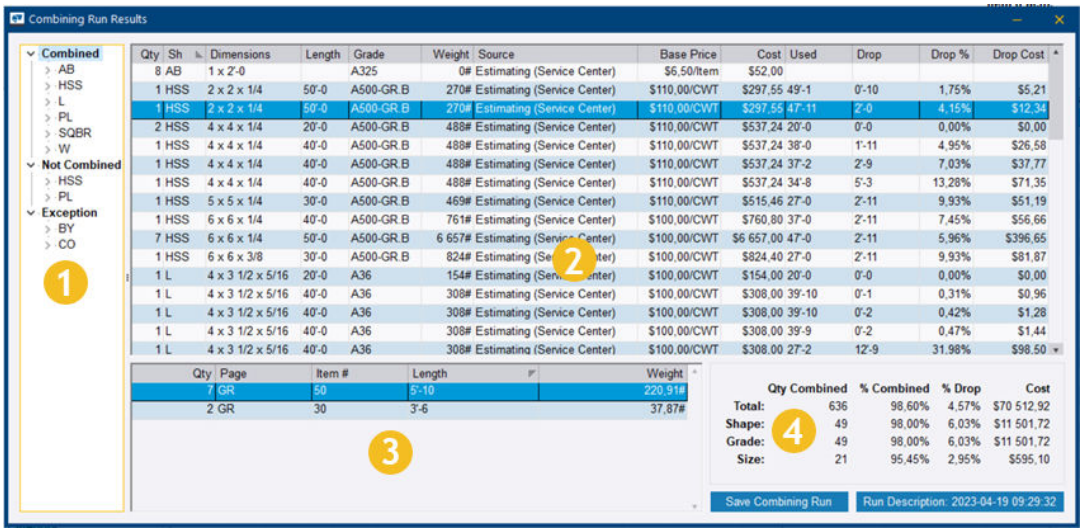
7. To ensure that you are using the correct settings, click the **Optimizations**, **INV Filter**, and **Suppliers** buttons.

   You can modify the settings.

8. In the **Combining Run Filters** dialog box, click **OK**.

9. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

Tekla PowerFab combines the materials. After the combining process is finished, the **Combining Run Results** dialog box opens.



(1) Navigation tree: Result statuses

- **Combined**: The items have been optimized successfully
- **Not Combined**: The items that failed to be optimized
- **Exception**: Items that cannot be optimized, such as comment and buyout lines. These can generally be ignored

(2) Display area: Combining results including each bar or sheet that is required

(3) Bottom area: The items that are combined to the selected item

(4) Summary area: Combining results with waste percentage and total material costs. The material cost represents the pricing of the materials in the pricing database that was used in the combining run.

TIP You can save the combining run to view it later and compare it with another combining run. To do so, click **Save Combining Run** at the

bottom of the **Combining Run Results** dialog box. No cut lists are generated when you save the combining run.

See also

Rename a combining run (page 379)

Compare combining runs (page 386)

View combining run filter settings (page 379)

Modify run-specific pricing information (page 379)

Recombine all items (page 383)

Recombine items of a shape (page 384)

Recombine items of a material grade (page 385)

Recombine a material dimension (page 385)

Update combining information and recombine all items (page 386)

Export materials for combining (page 242)

Troubleshoot combining issues (page 1235)

Manage inventory, cut lists, and nests with ProNest (page 243)

Mult and nest materials with Steel Projects PLM (page 255)

Enable ShopData Systems for plate nesting (page 258)

7.5 Import files to and export files from the Estimating module

Use the import commands to import useful files to the **Estimating** module. The compatible file types contain IFC files, CIS2 files, KISS files, Bluebeam files, and Microsoft Excel worksheets.

You can also export an estimating job to the KISS format to save a copy of it before making any changes due to pricing changes or revisions, or export labor database information to view the currently set labor times.

For Microsoft Excel sample files, see Excel Spreadsheet Sample Import Files .

For information on Bluebeam integration, see Bluebeam Integration Overview.

See also

Export an estimating job to KISS (page 588)

Export labor information (page 589)

Import files to the Estimating module

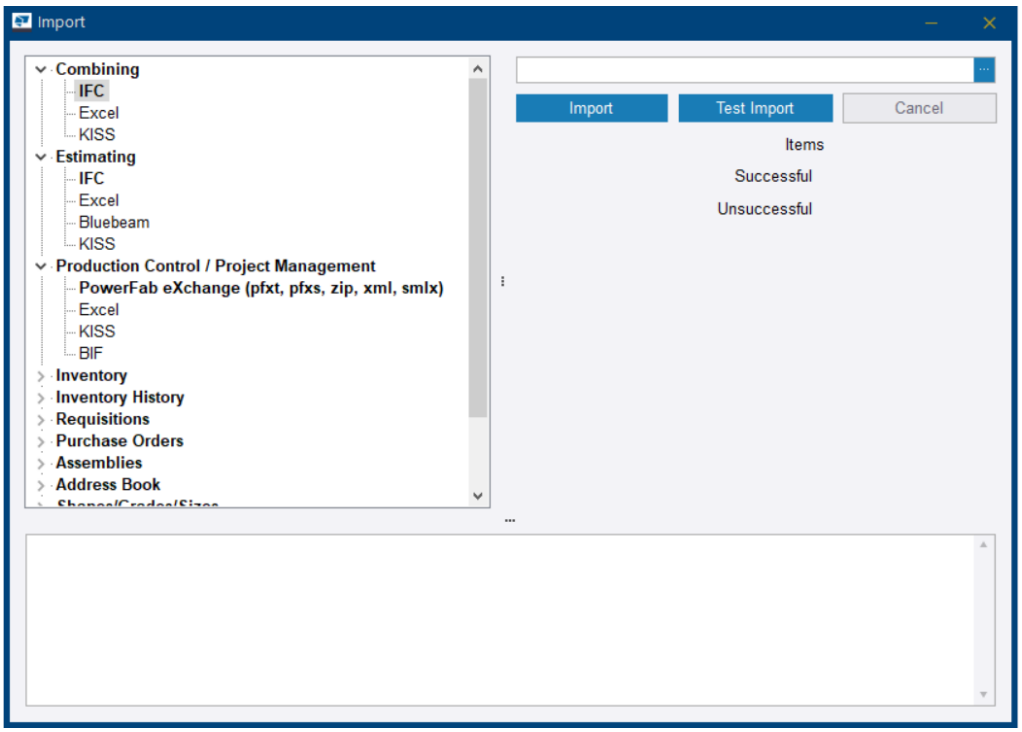
You can import IFC, KISS, and Bluebeam files, and Microsoft Excel worksheets to the **Estimating** module. IFC is the recommended format.

IFC files allow revised items to be updated, and you can report the changes (material size, quantity, and so on) during the import process. Bluebeam CSV files, Microsoft Excel worksheets, or KISS files do not have this ability, and will create new instances for all the items in the files.

When exporting to IFC from Tekla Structures, the EPM_Burns or EPM_Copes Additional Property sets should be included. These provide a more complete set of information into the **Estimating** module.

Importing files

1. Go to **File** --> **Import**.
2. In the navigation tree of the **Import** dialog box, click the desired import option under **Estimating**.



3. To browse to the file that you want to import, click the ellipsis (**...**) in the upper right corner of the dialog box.
4. Select the file, and click **Open**.
5. Click **Import**.

NOTE You can click the **Test Import** button to test importing a KISS file before actually importing it. This way, you can ensure that all information will be imported successfully.

What happens next depends on the type of file that you are importing. For example, when you want to import IFC into an estimate, you need to define **Job #**. when you are importing an Microsoft Excel worksheet, the **Import Field Map** dialog box asks you to connect the Microsoft Excel columns with the Tekla PowerFab standard fields.

For sample files, see Excel Spreadsheet Sample Import Files.

NOTE You should only save your field mapping selections if you are absolutely sure that you will continue to use the same mapping. This is because the **Import Field Map** dialog box may not open in the future when you import new files that match the previously saved mapping.

After you have done so, the import continues.

Once the import is completed, a message appears at the bottom of the **Import** dialog box.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Required columns for estimating Excel imports

- Quantity
- Shape
- Dimensions
- Length
- Grade

Export an estimating job to KISS

Exporting an estimating job to KISS allows you to archive a copy of the estimating job.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Export to KISS**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.

5. Click **Save**.

A copy of the file is saved in the KISS format.

See also

Import files to the Estimating module (page 586)

Save a backup copy of the Tekla PowerFab database (page 98)

Export labor information

Use the **Export Labor** command to create a text file with the values set in a labor database. Exporting labor information allows you to view the currently set labor times.

1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Export Labor**.
3. If you have created multiple labor databases, in the **Shop Setup** dialog box, select the shop whose labor information you want to export.
4. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
5. If necessary, change the file name.
6. Click **Save**.

The labor database information is converted to a text file and saved in the selected location.

If necessary, you can import the labor information to a different Tekla PowerFab database.

See also

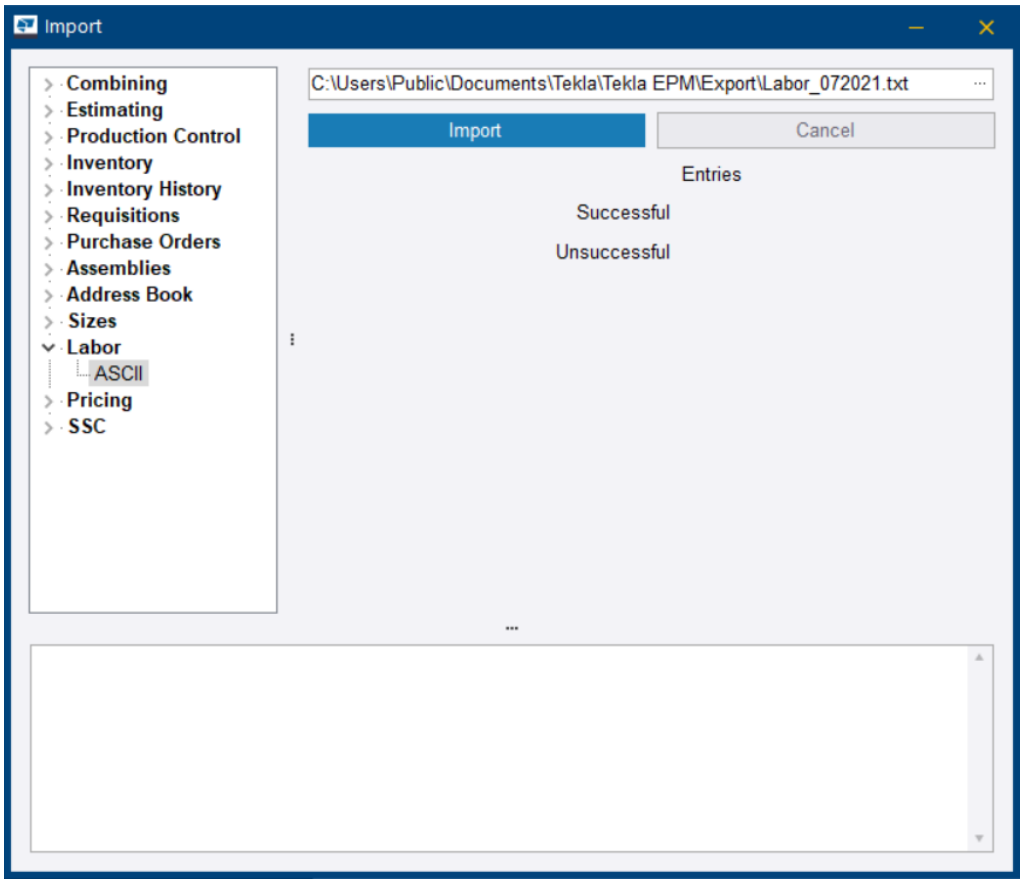
Import labor information to Tekla PowerFab (page 589)

Import labor information to Tekla PowerFab

To import labor information from a text file to Tekla PowerFab, do the following:

1. Go to **File** --> **Import**.

   The **Import** dialog box opens.
2. In the navigation tree on the left, select **Labor** --> **ASCII**.



3. Click **...**.
4. In the **Open** dialog box, browse to find the text file that you want to import.
5. Select the file and click **Open**.
6. Click **Import**.
7. If you have created multiple labor databases, in the **Select Shop Setup** dialog box, select the labor database to which you want to import the labor information.
8. Click **OK**.
9. In the confirmation dialog box, do one of the following:
   - To confirm deleting the current labor information and replacing it entirely with the imported information, click **Yes**.
   - To only replace the information included in the imported file, click **No**.

     Use this option to import text files that only contain part of the labor information.
10. In the **Import** dialog box, view the status of the import process.

    If necessary, you can view the import details and errors in a text file by clicking the **Open Import Log** button.

11. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Export labor information (page 589)

7.6 Use Trimble Connect with an estimating job

You can view the estimating job information in IFC models using Trimble Connect. You can interact with the model in several ways. For example, you can color-code items in IFC models, or select the same items simultaneously in an IFC model and in the estimating job.

We recommend that you start the estimating job by importing an IFC file from Tekla Structures. The IFC file includes GUIDs, unique identifiers that match the identifiers in the IFC model. The necessary IFC settings for Tekla Structures can be downloaded from Tekla Warehouse.

Before you can view the job information in Trimble Connect, your Tekla PowerFab administrator needs to set up the Trimble Connect integration settings. For more information, see Link Tekla PowerFab to Trimble Connect (page 235).

See also

Link an estimating job to Trimble Connect (page 591)

Color-code estimating items in the IFC model (page 593)

Select the same items in the estimating job and in the IFC model (page 594)

Visualize jobs with Trimble Connect Organizer and Trimble Connect Content Browser (page 1057)

Link an estimating job to Trimble Connect

Before you can view the estimating job information in Trimble Connect for Windows, you need to link the job to a Trimble Connect project. You can either link the job to an existing project or create a new project.

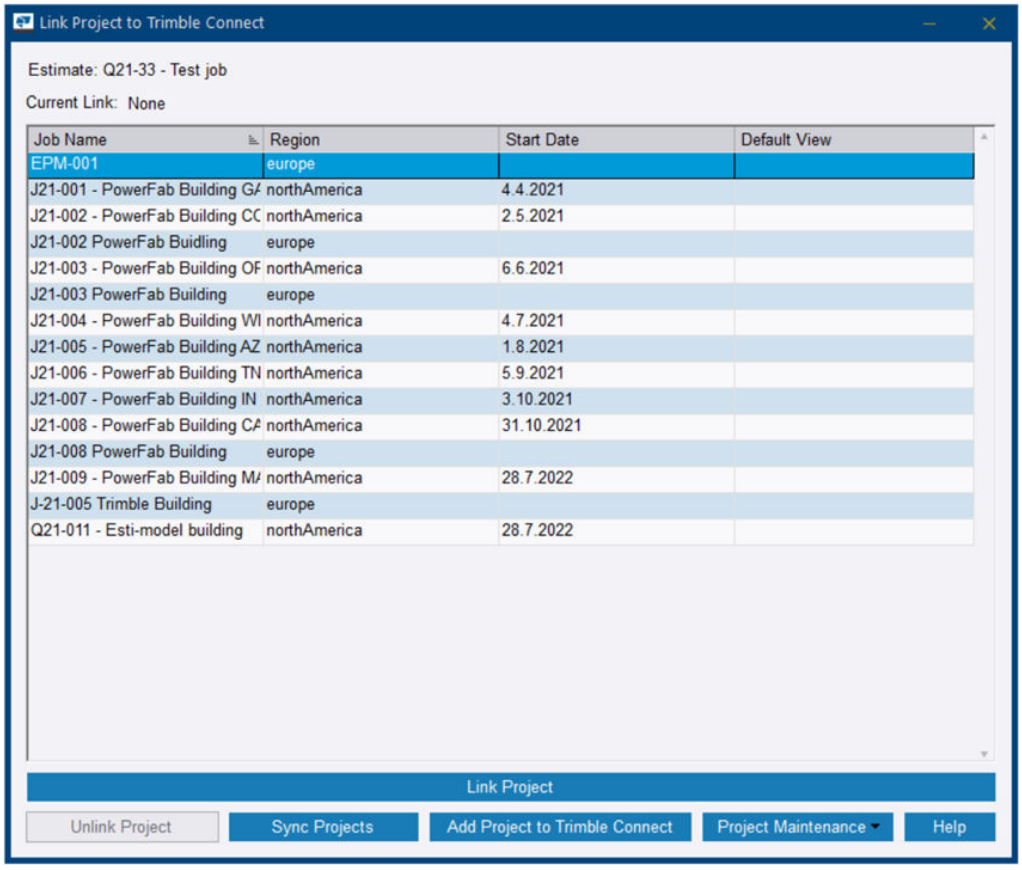
Note that if an estimating job is linked to a project management job, the Trimble Connect project is managed through the project management job. In this case, you need to link the project management job to Trimble Connect. The link is then applied to any linked estimating jobs. The Trimble Connect project cannot be modified when you access it through the estimating job.

1. In the **Estimating** dialog box, right-click anywhere in the display area.

2. In the context menu, click **Model Interface**.

   A message appears, telling you that the current job is not linked to a Trimble Connect project.

3. Click **OK** to close the message.



4. In the **Link Project to Trimble Connect** dialog box, do one of the following:

To	Do this
Link the job to an existing Trimble Connect project	a. To display the available Trimble Connect projects, click **Sync Projects**. b. Select the desired project, and click **Link Project**.
Create a new Trimble Connect project and link the job to it	a. Click **Add Project to Trimble Connect**. b. In the **Add Users to Project** dialog box, click the arrow buttons to move the users that participate in the project to the **Included** list.

To	Do this
	c. Click **OK**. Tekla PowerFab creates a Trimble Connect project with the same name and information as the current job. d. In the **Status** dialog box, review the creation process of the Trimble Connect project. A message appears, telling you that the project has been created successfully. e. Click **OK** to close the message. f. In Trimble Connect for Windows, press the **Back** button to exit the empty 3D view. g. In the **Explorer** side pane on the left, click the **Add File** button. h. In the **Add Files** dialog box, browse to find the IFC model. i. Select the IFC model and click **Open**. The IFC model is imported to Trimble Connect for Windows.

The estimating job and the Trimble Connect project are now linked.

Unlink an estimating job from Trimble Connect

1. In the **Select Estimating Job** dialog box, select the job that you want to unlink.
2. At the bottom of the dialog box, click **Edit**.
3. In the **Estimate Job Edit** dialog box, click **Link** on the right side of the **Trimble Connect Project** field.
4. In the **Link Project to Trimble Connect** dialog box, click **Unlink project**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
6. In the **Estimate Job Edit** dialog box, click **Save**.

Color-code estimating items in the IFC model

To color-code items in the IFC model according to their properties, use the **Colorize** command in the **Model Viewer Interface** dialog box. For example, you can color-code items according to their category or finish. You can also set filters to only color-code particular items in the model. By using a filter, for

example, you could first filter the items by their category, and then color-code the items in that category by their finish.

1. In the **Estimating** dialog box, right-click anywhere in the display area.
2. In the context menu, click **Model Interface**.
3. If necessary, in the **Model Viewer Interface** dialog box, filter the items that you want to color-code:
   a. Click **Set Filters**.
   b. In the **Estimating Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
   c. In the **Filter** dialog box, do one of the following depending on the filter type:
      - Click the arrow buttons to move the items that you want to display in the model to the **Included** list.
      - Type the maximum and minimum values for the items that you want to display in the model.
   d. Click **OK**.

      Repeat steps b to d for all filter types that you want to set.
   e. Click **Apply Filter**.
4. Click the arrow on the right side of the **Colorize By** list and select a property in the list.
5. Click **Colorize**.

The items in the IFC model are color-coded according to the selected property.

To revert to the original colors in the IFC model, click **Reset** in the **Model Viewer Interface** dialog box.

For instructions for using Trimble Connect, see Trimble Connect User Guides.

See also

Select the same items in the estimating job and in the IFC model (page 594)

Select the same items in the estimating job and in the IFC model

When you have linked an estimating control job to Trimble Connect, you can select an item that is selected in one of the software simultaneously in the other one. Do the following:

1. In the **Estimating** dialog box, right-click anywhere in the display area.
2. In the context menu, do one of the following:

- To select the item that is selected in the estimating job also in the IFC model, select **Select in Model**.
- To select the item that is selected in the IFC model also in the estimating job, select **Select from Model**.

See also

Color-code estimating items in the IFC model (page 593)

7.7 Create a proposal

Once you are happy with the estimate, you can create a proposal out of it. Proposals are estimating bid letters whose setups you can modify according to your needs. You can then save the proposals on your computer as Microsoft Word documents, and print or send them to your client. After creating the first proposal, you can also create revisions according to your client's needs.

NOTE You can set the default proposal setup in **Maintenance** --> **Estimating** --> **Proposal Setups**.

1. In the **Estimating** dialog box, click the **Estimating** ribbon tab.
2. On the menu, select **Proposal**.

   The **Estimating Proposals** dialog box opens. Here, you can create new proposals, modify existing proposals, or delete unnecessary proposals.
3. To create a new proposal, click **New**.
4. Type a revision number, select date, and click **Add**.
5. Type a name for the proposal in **Title**.

   NOTE Steps 6 to 10 only apply when you are creating a first proposal based on the estimating. When you create revisions, you can skip these steps.

6. In the available lists, select the firm type of the recipient company and the recipient company.

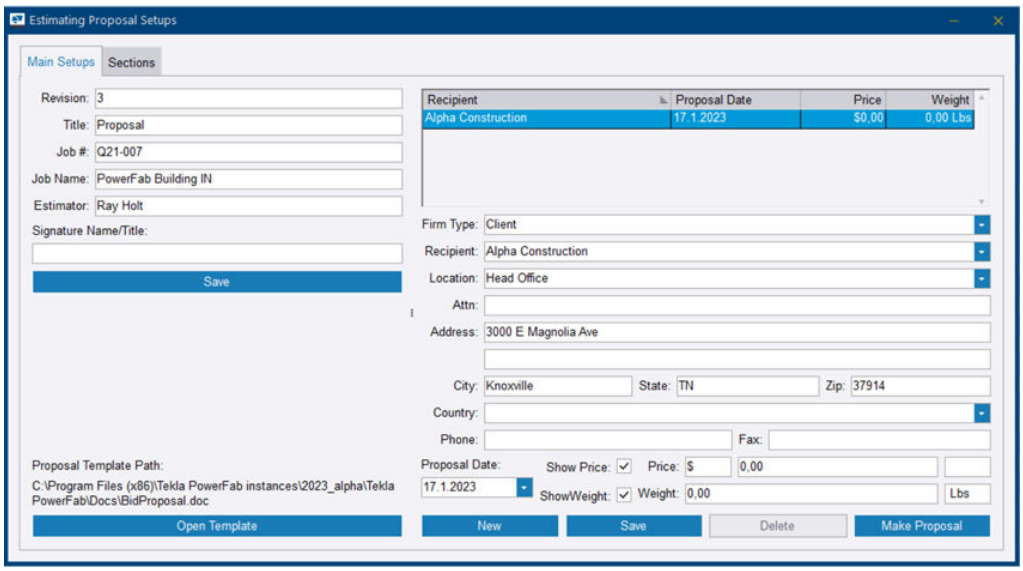
   You can only select recipient companies that have already been added to the **Address Book**.
7. Click **Add**.
8. In the **Select Sections** dialog box, click the arrow buttons to move the sections that you want to include in the proposal to the **Included** list.
9. Click **OK**.

   A dialog box appears, asking you to select which text items you want to include in a section of the proposal.

10. Click the arrow buttons to move the items that you want to include in the proposal to the **Included** list..
11. Click **OK**.

    Repeat steps 9 to 10 for all sections that you included.

    The **Estimating Proposal Setups** dialog box opens.



12. In the **Estimating Proposal Setups**, do any of the following according to your needs:

To	Do this
Display the price and weight of the project in the proposal	a. On the **Main Setups** tab, select the **Show Price** and **Show Weight** checkboxes. b. Type the price and weight in the fields on the right side of the checkboxes.
Modify the appearance of the proposal	a. On the **Main Setups** tab, click **Open Template**. The proposal template opens in Microsoft Word. The items marked with << >> pull information from Tekla PowerFab and can be adjusted there, but the other information and font types can be changed in Microsoft Word. b. Make the necessary changes to the template. c. In the Microsoft Word window, click **File** --> **Save**.

To	Do this
	d. Save the modified proposal as a custom report in the default folder that your company uses for custom reports. To verify the default folder, go to **File** --> **Default Directories**. Note that any changes made to the proposal document outside of Tekla PowerFab are not available in Tekla PowerFab.
Add a new entry	a. On the **Sections** tab, select the section in which you want to add the new entry. b. At the bottom of the dialog box, click **New**. c. Type the desired text in the space the bottom of the dialog box. d. Click **Add**.
Modify an entry	a. On the **Sections** tab, select the section in which you want to modify an entry. b. Select the entry that you want to modify. c. Change the entry text according to your needs. d. Click **Edit** to save the changes.
Move an entry up or down in the proposal	a. On the **Sections** tab, select the section in which the desired entry is located. b. Select the entry that you want to move. c. To move the entry, click **Move Up** and **Move Down**.
Change the indentation of an entry	a. On the **Sections** tab, select the section in which the desired entry is located. b. Select the entry that you want to move. c. Click **Move Left** and **Move Right** to shift the position of the item in the proposal.
Delete an entry	a. On the **Sections** tab, select the section from which you want to delete an entry. b. Select the entry that you want to delete. c. Click **Delete**. d. To permanently delete the entry, click **Yes** in the confirmation dialog box.
Change the titles or headings of the proposal	a. On the **Sections** tab, select the section whose titles or headings you want to change. b. Do any of the following:

To	Do this
	• To change the main title of the section, type a new title in the **Title** field and click **Set Title**. • To change the style of the headings, click **Attributes** and select appropriate styles in the lists. Then, click **Save**. • To add a subtitle, click **Attributes** and type a title in the **Subtitle** field. Then, click **Save**. The subtitle appears under the title in the proposal.
Add a section	a. On the **Sections** tab, click **Add**. b. Type a title for the section. c. Click **OK**. The new tab is added at the end of the proposal setup.
Delete a section	a. On the **Sections** tab, select the section that you want to delete. b. Click **Delete**. c. To permanently delete the section, click **Yes** in the confirmation dialog box.
Move a section forward or backward in the proposal	a. On the **Sections** tab, select the section that you want to move. b. Click **Move Forward** or **Move Backward**.

13. Click **Save**.
14. Click **Make Proposal**.
15. In the **Save As** dialog box, browse to the folder where you want to save the proposal.
16. If necessary, change the file name.
17. Click **Save**.
18. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

We recommend that you save the exported proposals in the estimating **Document Index** for future reference. For more information, see Manage files for an estimating job (page 545).

8 Inventory

The **Inventory** module in Tekla PowerFab consists of two separate parts: inventory and inventory history. In **Inventory**, you can take items from stock, return them to stock, reserve items for a customer order, and so on. In **Inventory History**, you can view the entire history of items in the inventory.

Any item in Tekla PowerFab becomes an inventory item when it is loaded into a purchase order. Note that you cannot modify the properties of these types of items as long as the items have not yet been received.

8.1 Define the default inventory settings

Before you start using the **Inventory** module for making orders, taking material from stock, and so on, we recommend that you define default settings for the **Inventory** module.

Define the company standard settings, the countries of origin, and a set list of primary and secondary locations, adjust the visible input and display fields of both **Inventory** and **Inventory History**, and customize the drop-down menu commands in the **Inventory** module.

For more information, see the following links:

Define company standard settings for Inventory (page 599)

Define the countries of origin (page 602)

Restrict inventory locations (page 602)

Define company standard settings for Inventory

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.

2. On the menu, select **Inventory** --> **Company Standards**.

   The **Company Standards** dialog box opens.

3. Modify the settings as needed.

Option	Description
Auto-Calc Part #	When selected, Tekla PowerFab automatically enters a part number for each item when new material is received. When cleared, you need to enter the part number manually.
Part # Format	The part number format. To change the part number format, click the arrow on the right side of the **Part # Format** field, and select an option in the list. The options are: • **[PO#]-[Item#]-[Receive Count]-[RTS Count]**: The part number consists of the purchase order number, purchase order item number, receive count, and return to stock count. Note that the receive count number does not refer to the quantity received, but the occurrence of receiving the material. The returned to stock count number indicates how many times the material has been cut. For example, if the purchase order number was 123, the item number 50, quantity 5, and 2 are received, the part number would be 123-50-1-0. When the remaining 3 pieces were received, the part number would be 123-50-2-0. If the length of the material was 40’-0 and you took 25’-0 and returned 15’-0 to inventory, the part number would be 123-50-1-1. • **Sequential, Increments each receipt**: The part numbering starts from 00001, and each time an item is received on a purchase order, the item is assigned an incremented part number (for example, 00002). • **Sequential, Increments each receipt, with RTS count**: The part number consists of a sequential number and the returned to stock count. The part numbering starts from 00001, and each time an item is received on a purchase

Option	Description
	order, the item is assigned an incremented part number (for example, 00002). The returned to stock count indicates how many times the material has been cut. An example part number could be 00003-1.
Inventory History - Default number of days to view (0 for all)	Allows you to set a filter that defines the number of days that items remain visible in the **Inventory History** dialog box. Note that you can clear the filter in the **Inventory History** dialog box to display all items in the inventory history again. Enter a number in the field. To always display all items in the **Inventory History** dialog box, enter 0.
Open to Filter Selection	When selected, the **<Module> Filters** dialog box automatically opens when you open a job. In the dialog box, you can set filters to only show the items that you want to see in the job. The job opens when you have set the filters.

4. Click **Save**.

The default settings of the **Inventory** module are updated.

Define default input and display units for Inventory

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.

3. Select the measurement system and the units of measurement on the drop-down menus.

4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Click **Save**.

6. Do either of the following:

- Click **Save**.

  The **<Module> Job Edit** dialog box closes.
- Continue to add or modify properties.

Define the countries of origin

You can add new countries of origin for items in the inventory in the **Countries** dialog box. You can also modify or delete any existing countries to match the countries used by your company.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Inventory** --> **Countries of Origin**.
3. In the **Countries** dialog box, do any of the following:

To	Do this
Add a new country	a. Click **New**. b. Type the country and an abbreviation for it. Only the abbreviation will be shown when you set a country of origin for an item in the **Inventory** dialog box. c. Click **Add**. The new country is now available in the **Inventory** dialog box.
Modify an existing country	a. Select the country that you want to modify. b. Modify the country and its abbreviation. c. Click **Edit** to save the changes.
Delete a country	a. Select the country that you want to delete. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete country.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Restrict inventory locations

You can restrict the possible primary and secondary locations to ensure that everyone uses the same location information. Note that these settings will not affect any existing locations already in use.

1. Click the **Maintenance** ribbon tab.

2. On the menu, select **Inventory > Location Restrictions**.
3. In the **Location Restrictions** dialog box, click **New**.
4. Type the primary location in the **Location** box.
5. Type the secondary location in the **Secondary Location** box.
6. If you want to allow any location either for the primary or secondary location, select the corresponding checkbox.

   For example, you might want to allow any primary location but only some secondary locations. Note that if you add a restriction and then add another line that allows any location, the restriction will not be effective.
7. Click **Add**.

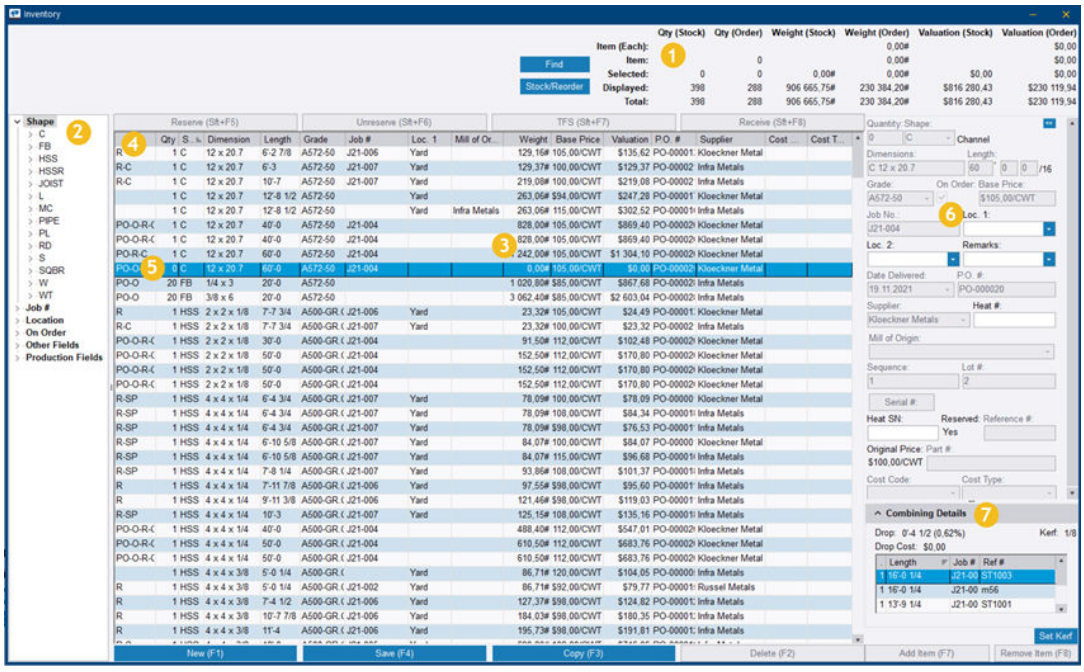
8.2 Open the Inventory module

To maintain your inventory, open the **Inventory** module.

- At the top of the Tekla PowerFab window, click the **Inventory** icon.



The **Inventory** dialog box opens.



(1) Summary grid: Shows the quantities, weights, and valuations of items in stock and on order.

(2) Navigation tree: Lists the items you can view by shape, job, and inventory location, for instance.

Click **>** to expand the list. Then, click the items that you want to view in the display area.

(3) Display area: Lists all material items in the inventory.

(4) The leftmost unnamed column: The statuses of different material items. The abbreviations indicate the following statuses:

- PO: Items are on a purchase order
- O: Items are on order (not yet received)
- R: Items are reserved for a job
- C: Items have been combined

For example, items labeled PO-O-R-C have been combined and are on a purchase order, have been reserved for a job, and have not yet been received.

Items without any status indicator in this column are open stock items and were entered manually.

(5) Zero quantity items: Placeholders for items that have been received on a purchase order, but have not been finalized yet. Zero quantity items cannot be modified in the inventory, and the combining details table below the input area does not display any information about whether items are properly linked to production control jobs.

Using zero quantity items in the inventory allows Tekla PowerFab to properly modify the base pricing if the pricing in the purchase order is modified after the materials have been received and split into different line items.

You can hide the zero quantity items by creating and saving a filter that excludes these items. This way, you will not mistake them for additional material items in the inventory. For more information, see Filter information in the Inventory dialog box (page 605).

(6) Input area: Allows you to add information for existing or new items. It also displays the properties of an item selected in the display area.

NOTE The properties of items that are on a purchase order or that are placeholders with zero quantity cannot be modified, and therefore the input fields become inactive if you select them in the display area.

You can modify the available fields in **Maintenance** --> **Inventory** --> **Edit Input Fields** dialog box.

(7) Combining details: The parts to be cut from the item selected in the display area.

NOTE Under the combining details table, you can see if the items that are combined to the selected inventory item are properly linked to a production control job.

Filter information in the Inventory dialog box

In addition to using the navigation tree for filtering items, you can set filters that determine which items are shown in the **Inventory** dialog box.

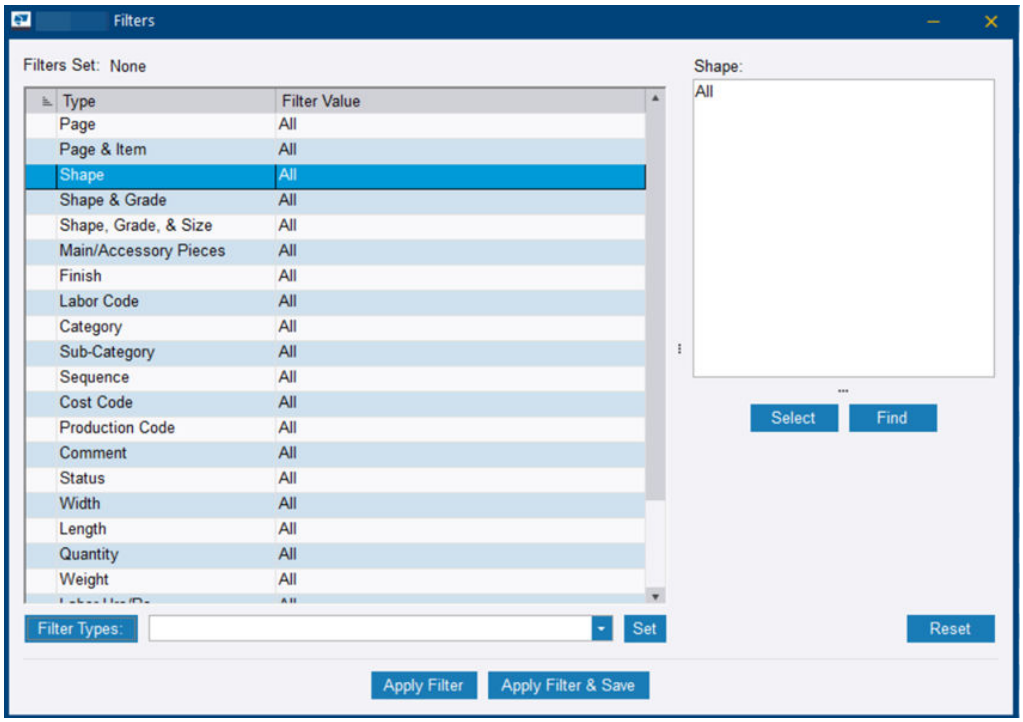
NOTE Using filters only affects the way you see the **Inventory** dialog box, so you cannot accidentally change other users' settings.

If the **Open to Filter Selection** checkbox has been selected in **Maintenance** --> **<Module>** --> **Company Standards**, the **<Module> Filters** dialog box opens automatically when you open a job.

If the **Open to Filter Selection** checkbox has not been selected, open the **<Module> Filters** dialog box as follows:

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Filter**.

   The **<Module> Filters** dialog box opens.



3. Select a filter type in the **Type** list and click **Select**.

The **Filter** dialog box opens.

For some filter types, you can also click **Find** and type the desired value in the search box to use it. This way, you do not have to scroll through all the available items.

4. Click the arrow buttons to move the items that you want to display to the **Included** list.
5. Click **OK**.

   If you want to further filter the information displayed , repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

   If you want to clear all filter settings, click **Reset**.

The **<Module> Filters** dialog box closes, and the items are filtered according to the settings you made.

To display all information again, click **Clear Filters** in the upper-left corner.

To create and save commonly used filters, see Create and modify module-wide filters (page 134).

Search for items in the Inventory dialog box

Use the different **Find** commands in the **Inventory** dialog box to quickly find the needed material items. You can search for items by material shape, grade, or size, heat number, or serial number.

Search for items by material shape, grade, or size

1. At the top of the **Inventory** dialog box, click **Find Shape/Grade/Size**, or press **Ctrl+F5**.
2. Select the material shape, and optionally grade and dimensions in the appropriate lists.

   You can also type the shape, grade, and dimensions in the appropriate fields.
3. Do any of the following:
   - To find items with the selected material shape, click **Find Shape**.
   - To find items with the selected material shape and grade, click **Find Grade**.
   - To find items with the selected material shape and dimensions, click **Find Size**.

Only items that match your search are displayed in the **Inventory** dialog box. The selected material shape, grade, and dimensions are shown above the navigation trees on the left side of the dialog box.

To view all items again, click **All Items** in the upper navigation tree.

Search for an item by heat number

1. At the top of the **Inventory** dialog box, click **Find Heat #**.
2. Select the heat number in the list, or type it in the field.
3. Click **Find Heat #**.

The item with the selected heat number is selected the **Inventory** dialog box.

Search for an item by serial number

1. At the top of the **Inventory** dialog box, click **Find Serial #**.
2. Select the serial number in the list, or type it in the field.
3. Click **Find Serial #**.

The item with the selected serial number is selected the **Inventory** dialog box.

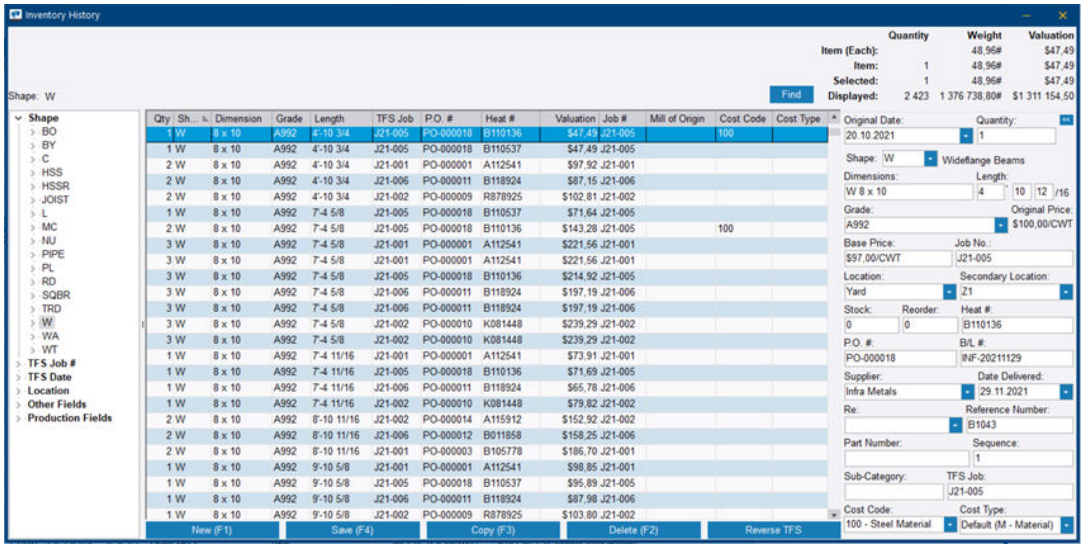
View inventory history

You can view all material that has been taken from stock for a job in the **Inventory History** dialog box.

1. While in the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Inventory History**.

TIP If you hold down **Shift** when selecting the **Inventory History** command, the **Inventory History** opens in a new dialog box. This way, you can view the inventory and the inventory history at the same time.

The **Inventory History** dialog box opens.



TIP Use the navigation trees on the left of the dialog box to filter which items are visible. For example, to only show items in a specific job, click a job number in the lower navigation tree.

To return to the **Inventory** dialog box, do the following:

1. Click the **Inventory** ribbon tab.
2. On the menu, select **Inventory**.

See also

Archive jobs (page 652)

Manage files for inventory

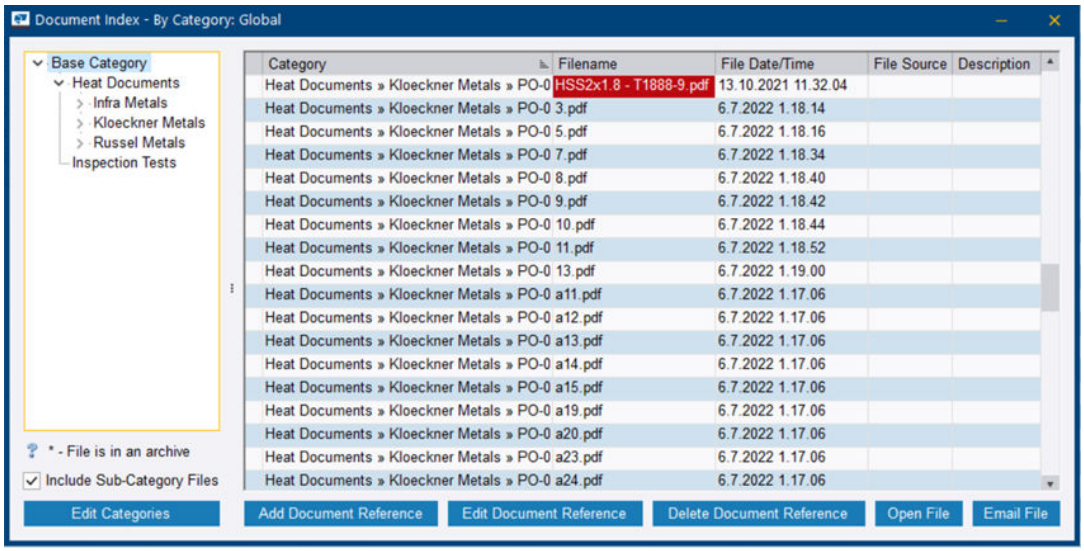
Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.

- In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

See also

Document Index (page 183)

Set the standard categories for attached documents (page 184)

8.3 Manage inventory items

You can manage inventory items in multiple ways. After adding the necessary inventory items, you can copy and modify the items according to your needs. You can also take material from stocks and return the remaining material to stock, reserve or send inventory items to customer orders, combine inventory items, or delete unnecessary inventory items.

For more information, see the following links:

Add an item to the inventory (page 610)

Copy an inventory item (page 619)

Modify inventory items (page 616)

Take material from stock and return material to stock (page 620)

Add inventory items to Order Entry (page 625)

Combine inventory items manually (page 628)

Delete inventory items (page 627)

Add an item to the inventory

You can add new items manually to the inventory.

1. In the **Inventory** dialog box, click **New**.
2. Define the item properties in the input fields.

   NOTE The visible input fields and their order depend on the settings that you have defined in.**Maintenance** --> **Inventory** --> **Edit Input Fields**.

   The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Base Price	The base price of the material item Type in the base price. To change the base price units and to convert the current price to the selected units, right-click the **Base Price** field, and select an appropriate option in the context menu.

Option	Description
B/L #	The bill of lading number or the shipment number that the material item was received on Type in the number.
Category **Sub-Category**	A class used for sorting items within a job We recommend that you do not type any information in this field when you add inventory items manually. Note that if you type any information manually in the field, the information will be overwritten if you combine or link material from **Production Control** to the inventory item.
Country	The country of origin of the material item. Click the arrow on the right side of the **Country** field, and select a country in the list. The available countries can be modified in the **Countries** dialog box. For more information, see Define the countries of origin (page 602).
Date Delivered	The date when the material item has arrived to inventory. Do one of the following: • Type in the date. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Select the delivery date in the calendar. Note that the **Date Delivered** field is only available if the **On Order** checkbox is cleared.
Dimensions	The material dimension, or material size, of each piece Depending on the shape, the dimension can also be mandatory information.

Option	Description
	Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: a. Click in the **Dimensions** field. b. Click **Add Size**. c. Define the dimension properties. d. Click **Save**. You can now select the dimension and use it.
Grade	The material grade of each piece Depending on the shape, the grade can also be mandatory information. Either select the grade from the drop-down menu or type the grade indicator in the field.
Heat #	The heat number of the material item. Type in the number. Note that you need to type a heat number for a material item before attaching documents to it in **Document Index**.
Heat SN	A property that ensures that heat numbers are not duplicated. However, duplications are extremely rare, so using the **Heat SN** field is optional. If necessary, type a value in the **Heat SN** field.
Job No.	Type in the number. For example, you can use the **Job No.** field to reserve material for the shop or maintenance, so that it cannot be used elsewhere.

Option	Description
Length	The length of each piece Default length input settings are set in **Company Standards**, but you can modify them for each job.
Loc. 1	The inventory location of the material item. Click the arrow on the right side of the **Location** field and select a location in the list, or type a new location in the **Location** field.
Loc. 2	The secondary inventory location of the material item. Click the arrow on the right side of the **Secondary Loc** field and select a location in the list, or type a new secondary location in the **Secondary Loc** field. For example, you can use secondary locations to represent the inventory sites or the date the location was verified. You can also use the **Secondary Loc** field to provide a temporary location for storing some pieces of a material item. This way, you can split the quantity of the material item without affecting the location.
Lot #	The lot identification number of the material item See Manage the sequences and lots of selected production control items (page 982) We recommend that you do not type any information in this field when you add inventory items manually. Note that if you type any information manually in the field, the information will be overwritten if you combine or link material from **Production Control** to the inventory item.

Option	Description
Mill of Origin	A firm identified as a mill of origin. See Modify company or contact properties (page 204).
On Order	When selected, the material item is on order and has not yet been received. When cleared, the material item is marked as received. Items that are on order are marked with an **O** in the leftmost column of the **Inventory** dialog box.
Original Date *	The date on which the item has originally been added to inventory. Click the arrow on the right side of the **Original Date** field and select a date in the calendar.
Original Price	The base price at which it was first put on a purchase order or added to the inventory.
Part Number	The part number of the material item. Type the part number in the **Part Number** field. To adjust part number settings, see Define the default inventory settings (page 599).
P.O. #	The number of the purchase order that contains the material item. Type in the number. Note that you need to type a purchase order number for a material item before attaching documents to it in **Document Index**.
Quantity *	The number of pieces to be added Use the numeric keypad to add, multiply, divide, or subtract number of items.
Reference #	A reference number that links items in inventory or purchasing to the production control job The reference number can be different depending on the case:

Option	Description
	• If an item is sent from **Production Control** to **Purchasing** or **Inventory**, Tekla PowerFab creates a copy of the record, and the item is linked to include the reference number. • If the item is sent to **Purchasing** later in the process, the reference number is the mark or piece mark number. However, if the reference number has been assigned in the production control job, that reference number is maintained in the inventory as well. We recommend that you do not type any information in this field when you add inventory items manually.
Remarks	Any comments or remarks that you want to add about the item Type in the remarks or select an existing remark in the list.
Reorder	Any reordering information about the item. Type any information in the **Reorder** field. Use the **Stock/Reorder** command to set stock quantities to be maintained. See Add, modify, and delete stock quantities to be maintained (page 630).
Reserved	Indicates if the item is reserved for a customer order. See Add inventory items to Order Entry (page 625).
Serial #	The serial number of the material item. To add a serial number, click the **Serial #** button. For more information, see Define serial numbers for an inventory item (page 617).

Option	Description
Sequence	The sequence number assigned to the item See Manage the sequences and lots of selected production control items (page 982) We recommend that you do not type any information in this field when you add inventory items manually. Note that if you type any information manually in the field, the information will be overwritten if you combine or link material from **Production Control** to the inventory item.
Shape *	The material shape of each piece Either select the shape from the drop-down menu or type the shape indicator in the field (for example, HSS).
Supplier	The supplier of the material item. Either type in a supplier or select the supplier from the drop-down list. Note that you need to type a supplier for a material item before attaching documents to it in **Document Index**.
Stock	Any stock information about the item. Type any information in the **Stock** field. Use the **Stock/Reorder** command to set stock quantities to be maintained. See Add, modify, and delete stock quantities to be maintained (page 630).

3. Click **Add**.

The new material item is added to the list in the **Inventory** dialog box.

Modify inventory items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

NOTE Inventory items that are on a purchase order or that are placeholders with zero quantity cannot be modified, so the input fields become inactive if you select them in the display area.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Inventory** --> **Edit Input Fields**.

For more information, see the following links:

Modify multiple inventory items (page 618)

Modify selected inventory items (page 619)

Define serial numbers for an inventory item

You can add serial numbers for a material item in the **Inventory** dialog box. Note that you can only add a serial number for items that have been marked as received, and are not on order.

1. In the **Inventory** dialog box, click a material item to select it.
2. On the right side of the dialog box, click **Serial #** under the **Reference Number** field.
3. In the **Serial Numbers** dialog box, do one of the following:
   - To assign a different serial number for each piece of the material item, select the **Serialized** option.

     If you use or plan to use bar codes, do not select the **Serialized** option. Using the **Serialized** option prevents displaying serial numbers in some reports.
   - To use the same serial number for all pieces of the material item, select the **Non-Serialized** option.
4. Click **Update**.
5. Click **New** to define a new serial number.
6. Enter the serial number in the **Serial #** field.
7. Click **Add**.

   Repeat steps 5 to 7 for each serial number that you want to create.

   If necessary, you can:
   - Modify a serial number, and update it by clicking **Save**.
   - Delete a serial number by clicking **Delete**, and then, clicking **Yes** to confirm.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The serial numbers appear under the **Serial #** button in the **Inventory** dialog box.

Modify a single inventory item

You can modify the properties of a single inventory item directly in the **Inventory** dialog box.

Note that if you only want to modify some pieces in an item, you need to split the item first. You can do so by either moving the desired quantity of pieces to a different location or secondary location, or changing the reservation of the quantity.

1. In the **Inventory** dialog box, select the item that you want to modify.
2. On the right side of the dialog box, modify the item properties according to your needs.
3. Click **Edit** to save the changes.

See also

Modify selected inventory items (page 619)

Modify multiple inventory items (page 618)

Modify multiple inventory items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.
3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
4. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

5. Click **OK**.

   To further limit the items to modify, repeat steps 3 to 5 for all necessary filter types.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

See also

Modify selected inventory items (page 619)

Modify selected inventory items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Inventory** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Inventory** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit - Selected**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

5. Click **Update**.

The properties of the selected items are updated.

See also

Modify multiple inventory items (page 618)

Copy an inventory item

Copy a material item in the **Inventory** dialog box and use it as the basis of a similar item. Then, adjust any properties according to your needs. By copying items, you can save time and avoid entering the same data multiple times.

1. In the **Inventory** dialog box, click the material item that you want to copy.
2. At the bottom of the dialog box, click **Copy**.

The item is copied and added in the list.

Note that not all values in the leftmost column are copied. For example, **PO** indicates that the item has been sent to a purchase order, so it is not used for new, manually added inventory items.

Take material from stock and return material to stock

To take materials from stock and cut them, use the **TFS** command. Then, use the **RTS** command to return the remaining lengths to stock.

1. In the **Inventory** dialog box, click items to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **TFS**, or press **Shift+F7**.

   Depending on whether the items are linked or combined to a job, one of the following happens:

   - If the items are not linked or combined to a job or you have selected multiple items that are linked or combined to a job, the **Take From Stock** dialog box opens.
   - If a single item is selected and it is linked or combined to a job, a confirmation dialog box appears.
3. Do one of the following:

NOTE The steps may vary slightly depending on the item properties, such as the item quantity, links to production control jobs, and the multing and nesting status.

To	Do this
Take from stock one or multiple items that are not linked or combined to a job	a. In the **Take From Stock** dialog box, type the quantity of pieces and the job number. Note that if you have selected multiple items, Tekla PowerFab automatically takes all available pieces from stock.

To	Do this
	b. If necessary, modify the category, sub-category, sequence, lot number, and release number. c. Click **TFS** to take the material from stock. d. In the **RTS** section of the dialog box, type the quantity, width, length, location, and job number of items that you want to return to stock. e. Click **RTS** to return the remaining material lengths to stock. f. Click **Apply**.
Take from stock multiple items that are linked or combined to a job	a. In the **Take From Stock** dialog box, type the job number. b. If necessary, modify the category, sub-category, sequence, lot number, and release number. c. To return all drop left from cutting to stock, select the **Return Drop of Combined Items to Stock** checkbox. d. Click **TFS** to take the material from stock.
Take from stock a single item that is linked or combined to a job	a. To update the linked production control jobs when taking the material from stock, click **Yes** in the confirmation dialog box. b. If necessary, in the **Take From Stock** dialog box, click the arrow buttons to move the quantity to take from stock to the **Included** list. c. In the **Enter Value** dialog box, do one of the following: • Type the date in the **Enter Value** field. The accepted formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Click the arrow on the right side of the **Date Required** field and select the date in the calendar. d. Click **OK**. e. In the **Select Jobs to TFS** dialog box, click the arrow buttons to move the jobs that you want to update to the **Included** list. f. Click **OK**.

To	Do this
	g. To confirm taking the material item from stock, click **Yes** in the confirmation dialog box. h. In the **TFS/RTS** dialog box, click **New** to add a pieces that will be returned to stock. Then, define the size of the piece, and click **Add**. Repeat step h to add all necessary pieces. i. Click **OK**. The **TFS** dialog box shows the progress of the take from stock process. j. After the take from stock process has finished, do one of the following: • To close the **TFS** dialog box and return to the **Inventory** dialog box, click **Close**.To view or print TFS reports, click **Reports**.For more information, see View and print TFS reports (page 644).

Take selected materials from stock

Use the **TFS - Selected** command to take selected inventory items from stock, cut them and move the cut lengths into the inventory history. The remaining drop remains in the inventory. Once the materials have been taken from stock, you can view or print different reports for the materials.

1. In the lower navigation tree of the **Inventory** dialog box, select a job number.

   Only the items within the selected job are displayed in the display area.
2. Click the **Inventory** ribbon tab.
3. On the menu, select **Production Control** --> **TFS - Selected**.

   The **Enter Value** dialog box opens.
4. Enter a date for taking the materials from stock.
5. Click **OK**.
6. To take the selected materials from stock, click **Yes** in the confirmation dialog box.

   The selected items are taken from stock. You can see the progress in the **TFS** dialog box. Wait until the process is completed.

7. Do any of the following:

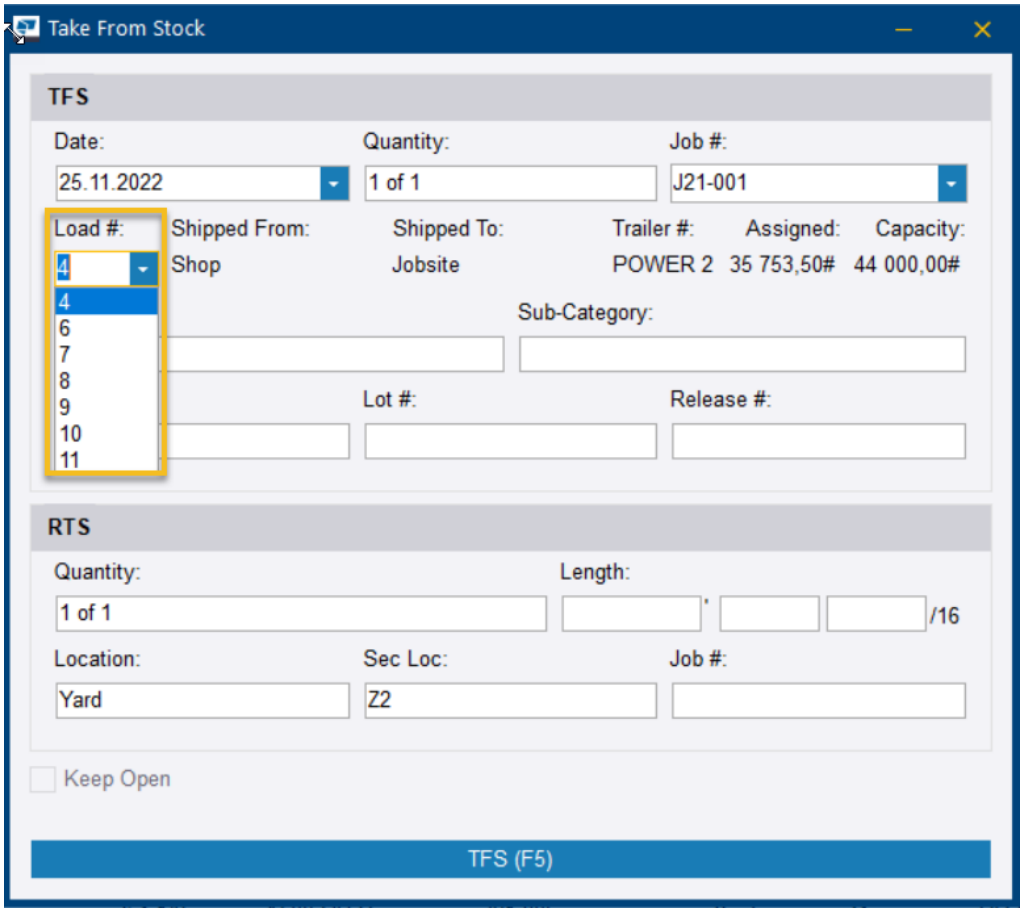
To	Do this
View or print a report on the TFS process	a. Click **Reports**. The **Report Progress** dialog box opens. b. Select the report that you want to print or view. c. Do any of the following: • To view the report, click **View**. • To print the report, click **Print**, select the printer, and click **OK**. d. To close the **Report Progress** dialog box, click the **Close** button (**X**) in the top right corner.
Close the **TFS** dialog box	Click **Close**.

Add inventory to load

You can add items to a load directly from inventory. The inventory is then taken from stock and the weight of the materials is included in the overall weight of the load. The shipping ticket report displays the additional inventory items.

1. Take an item from stock:
   a. In the **Inventory** dialog box, click items to select them.
      To select multiple items, hold down **Ctrl**.
      To select a range of subsequent items, hold down **Shift**.
   b. Click **TFS** or press **Shift**+**F7**.
      The **Take From Stock** dialog box opens.
2. Type in the quantity and job number.

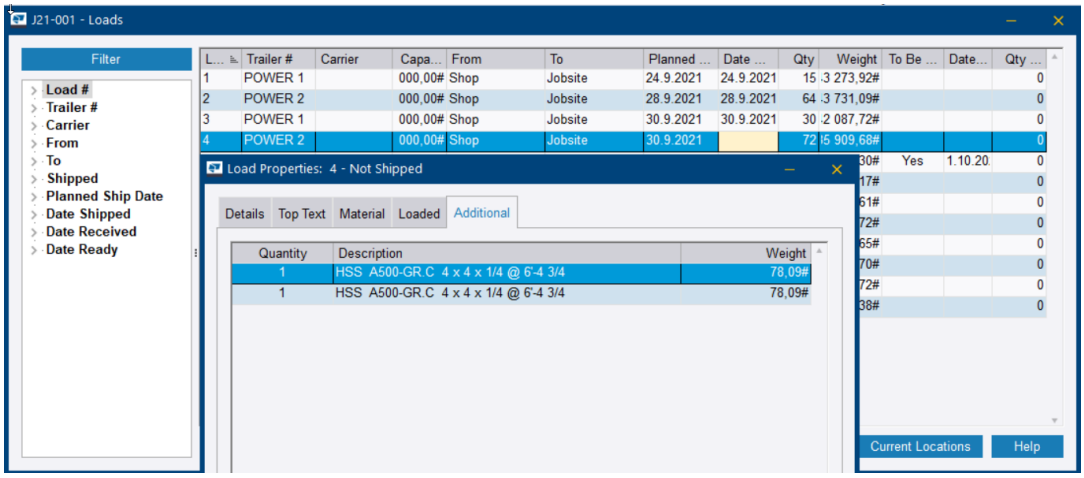
Load # appears in the dialog box. It lists all the unshipped loads for the selected job.



3. Select the load number.
4. Click **TFS**.

The inventory is assigned to the load and taken from stock.

The inventory materials are listed on the **Additional** tab in **Production Control** --> **Load Properties**, and they will also be displayed on the shipping ticket reports.



NOTE

- You can also add inventory to a load in Tekla PowerFab Go. See *Add inventory to load* in *Tekla PowerFab Go User Guide*.
- If you delete inventory from the load, you are prompted to confirm if you wish to perform a reverse take from stock.

Move an item to another inventory location

Use the **Move** command to move a single inventory item to another inventory location.

1. In the **Inventory** dialog box, select the item whose location you want to change.
2. Click **Move**, or press **Shift+F8**.

   The **Move** dialog box opens.
3. In the **Quantity** field, enter the number of pieces that you want to move.
4. Click the arrow on the right side of the **Location** list and select the new location.
5. If necessary, click the arrow on the right side of the **Sec Location** list to select a secondary location.
6. Click **Move**, or press **F4**.

The selected quantity of items is moved to the selected location.

Add inventory items to Order Entry

To add items to **Order Entry**, use the **Add Selected to Order** and **Quick Quote** commands. The **Add Selected to Order** command reserves the selected items for a customer order, whereas the **Quick Quote** command adds the selected items directly into a quote or a customer order.

NOTE You can add only unreserved items to **Order Entry**.

Reserve items for a customer order

1. In the **Inventory** dialog box, select the items that you want to load to a customer order.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Inventory** ribbon tab.
3. On the menu, select **Order Entry** --> **Add Selected to Order**.
4. In the **Select Quote/Order** dialog box, select the customer order to which you want to load the items.
5. Click **OK**.

The **Select Quote/Order** dialog box closes. The items are reserved for the selected customer order.

Send items to a customer order

1. In the **Inventory** dialog box, select the items that you want to add to a quote or customer order.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Inventory** ribbon tab.
3. On the menu, select **Order Entry** --> **Quick Quote**.

   The **Quick Quote** dialog box opens. The properties of the selected items are visible in the **Details** section of the dialog box.
4. In the **Customer Name** list, select the customer company.

   Note that the customer must already be saved in the **Address Book**.

   Tekla PowerFab automatically fills in the customer code and the default contact.
5. If necessary, in the **Contact** list, select another contact person.
6. According to your needs, do any of the following:

To	Do this
Send items to an existing quote or customer order	a. Click **Save to Quote/Order**. The **Select Quote/Order** dialog box opens.

To	Do this
	b. Select the quote or order to which you want to send the items. c. Click **OK**. The items are sent to the selected quote or order.
Send items to a new quote	a. Click **Save to New Quote**. b. To create a new quote and send the selected items to it, click **Yes** in the confirmation dialog box. c. In the **Quote** dialog box, modify the quote according to your needs. For more information, see Create a quote or an order (page 1217). d. Click **Save Quote Information**. e. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
Send items to a new customer order	a. Click **Save to New Order**. b. To create a new order and send the selected items to it, click **Yes** in the confirmation dialog box. c. In the **Order** dialog box, modify the order according to your needs. For more information, see Create a quote or an order (page 1217). d. Click **Save Order Information**. e. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

7. To close the **Quick Quote** dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete inventory items

You can delete unnecessary material items from inventory. Note that deleting the items is permanent and cannot be undone.

You can still view the deleted items in the transaction history. For more information, see View the transaction history in the Inventory module (page 640).

1. In the **Inventory** dialog box, click the items that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click **Delete**.
3. To permanently delete the inventory item, click **Yes** in the confirmation dialog box.

Combine inventory items manually

You can manually combine items in the **Inventory** dialog box by activating the manual combine mode. You can select pieces to combine them into a stock length, or uncombine pieces from a stock length.

Switch to the manual combine mode

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Switch to Manual Combine Mode**.

The **Inventory** dialog box changes to the manual combine mode. New buttons appear at the bottom of the dialog box to enable adding and removing combined items from the selected inventory item.

You can now combine inventory items manually.

Combine materials

Use the **Add Items** command to combine materials into a selected stock length.

1. In the **Inventory** dialog box, click a stock length to select it.
2. At the bottom of the dialog box, click **Add Items**.

   The **Add Item** dialog box opens. You can see all available uncombined materials that can be combined to the selected stock length. If the dialog box is blank, no materials are available to be combined to the selected stock length.

   Note that the available materials come from requisitions. If the items that you want to combine are in a production control job, you need to add them to a requisition before you can combine them manually.

3. In the **Add Item** dialog box, click an uncombined item to select it.
4. If necessary, modify the quantity of inventory items that you are combining materials to.

   If the quantity is greater than 1, the materials should be multiples of that quantity in order to be displayed and selected in the **Add Item** dialog box.
5. To allow material grade substitutions, select the **Use Grade Substitutions** checkbox.
6. Click **Add**.

The selected material items are combined to the selected stock length.

Uncombine materials

Use the **Remove Item** to uncombine material items from a selected stock length.

1. In the **Inventory** dialog box, click a stock length to select it.
2. At the bottom of the dialog box, click **Remove Item**.

   If the selected stock length is not combined, the **Remove Item** button is not available.
3. In the **Remove Item** dialog box, use the arrow buttons to move the materials that you want to uncombine to the **Included** list.

   To only move one piece of the selected item, click the **Qty 1** buttons.
4. Click **OK**.
5. In the confirmation dialog box, do one of the following:
   - To simply uncombine the pieces, click **No**.

     Select the **No** option if you are removing items to clear the material of items that are no longer linked.
   - To uncombine the pieces and return the items to the requisition from which they were loaded to a purchase order, click **Yes**.

     The items are held in the requisition to be recombined and purchased, or combined into a different stock length.

     If the requisition no longer exists or the material item was never on a requisition, Tekla PowerFab asks you to select a requisition or add a new one.

The confirmation dialog box and the **Remove Item** dialog box close. The pieces are uncombined from the selected stock length.

Switch back to the input mode

1. Click the **Inventory** ribbon tab.

2. On the menu, select **Switch to Input Mode**.

The **Inventory** dialog box changes back to the input mode.

8.4 Add, modify, and delete stock quantities to be maintained

In the **Stock/Reorder** dialog box, you can add, modify, and delete stock quantities that should always be maintained in inventory. This way, Tekla PowerFab can alert you when you need to reorder items.

To access the **Stock/Reorder** dialog box, do the following:

- At the top of the **Inventory** dialog box, click **Stock/Reorder**.

The **Stock/Reorder** dialog box opens, displaying previously created records.

Note that the items in the **Stock/Reorder** dialog box are color-coded:

- Green items are equal or above the required stock quantity.
- Yellow items are below the required stock quantity.
- Red items are below both the required stock quantity and the required reorder quantity.

Add a new stock record

1. At the bottom of the **Stock/Reorder** dialog box, click **Add New Record**.

   The **Stock/Reorder - Add** dialog box opens.
2. Select the shape, dimensions, grade, and length to be ordered.
3. If necessary, in the **Location** list, select the location where the items will be stored.

   Note that if you select a location, the record only applies to the quantities of items in the assigned location.
4. In the **Stock Qty** field, enter the stock quantity that should be maintained.
5. In the **Reorder Qty**, enter the quantity at which Tekla PowerFab prompts you to reorder the item.
6. Click **Add**.

The **Stock/Reorder - Add** dialog box closes, and the new record is added to the list in the **Stock/Reorder** dialog box.

Modify stock records

1. In the list in the **Stock/Reorder** dialog box, click the record that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Modify the values in the **Stock Qty** and **Reorder Qty** fields according to your needs.
3. Click **Save**.

Delete stock records

1. In the list in the **Stock/Reorder** dialog box, click the record that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Delete Selected**.
3. To permanently delete the record, click **Yes** in the confirmation dialog box.

Load stock items to a requisition

1. In the list in the **Stock/Reorder** dialog box, click the items that you want to send to a requisition.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Requisition**.
3. In the **Select Requisition** dialog box, do one of the following according to your needs:

To	Do this
Add the items into a new requisition	a. Click **Add**. b. Modify the requisition number and description according to your needs. c. If necessary, modify other requisition properties. d. Click **Save**. e. Select the new requisition in the list. f. Click **OK**.

To	Do this
Add the items into an existing requisition	a. Select a requisition in the list. b. Click **OK**.

The items are loaded to the selected requisition.

Load stock items to a purchase order

1. In the list in the **Stock/Reorder** dialog box, click the items that you want to send to a purchase order.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Purchase Order**.
3. In the **Select Purchase Order** dialog box, do any of the following according to your needs:

To	Do this
Add the items into a new requisition	a. Click **Add**. b. Modify the purchase order number according to your needs. c. Add vendor details for the purchase order. d. If necessary, modify other purchase order properties. e. Click **Save**. f. Select the new purchase order in the list. g. Click **OK**.
Add the items into an existing requisition	a. Select a purchase order in the list. b. Click **OK**.

The items are loaded to the selected purchase order. In the **Stock/Reorder** dialog box, the items are color-coded to reflect the purchase activity.

8.5 View inventory details

You can view different details of inventory materials, including the heat documents attached to items, the location of barcoded materials, the total value of inventory materials, and the transaction history. You can also view TFS report and inventory reports, and print or export them according to your needs.

For more information, see the following links:

View heat documents attached to inventory items (page 633)

View the location of barcoded materials (page 635)

View the value of inventory materials (page 637)

View the transaction history in the Inventory module (page 640)

View and print TFS reports (page 644)

View, print, and export inventory reports (page 645)

View heat documents attached to inventory items

To view if inventory items have heat documents attached to them, use the **Check Heat Documents** command. You can also save or print the available heat documents, or create reports on the items that have or do not have heat documents.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Check Heat Documents**.
3. To limit the item types whose heat documents you want to check, in the **Inventory - Check Heat Documents** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
   b. Type the maximum and minimum values for the items whose heat documents you want to view.
5. Click **OK**.

   To further limit the item types, repeat steps 3 to 5 for all necessary filter types.
6. Click **Check Heat Documents**.

   All inventory items that match the filters that you set are displayed. If an item has attached heat documents, you can see the number of the heat documents in the **Docs** column. If an item does not have attached heat documents, the **Docs** column is highlighted with red.
7. According to your needs, do any of the following:

To	Do this
Update heat document information	• Click **Refresh**. Any new or modified information is updated.

To	Do this
Add, modify, and delete heat documents in **Document Index**	a. Click **Open Document Index**. **Document Index** opens. For more information, see Manage files for inventory (page 608).
Save heat documents	a. Do one of the following: • To only save particular heat documents, click the item whose documents you want to save, and click **Save Documents** --> **Save Documents - Selected**. • To save all available heat documents, click **Save Documents** --> **Save Documents - All**. b. In the **Browse For Folder** dialog box, browse to an empty folder where you want to save the heat document information. c. Click **OK**. A report of the heat documents opens.
Print heat documents	a. Do one of the following: • To only print particular heat documents, click the items whose documents you want to print, and click **Print Documents** --> **Print Documents - Selected**. • To print all available heat documents, click **Print Documents** --> **Print Documents - All**. b. In the **Select Printer** dialog box, click a printer to select it. c. Click **OK**. All or the selected heat documents are printed.
Create reports	a. Do one of the following: • To create a report only containing particular items, click the items to select them, and click **Reports** --> **Reports - Selected**. • To create a report containing all items, click **Reports** --> **Reports - All**. b. In the **Report Selection** dialog box, click the report that you want to create. c. Do one of the following: • To view the report, click **View**.

To	Do this
	• To print the report, change the number of copies by clicking the **+** and **-** buttons, and click **Print**. • To export the report, click **Export**, modify the export format, file name, and location, and click **Export** again.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the location of barcoded materials

To create location sweep reports, which show the location of yard materials that have been identified by barcodes, use the **Location Sweep** command.

NOTE • The **Location Sweep** command is only available for items with barcode serial numbers.

• **Location Sweep** is intended only for users that have an external barcoding application.

If you do not have barcoding, use the **AUDIT - No Prices, w/Location** report.

To access the **Inventory Location Sweeps** dialog box, do the following:

1. While in the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Barcode** --> **Location Sweep**.

The **Inventory Location Sweeps** dialog box opens.

View the location of barcoded materials

1. Click **New Location Sweep**.
2. To only view locations of specific types of materials, select a filter type in the **Type** list, and click **Select**.
3. In the **Filter** dialog box, click the arrow buttons to move the materials that you want to include in the location sweep to the **Included** list.

   To further limit the materials included, you can repeat steps 2 to 3 for all necessary filter types.
4. Click **Make Report**.
5. In the **Report Selection** dialog box, select the report that you want to view.
6. In the **Report Selection** dialog box, click **View**.

   The location sweep report opens in **Tekla PowerFab Report Viewer**.

Delete a location sweep

1. Select an existing location sweep in the **Inventory Location Sweeps** dialog box.
2. Click **Delete Location Sweep**.
3. To permanently delete the location sweep, click **Yes** in the confirmation dialog box.

Cancel remaining items from a location sweep

1. Select an existing location sweep in the **Inventory Location Sweeps** dialog box.
2. Click **Cancel Remaining**.
3. To cancel the remaining items, click **Yes** in the confirmation dialog box.

Complete the location sweep and move remaining items

1. Select an existing location sweep in the **Inventory Location Sweeps** dialog box.
2. Click **Complete - Move Remaining**.
3. To complete the location sweep and move the remaining items, click **Yes** in the confirmation dialog box.

View, print or export reports of an existing location sweep

1. Select an existing location sweep in the **Inventory Location Sweeps** dialog box.
2. Click **Reports - Selected**.
3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
4. According to your needs, do any of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it.

To	Do this
	d. Click **OK**.
Export the report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. In the **Report Selection** dialog box, click **Export**. The location sweep report is saved to the selected location.

View the value of inventory materials

To view the value of materials in inventory, use the **Valuation** command. You can view the value either by date and time, by date, or by archive.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Valuation** and one of the following options:
   - **Valuation by Date/Time**: Shows the current value of materials in stock or on order, or the value of materials on a specific date and time
   - **Valuation by Date**: Shows the value of material on a specific date
   - **Valuation from Archive**: Shows the valuation of materials in an archive file

View the current material value in inventory or the material value on a specific date and time

1. On the menu, select **Valuation** --> **Valuation by Date/Time**.

2. In the **Archive Date/Time** dialog box, do one of the following:
   - To view the material values on a specific date and time, select the date and time in the appropriate lists, and click **OK**.
   - To view the current material values, click **Use Current Inventory**.
3. To only include specific types of items in the valuation report, in the **Inventory Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. click the arrow buttons to move the item types that you want to include to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
8. Do one of the following:

To	Do this
View the report	In the **Report Selection** dialog box, click **View**. The **Tekla PowerFab Report Viewer** opens.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.
Export the report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and

To	Do this
	send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. In the **Report Selection** dialog box, click **Export**.

9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the material value on a specific date

1. On the menu, select **Valuation** --> **Valuation by Date**.

   The **Inventory Valuation** dialog box opens, showing the valuation of material in stock and on order on the current date.
2. In the **Date** list, select the date whose inventory valuation you want to view.
3. Click **OK**.

   The valuation on the bottom of the dialog box updates.
4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the value from an archive file

1. On the menu, select **Valuation** --> **Valuation from Archive**.
2. In the **Open** dialog box, browse to find and click to select the archive file that you want to use.
3. Click **Open**.
4. In the **Select** dialog box, select if you want to view inventory reports or inventory location reports.
5. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
6. According to your needs, do any of the following:

To	Do this
View the report	In the **Report Selection** dialog box, click **View**. The **Tekla PowerFab Report Viewer** opens.

To	Do this
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.
Export the report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. In the **Report Selection** dialog box, click **Export**.

7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View the transaction history in the Inventory module

You can view all transactions made in the **Inventory** dialog box using the **Transaction History** dialog box. You can also view further transaction details and item history, and view or print different transaction history reports.

View the transaction history of an item

1. In either the **Inventory** or **Inventory History** dialog box, click the **Inventory** ribbon tab.

2. On the menu, select **Transaction History**.

   The **Transaction History** dialog box opens with the **Transaction List** tab open.

3. To filter the transactions shown in the list:

   a. In the **Filters** section of the **Transaction History** dialog box, click **Edit** next to a filter type.

      The available filter types are the transaction date, the user that made the transaction, the transaction type, and the operation type.

      You can also click **Find** to search for the right user, transaction type, or operation type.

   b. Do one of the following:

      - For transaction date, enter the start and end dates to define a range within which the transactions have taken place.
      - For user, transaction type, and operation type, use the arrow buttons to move the desired items to the **Included** list.

   c. Click **OK**.

4. To view more information about a transaction, do the following:

   a. Click to select the transaction in the list on the **Transaction List** tab.

   b. Click the **Transaction Details** tab to view the details of the selected transaction.

   c. Click the **Item History** tab to view the item history of the selected transaction.

Find a transaction by transaction number

1. On the **Transaction List** tab, click **Find Transaction #**.
2. Enter the transaction number in the field.
3. Click **OK**.

The transaction with the selected transaction number is selected on the **Transaction List** tab.

Create transaction history reports

1. Click the **Transaction History** ribbon tab.
2. On the menu, select **Reports**.
3. To only include specific items in the transaction history report, select a filter type in the **Type** list, and click **Select**.
4. Do one of the following:

- For dates, select the start and end dates in the calendar to define a range within which the transactions have taken place.

  You can also select the **Expression** checkbox to create expressions that allow you to set the base date and the number of days before or after that date.
- For other filter types, use the arrow buttons to move the desired items to the **Included** list.

5. Click **OK**.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, select the report that you want to view or print.
8. Do any of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the report	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and

To	Do this
	send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

View all changes in the transaction history

Tekla PowerFab records every change made in the system. This is useful because you can view all changes made in the transaction history of items in a purchase order. You can then filter the information to see changes made by a particular user or on a particular date. If necessary, you can also print the list of changes.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user	a. Select the **User** filter type and click **Select**. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. Click **Edit** on the right side of the **Date** section. b. Enter the start (**Min**) and end (**Max**) dates. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Selection** dialog box, do any of the following:

To	Do this
View the list of changes	• Click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report**

To	Do this
	Viewer window to email the report via Microsoft Outlook.
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View and print TFS reports

To view and print reports for items that have been or could be taken from stock, use the **TFS - Reports Only** command. TFS reports show the cut details, but no items are actually cut or taken from stock when you use the **TFS - Reports Only** command.

1. In the lower navigation tree of the **Inventory** dialog box, select a job number.

   Only the items within the selected job are displayed in the display area.

2. Click the **Inventory** ribbon tab.
3. On the menu, select **Production Control** --> **TFS - Reports Only**.
4. In the **TFS** dialog box, click **Reports**.
5. In the **Report Progress** dialog box, select the report that you want to view or print.
6. Do any of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the **Select Printer** dialog box, click a printer to select it. d. Click **OK**.

7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Take material from stock and return material to stock (page 620)

Take selected materials from stock (page 622)

View, print, and export inventory reports

You can create different inventory reports, such as subtotal reports, shape summaries, or receiving tickets.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. In the **Inventory Report Filters** dialog box, select either the **Inventory Report** or **Inventory Location Report** option according to your needs.
4. To only include specific items in the report, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the items that you want to include in the report to the **Included** list.
6. Click **OK**.
7. If you want to view the inventory situation of a previous date in the reports, do the following:
   a. Click **From Archive**.

b. Select the archive date and time in the applicable lists.

c. Click **OK**.

8. To view barcode audit reports in the **Report Selection** dialog box, select the **Barcode Audit** checkbox.
9. Click **Make Report**.
10. In the **Report Selection** dialog box, click the report that you want to view, print, or export.

According to your needs, see one of the following sets of instructions.

View inventory reports

1. In the **Report Selection** dialog box, click **View**.

   The **Tekla PowerFab Report Viewer** dialog box opens, displaying the selected report.
2. In **Tekla PowerFab Report Viewer**, do any of the following according to your needs:

To	Do this
Move between pages	• Click the arrows at the top of **Tekla PowerFab Report Viewer**.
Go to a specific page of the report	• Type the page number in the empty field at the top of **Tekla PowerFab Report Viewer**.
Find a text in the report	a. Click the binocular icon. b. In the blank field, type the text that you want to find. c. Click **Find Next**. Any matching text is highlighted with a red box.
Zoom in or out	• Click the magnifying glass icon and select the zoom value in the list.

Print inventory reports

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.

Export inventory reports

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. Modify the file name as needed.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

The report is saved to the selected location.

See also

Customize reports (page 141)

8.6 Import and export inventory information

You can import inventory information or a cut list to Tekla PowerFab, or export inventory information from Tekla PowerFab to KSTK, ProNest, Timberline, and XML format.

Importing information can be useful when inventory has previously been maintained in another system, and exported in a common file format. The import will only add material to inventory it does not compare and reconcile the existing inventory.

For more information, see the following links:

Export inventory information to the KSTK format (page 647)

Export inventory transactions to Timberline (page 648)

Export inventory to SigmaNest (page 648)

Export inventory information to XML (page 649)

Synchronize inventory information with ProNest (page 649)

Import inventory information from an HTML file (page 650)

Import ProNest cut lists to Tekla PowerFab (page 651)

Archive jobs (page 652)

Export inventory information to the KSTK format

Use the **Export to KSTK** command to save inventory information in the KSTK format.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export to KSTK**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

   A message opens, showing where the inventory information was saved.
6. Click **OK** to close the message.

Export inventory transactions to Timberline

You can export inventory information to the Timberline accounting software by using the **Export Inventory Transactions to Timberline** command.

NOTE Timberline must be open to receive the inventory information.

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1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export Inventory Transactions to Timberline**.

   The **Export Inventory Transactions to Timberline** dialog box opens.
3. In the **Export From Transaction #** and **To (leave blank for all)** fields, enter the numbers of the first and last transactions that you want to export.
4. In the **Job # Export Option** list, select how you want the job number to be exported.
5. Enter the general ledger code.
6. To not export material that has been received directly to inventory history, select the **Ignore material received directly to inventory history** checkbox.
7. Click **Export Transactions**.

The selected transactions are exported to Timberline.

Export inventory to SigmaNest

We recommend that you regularly export the Tekla PowerFab inventory to SigmaNest to keep the Tekla PowerFab inventory and SigmaNest in sync.

Before you can export inventory information to SigmaNest, you need to set up Tekla PowerFab to work with SigmaNest. For more information, see SigmaNest Integration.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export** --> **Export to SigmaNest**.

   NOTE If you cannot see the **Export to SigmaNest** option, ensure that you have enabled SigmaNest:

   a. On the **Maintenance** menu, select **Integration Settings** --> **SigmaNest**.

   b. In the **SigmaNest Settings** dialog box, ensure that the **Enable SigmaNest for Plate Nesting** checkbox is selected.

   The inventory information in Tekla PowerFab is exported to SigmaNest. You can view the process in the **Status** dialog box.
3. When the synchronization process is completed, click **OK** to close the **Status** dialog box.

Export inventory information to XML

To save inventory information in an XML file, use the **Export to XML** command.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export** --> **Export to XML**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

   The **Status** dialog box opens, showing the status of the export process.
6. When the export is completed, click **OK** to close the **Status** dialog box.

The file is saved to the location you selected.

Synchronize inventory information with ProNest

Use the **Sync with ProNest** command to synchronize Tekla PowerFab inventory information with ProNest and update the cut lists in ProNest. We recommend that you synchronize the two software regularly.

Before you begin, ensure that:

- `DataSyncCmd.exe` is running
- Tekla PowerFab can access the ProNest database

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Export** --> **Sync with ProNest**.

   The inventory information in Tekla PowerFab is exported to ProNest to synchronize the two software. You can view the process in the **Status** dialog box.
3. When the synchronization process is completed, click **OK** to close the **Status** dialog box.

You can now view the inventory information exported from Tekla PowerFab in ProNest.

In the synchronization process, Tekla PowerFab checks the ProNest database for new items and links each new item in the ProNest inventory to the appropriate piece in the Tekla PowerFab inventory. When synchronization is complete, ProNest has all the inventory items that Tekla PowerFab has.

Note that inventory items that have previously been in ProNest but have not been linked to ProNest are not affected by the synchronization.

Import inventory information from an HTML file

To import inventory information from an HTML file to Tekla PowerFab, use the **Inventory From HTML** command.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Import** --> **Inventory From HTML**.
3. In the **Open** dialog box, browse to find and select the HTML file that you want to import.
4. Click **Open**.

The inventory information is imported to Tekla PowerFab.

Import ProNest inventory to Tekla PowerFab

1. In ProNest, print the plates that you want to export into an HTML file.

2. In Tekla PowerFab, open the **Inventory** module.
3. Click the **Inventory** ribbon tab.
4. On the menu, select **Import** --> **Inventory from HTML**.
5. Browse to and select the inventory HTML file from ProNest.
6. Click **Open**.

   The selected ProNest plates are imported into the Tekla PowerFab inventory. The import creates a link between Tekla PowerFab and ProNest, so that the imported plates can be used in nests.

   Existing plates in the Tekla PowerFab inventory are updated, but their quantity is not decreased.
7. See the progress of the import in the **Import** dialog box.

   To see more details on the import, click **Open Import Log**.
8. When the import is complete, click the **Close** button (**X**) in the upper-right corner to close the **Import** dialog box.

Import ProNest cut lists to Tekla PowerFab

You can import cut lists available in the ProNest nesting software to Tekla PowerFab. By importing cut lists, you receive information on the scrap of a ProNest nesting process to inventory.

Before sending cut lists to Tekla PowerFab, send the nest to CNC in ProNest.

1. In the **Inventory** dialog box, click the **Inventory** ribbon tab.
2. On the menu, select **Import** --> **ProNest Cut List**.

   Tekla PowerFab imports the cut lists that are available in ProNest.
3. See the progress of the import in the **Import** dialog box.

   When the import is completed, click **Open Import Log** to view, print, or save the import log.
4. To close the dialog box, click **Close** (**X**) in the upper-right corner.

Once a cut list is imported, it can be cut in Tekla PowerFab. This way, you can remove the used plate from inventory and add the proper scrap.

See also

Synchronize inventory information with ProNest (page 649)

Manage cut lists (page 881)

Manage inventory, cut lists, and nests with ProNest (page 243)

Import inventory information from Microsoft Excel

You can import material from Microsoft Excel.

The import will only add material to the inventory. We recommend that this functionality is used to import an initial inventory audit.

To ensure that all of the data is imported correctly, you need to edit the structure to reflect the structure supported by Tekla PowerFab. See Excel Spreadsheet Sample Import Files.

1. Go to **File** --> **Import**.
2. In the navigation tree on the left, select **Inventory** --> **Excel**.
3. To select the file, click the ellipsis button (**...**) and select the Microsoft Excel file that you want to import.
4. Click **Open**.
5. Click **Import**.
6. Click **Yes** to confirm.
7. When asked to delete existing inventory, click **No**.

   The material listed on the Microsoft Excel file is imported into inventory. If there are any issues with the information in the file, it is displayed in the import log.
8. Once the import has completed, close the **Import** dialog box.

To view the imported inventory material, open **Inventory**, and in the navigation tree, expand **Other Fields** --> **Remarks** --> **Original Inventory**.

Archive jobs

Use the **Archive Jobs** command to export jobs from **Inventory History** and save them as KSTK or TXT files.

1. On the **Inventory** ribbon tab, select **Inventory History**

   The **Inventory History** dialog box opens.
2. Click the **Inventory History** ribbon tab.
3. On the menu, select **Export** --> **Archive Jobs** .
4. In the **Select Jobs to Archive** dialog box, click the arrow buttons to move the jobs that you want to archive to the **Included** list.
5. If you want to delete the jobs from inventory history after archiving them, select **Yes** in the **Purge Archived Jobs** list.
6. Click **OK**.

7. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
8. If necessary, change the file name.
9. If necessary, select another file format in the **Save as type** list.
10. Click **Save**.

    A message opens, showing you the location and the file where the archived jobs have been saved.
11. Click **OK** to close the message.

See also

View inventory history (page 607)

9 Project Management

The **Project Management** module brings together all information regarding the project: the information from the related estimating jobs or combining jobs, and the materials, hours, weight, sequencing and tracking from the related production control job. You can bring information from multiple estimating jobs, combining jobs, and production control jobs to the project management job. In **Project Management**, you can add drawings and journal entries, create transmittals or requests for information, and assign tasks to Tekla PowerFab users.

NOTE Before you start working in the **Project Management** module, ensure that you have adjusted the project management settings according to your needs. For more information, see Set up the Project Management module (page 654).

9.1 Set up the Project Management module

Before you start to use the **Project Management** module, take the time to customize the properties and available items. Once you have created and modified all necessary items and settings, working in the **Project Management** module is easier and more efficient.

When setting up the **Project Management** module, you can:

- Customize the display and input fields in the **Drawing Log**, **Transmittals**, **RFIs**, **Journal**, and **Change Orders** dialog boxes.
- Create, modify, and delete the resources that are available in the production schedule.
- View and filter the production schedule.
- Create, modify, and delete calendars that are available for the project schedule.
- Modify the project schedule settings.

- Create templates that you can apply to quickly create a baseline for the project schedule.
- Define the standard settings used in the **Project Management** module.
- Create, modify, and delete approval statuses available for drawings.
- Create, modify, and delete common steps that are available for all project management jobs.
- Delete project management jobs.
- Rename project management jobs.
- Set job groups for project management jobs.
- Create, modify, and delete methods that are available for sending documents.
- Create, modify, and delete items that are commonly used in transmittals.
- Create, modify, and delete commonly used purposes for transmittals.
- Create, modify, and delete pieces of text that are commonly used in transmittals.
- Create reports for all or a group of project management jobs.

Many of the settings and selections can be saved by user. This way, each user can adjust Tekla PowerFab to meet their individual needs and preferences without changing the default settings.

You can also link a project management job to Trimble Connect. See Link Tekla PowerFab to Trimble Connect (page 235).

Define company standard settings for Project Management

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Company Standards**.

   The **Company Standards** dialog box opens.
3. Modify the settings as needed.

Option	Description
Job # Increment	Allows you to select the default option for automatic job numbering. The options are: • **Increment from Last Job #**: When you create a new job, Tekla PowerFab uses the next available

Option	Description
	job number after the latest job number created. • **Increment from Largest Job #**: Tekla PowerFab uses the next available job number after the largest job number created. • **Don't Increment**: Automatic job numbering is not used. You can modify the job number when you create a new job.
Drawing Number Input Type	Allows you to select the input format for drawing numbers.
Drawing File Prefix	By default, Tekla PowerFab expects that the names of drawing files match the drawing numbers. The **Drawing File Prefix** option allows you to determine the prefix that appears in the names of all drawing files that are imported. Determining a drawing file prefix is optional. However, the drawing file prefix can help you to ensure that the correct files are imported from the selected folder. For example, drawing files might consist of the job number followed by a dash and the drawing number. In this case, drawing 100 could be named `C12345-100.pdf`. In consequence, the drawing file prefix would be `C12345-`. If the drawing file prefix varies, you can use an asterisk (*) as a wildcard character. For example, if the prefix of some drawing files that you want to import was not C12345, you could set the drawing file prefix to `*-`. Type the acceptable prefix in the **Drawing File Prefix** field.
Drawing File Suffix	By default, Tekla PowerFab expects that the names of drawing files match the drawing numbers. The **Drawing File Suffix** option allows you to

Option	Description
	determine the suffix that appears in the names of all drawing files that are imported. Determining a drawing file suffix is optional. However, the drawing file suffix can help you to ensure that the correct files are imported from the selected folder. For example, drawing files might include a revision number after the drawing number. In this case, the file name of the first revision of drawing 100 could be `C12345-100-r1.pdf`. In consequence, the drawing file suffix would be `-r1`. If the drawing file suffix varies, you can use an asterisk (*****) as a wildcard character. For example, if some drawing files had different revision numbers, you could set the drawing file suffix to `-r*`. Type the acceptable suffix in the **Drawing File Suffix** field.
Transmittal Recipients Available	Allows you to select the companies that can be selected as transmittal recipients. Click the arrow on the right side of the **Transmittal Recipients Available** list and select an option.
Transmittal Recipient Selection	Allows you to select which information is displayed for the companies in the **Recipient** list. Click the arrow on the right side of the **Transmittal Recipient Selection** list and select either the firm code or the firm name.
Keep Job Selection Screen Open	When selected, the **Select <Module> Job** dialog box stays open after a job has been opened. Otherwise, the dialog box closes when you open a job.
Update Production Control Approval Status	When selected, the approval statuses of shop drawings that are used in

Option	Description
	Production Control are automatically updated.
Resources - Use Period Ending Date	When selected, the date that is shown in production schedules for resources is the last date of a period. This option only applies when the scale of the schedule is set to week or month. For example, February 2019 would be shown as `2/28/2019` in the mm/dd/yyyy format. When cleared, the date that is shown is the first date of a period. In this case, February 2019 would be shown as `2/1/2019` in the mm/dd/yyyy format. For more information, see Modify resource capacity (page 951).
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance --> Document Index --> Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers. For more details on regular expressions, click **Regular Expression Help.**
ERP Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers. Allows the use of regular expressions to create the requisition number. For more details on regular expressions, click **Regular Expression Help.**

4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

When you click **Save**, the changes you made are saved.

Set up schedules

Before creating project and production schedules, we recommend that you adjust the schedule settings according to your needs. You can also create the necessary schedule calendars and schedule templates, and modify or delete the existing ones.

For more information, see the following links:

Modify the project schedule settings (page 659)

Create, modify, and delete schedule calendars (page 667)

Manage schedule templates (page 660)

Modify the project schedule settings

You can set the default settings for project schedules in the **Schedule Settings** dialog box. You can define settings for accessing and remaining in the edit mode, and set the default project breakdown levels and fields.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Schedule Settings**.
3. On the **Edit Mode** tab of the **Schedule Settings** dialog box, adjust the following settings:

Option	Description
Edit Mode Timeout	The number of seconds that a user can be in the edit mode without making changes before the edit mode times out. The edit mode ensures that Tekla PowerFab users do not make conflicting changes if they work on the project schedule simultaneously. Type the desired number of seconds in the **Edit Mode Timeout** field.
Auto-Acquire Edit Mode	When selected, Tekla PowerFab no longer asks you if you want to access the edit mode when making changes. This means that all changes to the project schedule are made without confirmation, provided that no other Tekla PowerFab users are currently in the edit mode and modifying the same project schedule.

4. Click the **Project Breakdown** tab to open it.
5. To define the available breakdown levels and fields, click the arrows next to the breakdown fields, and select suitable options in the list.

   By default, two levels of breakdown items (sequences and lot numbers) are available. To make more levels available, select options in the **Default Breakdown Field 3**, **Default Breakdown Field 4**, and **Default**

Breakdown Field 5 lists. If you do not want a breakdown level to be available, select **None**.

For example, to enable categories as the breakdown level below lots, select **Category** in the **Default Breakdown Field 3** list.

6. Click **Save**.

The changes you made are saved as default settings for all new project schedules. If necessary, you can adjust the breakdown levels and fields on a job by job basis.

See also

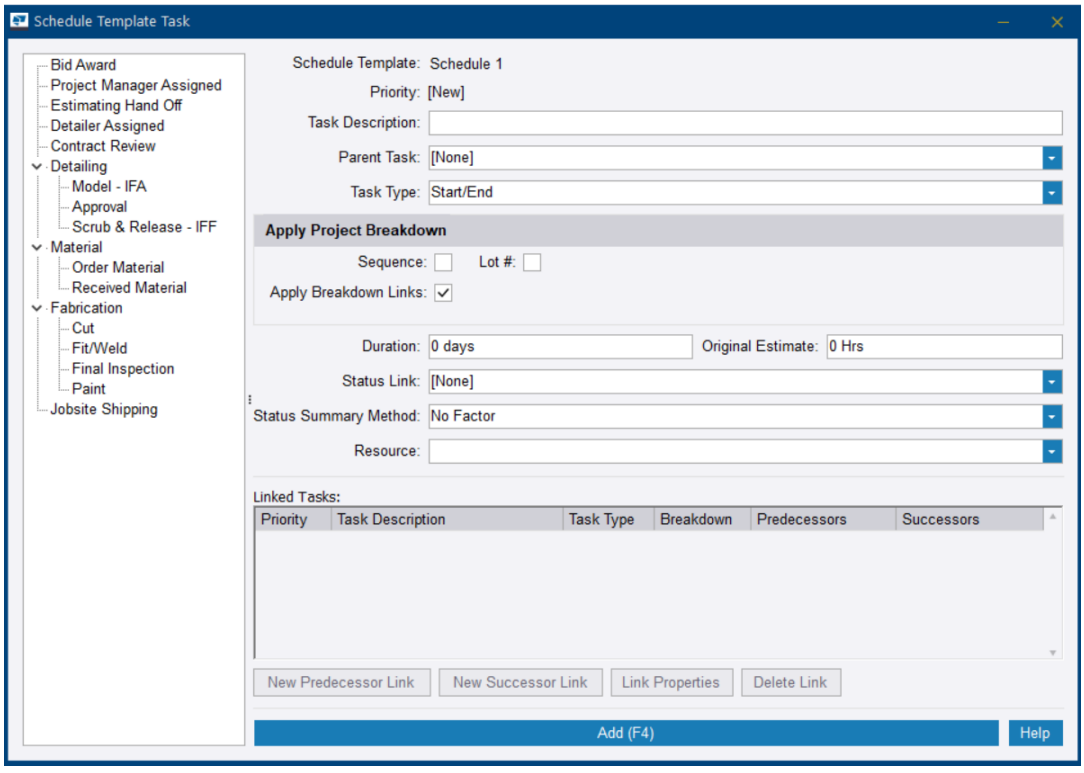
View and adjust the project schedule (page 776)

Manage schedule templates

In the **Schedule Templates** dialog box, you can create, modify, and delete templates that are used as the basis of project schedules with pre-determined tasks and settings. Creating schedule templates saves time when creating project schedules, because you can easily apply the template to any project schedule. When the template is applied to the project schedule, you can modify the tasks according to your needs.

To access the **Schedule Templates** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Schedule Templates** .

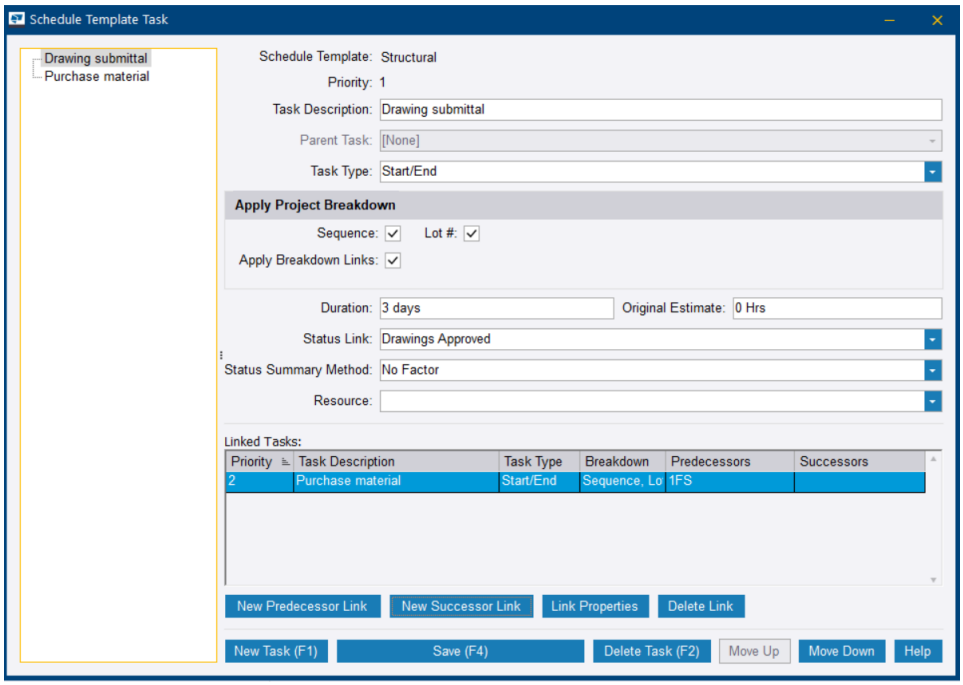


Create a schedule template

1. Go to **Maintenance** --> **Project Management** --> **Schedule Templates**.

   The **Schedule Templates** dialog box opens.
2. Click **New Template**.
3. In the **Template Description** field, type a name for the new template.
4. Click **Add Template**.

   The template is added to the list on the left side of the dialog box.
5. To add tasks to the template, do the following:
   a. Click **New Task**.



   b. In the **Schedule Template Task** dialog box, type a description for the task.
   c. Modify the task properties according to your needs:

Option	Description
Parent Task	If the task you are creating is a sub-task, for an existing task, you need to select the main task. Click the arrow on the right side of **Parent Task** field, and select a task in the list. If you are creating a top-level task, select **None**. Note that you cannot modify the task type, duration, or original estimate time of a main task if you add a sub-task.

Option	Description
Task Type	Specifies the behavior of the task on the **Gantt Chart** tab. The available task types are: • **Start/End**: an action to be performed over a period of time. Properties include the start date, end date, and duration. Start/end tasks can be directly re-sized an moved on the **Gantt Chart** tab. • **Summary**: takes the aggregate values from its sub-tasks. The start date of a summary task is automatically set to the earliest date of the sub-tasks. The end date is set to the latest sub-task end date, and the percent completed is aggregated based on the status summary method. Summary tasks cannot be re-sized on the **Gantt Chart** tab directly. However, the sub-tasks can be re-sized and moved, and the summary main task will re-sized and moved accordingly. • **Milestone**: an event in the schedule. For example, a project kickoff meeting can be a milestone task. The end date and the start date are always the same, and the duration is set to one day.
Apply Breakdown Links	When selected, the links set in the project schedule are added between sub-tasks. For example, any links set between sequences 1, 2, and 3 would be added.
Duration	The expected number of working days to complete a task. The duration can only be adjusted if the task type is set to **Start/End**. Type the number of days in the **Duration** field.
Original Estimate	The time originally estimated for the entire main task or a sub-task. The hours will automatically be distributed among the sub-tasks on the Gantt chart. Type the time in hours in the **Original Estimate** field.
Status Link	The information that affects the status of the task when the project schedule is updated. The available options are:

Option	Description
	• **Drawings Approved**: the number of drawings with the **Approved** status. • **Material Purchased**: the production material that is linked to material that is either in stock or on order. • **Material Received**: the production material that is linked to material that is in stock. • **TFS**: the production material that has been cut. • **Production Completed**: the production material that has been assigned a route and has completed all stations in that route. • **Production Progress**: the production material that has been assigned a route and has completed some stations in that route. • **Station Progress**: the production material that has been assigned a route that includes the selected station and has completed that station. • **Shipping Destination Progress**: the production material that has been assigned a shipping route that includes the selected destination and has completed that destination. • **Shipping Completed**: the production material that has completed all assigned shipping destinations.
Status Summary Method	The method that determines how the percentage completed of a main task will be calculated from the sub-tasks. Each option specifies the weight that is given to each sub-task in the calculation. The available options are: • **No Factor**: no weight is given to the individual sub-tasks. The percentage completed of the main task is an average of the sub-tasks. • **By Quantity**: the percentage completed is weighed by the quantity of each sub-task. • **By Weight**: the percentage completed is weighed by the weight of each sub-task. • **By Duration**: the percentage completed is weighed by the duration of each sub-task.

Option	Description
Resource	An object with a time-based capacity to be added on a production schedule, and the resource by which station work will be executed. Linking a task from the project schedule to a resource connects the project and production schedules. Click the arrow on the right side of **Resource** list, and select a resource in the list.

d. Click **Add**.

e. Select the new task in the navigation tree.

f. In the **Link Tasks** section of the dialog box, define dependencies between two tasks.

By creating links, you can make the schedule cascade from one task to another.

NOTE
- A task cannot link to itself.
- A link cannot be created between a task and one of its sub-tasks.
- Duplicate links are not allowed. There can be only one link between a pair of tasks.
- Link cycles are not allowed. For example, if a link is created from task 1 to task 2, a link cannot be created from task 2 to task 1.
- When you use links, and the duration of an item changes, the positions of all linked items also changes. Do not link items that need to remain static, or are independent from other items in the schedule.

Do any of the following:

To	Do this
Add a link that ends with the current given task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a predecessor link. 1. Click **New Predecessor Link**. 2. Click the arrow on the right side of **Link From** list, and in the list, select the starting task of the link. 3. Click the arrow on the right side of upper **Position** field, and in the list, select if the link

To	Do this
	originates from the start or end of the starting task. 4. Click the arrow on the right side of lower **Position** field, and in the list, select if the link ends at the start or finish of the second task. 5. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier in the Gantt chart than the value in the **Minimum Interval** field determines. 6. Click **Add**. 7. In the confirmation dialog box, click **Yes**. For example, to define that shipping must start when the fabrication is finished, select **Shipping** and set the link a follows: • **Link From**: **Fabrication** • Upper **Position**: **Finish** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
Add a link that begins with the current task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a successor link. 1. Click **New Successor Link**. 2. Click the arrow on the right side of the upper **Position** field, and in the list, select if the link originates from the start or end of the starting task. 3. Click the arrow on the right side of the **Link To** field, and in the list, select the task that is the ending point of the link. 4. Click the arrow on the right side of the lower **Position** field, and in the list, select if the link ends at the start or finish of the second task. 5. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier

To	Do this
	in the Gantt chart than the value in the **Minimum Interval** field determines. 6. Click **Add**. 7. In the confirmation dialog box, click **Yes**. For example, to define that shipping must start when the fabrication is finished, select **Fabrication** and set the link a follows: • Upper **Position**: **Finish** • **Link To**: **Shipping** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
View and modify link properties	1. Click **Link Properties**. 2. Modify the starting task, ending task, the task positions, and interval according to your needs. 3. Click **Save** to update the link properties.
Delete a link	1. Click a link in the list to select it. 2. Click **Delete Link**. 3. In the confirmation dialog box, click **Yes** to permanently delete the links.

g. To save the links, click **Save**.

h. To close the **Schedule Template Task** dialog box, click the **Close** button (**X**) in the upper-right corner.

Repeat steps a to i for all tasks that you want to add to the template.

6. In the **Schedule Templates** dialog box, click **Save Template**.

Modify a schedule template

1. In the list on the left of the **Schedule Templates** dialog box, select the template that you want to modify.
2. Do any of the following:

To	Do this
Add a task to the schedule template	See Create a schedule template.
Modify an existing task	a. In the **Template Tasks** list, select the task that you want to modify. b. Click **Properties**.

To	Do this
	c. In the **Schedule Template Task**, modify the task description, properties, and links according to your needs. For more information on task properties and links, see Create a schedule template. d. Click **Save** to save the changes.
Move a task earlier or later in the schedule template	a. In the **Template Tasks** list, select the task that you want to move earlier or later in the schedule template. b. Click the **Move Up** and **Move Down** to change the location of the task.
Delete a task from the schedule template	Note that deleting a task from the schedule template is permanent and cannot be undone. a. In the **Template Tasks** list, select the task that you want to delete. b. Click **Delete Task**. c. To permanently delete the task, click **Yes** in the confirmation dialog box.

3. Click **Save Template** to save the changes.

Delete a schedule template

Note that deleting a schedule template is permanent and cannot be undone.

1. In the list on the left of the **Schedule Templates** dialog box, select the template that you want to delete.
2. Click **Delete Template**.
3. To permanently delete the schedule template, click **Yes** in the confirmation dialog box.

Create, modify, and delete schedule calendars

Schedule calendars determine the working days in a project schedule. By default, Tekla PowerFab uses a schedule calendar with a five-day working week from Monday to Friday, excluding national holidays. If necessary, in the **Schedule Calendars** dialog box, you can create additional schedule calendars. For example, this can be useful if your shop has a seven-day working week. You can also modify or delete the existing schedule calendars, and select which schedule calendar is used as the default option.

To access the **Schedule Calendars** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.

2. On the menu, select **Project Management** --> **Schedule Calendars** .

You can view the existing schedule calendars on the left side of the **Schedule Calendars** dialog box.

Create a schedule calendar

1. Click **New**.
2. In the **Calendar Description** field, type a name for the new calendar.
3. Select the checkbox next to each weekday that you want to mark as a working day.

   Note that in the calendar at the bottom of the dialog box, the non-working days are bolded.
4. Click **Add**.

The new schedule calendar is added to the list on the left side of the dialog box. If necessary, you can now add working day exceptions to the schedule calendar.

Add working day exceptions

If necessary, you can add working day exceptions to a schedule calendar. For example, you can set national holidays as non-working days, or set a particular Saturday or Sunday as a working day.

1. In the list on the left side of the **Schedule Calendars** dialog box, click the calendar to which you want to add working day exceptions.
2. At the bottom of the dialog box, click **Working Day Exceptions**.
3. In the **Schedule Calendar - Working Day Exceptions** dialog box, click **New**.
4. Type a description for the working day exception.
5. If you want the date to be a working day, select the **Is Working Day** checkbox.
6. Select the exception date in the calendar.
7. Click **Add**.

The working day exception is added to the list on the left side of the **Schedule Calendar - Working Day Exceptions** dialog box.

If necessary, you can select a working day exception in the list, and then either:

- Modify the working day exception by changing its properties and clicking **Edit**.
- Delete the working day exception by clicking **Delete**, and then **Yes** to confirm.

Set a schedule calendar as the default option

The current default schedule calendar is marked with an asterisk (*) in the list on the left side of the **Schedule Calendars** dialog box. If you want to use another calendar as the default option, do the following:

1. In the list on the left side of the **Schedule Calendars** dialog box, click the calendar that you want to set as the default option.
2. Click **Set as Default**.
3. In the confirmation dialog box, click **Yes** to set the selected calendar as the default option in all new project schedules.

The selected calendar is set as the default option and marked with an asterisk (*).

Modify a schedule calendar

1. In the list on the left side of the **Schedule Calendars** dialog box, click the calendar that you want to modify.
2. In the **Calendar Description** field, modify the name of the calendar.
3. Select the checkbox next to each weekday that you want to mark as a working day.
4. Click **Edit** to save the changes.

Delete a schedule calendar

Deleting a schedule calendar is permanent and cannot be undone. Note that the default calendar cannot be deleted.

1. In the list on the left side of the **Schedule Calendars** dialog box, click the calendar that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the calendar.

Manage approval status for drawings

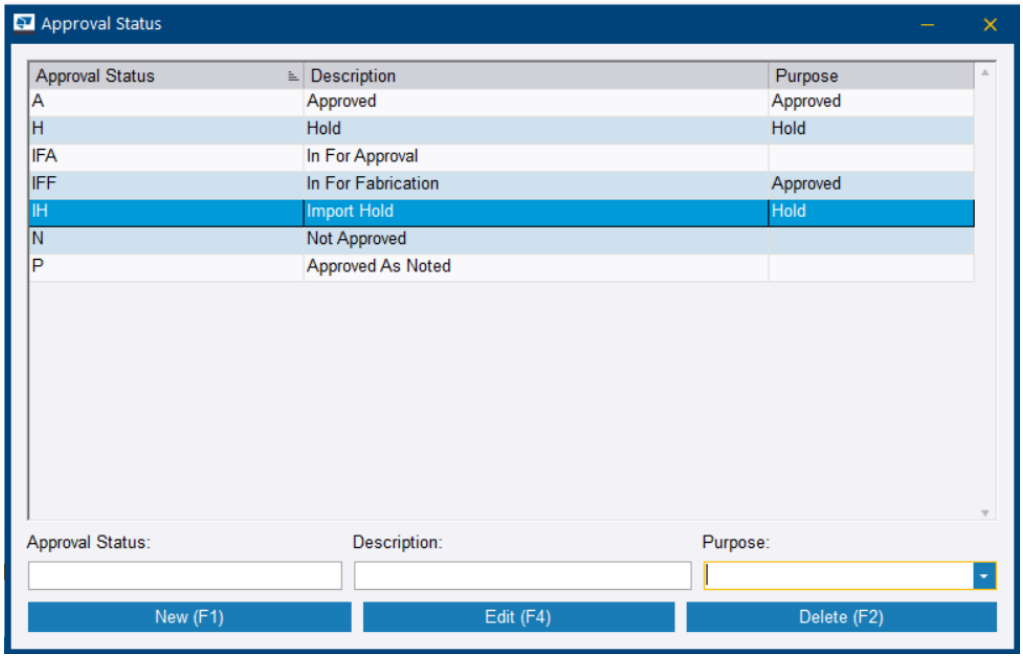
You can create, modify, or delete approval statuses for drawings in the **Approval Status** dialog box.

To access the **Approval Status** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Approval Status Maintenance**.

   You can also access **Approval Status** from **Maintenance** --> **Production Control**.

The **Approval Status** dialog box opens. You can view all existing approval statuses.



If you create new approval statuses, the only available purpose options are **Approved** and **Hold**.

Approved means that drawings are ready for fabrication. The **Approved** purpose is used as the status link in the project schedule.

Hold means that the drawings are not ready for fabrication. Items with the **Hold** option can move through fabrication processes, but they will be highlighted in red, and warning pop ups will appear during processing updates. Any loads that contain items with the **Hold** purpose option cannot be shipped.

Create an approval status option

1. Click **New**.
2. In the **Approval Status** field, type an abbreviation for the new approval status.
3. In the **Description** field, type a description for the new approval status.
4. If you wish, in the **Purpose** list, select if items with the status option are approved or on hold.
5. Click **Add**.

Modify an existing approval status

1. In the list, click the approval status that you want to modify.

2. Modify the approval status abbreviation, description, and purpose according to your needs.
3. Click **Edit** to save the changes.

Delete an approval status

Deleting an approval status is permanent and cannot be undone.

1. In the list, click the approval status that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the approval status.

Manage default check list items for project management jobs

Check list items are steps that are commonly performed in project management jobs, such as receiving a signed contract from the client. You can create, modify, and delete check list items available for all jobs in the **Check List Item Maintenance** dialog box.

The check list items that you create in **Maintenance** --> **Check List Item Maintenance** are automatically available for all future project management jobs. However, you need to add them manually to existing project management jobs.

The check list items created in the **Check List Item Maintenance** dialog box serve as reminders in each project management job. Tekla PowerFab also records the date when each of these tasks are completed and the user who performs the tasks.

Create a check list item

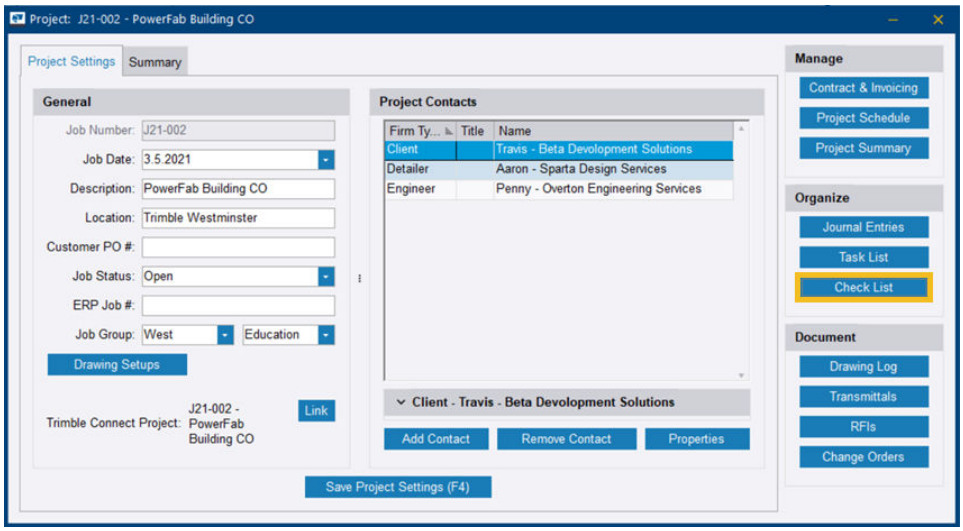
1. Go to **Maintenance** --> **Project Management** --> **Check List Item Maintenance**.
2. Click **New**.
3. In the **Description** field, type a description for the item.

   For example, `Get signed contract from the client`.
4. Click **Add**.

   The check list item is now available for all project management jobs, and you can be assigned it to particular users' task lists within the projects.
5. To add the new check list item to an existing project management job, you need to do the following:

   a. Open the project management job.

b. In the **Organize** section, click **Check List**.



c. In the **Check List** dialog box, click the **Check List**.

   The **Check List** dialog box opens.

d. Click **Add**.

   The **Add check list items to project** dialog box opens.

e. Click the arrow buttons to move the items that you want to add to the **Included** list.

f. Click **OK**.

g. Click **Save**.

Modify a check list item

1. In the list, select the check list item that you want to modify.
2. Modify the item description according to your needs.
3. Click **Save**.

Move a check list item to task list

1. In the list, select the check list item that you want to move to the list of tasks.
2. Click **Move To Task List**.

   The **Enter Value** dialog box opens.
3. Select a user from the drop-down list.
4. Click **OK**.

Delete a check list item

Note that deleting a check list item is permanent and cannot be undone.

1. In the list, select the check list item that you want to delete.
2. Click **Delete**.
3. To permanently delete the check list item, click **Yes** in the confirmation dialog box.

Manage project management jobs

You can manage existing jobs in many ways in the **Job Maintenance** dialog box. The options available depend on the module. You can, for instance, copy and delete jobs.

To access the **Job Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
3. Select the job that you want to modify.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
4. At the bottom of the dialog box, click any of the available buttons.



See also

Delete project management jobs (page 673)

Rename a project management job (page 674)

Set job groups for project management jobs (page 674)

Set job statuses for project management jobs (page 675)

Delete project management jobs

You can delete any unnecessary jobs. Note that the jobs are deleted permanently.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to delete.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.

3. At the bottom of the dialog box, click **Delete**.
4. To delete the job, click **Yes** in the **Confirm** dialog box.

The job is permanently deleted.

See also

Manage project management jobs (page 673)

Rename a project management job

You can rename an existing project management job.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Project Maintenance** dialog box opens.
2. Select the job that you want to rename.
3. At the bottom of the dialog box, click **Rename**.

   The **Enter Value** dialog box opens.
4. Type a new name for the job.
5. Click **OK**.

The job is renamed.

Set job groups for project management jobs

Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs.

You can, for example, record the client and industry sector, but you can create your own system to best suit your needs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs for which you want to create a job group.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Set Group Name**.
4. Select if you want to add or update the primary group or the secondary group name.
5. Type a name for the group.

You can find the job groups in the navigation tree in the module and use them for filtering jobs.

See also

Manage project management jobs (page 673)

Edit job groups for project management jobs

You can change the group name or remove a job from a group.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to change or remove from the group.
3. At the bottom of the dialog box, click **Set Group Name**.
4. Select if you want to update or remove the primary group or the secondary group name. The **Enter Value** dialog box opens.
5. Do either of the following:
   - To change the group name, type in the new name.
   - To remove the job from the group, remove the name from the dialog box.
6. Click **OK**.

Set job statuses for project management jobs

Job status determines if a job is still in progress (**Open**) or finished (**Closed**). By setting job statuses for jobs, you can filter and view only the current jobs in the job selection dialog box in Tekla PowerFab and in Tekla PowerFab Go.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job whose status you want to change.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. Click **Update Selected** and select **Job Status**.
4. Select the desired job status in the list.
5. Click **OK**.

You can filter jobs by selecting status in the module navigation tree.

See also

Job status maintenance (page 276)

Manage project management jobs (page 673)

Set up transmittals

Before you start creating transmittals, we recommend that you create the necessary methods for sending documents, transmittal items, transmittal purposes, and commonly used text for transmittals.

For more information, see the following links:

Manage methods for sending documents (page 676)

Create, modify, and delete transmittal items (page 677)

Manage transmittal purposes (page 678)

Manage commonly used text items for transmittals (page 679)

Manage methods for sending documents

You can create, modify, and delete methods for sending documents in the **Sent Via Maintenance** dialog box. Sending methods allow you to mark how a document was sent to the recipient when you are creating transmittals. For example, documents can be sent via email, fax, or mail. You can also set the default method for sending documents.

Create a sending method

1. Go to **Maintenance** --> **Project Management** --> **Sent Via Maintenance**.

   The **Sent Via Maintenance** dialog box opens.
2. Click **New**.
3. Type a description for the sending method.
4. Click **Add**.

Modify a sending method

1. Go to **Maintenance** --> **Project Management** --> **Sent Via Maintenance**.

   The **Sent Via Maintenance** dialog box opens.
2. In the list, select the sending method that you want to modify.
3. Modify the description according to your needs.
4. Click **Edit** to save the changes.

Set the default sending method

The current default sending method is marked with an asterisk (*). You can also select another sending method for each document that you send.

1. Go to **Maintenance** --> **Project Management** --> **Sent Via Maintenance**.

   The **Sent Via Maintenance** dialog box opens.

2. In the list, select the sending method that you want to set as the default option.
3. Click **Set as Default**.
4. To confirm using the sending method as the default option, click **Yes** in the confirmation dialog box.

The selected sending method is set as the default option and marked with an asterisk (*).

Delete a sending method

Note that deleting a sending method is permanent and cannot be undone.

1. Go to **Maintenance** --> **Project Management** --> **Sent Via Maintenance**.

   The **Sent Via Maintenance** dialog box opens.
2. In the list, select the sending method that you want to delete.
3. Click **Delete**.
4. To permanently delete the sending method, click **Yes** in the confirmation dialog box.

Create, modify, and delete transmittal items

In the **Transmittal Item Maintenance** dialog box, you can create, modify, and delete commonly used items that are sent with a transmittal. These items also appear in the transmittal document. Creating transmittal items saves time, because you do not have to type each item manually when you create a transmittal in the **Transmittals** dialog box. Instead, you can select existing transmittal items in the **Items** list.

To access the **Transmittal Item Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Transmittal Item Maintenance** .

Create a transmittal item

1. Click **New**.
2. Type a description for the transmittal item.
3. Click **Add**.

Modify a transmittal item

1. In the list, select the transmittal item that you want to modify.
2. Modify the item description.
3. Click **Edit** to save the changes.

Delete a transmittal item

Note that deleting a transmittal item is permanent and cannot be undone.

1. In the list, select the transmittal item that you want to delete.
2. Click **Delete**.
3. To permanently delete the transmittal item, click **Yes** in the confirmation dialog box.

Manage transmittal purposes

You can create, modify, and delete commonly used purposes for sending transmittals in the **Transmittal Purpose Maintenance** dialog box. The purpose of the transmittal appears on the transmittal document and informs the recipient why the document has been sent.

Creating transmittal purposes saves time, because you do not have to type the purposes manually each time that you create a transmittal in the **Transmittals** dialog box. Instead, you can select existing transmittal purposes in the **Purpose** list.

Create a transmittal purpose

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Purpose Maintenance**.

   The **Transmittal Purpose Maintenance** dialog box opens.
2. Click **New**.
3. Type a description fot the transmittal purpose.
4. Click **Add**.

Modify a transmittal purpose

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Purpose Maintenance**.

   The **Transmittal Purpose Maintenance** dialog box opens.
2. In the list, select the transmittal purpose that you want to modify.
3. Modify the purpose description according to your needs.
4. Click **Edit** to save the changes.

Delete a transmittal purpose

Note that deleting a transmittal purpose is permanent and cannot be undone.

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Purpose Maintenance**.

   The **Transmittal Purpose Maintenance** dialog box opens.

2. In the list, select the transmittal purpose that you want to delete.
3. Click **Delete**.
4. To permanently delete the transmittal purpose, click **Yes** in the confirmation dialog box.

Manage commonly used text items for transmittals

You can create, modify, and delete commonly used text items that can be added to transmittal documents in the **Transmittal Standard Text Maintenance** dialog box. For example, a text item can contain information on how quickly the recipient should react to the transmittal.

Creating text items saves time, because you do not need to type the text each time you create a similar transmittal in the **Transmittals** dialog box. Instead, you can select an applicable text item in the **Standard Text** list.

NOTE	You can only add one text item per transmittal.

Create a text item

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Standard Text Maintenance**.

   The **Transmittal Standard Text Maintenance** dialog box opens.
2. Click **New**.
3. In the **Description** field, type a name for the text item.

   This name will appear in the **Standard Text** list of the **Transmittals** dialog box.
4. In the **Standard Text** field, type the text that you want to include in the text item.
5. Click **Add**.

Modify a text item

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Standard Text Maintenance**.

   The **Transmittal Standard Text Maintenance** dialog box opens.
2. In the list, select the text item that you want to modify.
3. Modify the description and text according to your needs.
4. Click **Edit** to save the changes.

Delete a text item

Note that deleting a standard text item is permanent and cannot be undone.

1. Go to **Maintenance** --> **Project Management** --> **Transmittal Standard Text Maintenance**.

   The **Transmittal Standard Text Maintenance** dialog box opens.
2. In the list, select the text item that you want to delete.
3. Click **Delete**.
4. To permanently delete the text item, click **Yes** in the confirmation dialog box.

Manage default drawing logs

Drawing logs help to manage and control the drawings in the project. You can create your own default drawing logs for different drawing types, such as general arrangement drawings or part drawings. You can also modify existing drawing logs, or delete unnecessary drawing logs from Tekla PowerFab.

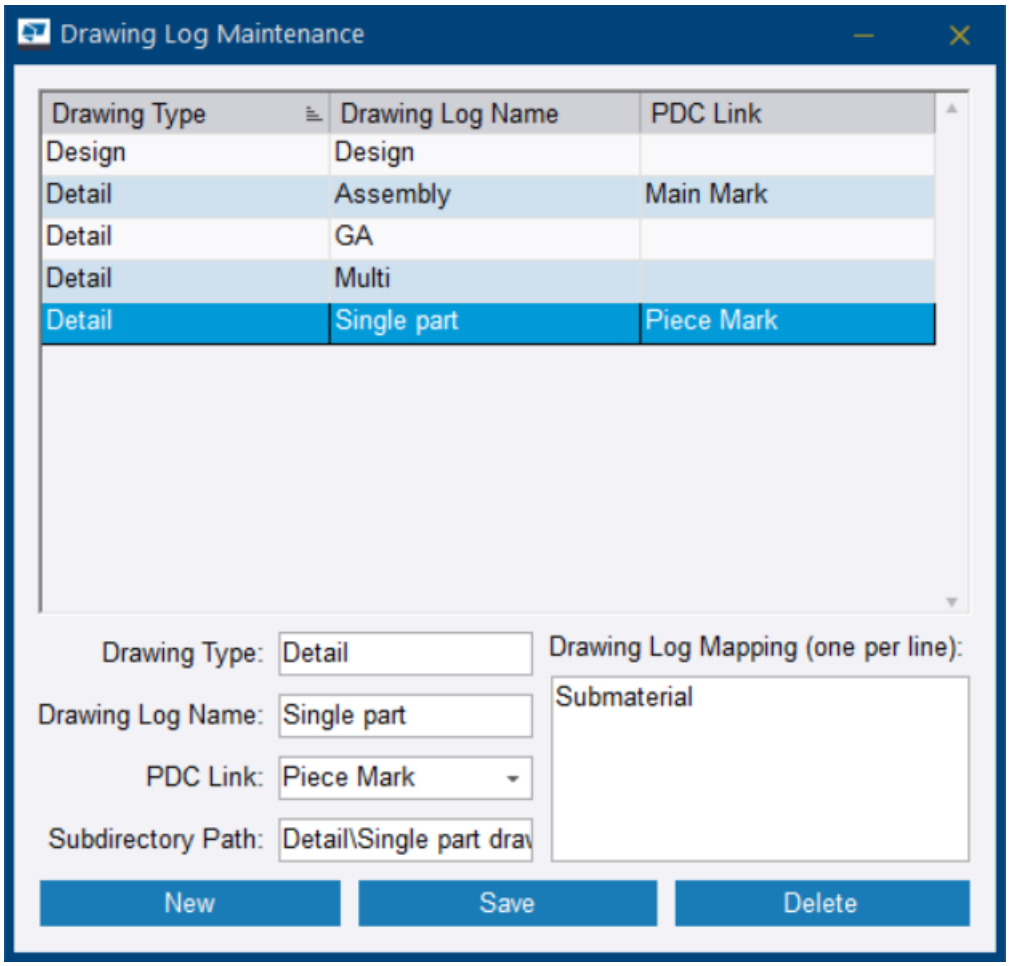
NOTE The default drawing logs that you set up are available for all new project management jobs.

If you need to adjust the drawing logs used in an existing project management job, see and Manage drawing logs for a job (page 696).

To start managing drawing logs:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Global Drawing Log Maintenance**.

The **Drawing Log Maintenance** dialog box opens.



Add a drawing log

1. At the bottom of the **Drawing Log Maintenance** dialog box, click **New**.
2. Add properties in the dialog box.

Option	Description
Drawing Type	Type the drawing type.
Drawing Log Name	Type a name for the drawing log.
PDC Link	Select the field in **Production Control** to which the drawings are connected. Note that the **PDC Link** setting only applies to drawing log types with assemblies or materials that have counterparts in **Production Control**.
Subdirectory Path	Type the path to the subfolder under the drawing default folder where the

Option	Description
	drawings in that drawing log are stored. For example, type `Detail\Erection` drawings. The default folder for storing drawings is set in **File** --> **Default Directories**.
Drawing Log Mapping (one per line)	Type which drawing types to direct to the selected drawing log. Tekla PowerFab determines the drawing log where imported drawings are stored based on the drawing types assigned to the drawings in the XML file created with Tekla PowerFab Plugin for Tekla Structures, or with the Data Transfer tool in SDS/2. By default, the drawing types in Tekla PowerFab match the drawing types in Tekla Structures. Note that you need to type each drawing type on a separate line.

3. Click **Add**.

Modify a drawing log

1. In the **Drawing Log Maintenance** dialog box, select the drawing log that you want to modify.
2. Change the drawing log settings according to your needs.
3. Click **Save**.

Delete a drawing log

1. In the **Drawing Log Maintenance** dialog box, select the drawing log that you want to delete.
2. Click **Delete**.
3. To permanently delete the drawing log, click **Yes**.

See also

Manage drawings (page 694)

View, print, or export project reports

You can create reports that contain information from a group of project management jobs by using the **Project Reports** command. You can either view or print the reports, or export the reports to another file format.

Create a project report

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Project Management** --> **Project Reports**.
3. In the **Select Project** dialog box, click the arrow buttons to move the projects that you want to include in the report to the **Included** list.
4. To only include particular types of items in the report, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include to the **Included** list.
   - Type the maximum and minimum values for the items that you want to include.
6. Click **OK**.
7. In the **Report On** section of the dialog box, select checkboxes on the right side of the information for which you want to create reports.

   For example, to create a drawing list, select the **Drawings** checkbox.
8. Click **Make Report**.
9. In the **Report Selection** dialog box, select the report that you want to create.

View the report

In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.

3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. Modify the file name as needed.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

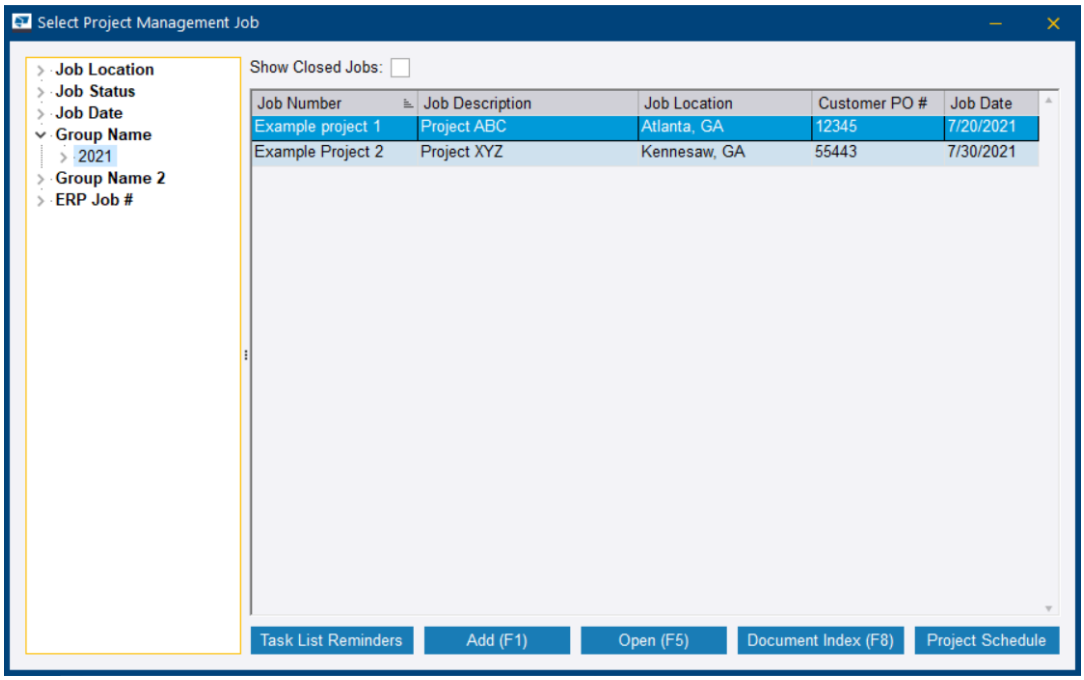
9.2 Open the Project Management module

To start adding and modifying the information in a project, open the **Project Management** module.

- At the top of the Tekla PowerFab window, click the **Project Management** button.



The **Select Project Management Job** dialog box opens. You can view all existing jobs



NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Next, you can:

- View, add, and modify task list reminders.
- Create a new project management job.
- Open or modify an existing project management job.
- Attach document to a project management job in **Document Index**.
- View and modify the project schedule of the selected project management jobs.

Create a project management job

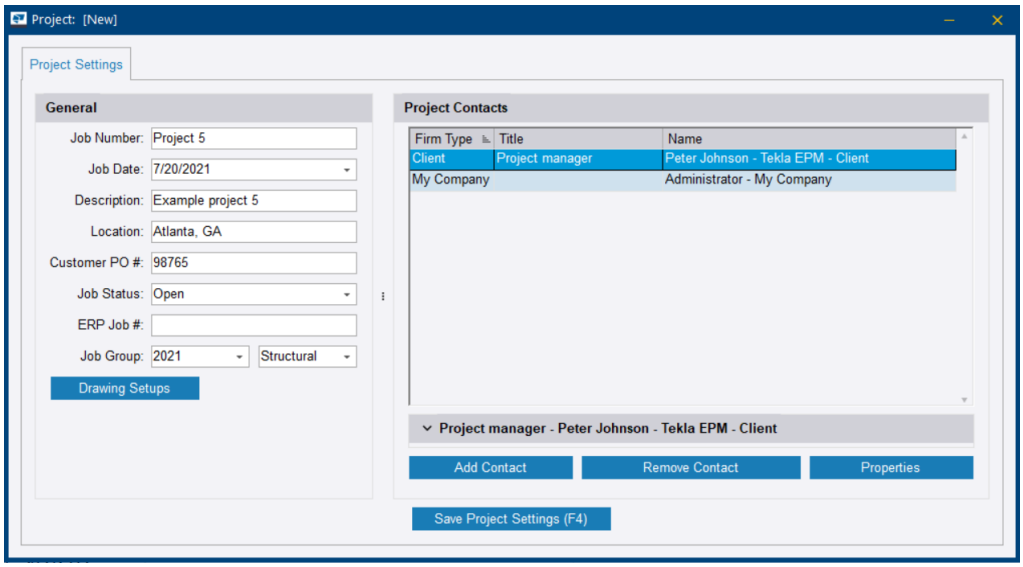
To create a new job, you need to define a few properties.

1. Open the module.

   The **Select <Module> Job** dialog box opens.

2. Click **Add**

The **Project: [New]** dialog box opens.



3. Define the properties of the new job.

   The properties marked with an asterisk (*) are mandatory.

Option	Description
Job Number *	A unique number for the job. Note that the job number cannot be modified after the job has been created.
Job Date	The job date is used as the initial start date of the project in the project schedule. Tekla PowerFab automatically uses the date when you create the job, but you can select a different date in the associated calendar. For example, you can select the date when your company received the job, or the shipping date.
Description	The description of the job.
Location	The town or city where the job takes place.
Customer PO #	The purchase order number of the customer company, or the contract number.
Job Status	The job is either still in progress (**Open**) or it has been finished (**Closed**). Estimating has three additional default values, **Bidding**, **Awarded**, and **Lost**. You can filter the **Select <Module> Job** dialog box by **Job Status**, so that only open jobs are shown. See also Job status maintenance (page 276).

Option	Description
ERP Job #	The accounting system job number. Typing the accounting system job number in the **ERP Job #** field allows you to link material items properly when you export information to an accounting system, such as Trimble Viewpoint.
Job Group	Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs. Either type a job group directly in the blank field, or select an existing job group.

4. If necessary, modify the drawing settings of the new job:

   For information on job-specific settings, see Define drawing settings for a job (page 694) and Manage drawing logs for a job (page 696).

   For information on default settings, see Define company standard settings for Project Management (page 655).

5. In the **Project Contacts** section, add all companies related to the new job and their contact persons.

   For information on project contact settings, see Manage companies in the project (page 733)

6. To create the job, click **Save Project settings (F4)**.

You can now open the project and start modifying it.

NOTE You can link a project management job to a matching production control job.

See also

Open a project management job (page 690)

Link a production control job to an estimating job and a project management job (page 922)

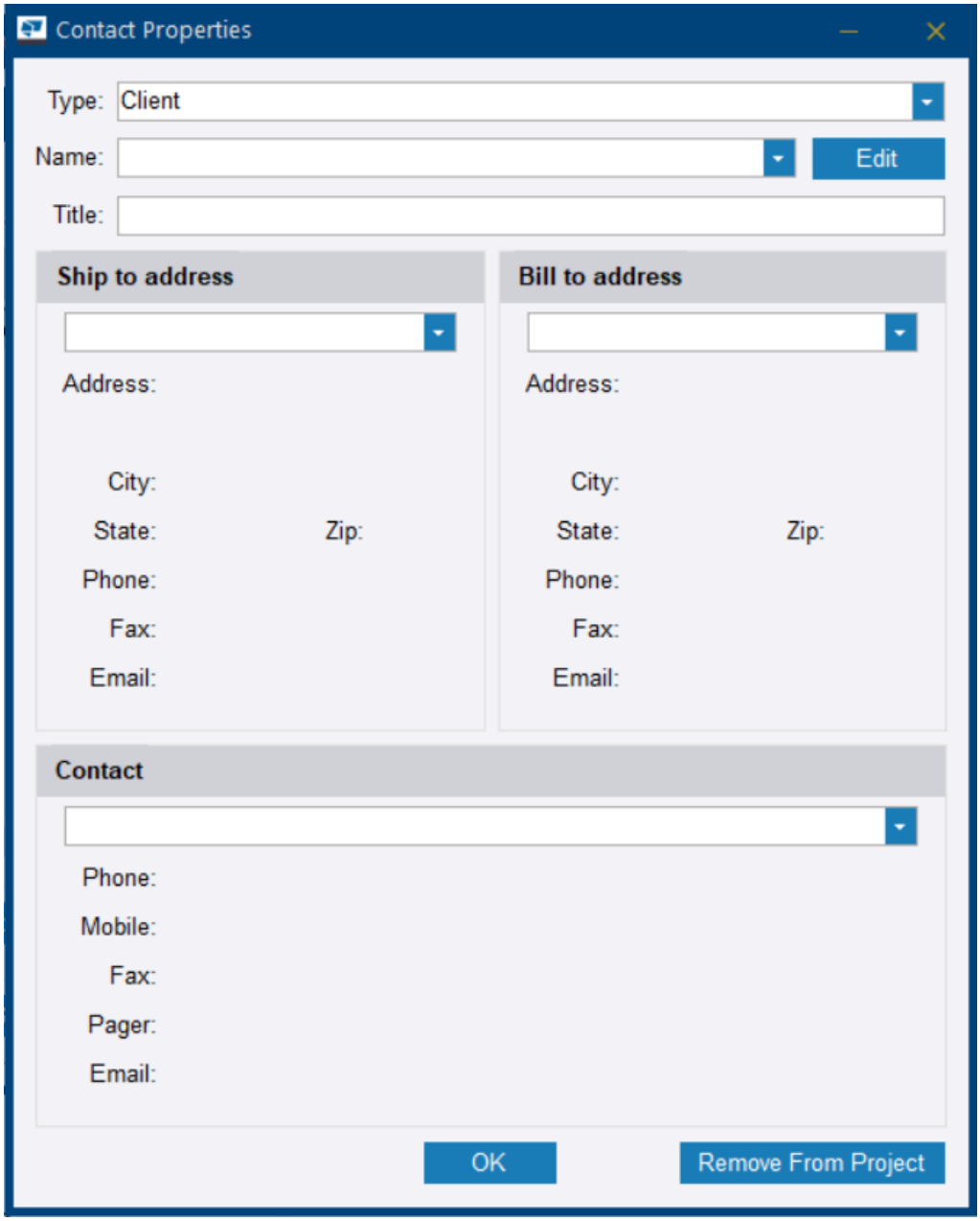
Add a project contact

To share project information with the other parties in the project, you need to add the parties to the project management job.

NOTE It is important that the first contact in the project is the job site contact or the correct /**Ship To/Bill To** as this can populate the **Sold To/Ship To** information that populates the shipping ticket information for the job.

1. In the **Project Contacts** section of the **Project** dialog box, click **Add Contact**.

   The **Contact Properties** dialog box opens.



2. Add properties in the dialog box.

Option	Description
Type	Select the contact type.
Name	If the company is in the **Address Book**, select the name. To add a new company

Option	Description
	a. Type the name of the company. b. Press **Enter** on the keyboard. c. To add the contact, click **Yes** **Note**:You need to add the contacts for the new company manually. To do so, click **Edit** on the right side of the **Name** field. Include also the shipping and mailing addresses. For detailed instructions, see Add contacts to the address book (page 203) and Add companies to the address book (page 202).
Title	Type the title or function of your contact person.
Ship To Address	Select the shipping address.
Bill To Address	Select the billing address.
Contact	Select the contact that you want to add.

3. Click **OK**.

See also

Manage companies in the project (page 733)

Find a project management job

You can search to find a specific job.

1. In the **Select Project Management Job** dialog box, click the **Project Management** ribbon tab.
2. Select **Find Project** or press **Ctrl+F**.

   The **Enter Value** dialog box opens.
3. Select the job in the drop-down menu or enter the job number in the search box.
4. Click **OK**.

The selected job is highlighted. To open the job, double-click it or click **Open**.

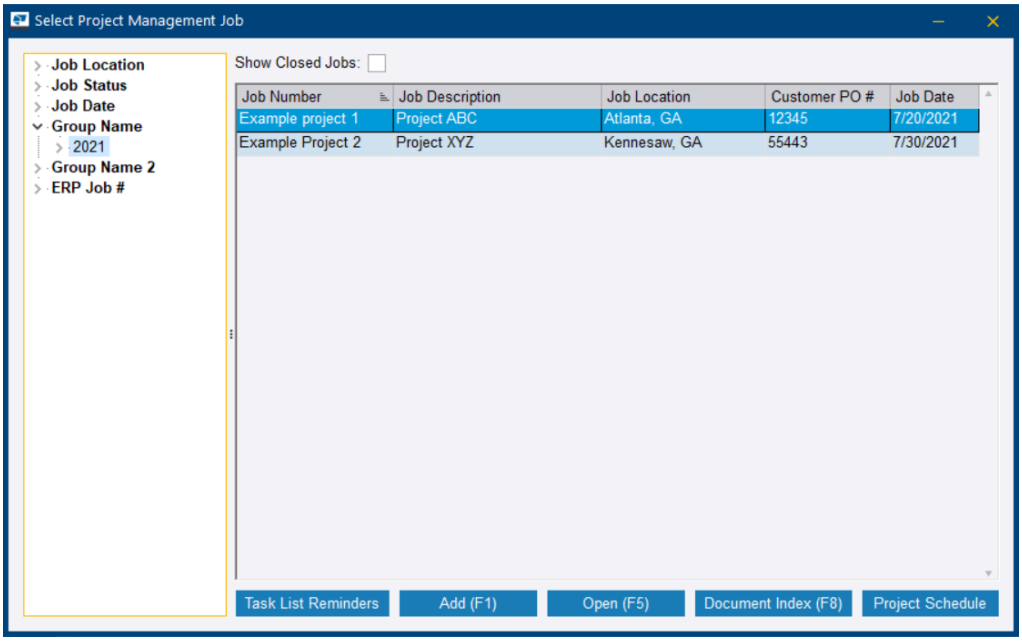
NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Open a project management job

1. At the top of the Tekla PowerFab window, click the **Project Management** button.

   The **Select Project Management Job** dialog box opens.

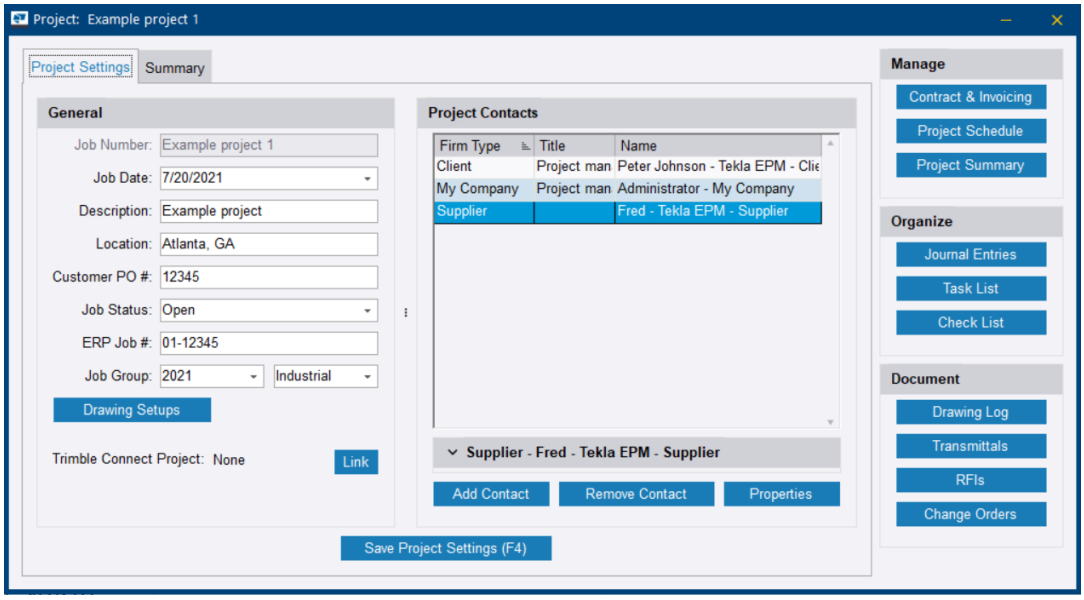
2. Select the job that you want to open.



NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

3. Double-click the job, or click **Open**.

The **Project Management** dialog box opens.



On the **Project Settings** tab, you can adjust the project details and contacts.

On the **Summary** tab, you can see an overview of the different areas in the project.

Manage files for a project management job

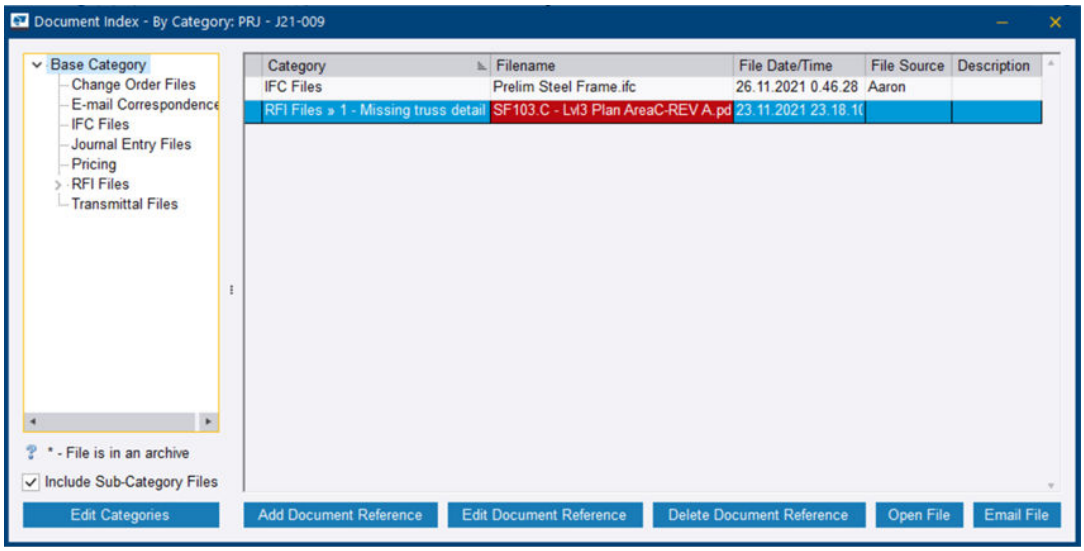
Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

Note that all project management jobs have their own document references.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

For further information and instructions, see

Document Index (page 183)

Set the standard categories for attached documents (page 184)

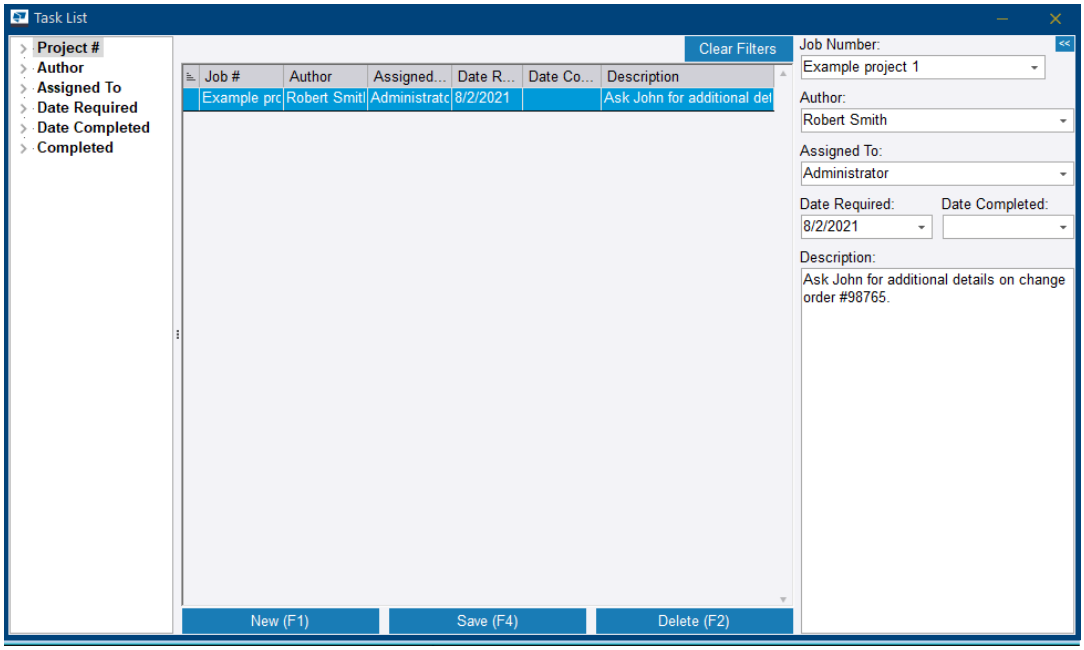
9.3 Manage and assign project tasks

In the **Task List Reminders** dialog box, you can view all existing tasks in the selected project and assign project tasks to Tekla PowerFab users. You can also manage the project tasks according to your needs: add new tasks, and modify or delete project tasks. Check list items can also be moved to the task list and assigned to users.

To access the **Task List Reminders** dialog box, do the following:

1. In the lower-left corner of the **Select Project Management Job** dialog box, click **Task List Reminders**.

The **Task List Reminders** dialog box opens, displaying the existing project tasks.



According to your needs, see any of the following sets of instructions.

Create a project task

1. Click **New**.
2. Click the arrow on the right side of **Job Number** list and select a project management job in the list.
3. Click the arrow on the right side of **Author** list and select the creator of the project task in the list.

   The list contains all Tekla PowerFab users in your company.
4. Click the arrow on the right side of **Assigned To** list and select the user to which you want to assign the task.

   The list contains all Tekla PowerFab users in your company.

   When a task has been assigned to a user, the **Task List Reminders** dialog box automatically opens when the user signs in to Tekla PowerFab. When the task is marked as completed, the **Task List Reminders** dialog box no longer opens when the user signs in.

5. Click the arrow on the right side of **Date Required** list, and select the deadline of the task in the calendar.
6. If necessary, click the arrow on the right side of the **Date Completed** list, and select the date when the task was completed.

   Tekla PowerFab records the date and time when each task is completed.
7. Type a description for the task.
8. Click **Add**.

Modify a project task

You might need to modify an existing task later. For example, you can assign the task to a different Tekla PowerFab user, or mark the task as completed.

1. In the list, select the project task that you want to modify.
2. Modify the job number, author, assignee, date required, date completed, and description according to your needs.
3. Click **Save**.

Delete a project task

Note that deleting a project task is permanent and cannot be undone.

1. In the list, select the project task that you want to delete.
2. Click **Delete**.
3. To permanently delete the task, click **Yes** in the confirmation dialog box.

9.4 Manage drawings

You can create customized drawing logs, add drawings, search for and filter drawings, view or print drawings, and create drawing reports, for example.

Define drawing settings for a job

You can define and modify the drawing settings related to the current project management job in the **Drawing Setup** dialog box.

The changes that you make in the **Drawing Setup** dialog box are only saved for the current project management job. For setting default properties, see

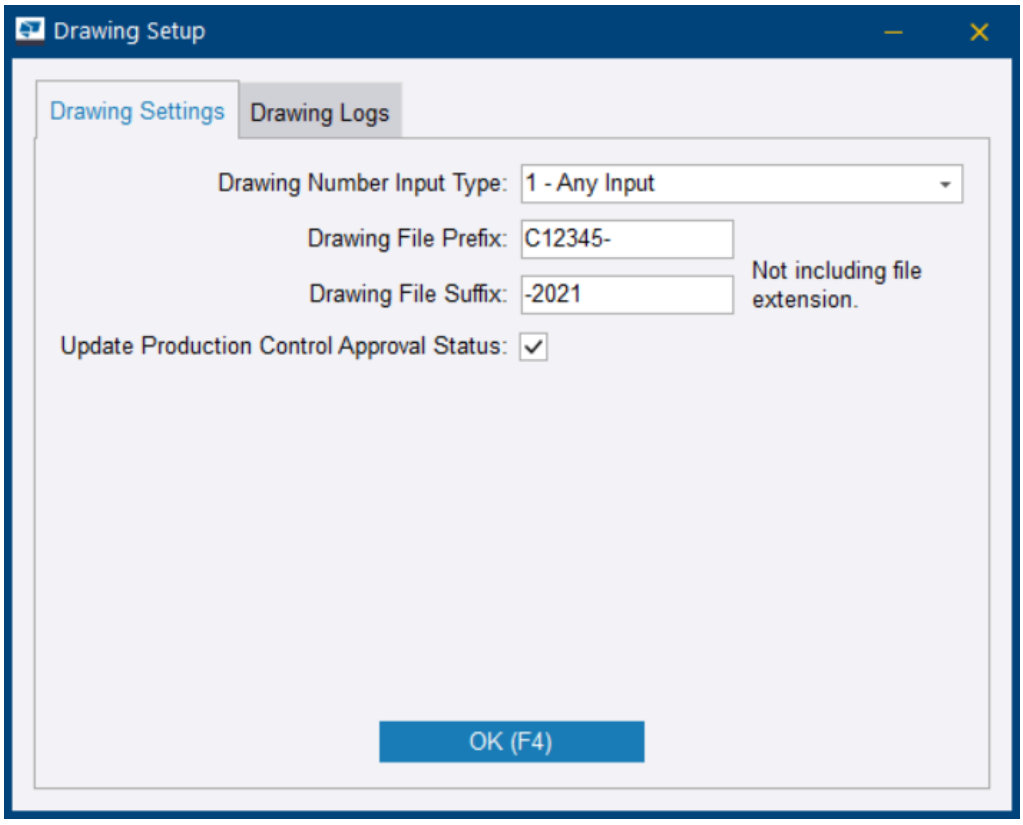
Define company standard settings for Project Management (page 655) and Manage default drawing logs (page 680).

1. Open the **Project Management** module.

   You are either creating a new job or modifying an existing job in the **Project** dialog box.

2. Click **Drawing Setups**.

   The **Drawing Setup** dialog box opens.



3. On the **Drawing Settings** tab, define any of the following settings:

Option	Description
Drawing Number Input Type	Allows you to select the input format for drawing numbers.
Drawing File Prefix/Drawing File Suffix	By default, Tekla PowerFab expects that the names of drawing files match the drawing numbers. **Drawing File Prefix/Suffix** allows you to determine the prefix/suffix that appears in the names of all drawing files that are imported. Determining a **Drawing File Prefix/ Suffix** is optional. However, it can

Option	Description
	help you to ensure that the correct files are imported from the selected folder. **Prefix example**: Drawing files may consist of the job number followed by a dash and the drawing number. In this case, drawing 100 could be named C12345-100.pdf. In consequence, the drawing file prefix would be C12345-. **Suffix example**: Drawing files may include a revision number after the drawing number. In this case, the file name of the first revision of drawing 100 could be C12345-100-r1.pdf. In consequence, the suffix would be -r1. Note that the file name extension is not included in the drawing file suffix. If the drawing file prefix/suffix varies, you can use an asterisk (*) as a wildcard. **Prefix example**: If the prefix of some drawing files that you want to import was not C12345, you could set the drawing file prefix to *-. **Suffix example**: If some drawing files had different revision numbers, you could set the drawing file suffix to -r*.
Update Production Control Approval Status	When selected, the approval statuses of shop drawings that are used in Production Control are automatically updated.

4. To save the settings and close the dialog box, click **OK**.

To create and modify job-specific drawing logs, see Manage drawing logs for a job (page 696).

See also

Create a project management job (page 685)

Manage default drawing logs (page 680)

Manage drawing logs for a job

Drawing logs help to manage and control the drawings in the project. You can create and manage job-specific logs.

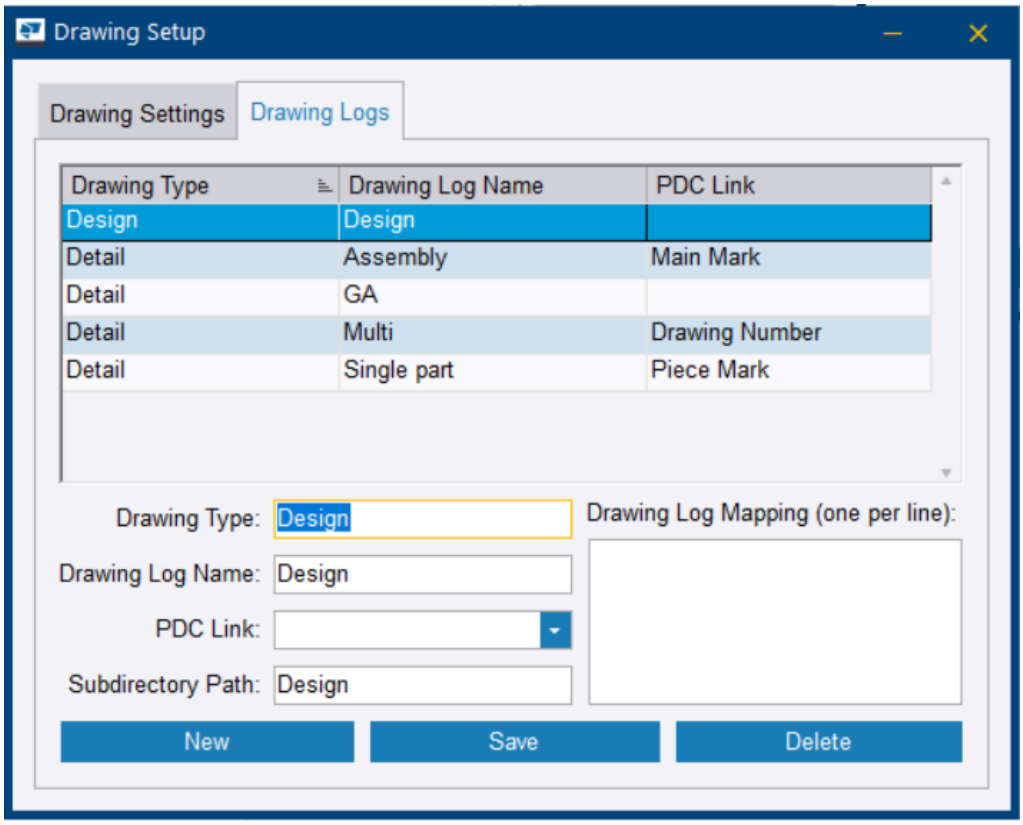
For information on managing default drawing logs applied to all jobs, see Manage default drawing logs (page 680).

1. Open the **Project Management** module.

   You are either creating a new job or modifying an existing job in the **Project** dialog box.

2. Click **Drawing Setups**.

   The **Drawing Setup** dialog box opens.



Add a drawing log

1. On the **Drawing Logs** tab, click **New**.

   Define the following settings:

Option	Description
Drawing Type	Type the drawing type.
Drawing Log Name	Type a name for the drawing log.

Option	Description
PDC Link	Select the field in **Production Control** to which the drawings are connected. Note that the **PDC Link** setting only applies to drawing log types with assemblies or materials that have counterparts in **Production Control**.
Subdirectory Path	Type the path to the subfolder under the drawing default folder where the drawings in that drawing log are stored. For example, type `Detail\Erection` drawings. The default folder for storing drawings is set in **File** --> **Default Directories**.
Drawing Log Mapping (one per line)	Type which drawing types to direct to the selected drawing log. Tekla PowerFab determines the drawing log where imported drawings are stored based on the drawing types assigned to the drawings in the XML file created with Tekla PowerFab Plugin for Tekla Structures, or with the Data Transfer tool in SDS/2. By default, the drawing types in Tekla PowerFab match the drawing types in Tekla Structures. Note that you need to type each drawing type on a separate line.

2. Click **Add**.

Modify a drawing log

1. On the **Drawing Logs** tab, select the drawing log that you want to modify.
2. Change the drawing log settings according to your needs.
3. Click **Save**.

The changes are saved to the current project management job.

Delete a drawing log

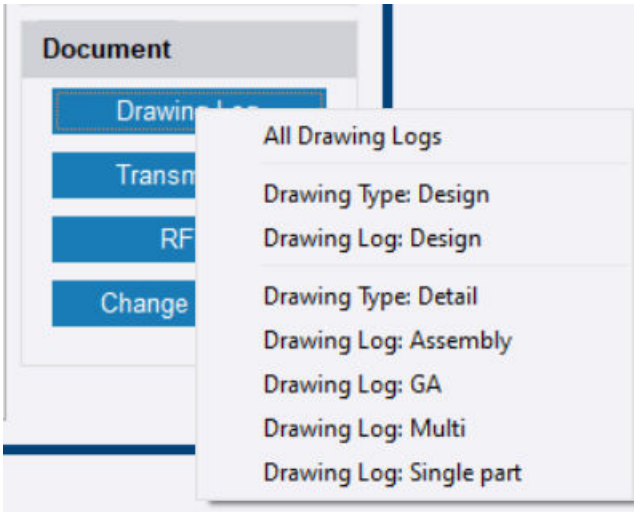
1. On the **Drawing Logs** tab, select the drawing log that you want to delete.

2. Click **Delete**.
3. To permanently delete the drawing log from the current project management job, click **Yes**.

View a drawing log

Drawing logs help to manage and control the drawings in the project.

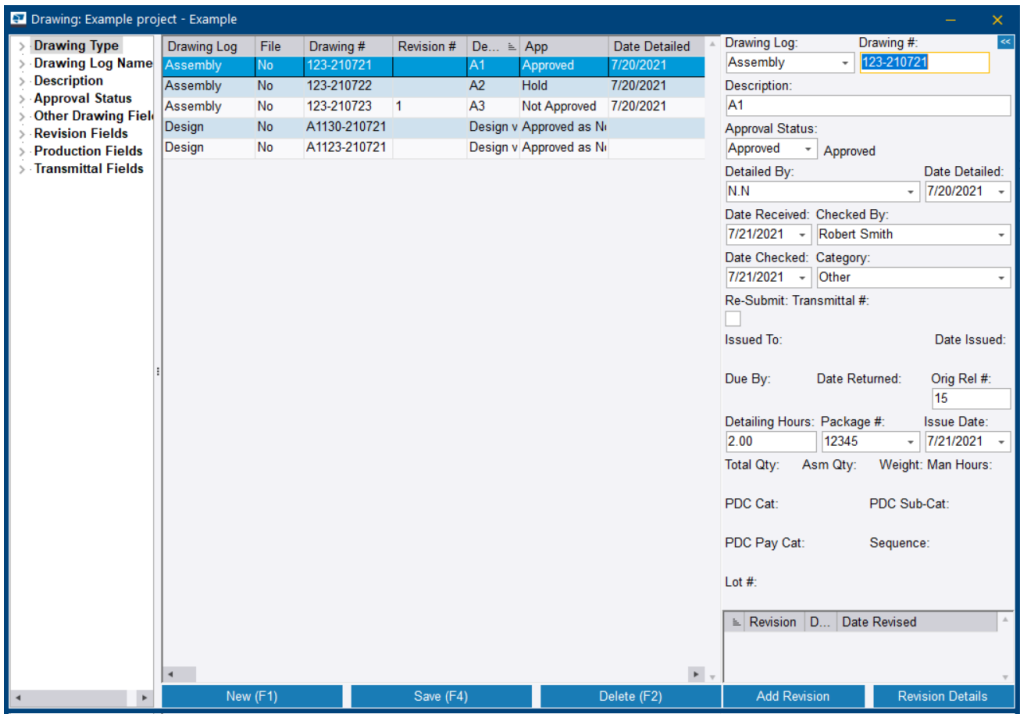
1. Open the project management job whose drawing log you want to view. The **Project** dialog box of the selected job opens.
2. Click **Drawing Log**.



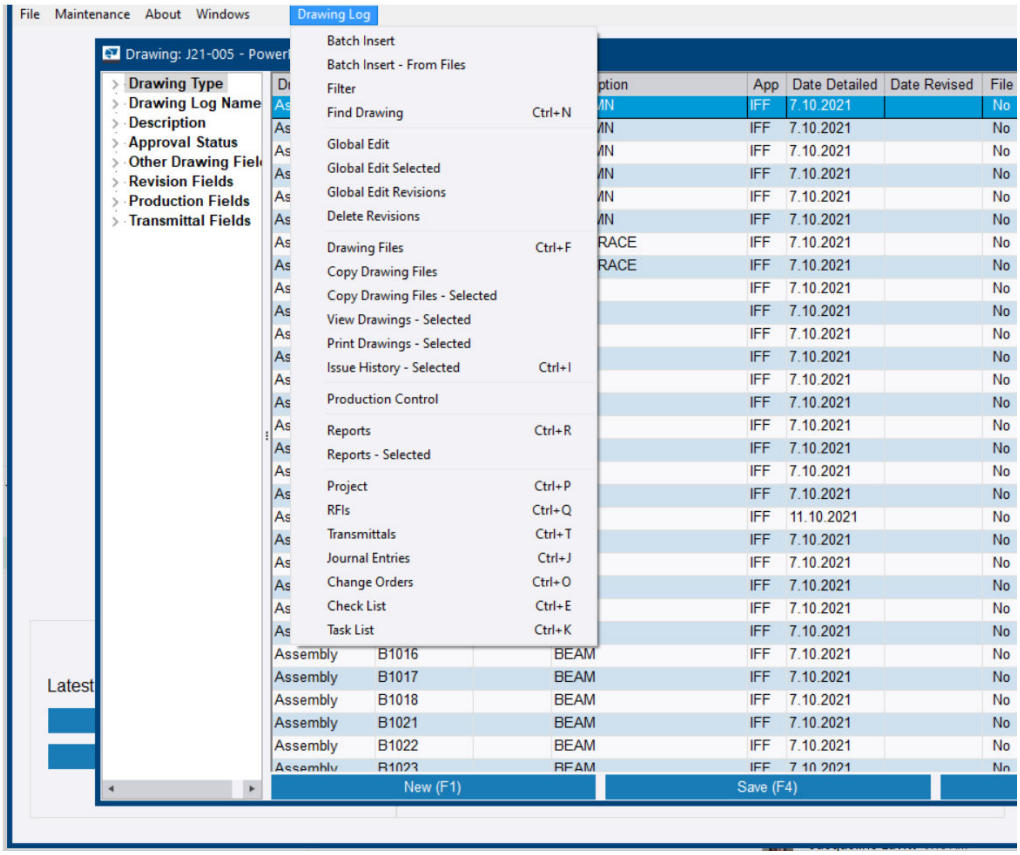
3. On the context menu, select the drawing log that you want to open.

   All Drawing Logs opens the drawing log with no filter applied.

   The selected drawing log opens.



The **Drawing Log** ribbon tab appears in the main window.



See also

Manage drawings (page 694)

Add, modify, and delete drawings (page 702)

Find a drawing (page 701)

Copy drawing files to another location (page 711)

Find a drawing

Use the **Find Drawing** command to quickly find the desired drawing.

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawing is stored.

   NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so if you select that option, you can find any drawing regardless of the drawing log where the drawing is stored.

3. In the open drawing log, click the **Drawing Log** ribbon tab.
4. On the menu, select **Find Drawing**.

   The **Enter Value** dialog box opens.
5. Do either of the following:
   - Select a drawing in the **Select drawing #** drop-down list.
   - Start typing the drawing number in the **Select drawing #**list.

     Tekla PowerFab suggests drawings whose drawing numbers start in the same way.
6. Click **OK**.

Tekla PowerFab selects the related drawing in the current drawing log.

NOTE The drawings available to find are restricted by the selected filter.

View a drawing

Use the **Drawing Files** command to open and view a specific drawing.

NOTE Only drawings that have files attached to them can be viewed.

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawing is stored.
3. In the drawing log, select the drawing.

4. Do one of the following:
   - Double-click the drawing to open the latest revision.
   - Click the **Drawing Log** ribbon tab, and in the menu, select **Drawing Files**.
5. If the file has multiple revisions, in the **Files** dialog box, click the arrow on the right side of the **Revision** list and select the revision that you want to open.

   If you double-clicked a drawing to open it, the latest revision of the selected drawing is automatically opened.
6. Click **OK** to open the drawing.

Add, modify, and delete drawings

Use drawing logs to manage and save the project drawings or PDF files. You can add, modify, and delete drawings, or view the files attached to the stored drawings. You can also attach drawings to transmittals and send them to project parties.

To access drawing logs:

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log.

NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so if you select that option, you can find any drawing regardless of the drawing log where the drawing is stored.

Add a drawing

By following these instructions, you can add one drawing at a time.

To add multiple drawings at one go and to attach files to the drawings while adding them, see Add a batch drawings with PDF attachments to a drawing log (page 705) and Add a batch of drawings without PDF attachments to a drawing log (page 704).

Note that the available input fields in the drawing log depend on the set input fields. For more information, see Customize input fields (page 126).

1. Click **New**.

   The drawing number field is automatically populated with the next available number.

2. Modify the drawing number according to your needs.

   The drawing number can contain a maximum of 25 characters, depending on the **Mark Input Type** option that you have selected in the **Project Company Standards** dialog box.

3. Enter the drawing properties:

Option	Description
Description	A written description of the drawing. The description can contain a maximum of 255 characters.
Approval Status	The approval status of the drawing. The available options are set in **Approval Status Maintenance**.
Detailed By	The person who has detailed the drawing.
Drawing Date	The date when the drawing has been created.
Date Received	The date when the drawing has been received.
Category	A category that can be used for filtering drawings in the drawing log. For example, you can create categories for architectural or structural drawings. You can then use the drawing categories to filter which drawings are visible in the drawing log. You can either select a category in the **Category** list, or type a new category in the **Category** field.
Re-Submit	If you are re-submitting a drawing for approval, select the **Re-Submit** checkbox. If you are submitting the drawing for the first time, ensure that the **Re-Submit** is not selected.
Issue Date	The shop issue date of the drawing.
Package #	The package number of the drawing.
Orig Rel#	The original release number of the drawing.

4. Click **Add**.

The correct drawing file is automatically attached to the drawing when it is added to the default drawing folder in the correct job folder and revision folder. The default drawing folder is `C:\Users\Public\Documents\Tekla PowerFab\Drawing`.

For more information on the folder structure, see Default directories (page 53) and Install Tekla PowerFab on a client (page 62).

Modify a drawing

1. In the list, select the drawing that you want to modify.
2. On the right side of the dialog box, modify the drawing properties according to your needs.

   To add revisions, see Add, modify, and delete drawing revisions (page 707).
3. Click **Save**.

Delete a drawing

Note that deleting a drawing is permanent and cannot be undone.

1. In the list, select the drawing that you want to delete.
2. Click **Delete**.
3. To permanently delete the drawing, click **Yes** in the confirmation dialog box.

Add a batch of drawings without PDF attachments to a drawing log

You can add multiple drawings at one go to any one of your drawing logs. Use the **Batch Insert** command to add multiple drawings without attachments.

Text here

1. Open project management job and click **Drawing Log**.
2. In the context menu, select the drawing log.

   The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added. If you select the **All Drawing Logs** option, you can add drawings to any drawing log.
3. Click the **Drawing Log** ribbon tab.
4. On the menu, select **Batch Insert**.

   The **Insert Drawings** dialog box opens.
5. Go to the **Add Range** tab.
6. Enter the prefix and suffix of the drawing file names to be added. For example, if your project name was C23847, the revision number was 1, and the drawing number was 100, your drawing name could be

`C23487-100-r1.pdf`. In this drawing name, the file prefix would be `C23847-`, and the file suffix would be `-r1`. Note that the file extension is not part of the file suffix.

7. In the **Start Number** field, type the number of the first drawing that you want to add.
8. In the **End Number** field, type the number of the last drawing that you want to add.
9. Define any other properties for the drawings.
10. Click **Add Drawings**.

The drawings are added to the drawing log.

NOTE You need to add any PDF attachments to the drawings manually.

See also

Manage drawings (page 694)

Add a batch drawings with PDF attachments to a drawing log

You can add multiple drawings at one go to any one of your drawing logs. Use the **Batch Insert - From Files** command to add multiple drawings with PDF attachments.

1. Open project management job and click **Drawing Log**.
2. In the context menu, select the drawing log.

   The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added. If you select the **All Drawing Logs** option, you can add drawings to any drawing log.
3. Click the **Drawing Log** ribbon tab.
4. On the menu, select **Batch Insert - From Files**.

   The **Insert Drawings** dialog box opens.
5. Do either of the following:
   - To add all drawings with a particular prefix and suffix, go to the **Add Drawings** tab.
   - To add revisions to particular drawings, go to the **Add Revisions** tab.
6. On the right side of the **Directory field**, click **...**

   The **Browse For Folder** dialog box opens.
7. Select the folder from which you want to import the attachments.
8. Click **OK**.

9. To save copies of the drawings in the `\Tekla PowerFab Documents \Drawing` folder, select the **Copy Files into Drawing Directory** checkbox.

   By copying the drawings to the `\Tekla PowerFab Documents\Drawing` folder, you can ensure that Tekla PowerFab always finds the attached files, even if you change their location on your computer.

10. Enter the prefix and suffix of the drawing file names to be added. For example, if your project name was C23847, the revision number was 1, and the drawing number was 100, your drawing name could be `C23487-100-r1.pdf`. In this drawing name, the file prefix would be `C23847-`, and the file suffix would be `-r1`. Note that the file extension is not part of the file suffix.
11. Define any other properties for the drawings.
12. Click **Add From Files**.

The drawings and their attachments are added to the drawing log. Notice that in the **File** column for each drawing, **Yes** appears indicating that the drawings have PDF files attached to them.

Modify multiple drawings

You can modify the properties of multiple drawings at one go with the **Global Edit** command.

1. Open project management job and click **Drawing Log**.
2. In the context menu, select the drawing log.

   The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added. If you select the **All Drawing Logs** option, you can add drawings to any drawing log.

3. Click the **Drawing Log** ribbon tab.
4. On the menu, select **Global Edit**.

   The **Global Edit Filters** dialog box opens.

5. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.

6. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

7. Click **OK**.

   To further limit the drawing types that you want to modify, repeat steps 5 to 7 for all necessary filter types.

8. Click **OK**.

   The **Global Edit** dialog box opens.

9. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

10. Click **Update**.

    The **Confirm** dialog box opens.

11. To confirm changing the properties of multiple items, click **Yes**.

Modify the selected drawings

You can modify the properties of selected drawings at one go with the **Global Edit - Selected** command.

1. Open project management job and click **Drawing Log**.
2. In the context menu, select the drawing log.

   The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added. If you select the **All Drawing Logs** option, you can add drawings to any drawing log.

3. In the open drawing log, select the drawings that you want to modify.

   To select multiple drawings, hold down **Ctrl**.

   To select a range of subsequent drawings, hold down **Shift**.

4. Click the **Drawing Log** ribbon tab.
5. On the menu, select **Global Edit - Selected**

   The **Global Edit - Selected** dialog box opens.

6. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

7. Click **Update**.

The modified drawing properties are updated in the drawing log.

Add, modify, and delete drawing revisions

You can add revisions for your drawings in any one of your drawing logs. You can also modify existing revisions according to your needs, or delete unnecessary revisions.

Add a single drawing revision

To add multiple drawing revisions, see Add a batch drawings with PDF attachments to a drawing log (page 705) and Add a batch of drawings without PDF attachments to a drawing log (page 704).

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawing is stored.

NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so you can add revisions to any drawing.

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3. In the drawing list, select the drawing for which you want to add a revision.
4. At the bottom of the drawing log, click **Add Revision**.
5. In the **Drawing Revisions** dialog box, click **New**.
6. Type the revision number and a description of the revision.
7. Type appropriate names in the **Revised By** and **Checked By** fields.
8. Click the arrow on the right side of **Date Revised** and **Date Received** fields, and select dates in the calendars.
9. Click the arrow on the right side of **Date Checked** field, and select a date in the calendar.
10. Type a release number for the revision.
11. Click **Save** to add the revision.

The new drawing revision is added to the revision list. You can view the details of all of the drawing's revisions by clicking **Revision Details**.

Note that because you did not attach a PDF file to the drawing revision, the **File** column says **No**. If a PDF file has been attached to the drawing revision, the **File** column has **Yes** in it, and you can double-click the drawing to view the attached PDF file.

The correct PDF file will automatically be attached to the revision when it is added to the default drawing folder (by default, `C:\Users\Public\Documents\Tekla PowerFab\Drawing`) in the correct job folder and revision folder.

Modify a drawing revision

Note that you can only modify one drawing revision for one drawing at a time.

1. On the right side of an open project management job, click **Drawing Log**.

2. In the context menu, select the drawing log in which the drawing is stored.

NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so you can add revisions to any drawing.

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3. In the drawing list, select the drawing whose revisions you want to modify.
4. At the bottom of the drawing log, click **Revision Details**.
5. In the **Drawing Revisions** dialog box, select the revision that you want to modify.
6. Modify the revision properties according to your needs.
7. Click **Save** to save the changes.

Modify multiple drawing revisions

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawings are stored.

NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so you can add revisions to any drawing.

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3. In the drawing log, select the drawings whose revisions you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click the **Drawing Log** ribbon tab.
5. In the menu, select **Global Edit Revisions**.
6. In the **Global Edit - Revisions** dialog box, select which revisions you want to update:
   - To update all revisions of the selected drawing, select **Update All Revisions**.
   - To update the latest revision of the selected drawing, select **Update Latest Revision**.
   - To update a particular revision number, select **Update Revision #**, and type the revision number in the **Revision #** field.
7. Select the checkboxes next to the properties that you want to update.

8. Modify the selected properties according to your needs.

   For example, select a **Date Checked** date and type a name in the **Checked By** field.

9. Click **Update**.

Delete a drawing revision

Note that deleting a drawing revision is permanent and cannot be undone.

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawing is stored.

   NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so you can add revisions to any drawing.

3. In the drawing list, select the drawing whose revisions you want to modify.
4. At the bottom of the drawing log, click **Revision Details**.
5. In the **Drawing Revisions** dialog box, select the revision that you want to delete.
6. Click **Delete**.
7. To permanently delete the selected revision, click **Yes** in the confirmation dialog box.

Delete multiple drawing revisions

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log in which the drawings are stored.

   NOTE The **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so you can add revisions to any drawing.

3. In the drawing log, select the drawings whose revisions you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

4. Click the **Drawing Log** ribbon tab.
5. In the menu, select **Delete Revisions**.

6. In the **Delete Drawing Revision - Batch** dialog box, select one of the following options:
   - To delete the latest revisions of the selected drawings, select **Delete Latest Revision**.
   - To delete particular revisions of the selected drawings, select **Delete Revision #**, and type the revision number in the **Revision #** field.
7. Click **Delete**.
8. To permanently delete the revisions, click **Yes**.

Copy drawing files to another location

Use the **Copy Drawing Files** and **Copy Drawing Files - Selected** commands to copy the attached drawing files to another location, so that they can be issued to the shop or field, or be printed.

To open a drawing log:

1. On the right side of an open project management job, click **Drawing Log**.
2. In the context menu, select the drawing log whose attached files you want to copy.

   Note that the **All Drawing Logs** option opens a drawing log that lists all drawings that you have added, so if you select that option, you can copy any drawing files regardless of the drawing log where they are stored.

Copy all drawing files in the current drawing log

1. In the open drawing log, click the **Drawing Log** ribbon tab.
2. On the menu, select **Copy Drawing Files**.
3. To only copy particular drawing files, in the **Copy Files Filter** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the drawings whose attached files you want to copy to the **Included** list.
   - Type the maximum and minimum values for the drawings whose attached files you want to copy.
5. Click **OK**.
6. In the **Browse For Folder** dialog box, browse to and select the folder where you want to copy the drawing files.

   The default location is the drawing default folder that has been set in the **Default Directories** dialog box.

7. Click **OK**.

   The `file-list` text file opens in Microsoft Notepad, showing the drawing files that were copied to the selected location.

8. Ensure that all necessary drawings and files are listed in the `file-list` text file.
9. To close Microsoft Notepad and return to the drawing log, click the **Close** button (**X**) in the upper-right corner.

Copy drawing files attached to the selected drawings

1. In the open drawing log, select the drawings whose attached files you want to copy.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Drawing Log** ribbon tab.
3. On the menu, select **Copy Drawing Files - Selected**.
4. In the **Browse For Folder** dialog box, browse to and select the folder where you want to copy the drawing files.

   The default location is the drawing default folder that has been set in the **Default Directories** dialog box.

5. Click **OK**.

   The `file-list` text file opens in Microsoft Notepad, showing the drawing files that were copied to the selected location.

6. Ensure that all necessary drawings and files are listed in the `file-list` text file.
7. To close Microsoft Notepad and return to the drawing log, click the **Close** button (**X**) in the upper-right corner.

Print drawings

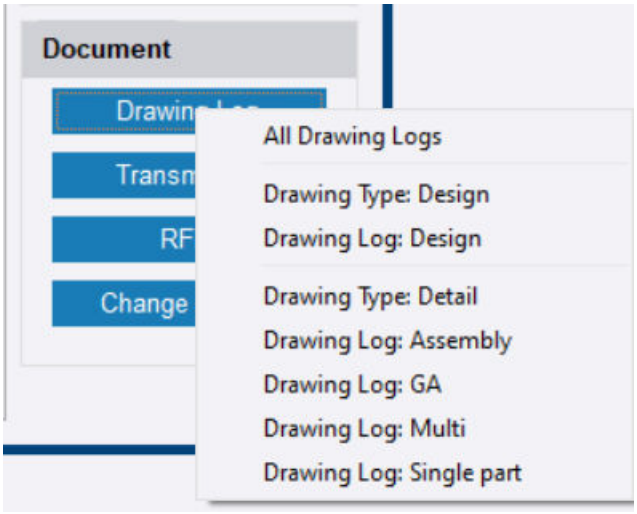
You can print one or multiple drawings that are stored in a drawing log.

NOTE You can only print drawings that have attached files.

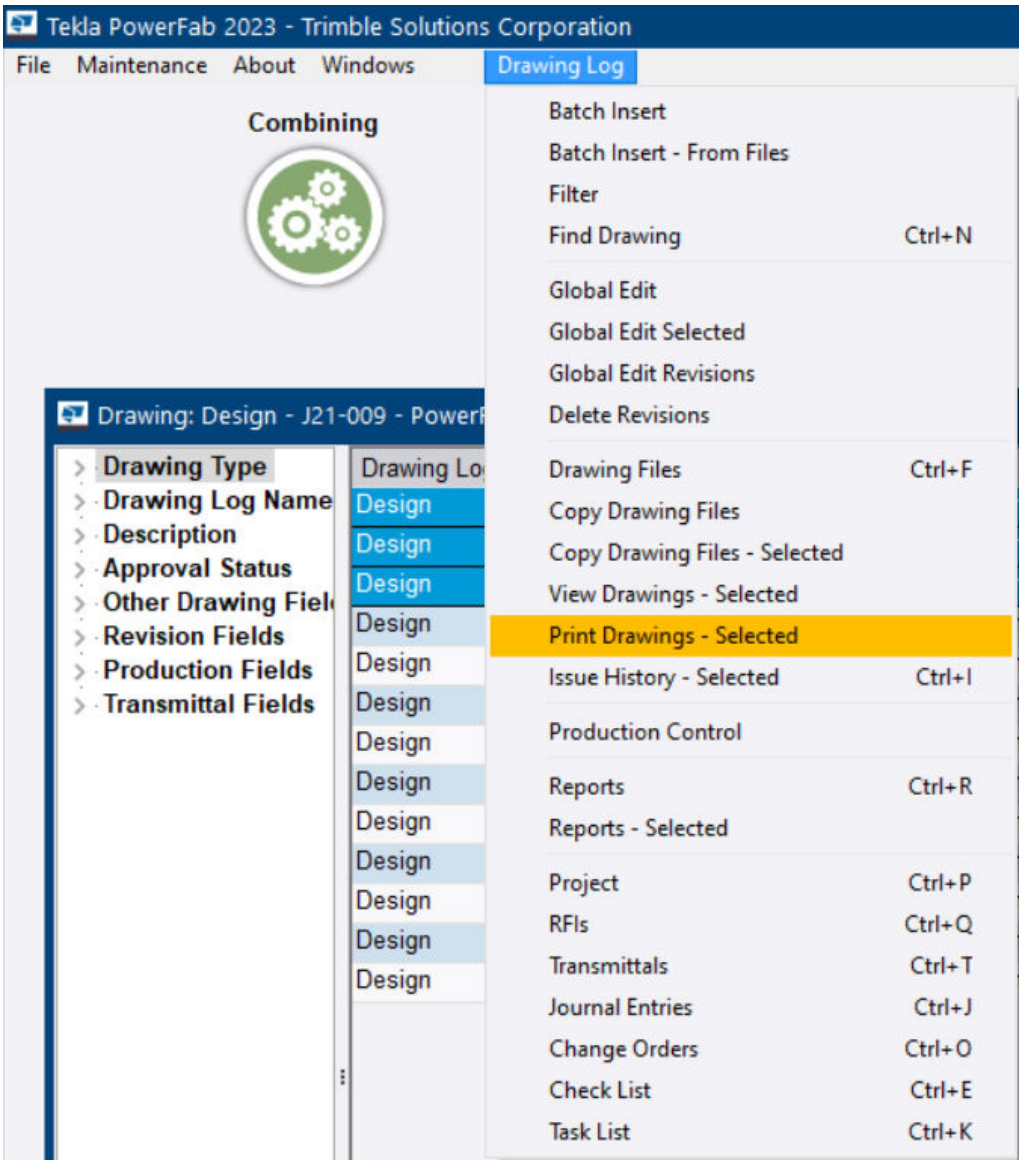
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1. In the **Project Management** module, open a job.
2. In the **Document** area, click **Drawing Log**.

A context menu opens.



3. Select a drawing log type.
   The **Drawing** dialog box opens.
4. Select the drawing or drawings that you want to print.
   To select multiple drawings, hold down **Ctrl**.
   To select a range of subsequent drawings, hold down **Shift**.
5. Click the **Drawing Log** ribbon tab.
6. On the menu, select **Print Drawings - Selected**.



The **Select Printer** dialog box opens.

7. Select a print and click **OK**.
8. In the **Enter Value** dialog box, type the number of the printed copies.
9. To print the drawings, click **OK**.

View the issue history of selected drawings

Use the **Issue History - Selected** command to view the entire activity history of the selected drawings. Among other things, the issue history shows the transmittals in which the drawings are included.

1. On the right side of an open project management job, click **Drawing Log**.

2. In the context menu, select the drawing log in which the drawings are stored.

   Note that the **All Drawing Logs** option opens a drawing log that lists all drawings that you have added.
3. In the open drawing log, select the drawings.
4. Click the **Drawing Log** ribbon tab.
5. On the menu, select **Issue History - Selected**.
6. In the **Drawing Issue History** dialog box, view the activity of the selected drawings.
7. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

View, print, or export drawing reports

You can create reports based on the information in drawing logs. For example, you can create a drawing list, or a report on the drawing issue history. You can then view, print, or export the created reports.

Use the **Reports** command to create a report on all drawings in the drawing log or on the drawings that match specific filters, or use the **Reports - Selected** command to create a report on the drawings that you select in the drawing log.

Create a drawing report

1. In the **Project Management** module, double-click a job to open it.
2. On the right, click **Drawing Log**.
3. In the context menu, select the drawing log whose information you want to include in the report.

   Note that the **All Drawing Logs** option opens a drawing log that contains the information of all drawings that you have added.
4. In the drawing log, do one of the following:

To	Do this
Create reports on all drawings or on specific drawing types	a. Click the **Drawing Log** ribbon tab. b. On the menu, select **Reports**. c. To only create drawing reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **Drawings** checkbox is selected.

To	Do this
	d. To only include specific types of drawings in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**. e. In the **Filter** dialog box, do one of the following depending on the filter type: • Click the arrow buttons to move the drawing properties that you want to include in the report to the **Included** list. • Type the maximum and minimum values for the drawings that you want to include. f. Click **OK**. To further limit the types of drawings that are included in the reports, repeat steps c to f for all necessary filter types. g. Click **Make Report**.
Create reports on the currently selected drawings	a. In the drawing log, select the drawings that you want to include in the reports. To select multiple items, hold down **Ctrl**. To select a range of subsequent drawings, hold down **Shift**. b. Click the **Drawing Log** ribbon tab. c. On the menu, select **Reports - Selected**.

5. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View a drawing report

To create a report, follow the steps in Create a drawing report (page 715).

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the drawing report

To create a report, follow the steps in Create a drawing report (page 715).

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.

2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the drawing report

To create a report, follow the steps in Create a drawing report (page 715).

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

Set drawings on hold

You can set drawings on hold. They are highlighted so that they are easy to spot.

Set a drawing on hold

Before you start, make sure you have the appropriate settings. See Define settings for drawings on hold (page 852).

1. In the **Production** module, double-click to open a job.
2. On the **Production Control** ribbon tab, select **Drawing Log**.
3. Select the drawing that you want to put on hold.
4. In the input area, in **Approval Status**, select **H** for Hold.
5. Click **Save** and close the **Drawing** dialog box.

The drawing that is on hold is highlighted in red.

You can also see the status in Tekla PowerFab Go.

Set multiple drawings on hold

1. In the **Production** module, double-click to open a job.

2. On the **Production Control** ribbon tab, select **Drawing Log**.
3. Select the drawings that you want to put on hold.

   To select all, right click the grid and, on the menu, select **Select All**.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Do one of the following:
   - If you selected all:
     a. Select **Global Edit**

        The **Drawing Log Global Edit Filters** dialog box opens.
     b. Select **Approval Status**
     c. Click **OK**.

        The **Global Edit** dialog box opens.
   - If you select two or more drawings:
     a. Select **Global Edit - Selected**.

        The **Global Edit - Selected** dialog box opens.
5. Select **Approval Status** and, in the drop-down list, select **H** for Hold.
6. Click **Save**.

The drawings that are on hold are highlighted in red.

You can also see the status in Tekla PowerFab Go.

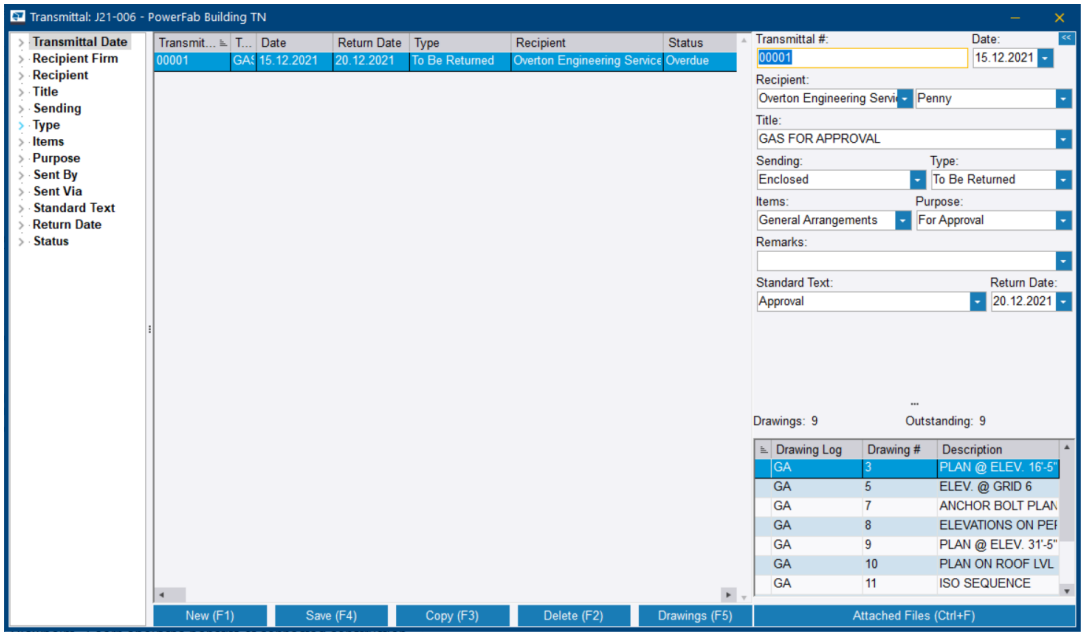
9.5 Manage transmittals

Transmittals are cover sheets to which drawings can be attached in order to be sent. Tekla PowerFab records the time when a drawing has been issued and is to be returned, and marks drawings that are overdue or outstanding.

To access the **Transmittal** dialog box, do any of the following:

- On the right side of the **Project** dialog box, click the **Transmittals** button.
- On the **Summary** tab of the **Project** dialog box, click **+** in the upper-right corner of the **Transmittals** section, and select which transmittals you want to see.

The **Transmittal** dialog box opens.



For more information, see the following links:

Create, modify, and delete transmittals (page 719)

View transmittals (page 728)

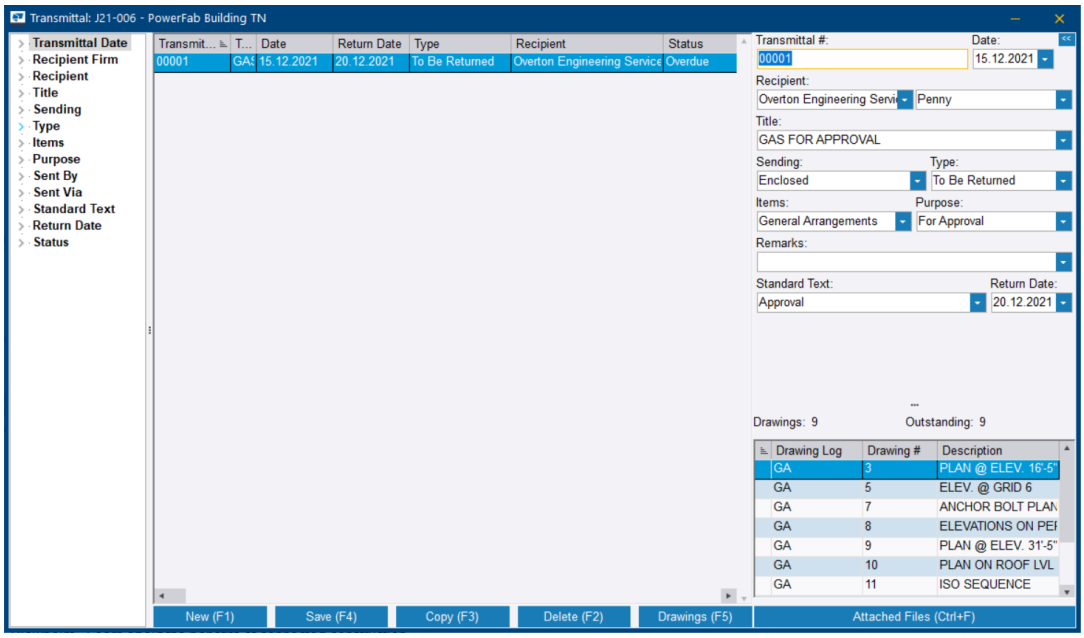
Print transmittals (page 729)

Mark drawings in a transmittal as received (page 729)

Send a transmittal via email (page 730)

Create, modify, and delete transmittals

Use the **Transmittal** dialog box to manage transmittals. You can create new transmittals, attach drawings and files to transmittals, modify the properties of existing transmittals, or delete unnecessary transmittals.



Create a transmittal

Before you start creating transmittals, we recommend that you create the necessary methods for sending documents, transmittal items, transmittal purposes, and commonly used text for transmittals.

See Set up transmittals (page 675).

1. In **Project Management**, to open a project, double-click it. The **Project** dialog box opens.
2. Click **Transmittals**

   The **Transmittal** dialog box opens.
3. At the bottom of the dialog box, click **New**.

   The next available transmittal number is populated in the **Transmittal #** field.
4. If necessary, modify the transmittal number.
5. Define the properties for the transmittal.

   The items that are marked with an asterisk (*) in the following table are mandatory.

Option	Description
Date *	The date of the transmittal. Click the arrow on the right side of the **Date** field, and select the date in the calendar.

Option	Description
Recipient *	The company and contact person that will receive the transmittal once it is ready. Note that the available companies and contact persons are set in the **Project Company Standards** dialog box. Click the arrow on the right side of the leftmost **Recipient** list, and select the recipient company in the list.
Title *	The title that will appear at the top of the transmittal. In the **Title** field, type a title for the transmittal.
Sending *	Allows you to define how the drawings are sent to the recipient. Click the arrow on the right side of the **Sending** list, and select one of the following options: • **Enclosed**: the drawings are sent enclosed in the transmittal. • **Under Separate Cover**: the drawings are sent under a separate cover.
Type *	Allows you to define if the recipient needs to return the drawings. Click the arrow on the right side of the **Type** list, and select one of the following options: a. **To Be Returned**: the recipient needs to return the drawings by a specific date. b. **For Issue Only**: the recipient does not need to return the drawings.
Items *	The types of the items that are sent with the transmittal. If necessary, you can select multiple options. The options are set in the **Transmittal Item Maintenance** dialog box. To add items to the transmittal, do the following: a. Click the **Items** field. b. In the **Select Items** dialog box, click the arrow buttons to move the types of items to be included in the transmittal to the **Included** list. c. Click **OK**.

Option	Description
Purpose *	The purposes of sending the transmittal. For example, transmittals can be sent to be approved or for pricing. If necessary, you can select multiple purposes. The options are set in the **Transmittal Purpose Maintenance** dialog box. The **Select Purposes** dialog box opens automatically when you click **OK** in the **Select Items** dialog box. In the dialog box, do the following: a. Click the arrow buttons to move the purposes for sending the transmittal to the **Included** list. b. Click **OK**.
# of Prints	The number of prints included in the transmittal. Type a number in the **# of Prints** field.
Prints to Return	If **Type** is set to **To Be Returned**, define the number of prints to be returned. Type a number in the **Prints to Return** field.
# of Sepias	The number oincluded in the transmittal. Type a number in the **# of Sepias** field.
Sepias to Return	If **Type** is set to **To Be Returned**, define the number of sepias to be returned. Type a number in the **Sepias to Return** field.
Sent By	The sender of the transmittal. Do one of the following: • Click the arrow on the right side of the **Sent By** list, and select a previously defined sender in the list. • Type a new sender name in the **Sent By** field. The name is saved and will be available for future transmittals.
Copy To	The people who receive a copy of the transmittal. Do one of the following: • Click the arrow on the right side of the **Copy To** list, and select a previously defined name in the list.

Option	Description
	• Type a new name in the **Sent By** field. The name is saved and will be available for future transmittals.
Remarks	Any remarks that you want to add to the transmittal. Type the remarks in the **Remarks** field.
Standard Text	The text items that you want to include in the transmittal. You can only select one option. The text items are set in the **Transmittal Standard Text Maintenance** dialog box. Click the arrow on the right side of the **Standard Text** list, and select an option in the list.
Return Date *	If **Type** is set to **To Be Returned**, define the date by which the drawings should be returned. Remember to add a return date for returned drawings, so that they do not appear as overdue. Click the arrow on the right side of the **Return Date** field, and select a date in the list.

6. To attach drawings to the new transmittal, do the following:
   a. At the bottom of the dialog box, click **Drawings**.
   b. At the bottom of the **Transmittal Drawings** dialog box, click **Add Drawings**.
   c. In the **Add Transmittal Drawings** dialog box, click the arrow buttons to move the drawings that you want to attach to the **Included** list.

      To select multiple items, hold down **Ctrl**.

      To select a range of subsequent items, hold down **Shift**.
   d. Click **Add**.
   e. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

   You can see the attached drawings in the lower-right corner of the **Transmittal** dialog box.
7. To attach files to the new transmittal, do the following:
   a. Click **Attached Files** --> **New**.

      The **Document Index** dialog box opens.
   b. Do either of the following:
      • To add an existing file, click either **Find by Directory** or **Search** and find the desired file.

- To add a new file, click either **Add File**, **Add Outlook Email**, or **Add Outlook Attachments**, select the file you want to add, and click **Open**.

c. In **Select Directory**, click **Browse** to select the directory in which you want to save the file.

d. Click **Add File**.

The added file shows in the list in the **Transmittal** dialog box. You can add a description for the file in the **Description** field.

e. Click **Save** and close the window to return to the **Transmittal** dialog box.

Modify a transmittal

Modify a transmittal to change its properties. For example, you should add a return date for returned drawings, so that they do not appear as overdue.

1. In **Project Management**, to open a project, double-click it. The **Project** dialog box opens.
2. Click **Transmittals**

   The **Transmittal** dialog box opens.
3. Select the transmittal that you want to modify.
4. Modify the properties for the transmittal.

   The items that are marked with an asterisk (*) in the following table are mandatory.

Option	Description
Date *	The date of the transmittal. Click the arrow on the right side of the **Date** field, and select the date in the calendar.
Recipient *	The company and contact person that will receive the transmittal once it is ready. Note that only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **Recipient** lists. Click the arrow on the right side of the leftmost **Recipient** list, and select the recipient company in the list. Click the arrow on the right side of the rightmost **Recipient** list, and select the contact person in the list.

Option	Description
Title *	The title that will appear at the top of the transmittal. In the **Title** field, type a title for the transmittal.
Sending *	Allows you to define how the drawings are sent to the recipient. Click the arrow on the right side of the **Sending** list, and select one of the following options: • **Enclosed**: the drawings are sent enclosed in the transmittal. • **Under Separate Cover**: the drawings are sent under a separate cover.
Type *	Allows you to define if the recipient needs to return the drawings. Click the arrow on the right side of the **Type** list, and select one of the following options: a. **To Be Returned**: the recipient needs to return the drawings by a specific date. b. **For Issue Only**: the recipient does not need to return the drawings.
Items *	The types of the items that are sent with the transmittal. You can select multiple options. The options are set in the **Transmittal Item Maintenance** dialog box. To add items to the transmittal, do the following: a. Click the **Items** field. b. In the **Select Items** dialog box, click the arrow buttons to move the types of items to be included in the transmittal to the **Included** list. c. Click **OK**.
Purpose	The purposes of sending the transmittal. For example, transmittals can be sent to be approved or for pricing. If necessary, you can select multiple purposes. The options are set in the **Transmittal Purpose Maintenance** dialog box. The **Select Purposes** dialog box opens automatically when you click **OK** in the **Select**

Option	Description
	Items dialog box. In the dialog box, do the following: a. Click the arrow buttons to move the purposes for sending the transmittal to the **Included** list. b. Click **OK**.
# of Prints	The number of prints included in the transmittal. Type a number in the **# of Prints** field.
Prints to Return	If **Type** is set to **To Be Returned**, define the number of prints to be returned. Type a number in the **Prints to Return** field.
# of Sepias	The number of prints included in the transmittal. Type a number in the **# of Sepias** field.
Sepias to Return	If **Type** is set to **To Be Returned**, define the number of sepias to be returned. Type a number in the **Sepias to Return** field.
Sent By	The sender of the transmittal. Do one of the following: • Click the arrow on the right side of the **Sent By** list, and select a previously defined sender in the list. • Type a new sender name in the **Sent By** field. The name is saved and will be available for future transmittals.
Copy To	The people who receive a copy of the transmittal. Do one of the following: • Click the arrow on the right side of the **Copy To** list, and select a previously defined name in the list. • Type a new name in the **Sent By** field. The name is saved and will be available for future transmittals.
Remarks	Any remarks that you want to add to the transmittal. Type the remarks in the **Remarks** field.

Option	Description
Standard Text	The text items that you want to include in the transmittal. You can only select one option. The text items are set in the **Transmittal Standard Text Maintenance** dialog box. Click the arrow on the right side of the **Standard Text** list, and select an option in the list.
Return Date *	If **Type** is set to **To Be Returned**, define the date by which the drawings should be returned. Remember to add a return date for returned drawings, so that they do not appear as overdue. Click the arrow on the right side of the **Return Date** field, and select a date in the calendar.

5. To attach drawings to the new transmittal, do the following:
   a. At the bottom of the dialog box, click **Drawings**.
   b. In the **Transmittal Drawings** dialog box, do any of the following:
      - To add new drawings, click **Add drawings**, select the drawings, and click **Add**.
      - To set shop issue date, select the drawings and click **Set Shop ISsue Date**. Then, select the date in the calender and click **OK**.
      - To return drawings, select the drawings and click **Return**. Then, select the approval status and return date, and click **Update**.

        Note that if this is not the first time that these drawings have been returned, you should select the **Re-Submit** checkbox.
      - To cancel returning drawings, select the drawings and click **Un-Return**. Then, select the approval status and click **OK**.
      - To remove drawings from the transmittal, select the drawings and click **Remove Selected drawings**.
   c. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

   You can see the attached drawings in the lower-right corner of the **Transmittal** dialog box.
6. Click **Save**.
7. To attach files to the transmittal or to delete files from the transmittal, click **Attached Files**.

   To add new files, click **New** or to delete files, click **Delete**.

Delete transmittals

1. In **Project Management**, to open a project, double-click it. The **Project** dialog box opens.
2. Click **Transmittals**

   The **Transmittal** dialog box opens.
3. Select the transmittals that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click **Delete**.
5. To permanently delete the transmittals, click **Yes** in the confirmation dialog box.

View transmittals

You can view the selected transmittals by using the **View Selected Transmittals** command in the **Tekla PowerFab Report Viewer**.

1. In the **Transmittal** dialog box, select the transmittals that you want to view.

   To select multiple transmittals, hold down **Ctrl**.

   To select a range of subsequent transmittals, hold down **Shift**.
2. Click the **Transmittal** ribbon tab.
3. On the menu, select **View Selected Transmittals**.
4. In the **View Transmittal** dialog box, select or clear the following checkboxes:

To	Do this
Show Company Logo (If Exists)	When selected, your company logo is visible in the transmittal.
Combine Drawings	When selected, consecutive drawing numbers are combined, so that the drawing numbers are displayed as 1–3, instead of 1, 2, 3. To be combined, the drawings need to have the same dates, revisions, and descriptions, and be in a series.

5. In the **Report Selection** dialog box, click **View**.

The transmittal opens in the **Tekla PowerFab Report Viewer**.

In the **Tekla PowerFab Report Viewer**, you can email the transmittal as a Microsoft Excel worksheet or a PDF file, export it to another file format, or print it.

Print transmittals

Use the **Print Selected Transmittals** to print one or multiple transmittals related to the current project management job.

1. In the **Transmittal** dialog box, select the transmittals that you want to print.

   To select multiple transmittals, hold down **Ctrl**.

   To select a range of subsequent transmittals, hold down **Shift**.
2. Click the **Transmittal** ribbon tab.
3. On the menu, select **Print Selected Transmittals**.
4. On the **Report Settings** tab of the **Print Transmittal** dialog box, select or clear the following checkboxes:

To	Do this
Show Company Logo (If Exists)	When selected, your company logo is visible in the transmittal.
Combine Drawings	When selected, consecutive drawing numbers are combined, so that the drawing numbers are displayed as 1–3, instead of 1, 2, 3. To be combined, the drawings need to have the same dates, revisions, and descriptions, and be in a series.

5. On the **Printer Settings** tab, type the number of copies in the **Copies** field.
6. To set the printer, click **Change Printer**.
7. In the **Select Printer** dialog box, click a printer to select it.
8. Click **OK**.
9. Click **Print**.

Mark drawings in a transmittal as received

When the recipient of the transmittal has returned the drawings, mark the drawings as received in the **Transmittal** dialog box.

NOTE You can only receive drawings in transmittals whose type is **To Be Returned**.

1. In the **Transmittal** dialog box, click the transmittal whose drawings you want to receive.

2. At the bottom of the dialog box, click **Drawings**.
3. In the **Selected Drawings** dialog box, click the arrow buttons to move the returned drawings to the **Included** list.
4. Click **Receive**.
5. In the **Receive Drawings** dialog box, click the arrow on the right side of the **Date Returned** field, and select the date in the calendar.
6. Click the arrow on the right side of **Approval Status** list, and select the approval status of the drawings in the list.
7. If the drawings have been resubmitted for approval, select the **Re-Submit** checkbox.
8. Click **OK**.
9. In the **Selected Drawings** dialog box, select all drawings in the **Included** list.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
10. Click **Set Shop Issue Date of Included Drawings**.
11. Click the arrow on the right side of the date field, and select a date in the calendar.
12. Click **OK**.
13. To close the **Selected Drawings** dialog box, click **OK**.

Send a transmittal via email

You can send the selected transmittals via email directly using the **Email Selected Transmittal** command in the **Transmittal** dialog box.

NOTE The **Email Selected Transmittal** command only works with Microsoft Outlook, so you need to have Microsoft Outlook open before trying to send a transmittal by email.

---

1. In the **Transmittal** dialog box, select the transmittals that you want to send via email.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Transmittal** ribbon tab.
3. On the menu, select **Email Selected Transmittal**.

   The **Email Transmittal** dialog box opens.

   Note that the people who were marked as recipients of the transmittal are automatically included in the **Recipients Included** list.

4. In the **Email Transmittal** dialog box, click the arrow buttons to move additional recipients to the **Recipients Included** list.
5. If some of the recipients do not have an email address saved in the **Address Book**, do the following:
    a. Select the recipient in the **Recipients Included** list.
    b. Click **Contact Details**.
    c. Type the email address in the **Email Address** field.
    d. Click **Save**.
6. Select or clear the following checkboxes according to your needs:

Option	Description
Attach Drawing Files	When selected, the drawing files that match the items and purposes defined in the **Transmittals** dialog box are attached to the transmittal.
Compress Drawing Files	When selected, the drawing files are compressed into a .zip package. The drawings are still separate PDF files within the .zip package. Note that the size of a .zip package may prevent Microsoft Outlook from sending the transmittal via email.
Show Company Logo (If Exists)	When selected, your company logo is visible in the transmittal.
Combine Drawings	When selected, consecutive drawing numbers are combined, so that the drawing numbers are displayed as 1–3, instead of 1, 2, 3.

7. Click **Email** to send the email.

View, print, and export transmittal reports

You can create reports based on the transmittals related to the current project. For example, you can create a report containing all existing transmittals or all overdue transmittals. You can then view, print, or export the created reports.

Use the **Reports** command to create a report on all transmittals or transmittals that match specific filters, or use the **Reports - Selected** command to create a report on the transmittals that are currently selected in the **Transmittals** dialog box.

Create a transmittal report

1. In the **Transmittal** dialog box, click the **Transmittal** ribbon tab.
2. Do either of the following:

To	Do this
Create reports on all transmittals or specific types of transmittals	a. On the menu, select **Reports**. b. To only create transmittal reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that the **Transmittals** checkbox is selected. c. To only include specific types of transmittals in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**. d. In the **Filter** dialog box, do one of the following depending on the filter type: • Click the arrow buttons to move the transmittal properties that you want to include in the report to the **Included** list. • Type the maximum and minimum values for the transmittals that you want to include. For example, select the earliest and latest drawing date for the transmittals. e. Click **OK**. To further limit the transmittals that are included in the reports, repeat steps b to d for all necessary filter types. f. To combine the drawing numbers of drawings with the same dates, revisions, and descriptions, select the **Transmittal - Combine Drawings** checkbox. g. Click **Make Report**.
Create reports on the currently selected transmittals	a. On the menu, select **Reports - Selected**.

3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the transmittal report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the transmittal report

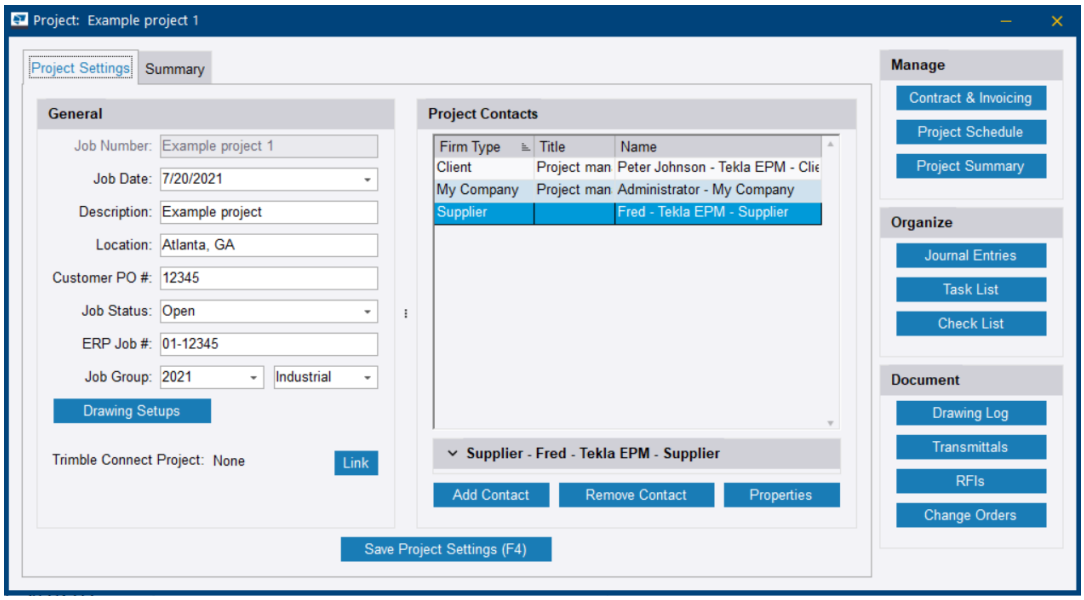
1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the transmittal report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.6 Manage companies in the project

To share project information with the other parties of the project, you need to add the parties to the project management job. Use the **Add Contact** command to add the necessary companies and contacts to the project. You can also modify the existing companies and contact persons, or remove any unnecessary companies from the project.



Add a company contact

1. In the **Project Contacts** section of the **Project** dialog box, click **Add Contact**.
2. In the **Contact Properties** dialog box, select the company type in the **Type** list.
3. Do any of the following:

To	Do this
Add a company that has been saved in the **Address Book**	• In the **Name** list, select the company.
Add a new company	a. In the **Name** field, type the name of the new company. b. Press **Enter** on the keyboard. c. To add the new company in the **Address Book**, click **Yes**. Note that you need to add the contacts for the new company manually. To do so, click **Edit** on the right side of the **Name** field. For detailed instructions, see Add contacts to the address book (page 203).

4. If necessary, type the title of your contact person in the **Title** field.
5. In the **Ship To Address** and **Bill To Address** lists, select the right shipping and billing addresses.

6. In the **Contact** list, select the contact that you want to add.

   Note that the contact needs to be saved in the **Address Book**.

7. Click **OK**.

Modify a contact

1. In the **Project Contacts** section of the **Project** dialog box, select the contact.
2. Click **Properties**.
3. If necessary, change the company by selecting another company in the **Name** list.
4. If necessary, change the title of your contact person in the **Title** field.
5. In the **Ship To Address** and **Bill To Address** lists, select the right shipping and billing addresses.
6. In the **Contact** list, select the contact person that you want to use.

   Note that the contact needs to be saved in the **Address Book**.

   If you want to change the contact details of a contact person, you need to do so in the **Address Book**.

7. Click **OK**.

Remove a company from the project

Removing a company from the project is permanent and cannot be undone. If you remove a company, you will no longer be able to send project documents to the company.

1. In the **Project Contacts** section of the **Project** dialog box, select the contact.
2. Click **Remove Contact**.
3. To permanently delete the contact from this project, click **Yes**.

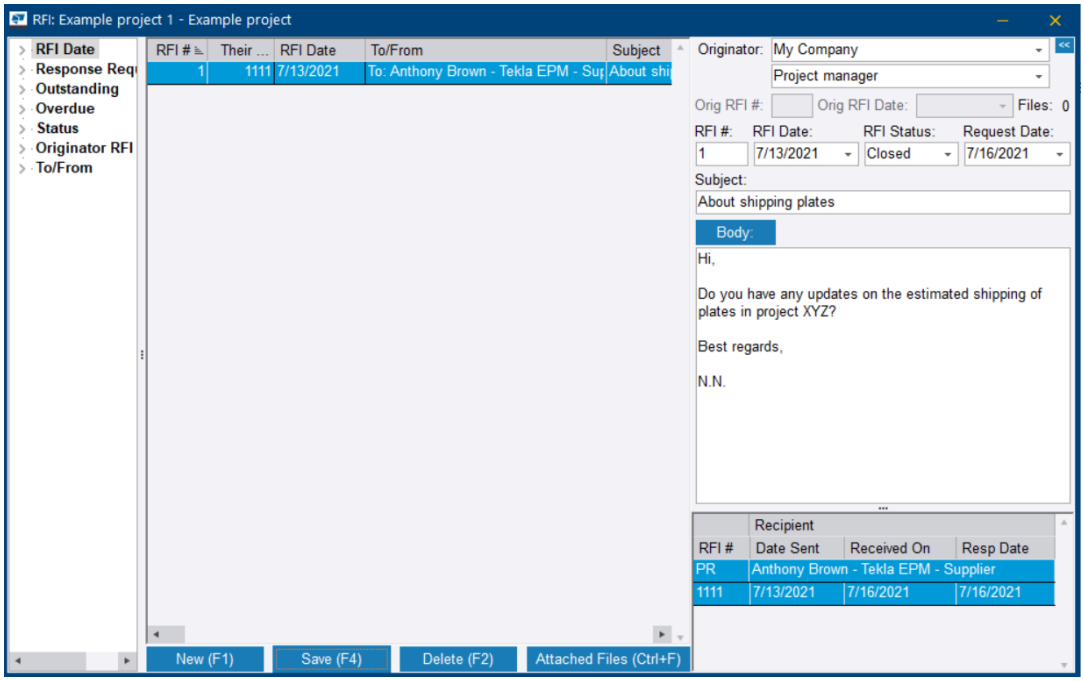
9.7 Manage requests for information

Official requests for information, or RFIs, allow you to log the flow of information between parties in construction projects. RFIs can be used to clarify the design intent, get missing information, receive approval for alternate methods or materials, get approved fixes for any conflicts in the field, or get any other critical information to ensure that the project conforms to the intent of the design team. You can save all RFIs and their responses to Tekla

PowerFab, so that everyone in the current project can keep track of the project easily.

- Do any of the following:
  - On the right side of the **Project** dialog box, click the **RFIs** button.
  - On the **Summary** tab of the **Project** dialog box, click **+** in the upper-right corner of the **RFIs** section, and select which requests for information you want to see.

The **Request For Information** dialog box opens.



For more information, see the following links:

Create, modify, and delete requests for information (page 736)

View requests for information (page 742)

Print requests for information (page 743)

Import or export requests for information (page 744)

Save a request for information as a Microsoft Word document (page 745)

Send a request for information via email (page 746)

View, print, or export RFI reports (page 747)

Create, modify, and delete requests for information

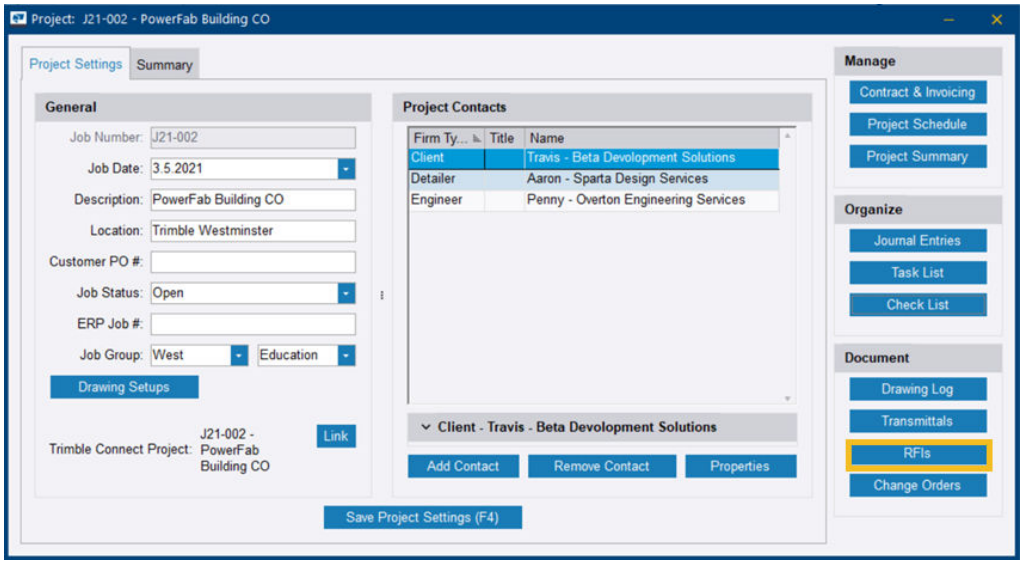
To manage requests for information (RFI), use the **Request For Information** dialog box. You can create new requests, add recipients for the requests,

attach files or emails to requests, modify the properties of existing requests, or delete unnecessary requests.

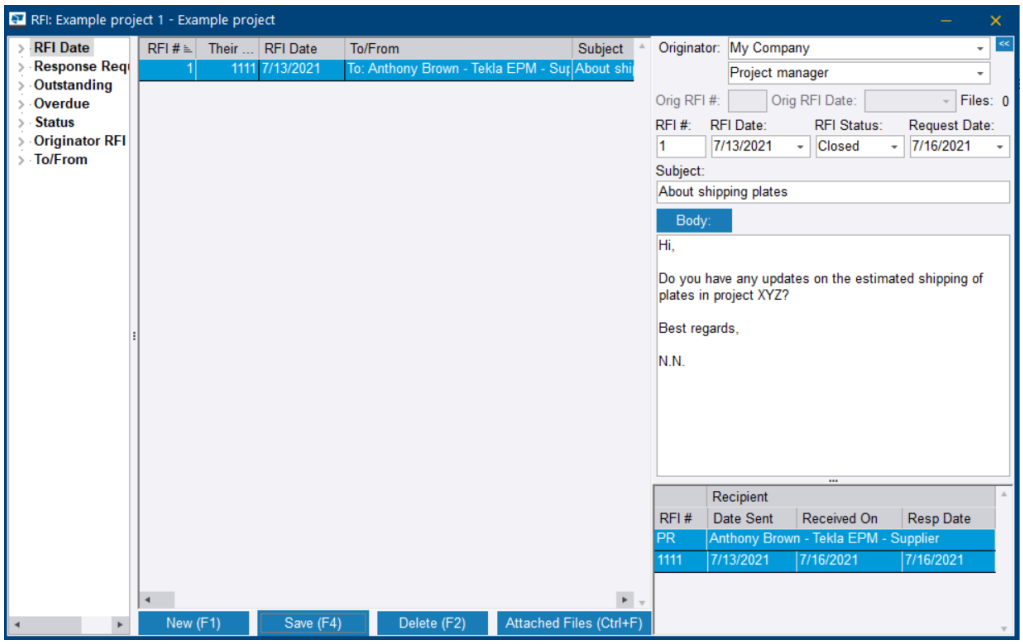
Note that requests by either your company or any other party in the project can be recorded in the **Request For Information** dialog box.

Create a request

1. In the **Project** dialog box, click **RFIs**.



The **RFI** dialog box opens.



2. Click **New**.

3. Define the properties of the request.

Option	Description
Originator	The party that initiated the original request. In the upper **Originator** list, select the originator company. In the lower **Originator** list, select the contact person that initiated the request. **Note**: Only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **Originator** lists.
Orig RFI #	The number of the original request that was sent to your company. **Note**: The **Orig RFI #** is only available and mandatory if the originator of the request is some other party than your company. Type the request number in the field.
Orig RFI Date	The date when the original request was sent to your company. **Note**: The **Orig RFI Date** is only available and mandatory if the originator of the request is some other party than your company. Select a date in the drop-down calendar.
RFI #	The number of the request or response that you are sending. **Note**: An RFI number can only be used once. Type the request number in the field.
RFI Date	The date when you sent the request. Select a date in the drop-down calendar.

Option	Description
RFI Status	Indicates if all necessary information regarding the request has been received. Remember to close requisitions once they have been responded to. In the **RFI Status** list, select one of the following options: • **Open**: All necessary information has not been received. • **Closed**: All necessary information has been received **Note**: • Setting the RFI status as **Closed** does not close the request, so the request can still be shown as overdue. • To actually close the request, you need to define a response date when you have received all necessary information from the primary recipient of the request.
Request Date	The date by which the requested information should be received. Select a date in the drop-down calendar.
Subject	The subject of the request. Type a subject in the field.
Body	The body text of the request. Type the text of the request in the field.

4. To add recipients for the request, do the following:
   a. Click anywhere in the **Recipient** table.

      The **Recipients** dialog box opens.
   b. Click one of the following buttons:
      - **New Primary Recipient**: creates a primary recipient.
      - **New Carbon Copy Recipient**: creates a recipient that receives a copy of the original request.

c. Define the recipient properties:

Option	Description
To	The recipient company and person. In the leftmost **To** list, select the recipient company in the list. In the rightmost **To** list, select the recipient in the list. **Note**: Only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **Originator** lists.
Their RFI #	The recipient's request number. Type a number in the **Their RFI #** field.
Date Sent	The date when the request was sent to the recipient. Select a date in the drop-down calendar.
Sent Via	The method with which the request was sent. The available methods are set in **Sent Via Maintenance**. For more information, see Manage methods for sending documents (page 676). In the **Sent Via** list, select a sending method.
Date Received	The date when the first response from the recipient was received. Select a date in the drop-down calendar.
Response Date	The date when all necessary information was received, and the request status could be set to **Closed**. The response date is included in RFI reports. Select a date in the drop-down calendar.
Response Details	Any information regarding the response. The response details are included in RFI reports. Type details in the field.

d. To add the recipient, depending on the recipient type, click **Add PR** or **Add CC**.

Repeat steps b to d for all necessary recipients.

e. To close the **Recipients** dialog box, click the **Close** button (**X**) in the upper-right corner.

5. In the **Request For Information** dialog box, click **Add** to create the request.

6. To attach files to the new request, do the following:
    a. Select the request in the list.
    b. Click **Attached Files**.
    c. In the **RFI Files** dialog box, click **New**.
    d. In the **Document Index - Add Document Reference** dialog box, add a file, a Microsoft Outlook email, or Microsoft Outlook email attachments.

       For more information, see Add document references (page 188).
    e. Click the arrow on the right side of the leftmost **RFI** list, and select the related request in the list.
    f. Click the arrow on the right side of the rightmost **RFI** list, and select if the attachment is a request or a response.
    g. Type a description for the attached file.
    h. Click **Add Document Reference**.

       Repeat steps c to h for all necessary attachments.
    i. In the **RFI Files** dialog box, click **Save**.
    j. To close the **RFI Files** dialog box, click the **Close** button (**X**) in the upper-right corner.

Modify a request

Modify a request to change its properties. For example, you should close a request after receiving all necessary information.

1. In the **Request For Information** dialog box, select the request that you want to modify.
2. Modify the request properties as needed.

   For the descriptions of the request properties, see Create a request above.
3. To add recipients for the request, do the following:
    a. Click anywhere in the **Recipient** table.
    b. In the **Recipients** dialog box, modify the recipient properties

       For recipient properties see Create a request above.
    c. Click **Edit** to save the changes.

       You can also delete recipients by selecting them, clicking **Delete**, and clicking **Yes** to confirm.
    d. To close the **Recipients** dialog box, click the **Close** button (**X**) in the upper-right corner.
4. To modify the files that are attached to the request, do the following:

a. Select the request in the list.

b. Click **Attached Files**.

c. In the **RFI Files** dialog box, select an attachment and modify its description according to your needs.

d. If necessary, click the arrow on the right side of the list that is next to the description, and select if the attachment is related to a request or a response.

e. Click **Save**.

   If necessary, you can also delete attached files by selecting them, clicking **Delete**, and clicking **Yes** to confirm.

f. To close the **RFI Files** dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete a request

Note that deleting a request is permanent and cannot be undone.

1. In the **Request For Information** dialog box, select the request that you want to delete.
2. Click **Delete**.
3. To permanently delete the request, click **Yes** in the confirmation dialog box.

View requests for information

You can open the currently selected requests for information (RFI) in **Tekla PowerFab Report Viewer** by using the **View Selected RFIs** command.

1. In the **Request For Information** dialog box, select the requests that you want to view.

   To select multiple requests, hold down **Ctrl**.

   To select a range of subsequent requests, hold down **Shift**.
2. Double-click one of the selected requests.
3. In the **View RFI** dialog box, select or clear the following checkboxes:

Option	Description
Show Company Logo (If Exists)	When selected, your company logo is visible in the requests.
Include Impact Text	When selected, Tekla PowerFab includes text regarding the importance of the requested information and the delay that may be caused if the response is not sent on time.

4. If necessary, in the **Additional Pages** field, type the number of pages you want to add to the request for the attachments to be included.
5. In the **Author** field, type the name of the author.

   If you do not type a name in the **Author** field, Tekla PowerFab uses the name of your company instead.
6. To view the request, click **View Request**.

The selected requests open in **Tekla PowerFab Report Viewer**.

In the **Tekla PowerFab Report Viewer** window, you can send the requests via email either as PDF files or Microsoft Excel worksheets, print the requests, or export the requests and save them in another file format.

See also

Print requests for information (page 743)

Send a request for information via email (page 746)

Print requests for information

Use the **Print Selected RFIs** command to print one or multiple requests for information.

1. In the **Request For Information** dialog box, select the requests that you want to print.

   To select multiple requests, hold down **Ctrl**.

   To select a range of subsequent requests, hold down **Shift**.
2. Click the **Request For Information** ribbon tab.
3. On the menu, select **Print Selected RFIs**.
4. In the **Print RFI** dialog box, select or clear the following checkboxes:

Option	Description
Show Company Logo (If Exists)	When selected, your company logo is visible in the requests.
Include Impact Text	When selected, Tekla PowerFab includes text regarding the importance of the requested information and the delay that may be caused if the response is not sent on time.

5. If necessary, in the **Additional Pages** field, type the number of pages you want to add to the request for the attachments to be included.
6. In the **Author** field, type the name of the author.

   If you do not type a name in the **Author** field, Tekla PowerFab uses the name of your company instead.

7. In the **Copies** field, type the number of printed copies.
8. Click **Change Printer**.
9. In the **Select Printer** dialog box, click a printer to select it.
10. Click **OK**.
11. Click **Print RFI**.

See also

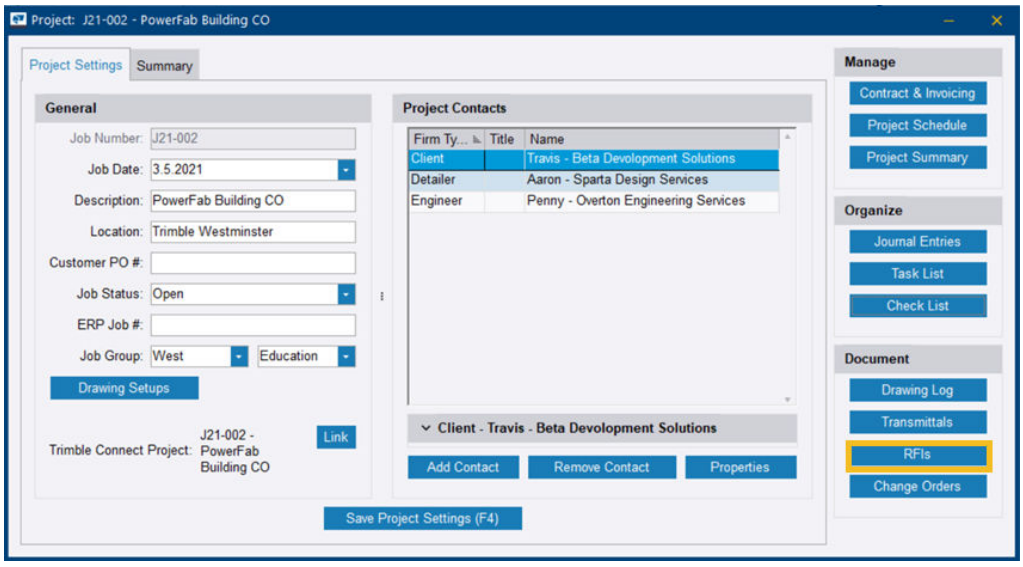
Send a request for information via email (page 746)

Import or export requests for information

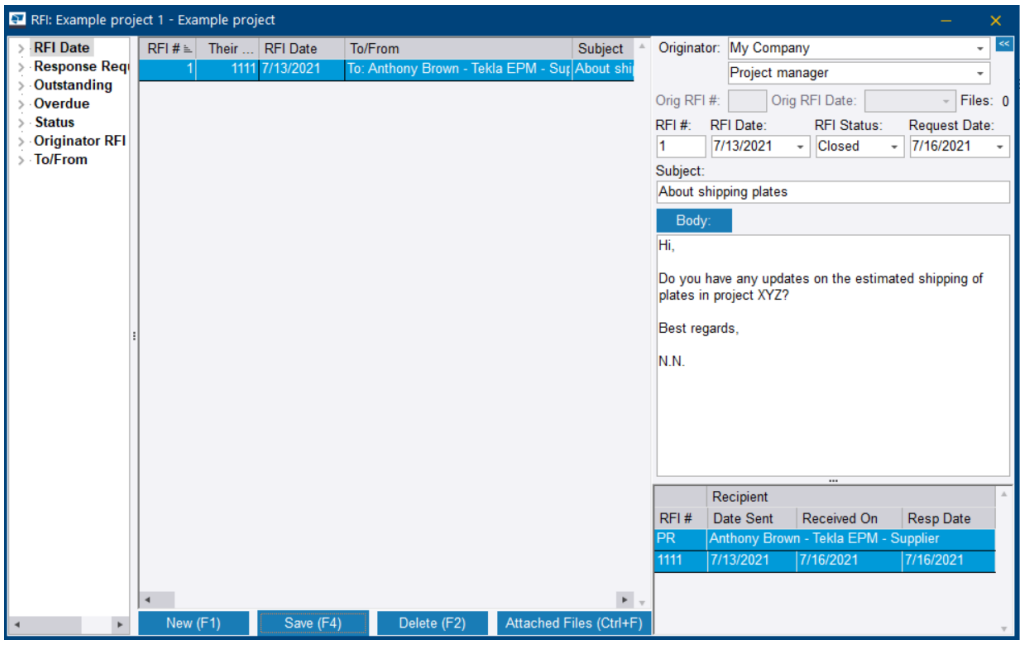
You can import or export requests for information (RFI). Use the XML file format when exporting requests, so that the requests can easily be imported back to Tekla PowerFab by another party in the current project.

Import requests

1. In the **Project** dialog box, click **RFIs**.



The **RFI** dialog box opens.



2. On the **Request For Information** ribbon tab, select **Data Exchange** --> **Import**.
3. In the **Open** dialog box, browse to find the file that you want to import.
4. Double-click the file that you want to import or click **Open**.
5. In the **Import Tekla PowerFab Exchange File** dialog box, review the import progress.
6. When the import process is completed, click **Close**.

Export requests

1. On the **Request For Information** ribbon tab, select **Data Exchange** --> **Export Selected RFIs**.
2. In the **RFI** dialog box, click the request that you want to export.
3. On the menu, select **Data Exchange** .
4. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
5. If necessary, change the file name.
6. Click **Save**.

Save a request for information as a Microsoft Word document

Use the **Make Word Document** command to save a request for information as a Microsoft Word document.

1. In the **Request For Information** dialog box, select the request that you want to save as a Microsoft Word document.
2. Click the **Request For Information** ribbon tab.
3. On the menu, select **Make Word Document**.
4. In the **Save As** dialog box, browse to the folder where you want to save the file.
5. If necessary, change the file name.
6. Click **Save**.

See also

Import or export requests for information (page 744)

Send a request for information via email

You can send the currently selected request for information (RFI) via email by using the **Email Selected RFI** command.

NOTE The **Email Selected RFI** command only works with Microsoft Outlook, so you need to have Microsoft Outlook open before trying to send a transmittal by email.

---

1. In the **Request For Information** dialog box, select the requests that you want to send via email.
2. Click the **Request For Information** ribbon tab.
3. On the menu, select **Email Selected RFI**.

   The **Email RFI** dialog box opens.

   Note that the recipients and attachments defined in the **Request For Information** are automatically added to the **Recipients Included** list.
4. Click the arrow buttons to move additional recipients to the **Recipients Included** list.
5. If some of the recipients do not have an email address saved in the **Address Book**, do the following:
   a. Select the recipient in the **Recipients Included** list.
   b. Click **Contact Details**.
   c. Type the email address in the **Email Address** field.

d. Click **Save**.

6. Click the arrow buttons to move the attachments that you want to include in the email to the **Attachments Included** list.
7. Select or clear the following checkboxes:

Option	Description
Attach Tekla PowerFab data exchange file	When selected, the request information is converted to an XML file, which another Tekla PowerFab user can import to Tekla PowerFab. This can be useful if other parties in the project use Tekla PowerFab as well.
Show Company Logo (If Exists)	When selected, your company logo is visible in the request. Note that the **Show Company Logo (If Exists)** checkbox is only available if the **Attach PDF export of the RFI** checkbox is selected.
Include Impact Text	When selected, Tekla PowerFab includes a notice regarding the importance of the requested information and the delay that may be caused if the response is not sent on time. Note that the **Show Company Logo (If Exists)** checkbox is only available if the **Attach PDF export of the RFI** checkbox is selected.

8. If necessary, in the **Additional Pages** field, type the number of pages you want to add to the request for the attachments to be included.

   NOTE The **Additional Pages** field is only available if the **Attach PDF export of the RFI** checkbox is selected.

9. In the **Author** field, type the name of the author.

   If you do not type a name in the **Author** field, Tekla PowerFab uses the name of your company instead.

10. Click **Email**.

See also

Save a request for information as a Microsoft Word document (page 745)

Import or export requests for information (page 744)

View, print, or export RFI reports

You can create reports based on the existing requests for information (RFI). For example, you can create a report containing all the overdue RFIs or the RFI details. You can then view, print, or export the created reports.

You can use the **Reports** command to create a report on all requests or requests that match specific filters, or use the **Reports - Selected** command to create a report on the requests that you select in the **Request For Information** dialog box.

Create an RFI report

1. In the **Request For Information** dialog box, click the **Request For Information** ribbon tab.
2. Do either of the following:

To	Do this
Create reports on all RFIs or specific types of RFIs	a. On the menu, select **Reports**. b. To only create RFI reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **RFIs** checkbox is selected. c. To only include specific types of requests in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**. d. In the **Filter** dialog box, do one of the following depending on the filter type: • Click the arrow buttons to move the request properties that you want to include in the report to the **Included** list. • Type the maximum and minimum values for the requests that you want to include. For example, you can define the earliest and latest date for the requests that you want to include. e. Click **OK**. To further limit the requests that are included in the reports, repeat steps b to d for all necessary filter types. f. Click **Make Report**.
Create reports on the currently selected RFIs	a. On the menu, select **Reports - Selected**.

3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the RFI report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the RFI report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the RFI report

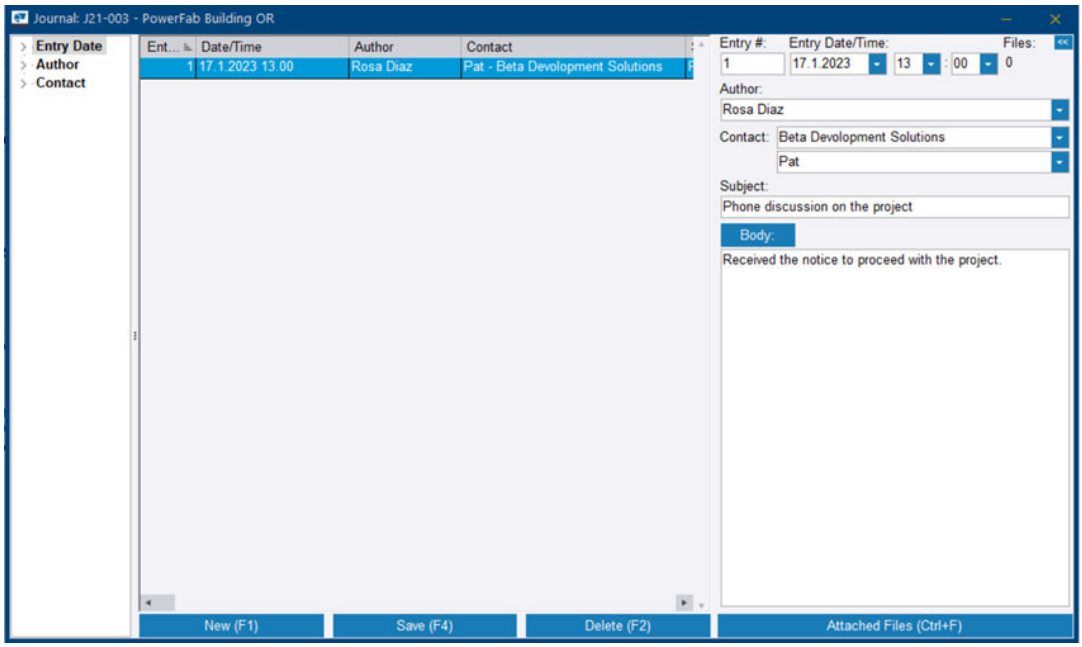
1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.8 Manage the project journal

The project journal allows you to keep a chronological record of the project. In the **Journal** dialog box, you can add journal entries regarding emails, telephone conversations, or any other project information that needs to be recorded. By adding journal entries, you can ensure that everyone in the project knows the relevant details about the project.

- To open the project journal, on the right side of the **Project** dialog box, click the **Journal Entries** button.

The **Journal** dialog box opens.



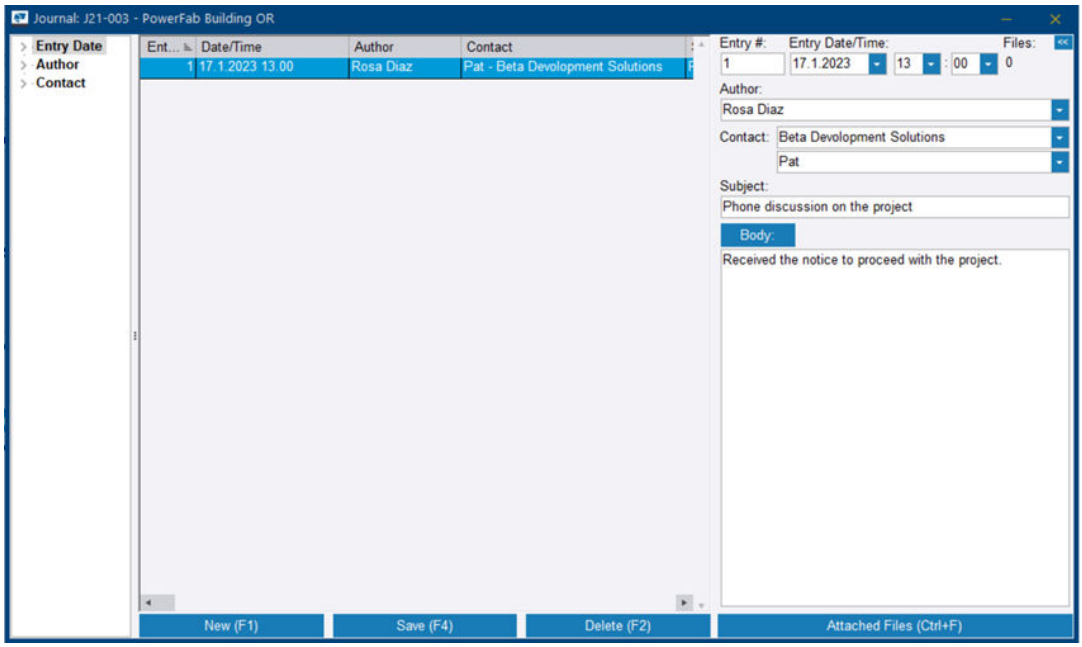
For more information, see the following links:

Add, modify, and delete journal entries (page 750)

View, print, and export project journal reports (page 754)

Add, modify, and delete journal entries

Use the **Journal** dialog box to manage and record journal entries related to the project. You can add new journal entries, attach files or emails to journal entries, modify existing journal entries, or delete journal entries.



Add a journal entry

1. In the **Journal** dialog box, click **New**.
2. Define the properties of the journal entry:

   The items that are marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Entry # *	The number of the journal entry. Tekla PowerFab automatically populates the **Entry #** field with the next available entry number. If necessary, type a different number in the **Entry #** field.
Entry Date *	The date of the recorded event. By default, Tekla PowerFab suggests the current date. If necessary, click the arrow on the right side of the **Entry Date** field, and select a date in the calendar.
Entry Time *	The time of the recorded event. By default, Tekla PowerFab suggests the current time. If necessary, type another time in the **Entry Time** fields.

Option	Description
Author *	The creator of the journal entry. Click the arrow on the right side of the **Author** list, and select a user in the list. Note that only Tekla PowerFab users in your company are available in the list.
Contact	The project party related to the recorded event. For example, the contact person with whom you had a telephone conversation and their company. Note that only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **Contact** lists. Click the arrow on the right side of the leftmost **Contact** list, and select the related company in the list. Click the arrow on the right side of the rightmost **Contact** list, and select the contact person in the list.
Subject *	The subject of the journal entry. Type the subject in the **Subject** field.
Body	The details of the journal entry. Type any relevant information in the **Body** field.

3. Click **Add**.
4. To attach a file to the new journal entry, do the following:
   a. Select the new journal entry.
   b. Click **Attached Files**.
   c. In the **Journal Entry Files** dialog box, click **New**.
   d. In the **Document Index - Add Document Reference** dialog box, add a file, a Microsoft Outlook email, or Microsoft Outlook email attachments.

      For more information, see Add document references (page 188).
   e. Click the arrow on the right side of the leftmost **Journal Entry** list, and select the journal entry to which you want to attach the file.
   f. Type a description for the attached file.
   g. Click **Add Document Reference**.

      Repeat steps c to g for to add all necessary attachments.
   h. In the **Journal Entry Files** dialog box, click **Save**.

i. To close the **Journal Entry Files** dialog box, click the **Close** button (**X**) in the upper-right corner.

Modify a journal entry

1. In the **Journal** dialog box, select the journal entry that you want to modify.
2. Modify the journal entry properties according to your needs:

Option	Description
Entry #	The number of the journal entry. Tekla PowerFab automatically populates the **Entry #** field with the next available entry number. If necessary, type a different number in the **Entry #** field.
Entry Date	The date of the recorded event. By default, Tekla PowerFab suggests the current date. If necessary, click the arrow on the right side of the **Entry Date** field, and select a date in the calendar.
Entry Time	The time of the recorded event. By default, Tekla PowerFab suggests the current time. If necessary, type another time in the **Entry Time** fields.
Author	The creator of the journal entry. Click the arrow on the right side of the **Author** list, and select a user in the list. Note that only Tekla PowerFab users in your company are available in the list.
Contact	The project party related to the recorded event. For example, the contact person with whom you had a telephone conversation and their company. Note that only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **Contact** lists.

Option	Description
	Click the arrow on the right side of the leftmost **Contact** list, and select the related company in the list. Click the arrow on the right side of the rightmost **Contact** list, and select the contact person in the list.
Subject	The subject of the journal entry. Type the subject in the **Subject** field.
Body	The details of the journal entry. Type any relevant information in the **Body** field.

3. Click **Edit** to save the changes.
4. To modify the files that are attached to the journal entry, do the following:
   a. Select the journal entry whose attached files you want to modify.
   b. Click **Attached Files**.
   c. In the **Journal Entry Files** dialog box, select an attachment and modify its description according to your needs.
   d. Click **Save**.

      If necessary, you can also delete attached files by selecting them, clicking **Delete**, and clicking **Yes** to confirm.
   e. To close the **Journal Entry Files** dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete journal entries

1. In the **Journal** dialog box, select the journal entries that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Delete**.
3. To permanently delete the journal entries, click **Yes** in the confirmation dialog box.

View, print, and export project journal reports

You can create reports based on the existing journal entries. For example, you can create a report containing all journal entries, or the authors of journal entries. You can then view, print, or export the created reports.

Use the **Reports** command to create a report on all journal entries or journal entries that match specific filters, or use the **Reports - Selected** command to create a report on the journal entries that are currently selected in the **Journal** dialog box.

Create a project journal report

1. In the **Journal** dialog box, click the **Journal** ribbon tab.
2. Do either of the following:

To	Do this
Create reports on all journal entries or specific types of journal entries	a. On the menu, select **Reports**. b. To only create journal reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **Journal Entries** checkbox is selected. c. To only include specific types of journal entries in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**. d. In the **Filter** dialog box, do one of the following depending on the filter type: • Click the arrow buttons to move the journal entry properties that you want to include in the report to the **Included** list. • Type the maximum and minimum values for the journal entries that you want to include. For example, define the earliest and latest date for the journal entries that you want to include. e. Click **OK**. To further limit the journal entries that are included in the reports, repeat steps b to d for all necessary filter types. f. Click **Make Report**.

To	Do this
Create reports on the currently selected journal entries	a. On the menu, select **Reports - Selected**.

3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the journal report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the journal report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the journal report

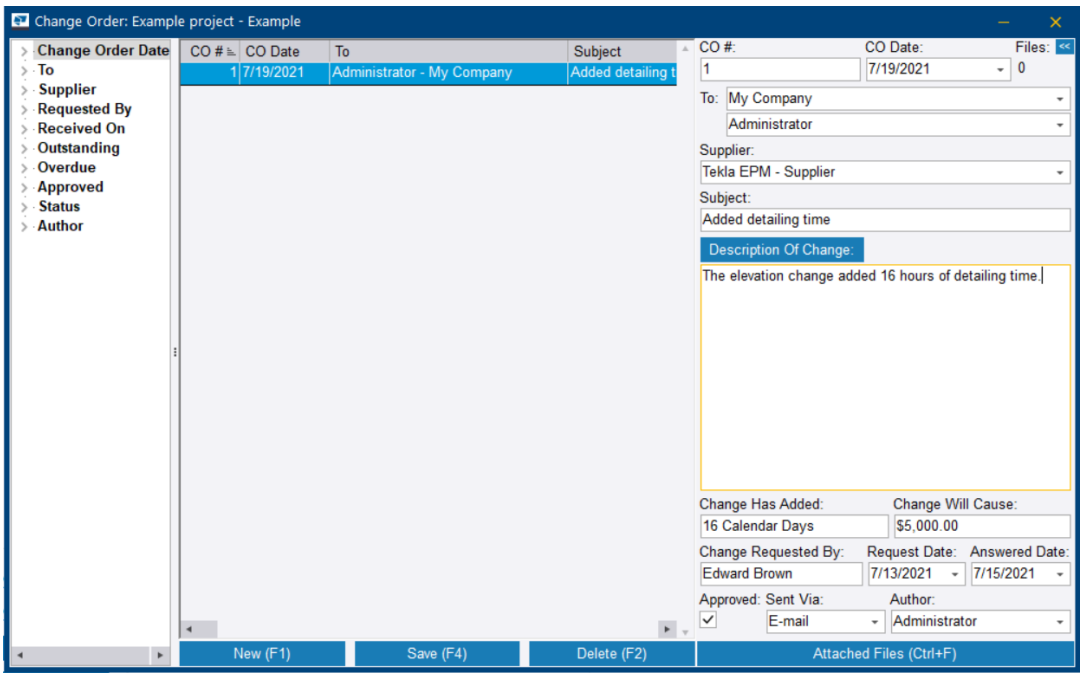
1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.9 Manage change orders

Change orders can be any changes made to the original contract that affect the project schedule and costs. You can manage the change orders related to the current project management project in the **Change Order** dialog box.

1. To open the **Change Orders** dialog box, do any of the following:
   - On the right side of the **Project** dialog box, click the **Change Orders** button.
   - On the **Summary** tab of the **Project** dialog box, click **+** in the upper-right corner of the **Change Orders** section, and select which change orders you want to see.

The **Change Order** dialog box opens.



For more information, see the following links:

Create, modify, and delete change orders (page 757)

View change orders (page 763)

Print change orders (page 764)

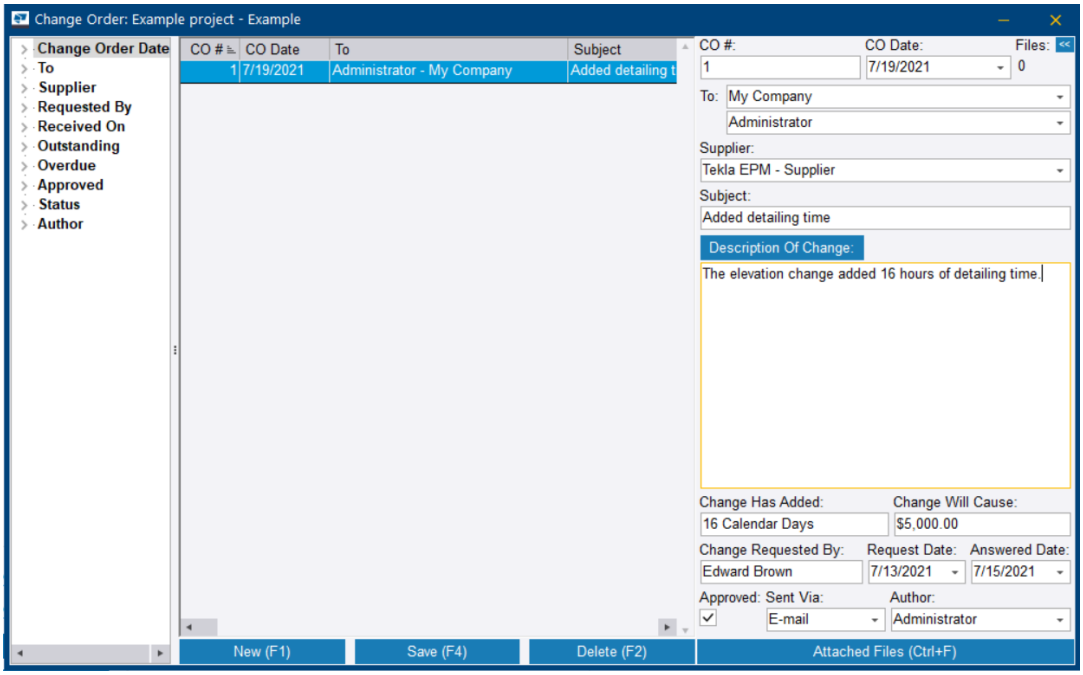
View, print, or export change order reports (page 765)

Create, modify, and delete change orders

You can manage and record changes requested and made to the original contract by using the **Change Order** dialog box. You can create new change

order requests, attach files or emails to change order requests, modify existing change order requests, or delete change order requests.

NOTE The items in the **Change Order** dialog box are not change orders for contract purposes. Instead, the items represent the change order requests made regarding the project.



Create a change order

1. At the bottom of the **Change Order** dialog box, click **New**.
2. Define the properties of the change order.

   The items that are marked with an asterisk (*) in the following table are mandatory.

Option	Description
CO # *	The number of the change order. Tekla PowerFab automatically populates the **CO #** field with the next available number. You can change the number, if needed.
CO Date *	The date when the change order was sent. Click the arrow on the right side of the **CO Date** field, and select a date in the calendar.

Option	Description
To *	The recipient company and person of the change order. Click the arrow on the right side of the leftmost **To** list, and select the recipient company in the list. Click the arrow on the right side of the rightmost **To** list, and select the recipient in the list. Note that only the companies that have been added for the project in the **Project Edit** dialog box and their contact persons are available in the **To** lists.
Supplier	The supplier that is affected by the change order. Click the arrow on the right side of the **Supplier** list, and select a supplier in the list. Note that only the companies with the firm type **Supplier** that have been added for the project in the **Project Management** dialog box are available in the **Supplier** lists. Since the supplier is normally the fabricator, you may need to copy your company as a supplier in the project. For more information, see Manage companies in the project (page 733).
Subject *	The subject of the change order, visible in the change order document. Type the subject in the **Subject** field.
Description Of Change	The description of the change that should be made. Type a description in the **Description Of Change** field.
Change Has Added	The number of calendar days, work days, weeks, or months that the change has added to the project duration. The time entered here will be displayed in the project schedule. In the **Change Has Added** field on the left, type the desired number. Then, right-click the **Change Has Added** field, and select the unit of time in the list.
Change Will Cause	The total sum that making the change will add to the project costs or subtract from the project costs. Type the costs in the **Change Will Cause** field.

Option	Description
Change Requested By	The source that requested making the change. For example, this can be a party in the project, a document, or a response to an RFI. Type a value in the **Change Requested By** field.
Request Date	The date when the change was requested. Click the arrow on the right side of **Request Date** field, and select a date in the calendar.
Answered Date	The date when the supplier has replied to the change order. Click the arrow on the right side of **Answered Date** field, and select a date in the calendar.
Approved	When selected, the change order has been approved. Remember to select the **Approved** checkbox when the change order has been approved. When you do so, the change order is sent to **Contract & Invoicing**.
Sent Via *	The method with which the change order has been sent. The options available in the **Sent Via** list are set in the **Sent Via Maintenance** dialog box. Click the arrow on the right side of the **Sent Via** list, and select a sending method in the list.
Author *	The Tekla PowerFab user who created the change order. Click the arrow on the right side of the **Author** list, and select a user in the list. Only the Tekla PowerFab users in your company are available in the **Author** list.
Contract Item	The item in the project contract that the change order is linked to. For more information, see Manage contract information (page 825). The **Contract Item** field is not included in the **Change Orders** dialog box by default. You can add the **Contract Item** field by modifying the input fields for change orders. Click the arrow on the right side of **Contract Item** list, and select the contract item.

3. To attach files to the new change order, do the following:
   a. At the bottom of the dialog box, click **Attached Files**.

b. In the **Change order** dialog box, click **New**.

c. In the **Document Index - Add Document Reference** dialog box, add a file, a Microsoft Outlook email, or Microsoft Outlook email attachments.

d. Click the arrow on the right side of the **Change Order** list, and select the change order to which you want to attach the file.

e. Type a description for the attached file.

f. Click **Add Document Reference**.

Repeat steps c to g for all necessary attachments.

g. Click **Save**.

h. To close the **Change order** dialog box, click the **Close** button (**X**) in the upper-right corner.

You can see the number of attached files in the upper-right corner of the **Change Order** dialog box.

4. Click **Save**.

Modify a change order

1. In the **Change Order** dialog box, select the change order that you want to modify.
2. Modify the properties of the change order:

Option	Description
CO #	The number of the change order. Tekla PowerFab automatically populates the **CO #** field with the next available number. You can change the number according to your needs.
CO Date	The date when the change order was sent. Click the arrow on the right side of the **CO Date** field, and select a date in the calendar.
To	The recipient company and person of the change order. Click the arrow on the right side of the leftmost **To** list, and select the recipient company in the list. Click the arrow on the right side of the rightmost **To** list, and select the recipient in the list. Note that only the companies that have been added for the project in the **Project Management** dialog box and their contact persons are available in the **To** lists.

Option	Description
Supplier	The supplier that is affected by the change order. Click the arrow on the right side of the **Supplier** list, and select a supplier in the list. Note that only the companies with the firm type **Supplier** that have been added for the project in the **Project Management** dialog box are available in the **Supplier** lists.
Subject	The subject of the change order, visible in the change order document. Type the subject in the **Subject** field.
Description Of Change	The description of the change that should be made. Type a description in the **Description Of Change** field.
Change Has Added	The number of calendar days, work days, weeks, or months that the change has added to the project duration. The time entered here will be displayed in the project schedule. In the **Change Has Added** field on the left, type the desired number. Then, click the arrow on the right side of the **Change Has Added** list, and select the unit of time in the list.
Change Will Cause	The total sum that making the change will add to the project costs or subtract from the project costs. Type the costs in the **Change Will Cause** field.
Change Requested By	The party that requested making the change. Type a name in the **Change Requested By** field.
Request Date	The date when the change was requested. Click the arrow on the right side of the **Request Date** field, and select a date in the calendar.
Answered Date	The date when the supplier has approved or rejected the change order. Click the arrow on the right side of the **Answered Date** field, and select a date in the calendar.
Approved	When selected, the change order has been approved. Remember to select the **Approved** checkbox when the change order has been approved, so that Tekla

Option	Description
	PowerFab will not mark the change order as overdue.
Sent Via	The method with which the change order has been sent. The options available in the **Sent Via** list are set in the **Sent Via Maintenance** dialog box. Click the arrow on the right side of the **Sent Via** list, and select a sending method in the list.
Author	The Tekla PowerFab user who created the change order. Click the arrow on the right side of the **Author** list, and select a user in the list. Only the Tekla PowerFab users in your company are available in the **Author** list.

3. To modify the files attached to the change order, do the following:
   a. Select the change order.
   b. At the bottom of the dialog box, click **Attached Files**.
   c. In the **Change order** dialog box, select an attachment and modify its description according to your needs.
   d. Click **Save** to save the changes.

      If necessary, you can also delete attached files by selecting them, clicking **Delete**, and clicking **Yes** to confirm.

      To attach new files, see Create a change order.
   e. To close the **Change order** dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete change orders

Note that deleting change orders is permanent and cannot be undone.

1. In the **Change Order** dialog box, select the change orders that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click **Delete**.
3. To permanently delete the change orders, click **Yes** in the confirmation dialog box.

View change orders

You can view the currently selected change orders in **Tekla PowerFab Report Viewer** by using the **View Selected Change Orders** command.

1. In the **Change Order** dialog box, select the change orders that you want to view.

   To select multiple change orders, hold down **Ctrl**.

   To select a range of subsequent change orders, hold down **Shift**.
2. Click the **Change Orders** ribbon tab.
3. On the **File** menu, select **View Selected Change Orders**.
4. To display your company logo in the change order, in the **View Change Order** dialog box, select the **Show Company Logo (If Exists)** checkbox.

   To add a company logo, see Manage Tekla PowerFab company information (page 222).
5. Click **View**.

The selected change orders open in **Tekla PowerFab Report Viewer**.

In the **Tekla PowerFab Report Viewer** window, you can send the change orders via email as either PDF files or Microsoft Excel worksheets, print the change orders, or export the change orders and save them in another file format.

See also

Print change orders (page 764)

View, print, or export change order reports (page 765)

Print change orders

You can print one or multiple change orders at one go using the **Print Selected Change Orders**.

1. In the **Change Order** dialog box, select the change orders that you want to print.

   To select multiple change orders, hold down **Ctrl**.

   To select a range of subsequent change orders, hold down **Shift**.
2. Click the **Change Orders** ribbon tab.
3. On the menu, select **Print Selected Change Orders**.
4. On the **Report Settings** tab of the **Print Change Order** dialog box, select the **Show Company Logo (If Exists)** checkbox to display your company logo in the change order.

5. On the **Printer Settings** tab, type the number of copies to be printed in the **Copies** field.
6. To set the printer, click **Change Printer**.
7. In the **Select Printer** dialog box, click a printer to select it.
8. Click **OK**.
9. In the **Print Change Order** dialog box, click **Print**.

See also

View, print, or export change order reports (page 765)

View, print, or export change order reports

You can create reports based on the existing change orders. For example, you can create a report of all change orders or a report on overdue change orders. You can then view, print, or export the created reports.

Use the **Reports** command to create a report on all change orders or change orders that match specific filters, or use the **Reports - Selected** command to create a report on the change orders that are currently selected in the **Change Order** dialog box.

Create a change order report

1. In the **Change Order** dialog box, click the **Change Orders** ribbon tab.
2. Do either of the following:

To	Do this
Create reports on all change orders or specific types of change orders	a. On the menu, select **Reports**. b. To only create change order reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **Change Orders** checkbox is selected. c. To only include specific types of change orders in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**. d. In the **Filter** dialog box, do one of the following depending on the filter type: • Click the arrow buttons to move the change order properties that you want to include in the report to the **Included** list.

To	Do this
	• Type the maximum and minimum values for the change orders that you want to include. For example, define the earliest and latest dates for the change orders that you want to include. e. Click **OK**. To further limit the change orders that are included in the reports, repeat steps b to d for all necessary filter types. f. Click **Make Report**.
Create reports on the currently selected change orders	a. On the menu, select **Reports - Selected**.

3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the change order report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the change order report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the change order report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.

5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.10 Manage the project task list

The task list items in the **Task List** dialog box serve as reminders for the user that they have been assigned project tasks. The items on your task list can also be assigned to other users. If you have unfinished tasks on your task list, the **Task List** dialog box opens automatically when you sign in to Tekla PowerFab. You can also access the **Task List** dialog box manually.

For more information, see the following links:

Manage task list items (page 767)

View, print, and export task list reports (page 770)

Manage task list items

You can create, modify, and delete task list items, and assign items on your task list to other users. You can also add completion dates for tasks that have been completed, or re-assign tasks to other Tekla PowerFab users.

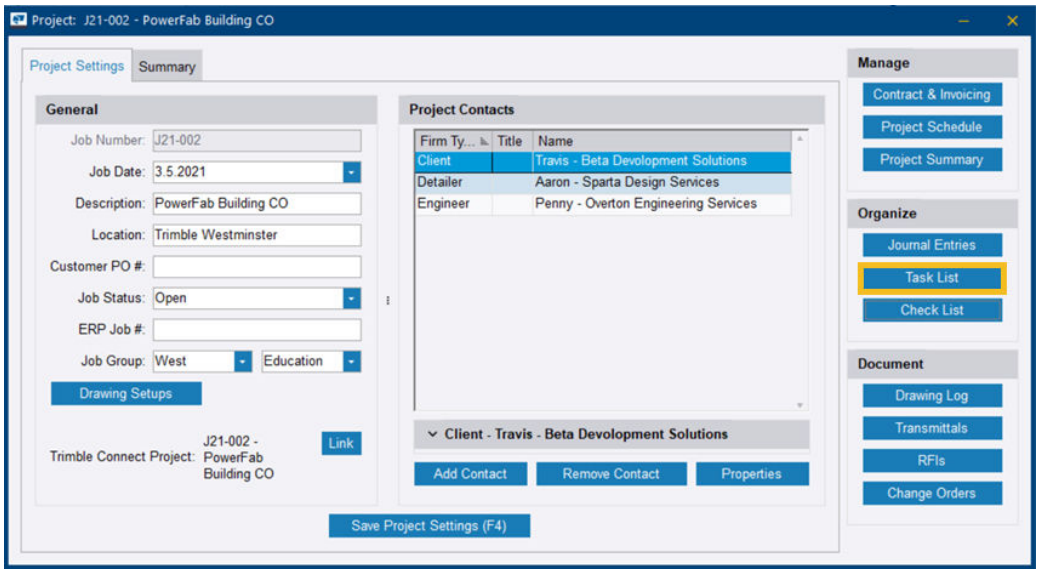
If you have unfinished tasks on your task list, the **Task List** dialog box opens automatically when you sign in to Tekla PowerFab.

You can also access the **Task List** dialog box manually.

Access Task List dialog box

To access the **Task List** dialog box manually, do either of the following:

- In the **Project** dialog box, click the **Task List** button.



- On the **Summary** tab of the **Project** dialog box, click **+** in the upper-left corner of the **Task List** section, and select which task list items you want to see.

  The **Task List** dialog box opens.

Manage task list items

You can create, modify, and delete task list items, and assign items on your task list to other users. You can also add completion dates for tasks that have been completed, or re-assign tasks to other Tekla PowerFab users.

If you have unfinished tasks on your task list, the **Task List** dialog box opens automatically when you sign in to Tekla PowerFab.

You can also access the **Task List** dialog box manually.

Create a task list item

1. In the **Task List** dialog box, click **New**.
2. Define the task list item properties.

   The items that are marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Author	The Tekla PowerFab user that created the task list item. Click the arrow on the right side of the **Author** list, and select a user in the list.

Option	Description
Assigned To	The Tekla PowerFab user to whom the task list item is assigned. Click the arrow on the right side of the **Assigned To** list, and select a user in the list.
Date Required	The date by which the task list item should be completed. Click the arrow on the right side of the **Date Required** field, and select a date in the calendar.
Date Completed	The date when the task was completed. Click the arrow on the right side of the **Date Completed** field, and select a date in the calendar.
Description *	The description of the task list item. Type the task description in the **Description** field.

3. Click **Add**.

Modify a task list item

By modifying a task list item, you can change its properties. For example, add completion dates for tasks that have been completed.

1. In the **Task List** dialog box, select the task list item that you want to modify.
2. Modify the task list item properties:

Option	Description
Author	The Tekla PowerFab user that created the task list item. Click the arrow on the right side of the **Author** list, and select a user in the list.
Assigned To	The Tekla PowerFab user to whom the task list item is assigned. Click the arrow on the right side of the **Assigned To** list, and select a user in the list.
Date Required	The date by which the task list item should be completed. Click the arrow on the right side of the **Date Required** field, and select a date in the calendar.
Date Completed	The date when the task was completed. Click the arrow on the right side of the **Date Completed** field, and select a date in the calendar.

Option	Description
Description	The description of the task list item. Type the task description in the **Description** field.

3. Click **Edit** to save the changes.

Delete task list items

Note that deleting task list items is permanent and cannot be undone.

1. In the **Task List** dialog box, select the task list items that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click **Delete**.
3. To permanently delete the task list items, click **Yes** in the confirmation dialog box.

View, print, and export task list reports

You can create a report out of the task list by using the **Reports** command in the **Task List** menu. You can decide to include all tasks list items in the current project, or only overdue or open task list items.

Create a task list report

1. In the **Task List** dialog box, click the **Task List** ribbon tab.
2. On the menu, select **Reports**.
3. To only create task list reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **Task List** checkbox is selected.
4. To only include specific types of task list items in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the task list item properties that you want to include in the report to the **Included** list.
   - Type the maximum and minimum values for the task list item that you want to include.

6. Click **OK**

   To further limit the task list items that are included in the reports, repeat steps 3 to 5 for all necessary filter types.

7. Click **Make Report**.
8. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View, print, and export task list reports

You can create a report out of the task list by using the **Reports** command in the **Task List** menu. You can decide to include all tasks list items in the current project, or only overdue or open task list items.

View the task list report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the task list report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

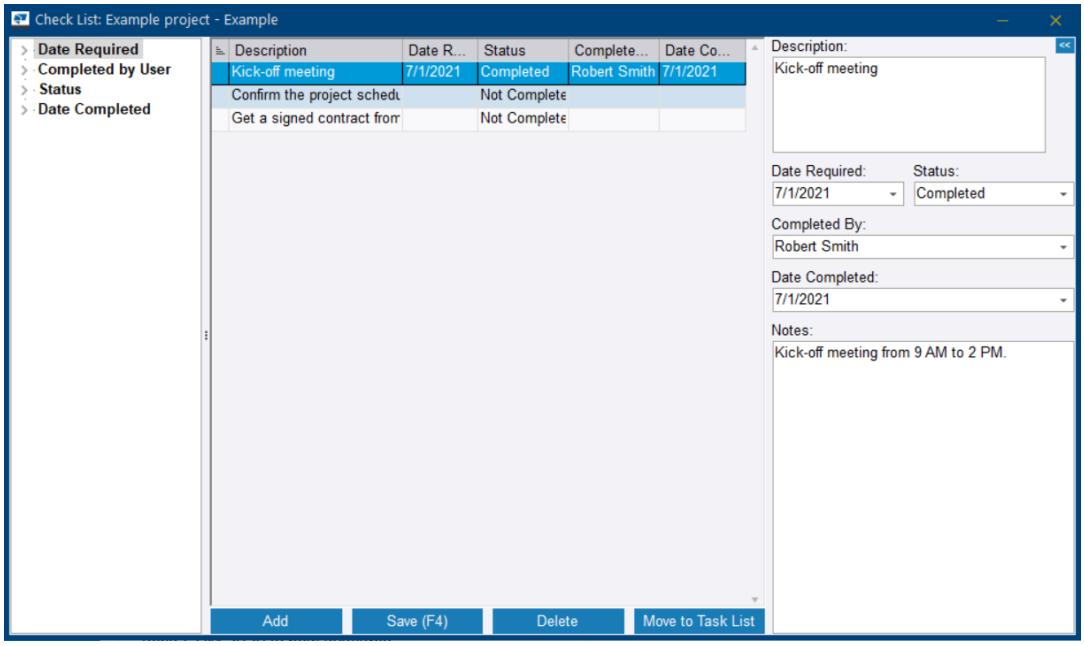
Export the task list report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.11 Manage the project check list

Use the project check list to ensure that all steps in the current project are completed. In the **Check List** dialog box, you can add previously created steps to the project, or delete unnecessary steps.

- To access the project check list, do either of the following:
  - On the right side of the **Project** dialog box, click the **Check List** button.
  - On the **Summary** tab of the **Project** dialog box, click **+** in the upper-right corner of the **Check List** section, and select which check list items you want to see.



For more information, see the following links:

Add check list items (page 772)

Modify a check list item (page 774)

Send check list items to the task list (page 773)

Delete check list items from a project (page 774)

View, print, or export check list reports (page 775)

Add check list items

Use the **Add Additional Check List Items** to add previously created check list items to the check list of the current project.

Note that to add new check list items, the items need to be created in the **Check List Item Maintenance** dialog box. For more information, see Manage default check list items for project management jobs (page 671).

1. In the **Check List** dialog box, click the **Check List** ribbon tab.
2. On the menu, select **Add Additional Check List Items**.
3. In the **Add Check List Items** dialog box, click the arrow buttons to move the items that you want to include in the check list to the **Included** list.
4. Click **Add**.

The selected check list items are added to the **Check List** dialog box.

Now, you can modify the properties of the new check list items, such as its status and required date.

See also

Modify a check list item (page 774)

Delete check list items from a project (page 774)

Send check list items to the task list

If necessary, you can send items in the project check list to the task list of a Tekla PowerFab user that participates in the current project.

1. In the **Check List** dialog box, select the check list items that you want to send to the task list.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Check List** ribbon tab.
3. On the menu, select **Move Selected Check List Items to Task List**.
4. Click the arrow on the right side of the **Assign To** list in the **Move To Task List** and select to which user you want to assign the check list items.
5. Click **Move**.

The items are moved to the task list of the selected user.

The **Notes** fields of the items show that the items have been sent to the task list of the selected user.

See also

Manage the project task list (page 767)

Modify a check list item

You can modify the properties of a check list item according to your needs. For example, you might need to mark a check list item as completed, or modify the date by which the item should be completed.

1. In the **Check List** dialog box, select the check list item that you want to modify.
2. Modify the check list item properties:

Option	Description
Date Required	The date by which the check list item should be completed. Click the arrow on the right side of the **Date Required** field, and select a date in the calendar.
Status	The completion status of the check list item. The options are **Completed**, **Not Completed**, and **N/A** (not applicable). Click the arrow on the right side of the **Status** list, and select a status option in the list.
Completed By	The Tekla PowerFab user who completed the check list item. Click the arrow on the right side of the **Completed By** list, and select a user in the list.
Date Completed	The date when the check list item was completed. Click the arrow on the right side of the **Date Completed** field, and select a date in the calendar.
Notes	Any relevant notes about the check list item. Type any information in the **Notes** field.

3. Click **Save**.

See also

Add check list items (page 772)

Delete check list items from a project (page 774)

Delete check list items from a project

Use the **Delete Selected Check List Items** command to delete check list items that are not necessary for the current project.

1. In the **Check List** dialog box, select the check list items that you want to delete.

To select multiple items, hold down **Ctrl**.

To select a range of subsequent items, hold down **Shift**.

2. Click the **Check List** ribbon tab.
3. On the menu, select **Delete Selected Check List Items**.
4. To permanently delete the check list items, click **Yes** in the confirmation dialog box.

View, print, or export check list reports

You can create various check list reports by using the **Reports** command. For example, you can create reports that show the statuses of the check list items or the dates when the check list items have been completed.

Create a check list report

1. In the **Check List** dialog box, click the **Check List** ribbon tab.
2. On the menu, select **Reports**.
3. To only create check list reports, at the bottom of the **Project Management Report Filters** dialog box, ensure that only the **Check List** checkbox is selected.
4. To only include specific types of check list items in the reports, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the check list item properties that you want to include in the report to the **Included** list.
   - Type the maximum and minimum values for the check list items that you want to include.

     For example, define the earliest and latest completion date for the check list items that you want to include.
6. Click **OK**

   To further limit the types of check list items that are included in the reports, repeat steps 3 to 5 for all necessary filter types.
7. Click **Make Report**.
8. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the check list report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the check list report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the check list report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

9.12 View and adjust the project schedule

You can create, view, and modify the project schedule of the current project in the **Project Schedule** dialog box.

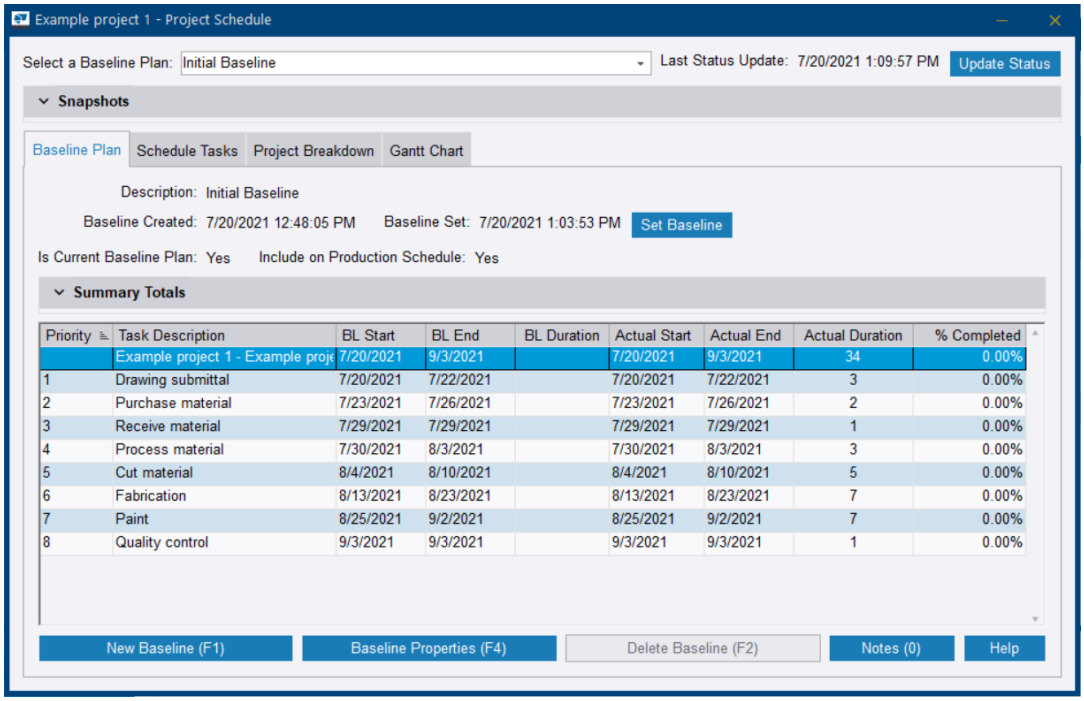
To access the **Project Schedule** dialog box, do one the following:

To	Do this
Access the project schedule from the **Project Management** module	At the bottom of the **Project Management** dialog box, click **Project Schedule**.

To	Do this
Access the project schedule from the **Production Control** module	1. In the **Production Control** dialog box, click the **Production Control** ribbon tab. 2. On the menu, select **Project Schedule**.

NOTE You can access the **Project Schedule** dialog box from a production control job only if you have linked the production control job to a project management job.

The **Project Schedule** dialog box opens. The **Schedule Tasks** dialog box opens at the same time as well.



The **Project Schedule** dialog box contains multiple tabs:

- **Baseline Plan**: Set and modify the current project baseline
- **Schedule Tasks**: Add, modify, move, and delete tasks that are on the project schedule
- **Project Breakdown**: Divide a project into sub-tasks. Usually done by sequence or lot number, but it can also be done by category, sub-category, or pay category.
- **Gantt Chart**: View and modify the dates and completion percentages of different tasks

Switch edit mode on and off

When working in the **Project Schedule** dialog box, you can only make changes when you have the edit mode on. The edit mode ensures that Tekla PowerFab users do not make conflicting changes if they work on the project schedule simultaneously. While one has the edit mode on, no other user can make changes to the project schedule of the same project. Other users can still view the schedule.

Any time that you try to make changes to a project schedule after the timeout time has been reached, a confirmation dialog box will open, asking if you want to enter edit mode.

You can also switch the edit mode on or off by using a keyboard shortcut. Do the following:

- To switch the edit mode on, press **Ctrl+E** on the keyboard.

The edit mode will stay on until you press **Ctrl+E** again or the timeout time is reached. The timeout ensures that a user does not lock out others from making changes to the project schedule for a long period of time.

Create, modify, and delete baseline plans

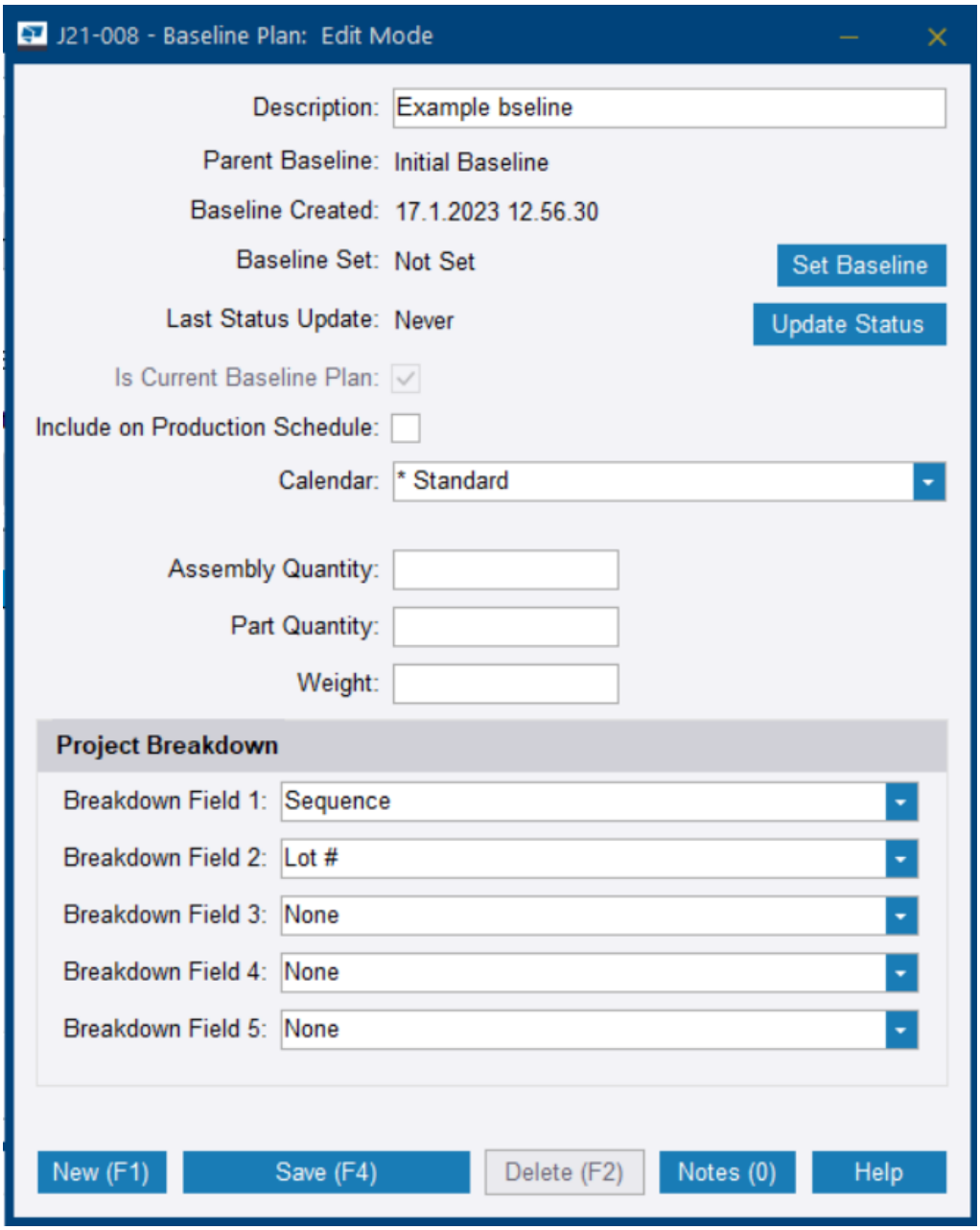
A baseline plan is a listing of schedule tasks, dependencies, and estimated dates, that demonstrates the intent of a project. The actual progress is compared against the baseline plan.

A project can have multiple baseline plans, so that you can explore different scenarios that show the effect that a change would have on the schedule. You can set any baseline plan as the current plan of the project at any time.

You cannot create, modify, or delete baselines if you are viewing a snapshot. For more information about snapshots, see View changes in the project schedule and add savepoints (page 784).

Create a baseline plan

1. In the **Project Schedule** dialog box, go to the **Baseline Plan** tab.
2. Click **New Baseline**.



3. In the **Description** field, type a description for the baseline plan.

   The first baseline plan will automatically be named as `Initial Baseline`, but you can modify the name according to your needs.

4. If you want to use the baseline plan as the current baseline plan, select the **Is Current Baseline Plan** checkbox.

5. If you want to assign resources to the baseline plan and include the baseline plan in the production schedule, select the **Include on Production Schedule** checkbox.

   If you do not want the baseline plan to be shown in the production schedule and resource capacity, clear the **Include on Production Schedule** checkbox. For example, this might be the case if the production schedule is created only for quoting.

6. Click **Add**.

   The baseline is created. You can now further modify its properties.

7. To select the calendar that determines the working days and non-working days in the project, click the arrow on the right side of the **Calendar** field and select a calendar in the list.

   To modify the available calendars, go to **Maintenance** --> **Project Management** --> **Schedule Calendars** .

8. Modify the remaining baseline properties according to your needs.

Option	Description
Assembly Quantity	The total number of assemblies in the project. This value is automatically updated when you update the status of the project schedule. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts in the project. This value is automatically updated when you update the status of the project schedule. Type the total number of parts in the **Part Quantity** field.
Weight	The total weight of the materials in the project. This value is automatically updated when you update the status of the project schedule. Type the total weight in the **Weight** field.

9. To define the available breakdown levels, click the arrows next to the breakdown fields in the **Project Breakdown** section of the dialog box.

   By default, two levels of breakdown items (sequences and lot numbers) are available. To make more levels available, select options in the **Breakdown Field 3**, **Breakdown Field 4**, and **Breakdown Field 5** lists. If you do not want a breakdown level to be available, select **None**.

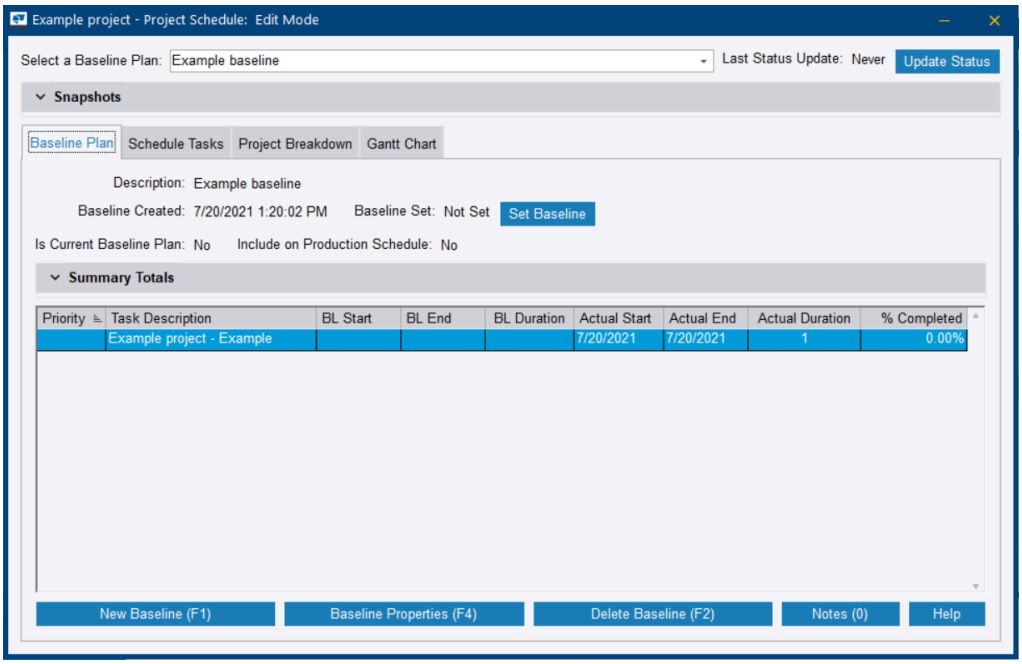
   For example, to enable categories as the breakdown level below lots, select **Category** in the **Breakdown Field 3** list.

10. Click **Save**.

Copy the current schedule status to baseline

When you have set a preliminary project schedule, you can set that as the initial baseline.

1. On the **Baseline Plan** tab, click **Set Baseline**.

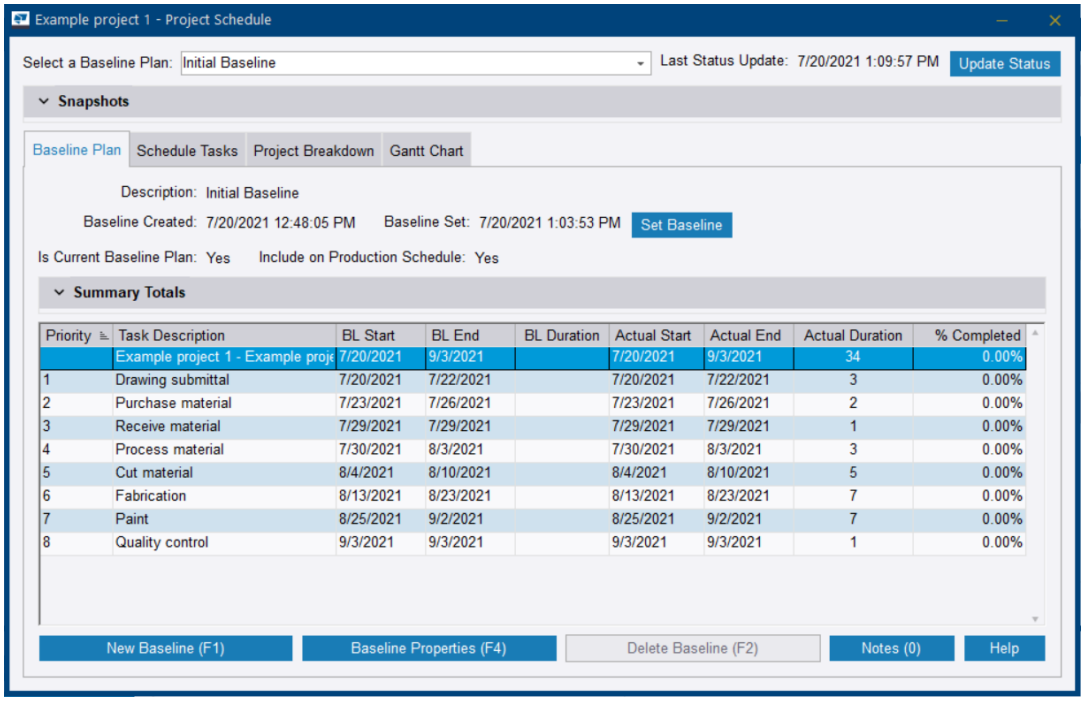


2. In the confirmation dialog box, click **Yes** to set the baseline values.

The baseline is saved, and the baseline dates update in the blank columns.

See also 3. Set the baseline (page 812).

Change the current baseline plan



- On the **Baseline Plan** tab, click the arrow on the right side of the **Select a Baseline Plan** field, and select the desired baseline in the list.

The new baseline plan is displayed in the **Project Schedule** dialog box.

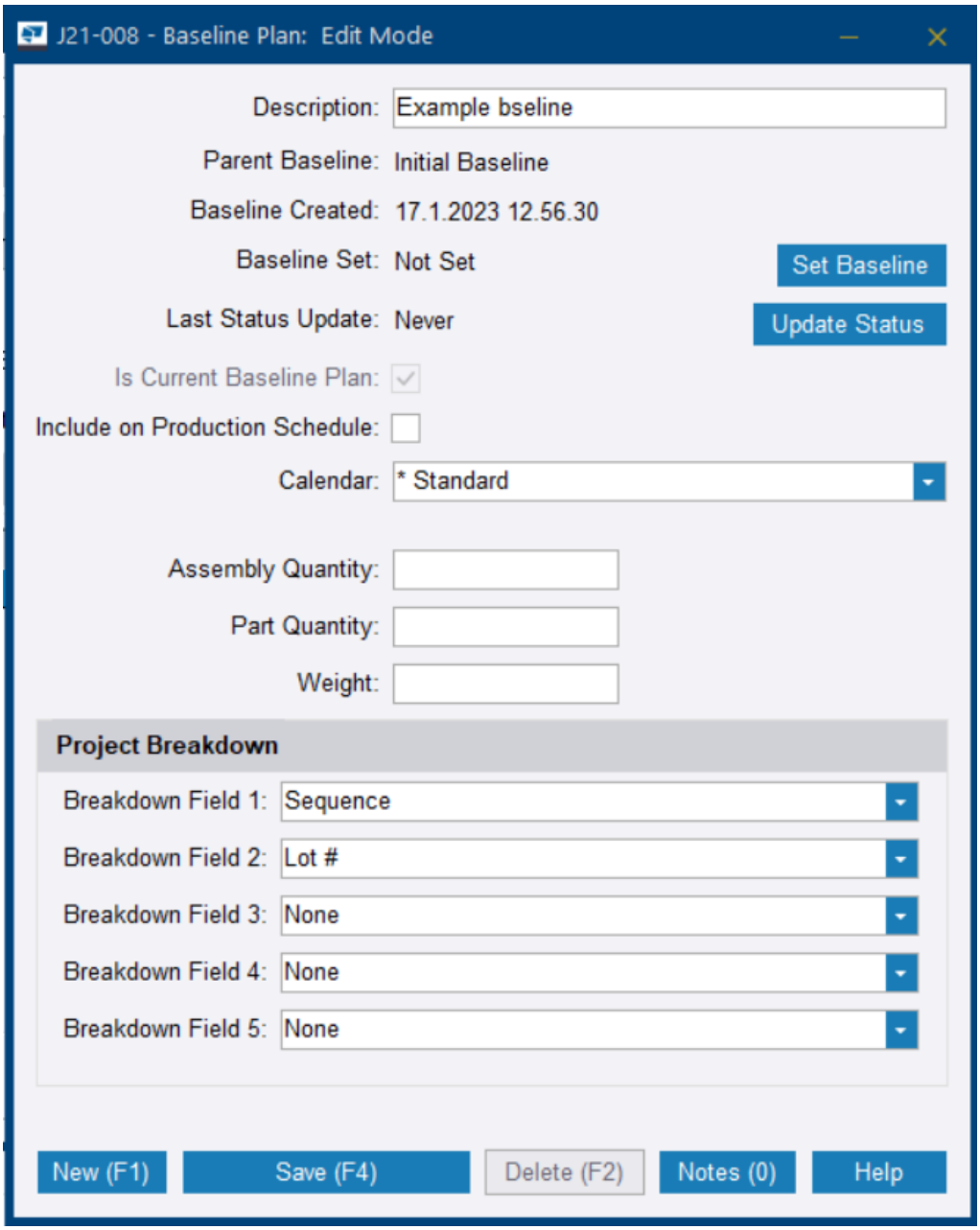
View the total values and breakdown information of the project

- To display the total values of the project, on the **Baseline Plan** tab, click the arrow on the left side of **Summary Totals**.
- To display the breakdown information of a task, select a task on **Baseline Plan** tab, and the click the arrow on the left side of **Breakdown Summary**.

  The number of breakdown items and the average assembly quantity, part quantity, and weight are displayed for the selected task.
- To select if actual total values, baseline total values, or both are displayed for the totals and the breakdown summary, click the arrow on the right side of the **Show Totals** list, and select an option in the list.

Modify a baseline plan

1. On the **Baseline Plan** tab, click **Baseline Properties**.
2. In the **Baseline Plan** dialog box, modify the baseline plan properties according to your needs.



For more information on the properties, see Create a baseline plan.

3. Click **Save** to save the changes.

Delete a baseline plan

Deleting a baseline plan is permanent and cannot be undone.

NOTE You need to have more than one baseline to delete one.

1. On the **Baseline Plan** tab, click the baseline plan that you want to delete.
2. Click **Delete Baseline**.

3. In the confirmation dialog box, click **Yes** to permanently delete the baseline.

View changes in the project schedule and add savepoints

Snapshots represent the baseline plan at previous points in time. Each time you make a change to the project schedule, Tekla PowerFab automatically takes a snapshot. You can then use the snapshots to compare the project schedule at two different points in time and view the impacts of changing the schedule. You can also load existing snapshots to view the project schedule at a particular point in time. If you want to mark the snapshot as a particularly important point in time, you can record it as a savepoint.

1. Click the arrow on the left side of **Snapshots** to expand the **Snapshots** section.

   You can see the currently displayed snapshot after **Currently Viewing Snapshot**. If you are viewing the current project schedule, the value will be **[Current]**.

2. Do any of the following:

To	Do this
Load a snapshot	a. Click the arrow on the right side of the **Schedule Snapshot** field, and select a snapshot in the list. If you only want the list to display the savepoints that have been recorded, select the **Only Show Savepoints** checkbox. b. Click **Load Snapshot**. The **Project Schedule** dialog box displays the project schedule at the selected point in time. To view the current project schedule again, in the **Schedule Snapshot** list, select **[Current]**.
Record a savepoint	a. In the **Project Schedule** dialog box, make any changes. b. Click **Record Savepoint**. c. In the first confirmation dialog box, click **Yes** to save the changes you made. d. In the second confirmation dialog box, click **Yes** to confirm entering edit mode. When you are in the edit mode, other users cannot make conflicting changes to the project schedule. e. In the **Snapshot: Edit Mode** dialog box, type a description for the savepoint.

To	Do this
	f. Ensure that the **Is Savepoint** checkbox is selected. g. Click **Save**. h. In the third confirmation dialog box, click **Yes** to confirm entering edit mode. This way, no other user can make conflicting changes to the project schedule at the same time.

Manage schedule tasks

Schedule tasks are events that occur or actions that are taken during a project. In the **Schedule Tasks** dialog box, you can add, modify, and delete schedule tasks. Tasks can be organized into a hierarchy that contains main tasks and sub-tasks. In this case, the statuses of the main tasks are aggregated from the sub-tasks.

Add a task to the project schedule

1. In **Project Management**, open a project.

   The **Project** dialog box opens.

2. Click **Project Schedule**.

   The **Project Schedule** dialog box opens.

3. Go to the **Schedule Tasks** tab.

4. Click **New**.

   The **Schedule Tasks** dialog box opens. The tasks already in the schedule are displayed in the navigation tree on the left-hand pane.

5. Type a description for the new task.

6. Modify the task properties according to your needs:

   The available properties are:

Option	Description
Parent Task	If the task you are creating is a sub-task, for an existing task, you need to select the main task. Click the arrow on the right side of **Parent Task** field, and select a task in the list. If you are creating a top-level task, select **None**. Note that you cannot modify the task type, duration, or original estimate time of a main task if you add a sub-task.
Task Type	Specifies the behavior of the task on the **Gantt Chart** tab. The available task types are: • **Start/End**: an action to be performed over a period of time. Properties include the start date, end date, and duration. Start/end tasks can be directly re-sized an moved on the **Gantt Chart** tab. • **Summary**: takes the aggregate values from its sub-tasks. The start date of a summary task is automatically set to the earliest date of the sub-tasks. The end date is set to the latest sub-task end date, and the percent completed is aggregated based on the status summary method. Summary tasks cannot be re-sized on the **Gantt Chart** tab directly. However, the sub-tasks can be re-sized and moved, and the summary main task will re-sized and moved accordingly. • **Milestone**: an event in the schedule. For example, a project kickoff meeting can be a milestone task. The end date and the start date are always the same, and the duration is set to one day.
Sequence, **Lot #**, and other breakdown category checkboxes	When selected, the task is divided into sub-tasks by the breakdown category. This means that you have to add the breakdown category for all items when adding them. Note that the project breakdown checkboxes cannot be selected or cleared when the task has been added.
Apply Breakdown Links	When selected, the links set in the project schedule are added between sub-tasks. For example, any

Option	Description
	links set between sequences 1, 2, and 3 would be added. When cleared, the links set between sub-tasks are not added, even if they have been set in the project schedule.
Duration	The expected number of working days to complete a task. The duration can only be adjusted if the task type is set to **Start/End**. Type the number of days in the **Duration** field.
Original Estimate	The time originally estimated for the entire main task or a sub-task. The hours will automatically be distributed among the sub-tasks on the Gantt chart. Type the time in hours in the **Original Estimate** field.
Status Link	The information that affects the status of the task when the project schedule is updated. The available options are: • **Drawings Approved**: the number of drawings with the **Approved** status. • **Material Purchased**: the production material that is linked to material that is either in stock or on order. • **Material Received**: the production material that is linked to material that is in stock. • **TFS**: the production material that has been cut. • **Production Completed**: the production material that has been assigned a route and has completed all stations in that route. • **Production Progress**: the production material that has been assigned a route and has completed some stations in that route. • **Station Progress**: the production material that has been assigned a route that includes the selected station and has completed that station. • **Shipping Destination Progress**: the production material that has been assigned a shipping route that includes the selected destination and has completed that destination.

Option	Description
	• **Shipping Completed**: the production material that has completed all assigned shipping destinations. Click the arrow on the right side of **Status Link** field, and select an option in the list.
Status Summary Method	The method that determines how the percentage completed of a main task will be calculated from the sub-tasks. Each option specifies the weight that is given to each sub-task in the calculation. The available options are: • **No Factor**: no weight is given to the individual sub-tasks. The percentage completed of the main task is an average of the sub-tasks. • **By Quantity**: the percentage completed is weighed by the quantity of each sub-task. • **By Weight**: the percentage completed is weighed by the weight of each sub-task. • **By Duration**: the percentage completed is weighed by the duration of each sub-task. Click the arrow on the right side of **Status Summary Method** field, and select a calculation method in the list.
Resource	An object with a time-based capacity to be added on a production schedule, and the resource by which station work will be executed. Linking a task from the project schedule to a resource connects the project and production schedules. Click the arrow on the right side of **Resource** list, and select a resource in the list.
Assigned To	The Tekla PowerFab user that who task is assigned to.

7. Click **Add**.
8. Select the new task in the navigation tree.
9. In the **Link Tasks** section of the dialog box, define dependencies between two tasks.

   By creating links, you can make the schedule cascade from one task to another.

   NOTE • A task cannot link to itself.

- A link cannot be created between a task and one of its sub-tasks.
- Duplicate links are not allowed. There can be only one link between a pair of tasks.
- Link cycles are not allowed. For example, if a link is created from task 1 to task 2, a link cannot be created from task 2 to task 1.
- When you use links, and the duration of an item changes, the positions of all linked items also changes. Do not link items that need to remain static, or are independent from other items in the schedule.

Do any of the following:

To	Do this
Add a link that ends with the current given task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a predecessor link. a. Click **New Predecessor Link**. b. Click the arrow on the right side of **Link From** list, and in the list, select the starting task of the link. c. Click the arrow on the right side of upper **Position** field, and in the list, select if the link originates from the start or end of the starting task. d. Click the arrow on the right side of lower **Position** field, and in the list, select if the link ends at the start or finish of the second task. e. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier in the Gantt chart than the value in the **Minimum Interval** field determines. f. Click **Add**. g. In the confirmation dialog box, click **Yes**. For example, to define that shipping must start when the fabrication is finished, select **Shipping** and set the link a follows: • **Link From**: **Fabrication**

To	Do this
	• Upper **Position**: **Finish** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
Add a link that begins with the current task	Note that if a previous snapshot is displayed instead of the current project schedule information, you cannot add a successor link. a. Click **New Successor Link**. b. Click the arrow on the right side of the upper **Position** field, and in the list, select if the link originates from the start or end of the starting task. c. Click the arrow on the right side of the **Link To** field, and in the list, select the task that is the ending point of the link. d. Click the arrow on the right side of the lower **Position** field, and in the list, select if the link ends at the start or finish of the second task. e. In the **Minimum Interval** field, type the minimum number of working days between the two tasks. The minimum interval is enforced in the Gantt chart. The later task cannot be moved earlier in the Gantt chart than the value in the **Minimum Interval** field determines. f. Click **Add**. g. In the confirmation dialog box, click **Yes**. For example, to define that shipping must start when the fabrication is finished, select **Fabrication** and set the link a follows: • Upper **Position**: **Finish** • **Link To**: **Shipping** • Lower **Position**: **Start** • **Minimum Interval**: `0 days`
View and modify link properties	a. Click **Link Properties**. b. Modify the starting task, ending task, the task positions, and interval according to your needs. c. Click **Save** to update the link properties.
Delete a link	a. Click a link in the list to select it.

To	Do this
	b. Click **Delete Link**. c. In the confirmation dialog box, click **Yes** to permanently delete the links.

10. To save the links, click **Save**.
11. If necessary, add notes about the task:
    a. In the navigation tree on the left-hand pane, click the task to which you want to add notes.
    b. At the bottom of the dialog box, click **Notes**.
    c. In the **Notes** dialog box, click **New**.
    d. Type any notes about the task.
    e. Click **Add**.
    f. In the confirmation dialog box, click **Yes**.
    g. Click the **Close** button (**X**) to close the **Notes** dialog box.

Repeat the process for each task that you want to add.

Move a task earlier or later in the schedule

1. Select the task that you want to move.
2. Click the **Move Up** and **Move Down** buttons to move the task earlier or later.

Modify a task

1. In the navigation tree on the left-hand pane, click the task that you want to modify.
2. Modify the task properties and links according to your needs.

   For more information on the properties and links, see Add a link to the project schedule.
3. Click **Save** to save the changes.

Delete a task

1. In the navigation tree on the left-hand pane, click the task that you want to delete from the schedule.
2. Click **Delete Task**.
3. In the confirmation dialog box, click **Yes** to permanently delete the task.

Save schedule tasks as a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. By saving a set of schedule tasks as a schedule template, you can apply the same schedule tasks in multiple jobs. The times and other details can be modified for each project, but the tasks, child tasks, and links remain the same.

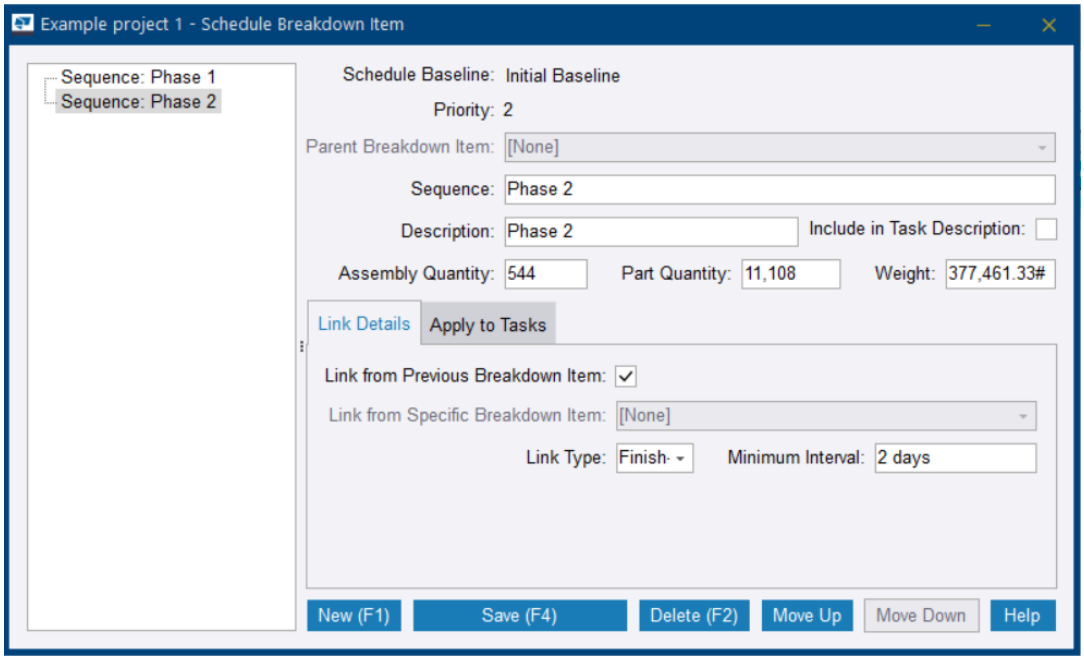
1. In the **Schedule Tasks** dialog box, modify the schedule tasks to meet your needs.

   For more information, see Manage schedule tasks (page 785).
2. Click the **Schedule Tasks** ribbon tab.
3. On the menu, select **Save As Template**.
4. Type a description for the template.
5. Click **OK** to save the template.

   A message opens, telling you that the template is saved.
6. Click **OK** to close the message.

Add, modify, and delete breakdown items

Schedule breakdown items allow you to divide a project into sub-tasks to schedule and track the completion of tasks. Sequences and lots are often used as breakdown items, so that tasks can be performed for each sequence and lot separately. You can add new breakdown items, modify existing ones, change the priorities of breakdown items, and delete any unnecessary breakdown items.



Add a new breakdown item

Note that if you cannot add new breakdown items if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 784)

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click **New**.
2. In the **Schedule Breakdown Item** dialog box, define properties for the new breakdown item.

Option	Description
Parent Breakdown Item	If the breakdown item you are creating is a sub-item for another existing breakdown item, you need to select the main breakdown item. Click the arrow on the right side of **Parent Breakdown Item** field, and select a breakdown item in the list. If you are creating a top-level breakdown item, select **None**. Note that the main breakdown item cannot be changed after the breakdown item is added.
Sequence, **Lot #**, **Category**, **Sub-Category**, **Pay Category**	The breakdown value that associates the breakdown item with the relevant project data. Note that the breakdown value must match the project data exactly. For example, the sequence number in the **Sequence** field must be exactly the same as in the production control job. Otherwise, the project data cannot be updated properly. Type the breakdown value in the field.
Description	The description of the breakdown item. For example, `First floor beams and columns`. Type a description in the **Description** field.
Include in Task Description	When selected, the breakdown item description will be included in the task description in addition to the breakdown value. For example, if the description of sequence 6 is `Third Floor Beams`, and the **Include in Task Description** checkbox is selected, the description of the resulting task in the Gantt chart will be `Sequence: 6 - Third Floor Beams`. Instead, if the **Include in Task Description** checkbox is cleared, then the description of the task in the Gantt chart will be `Sequence: 6`.

Option	Description
Assembly Quantity	The total number of assemblies associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of parts in the **Part Quantity** field.
Weight	The total material weight associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total weight in the **Weight** field.

3. Click the **Apply to Tasks** tab to open it.
4. To select the schedule tasks to which the breakdown item is applied, do one of the following:
   - To apply the breakdown item to all schedule tasks, select the **All** checkbox.
   - To only apply the breakdown item to specific schedule task, click **Select**, use the arrow buttons to move the desired tasks to the **Included** list, and click **OK**.

   When you apply the breakdown item to a task, the task becomes a summary task with sub-tasks automatically created under it for each sub-item.
5. Do any of the following to determine which links will be applied between the sub-tasks:
   a. According to your needs, do one of the following:
      - To create a link from the previous breakdown item to the current one, select the **Link from Previous Breakdown Item** checkbox.

        The **Link from Previous Breakdown Item** cannot be selected if the current breakdown item is the first breakdown item or the first sub-item under a main breakdown item.
      - To create a link from any previous breakdown item with the same main breakdown item to the current one, click the arrow on the

right side of the **Link from Specific Breakdown Item** field, and select a breakdown item in the list.

Links will be created from the sub-task associated with that breakdown item.

b. Click the arrow on the right side of the **Link Type** field and select a link type in the list.

The options are:

- **Start-Start**
- **Finish-Start**
- **Start-Finish**
- **Finish-Finish**

c. In the **Minimum Interval** field, type the minimum number of working days between the two sub-tasks.

For example, to create a link from the start of a sequence to the start of a second sequence, the second sequence starting 5 working days after the previous one, you should set the link details as follows:

- **Link Type**: **Start-Start**
- **Minimum Interval**: `5 days`

6. Click **Add**.

The breakdown item and its link details are added to the project schedule. You can see the breakdown item in the navigation tree on the left side of the dialog box.

Modify a breakdown item

You cannot modify breakdown items if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 784).

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to modify.
2. Click **Properties**.
3. Modify the properties of the breakdown item according to your needs:

Option	Description
Sequence, **Lot #**, **Category**, **Sub-Category**, **Pay Category**	The breakdown value that associates the breakdown item with the relevant project data. Note that the breakdown value must match the project data exactly. For example, the sequence number in the **Sequence** field must be exactly the

Option	Description
	same as in the production control job. Otherwise, the project data cannot be updated properly. Type the breakdown value in the field.
Description	The description of the breakdown item. For example, `First floor beams and columns`. Type a description in the **Description** field.
Include in Task Description	When selected, the breakdown item description will be included in the task description in addition to the breakdown value. For example, if the description of sequence 6 is `Third Floor Beams`, and the **Include in Task Description** checkbox is selected, the description of the resulting task in the Gantt chart will be `Sequence: 6 - Third Floor Beams`. Instead, if the **Include in Task Description** checkbox is cleared, then the description of the task in the Gantt chart will be `Sequence: 6`.
Assembly Quantity	The total number of assemblies associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of assemblies in the **Assembly Quantity** field.
Part Quantity	The total number of parts associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total number of parts in the **Part Quantity** field.
Weight	The total material weight associated with the breakdown item. This value is automatically updated when you update the project schedule status. Type the total weight in the **Weight** field.

4. Click the **Apply to Tasks** tab to open it.
5. To modify the schedule tasks to which the breakdown item is applied, do one of the following:
   - To apply the breakdown item to all schedule tasks, select the **All** checkbox.

- To only apply the breakdown item to specific schedule task, click **Select**, use the arrow buttons to move the desired tasks to the **Included** list, and click **OK**.

6. Do the following to modify which links will be applied between the sub-tasks:
   a. Do one of the following:
      - To create a link from the previous breakdown item to the current one, select the **Link from Previous Breakdown Item** checkbox.

        The **Link from Previous Breakdown Item** cannot be selected if the current breakdown item is the first breakdown item or the first sub-item under a main breakdown item.
      - To create a link from any previous breakdown item with the same main breakdown item to the current one, click the arrow on the right side of the **Link from Specific Breakdown Item** field, and select a breakdown item in the list.

        Links will be created from the sub-task associated with that breakdown item.

   b. Click the arrow on the right side of the **Link Type** field and select a link type in the list.

      The options are:

      - **Start-Start**
      - **Finish-Start**
      - **Start-Finish**
      - **Finish-Finish**

   c. In the **Minimum Interval** field, type the minimum number of working days between the two sub-tasks.
7. Click **Save** to update the breakdown item properties.

Change the priority of a breakdown item

Moving breakdown items up or down in the list changes their priority. If you move a breakdown item up, its priority is swapped with the previous breakdown item, whereas if you move a breakdown item down, its priority is swapped with the following breakdown item. For example, moving an item with the priority 1.3 up would change its priority to 1.2.

You cannot move breakdown items up or down if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 784).

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to move.

2. Click the **Move Up** and **Move Down** buttons.
3. In the confirmation dialog box, click **Yes** to confirm moving the breakdown item.

Delete a breakdown item

Note that deleting a breakdown item is permanent and cannot be undone. All sub-items of the selected breakdown item are deleted as well.

You cannot delete a breakdown item if you are currently viewing a snapshot. For more information, see View changes in the project schedule and add savepoints (page 784).

1. On the **Project Breakdown** tab of the **Project Schedule** dialog box, click the breakdown item that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the breakdown item.

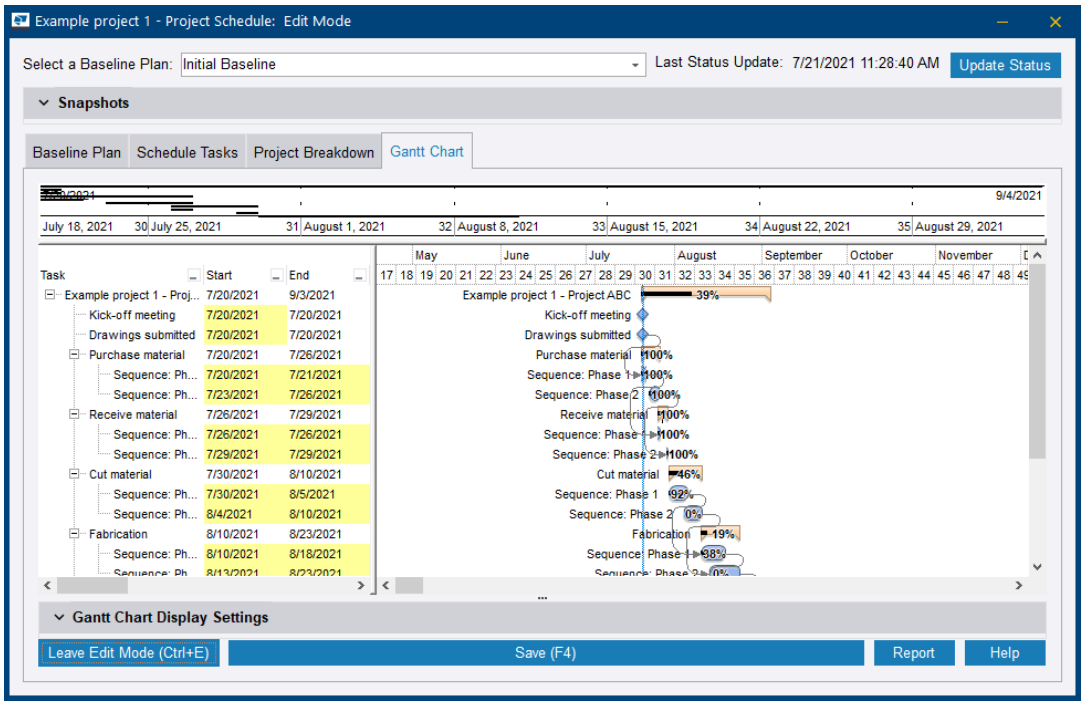
Modify the Gantt chart

The chart on the **Gantt Chart** tab of the **Project Schedule** dialog box gives you a visual representation of the schedule. You can modify the view of the Gantt chart according to your needs by including and excluding items, and scaling the chart. You can also move the tasks in the Gantt chart to move them earlier or later in the project schedule.

To modify the Gantt chart, do the following:

1. In the **Project Schedule** dialog box, click the **Gantt Chart** tab to open it.

2. To enable modifying the information, click **Enter Edit Mode** in the lower-left corner, or press **Ctrl+E** on the keyboard.



In the Gantt chart, you can see the following information:

- The left side of the tab shows the properties of schedule tasks.
- The right side of the tab shows the schedule tasks visually as bars on the time line.

  The tasks look different and behave differently depending on their task type:

  - **Summary** tasks (or main tasks) are displayed as orange bars. A summary task cannot be re-sized directly. Instead, you can re-size and move the sub-tasks to change the duration or dates of the summary task. When a summary task is moved earlier or later, the sub-tasks are moved by the same number of days.
  - **Start/End** tasks are displayed as blue bars. **Start/End** tasks can be re-sized and moved in the Gantt chart.
  - **Milestone** tasks are displayed as blue diamonds. Milestones can be moved in the Gantt chart, but they cannot be re-sized.
- Links between tasks are represented by arrows from the predecessor tasks to the successor tasks.
- Any cells that are highlighted with yellow can be modified.

Right-click anywhere in the Gantt chart to find shortcuts to more commands:

- **Goto Task** zooms to the beginning of the bar of the selected task.

- **Time Tracking Summary** opens the **Time Tracking Summary** dialog box. For more information, see Manage time-tracking information (page 815).
- **Time Tracking Detail** opens the **Time Tracking Detail** dialog box. For more information, see Manage time-tracking information (page 815).
- **Time Tracking Input** opens the **New Time Tracking Record** dialog box. For more information, see Manage time-tracking information (page 815).
- **Production Schedule** allows you to view the production schedule. For more information, see View the production schedule (page 949).
- **Date Filter** allows you to select a date range that you want to see in the Gantt chart. When you apply the filter, tasks that are at least partially within the entered date range will be visible.
- **Scale chart to** options: scale the Gantt chart to day, week, or month, according to your needs.
- **Show Links**/**Hide Links** shows or hides the links between tasks.
- **Show Overview**/**Hide Overview** shows or hides the overview section above the Gantt chart.
- **Expand All** expands all summary tasks so that all sub-tasks are visible.
- **Expand Summary** expands the task hierarchy so that all summary tasks are visible. Sub-tasks are not displayed.
- **Expand Level** expands the selected task and other tasks with the same main task.
- **Collapse All** collapses all summary tasks.
- **Save Image** allows you to save the Gantt chart as a single image file.

Modify the dates of tasks

1. Do one of the following:
   - Click the **Start** or **End** cell of the task, and select a date in the calendar.
   - Click the task bar, hold down the left mouse button, drag the task earlier or later in the schedule, and release the left mouse button.

   Note that:
   - If the task has one or more predecessor links, the bar cannot be moved earlier than the predecessor tasks and link intervals determine.
   - If the task has one or more successor links, when the task is moved later, the successor tasks will also be moved later, if that is necessary to maintain the link interval.

   Repeat this process for all tasks to move them in the correct locations.
2. Click **Save**.

Modify the duration of tasks

1. Do one of the following:
   - Click the **Duration** cell of the task and type a new value in the cell.
   - Move the mouse pointer over the beginning or the end of the task bar until a two-headed arrow appears, drag the start or end position of the bar earlier or later, and release the mouse button.

   Note that:
   - If the task has one or predecessor links, the bar cannot be changed to start earlier than the predecessor tasks and link intervals determine.
   - If the task has one or more successor links, when the task is changed to end earlier, any successor tasks will be moved earlier by the same number of days in order to keep their relative position the same.
   - If the task has one or more successor links, when the task is changed to end later, the successor tasks will be moved later, if that is necessary to maintain the link interval.
2. Click **Save**.

Modify task properties

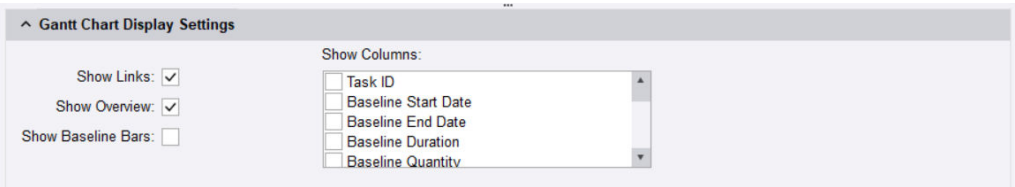
On the left side of the Gantt chart, you can modify the task properties, such as the duration, completion percentage, or used resource.

Note that only cells that are highlighted with yellow can be modified.

1. On the left side of the dialog box, click a cell of the task.
2. Modify the value in the cell according to your needs.
3. Click **Save** to update the project schedule.

Modify display settings

1. Click the arrow on the right side of **Gantt Chart Display Settings** to expand the display settings.



2. Modify the following options according to your needs:

Option	Description
Task ID	The unique identifier of the task in the project schedule.
Baseline Start Date, **Baseline End Date**	The start and end dates of the task when the baseline was set. If the baseline has not been set, the **BL Start** and **BL End** cells are blank.
Baseline Duration	The duration of the task when the baseline was set. If the baseline has not been set, the **BL Duration** cells are blank.
Baseline Quantity	The quantity of the task when the baseline was set. If the baseline has not been set, the **BL Quantity** cells are blank.
Baseline Weight	The weight of the task when the baseline was set. If the baseline has not been set, the **BL Weight** cells are blank.
Baseline Planned Hours	The total planned hours of the task when the baseline was set. If the baseline has not been set, the **BL Hours** cells are blank.
Actual Start Date	The actual start date of the task in the project schedule. To change the start date, click the arrow on the right side of the **Start** cell, and select a date in the calendar. When you change the start date, the task will move to the selected date in the Gantt chart. The duration of the task will remain the same, so the task will not be resized.
Actual End Date	The actual end date of the task in the project schedule. To change the end date, click the arrow on the right side of the **End** cell, and select a date in the calendar. When you change the end date, the duration of the task will change accordingly in the Gantt chart, and the task will be re-sized.

Option	Description
Actual Duration	The actual duration of the task in the project schedule. To change the duration, type a new value in the **Duration** cell. When you change the duration, the end task of the task will change accordingly in the Gantt chart, and the task will be re-sized.
Actual Quantity	The quantity related to the task in the bill of materials. This value is set when you update the project schedule (page 807).
Actual Weight	The weight related to the task in the bill of materials. This value is set when you update the project schedule (page 807).
Percent Completed	The percentage of the task that is completed. To change the percentage, click the **% Comp** cell and type a percentage in the cell. When you change the percentage, the percentage completed of the main tasks will automatically be updated based on the summary status method task setting. For more information, see Manage schedule tasks (page 785).
Original Estimate	The number of original estimate hours applied to the task. If the task is divided by sequences, lots, or other breakdown fields, the hours will be distributed to the resulting tasks on the Gantt Chart, weighed by duration. To adjust the original estimate hours, click the **Orig. EST** cell and type the number of hours in the field. When you adjust the original estimate hours, the adjusted number of hours will appear in italics in the Gantt Chart. The remaining hours will be redistributed among the tasks that have not been manually adjusted. You can return to the automatic distribution of hours by clearing the value in the **Orig. EST** cell.

Option	Description
Unreleased Hours	The number of original estimate hours that have not yet been released, calculated by the **Percent Released** value. For example, if the original estimate is 500 hours and the task is 20% released, the number of unreleased hours will be 400.
Planned Hours (**Base Hours**)	The planned hours that have been released. Tasks that have the **Status Link** option selected will have this field updated automatically when the project schedule status is updated (page 807). For more information, see Manage schedule tasks (page 785).
Adjustment Hours	Allows you to manually adjust the planned hours. To adjust the number of planned hours, click the **Adjustment** cell, and type a value.
Percent Released	The percentage of the original estimate hours that have been released and that appear in the **Base Hours** field. This field will update automatically when the planned hours are updated. For example, if the original estimate is 500 hours and the planned hours is updated to 100 hours, the percentage released is 20%. This will in turn update the unreleased hours to 400. Once all material associated with a task has been released, the percent released may need to be manually adjusted, so that no further unreleased hours are included in the total planned hours. Let's say that a task is broken out into 4 sequences and the original estimate is 2,000 hours. If all 4 sequence tasks have the same duration, each one will receive 500 of the original estimate hours. The drawings are submitted for sequence 1, and after the next status update, the planned hours are set to 100 hours, which will update the percent released to 20%. Since Tekla PowerFab does not know if all of sequence 1 has been received, the remaining unreleased hours will still be included in the total planned hours calculation. If everything has in fact been received for sequence 1, you can manually set the percent to 100%, so that no further unreleased hours will be included in the total planned hours. To adjust the percentage, click in the **% Released** cell, and type a percentage in the cell. When you

Option	Description
	manually adjust the released hours, the number will appear in italics. When you have manually adjusted the percentage released, the value will not be automatically adjusted according to any changes made to the planned hours. To return to the automatic calculated value, clear the value in the cell.
Total Planned Hours (**Plan Hours**)	The total number of the unreleased hours, planned hours, and adjustment hours for the task.
Linked Hours	The number of hours updated according to the **Status Link** option. For example, the **Production Progress**, **Production Completed**, and **Station Progress** options will update the linked **Linked Hours** with the hours entered in **Piece Tracking**. For more information, see Manage schedule tasks (page 785). To adjust the number of linked hours, click the **Linked Hours** cell, and type the number of hours.
Regular Hours	The regular hours associated with the task, entered in time tracking. For more information, see Manage time-tracking information (page 815).
Overtime Hours	The overtime and double overtime hours associated with the task, entered in time tracking. For more information, see Manage time-tracking information (page 815).
Total Hours	The total hours worked on the task, coming from either the linked hours or the regular and overtime hours from time tracking. To ensure that the time is not duplicated, the time tracking hours override the linked hours. If the number of either regular or overtime hours is greater than zero, the total hours will be set to the regular hours plus the overtime hours. If the number of both regular and overtime hours is zero, the total hours will be set to the linked hours.
Utilization Percent	The utilization percentage is calculated as the percentage of the total hours compared to the total planned hours. For example, if the number of total planned hours is 500 and the number of total hours is 200, the utilization percentage will be 40%. If the utilization percentage is over 5% greater than the percentage of the task completed, the utilization percentage will be highlighted in red. In

Option	Description
	this example, if the percent completed is 35% or less, the utilization percentage of 40% will be highlighted in red.
Assigned to User	The user who is responsible for the task. For more information, see Manage schedule tasks (page 785). To change the assigned user, click the arrow on the right side of the **Assigned To** cell and select a user in the list.
Resource	The resource that the task has been assigned to for production scheduling purposes. For more information, see Manage schedule tasks (page 785) andView the production schedule (page 949). To change the resource, click the arrow on the right side of the **Resource** cell and select a resource in the list.
Predecessors	The linked tasks that are immediate predecessors of the task.
Successors	The linked tasks that are immediate successors of the task.
Show Links	When selected, Tekla PowerFab shows task links as arrows in the Gantt chart.
Show Overview	When selected, Tekla PowerFab shows the overview section above the Gantt chart.
Show Baseline Bars	When selected, Tekla PowerFab shows the baseline dates as a yellow bar on the Gantt chart as set when the baseline was set. The baseline overlay bars will not be shown if: • The baseline has not been set. • The task has the same start and end dates as the baseline dates. • The task has been added after the baseline was set.

3. Click **Save** to update the Gantt chart.

Print a Gantt chart report

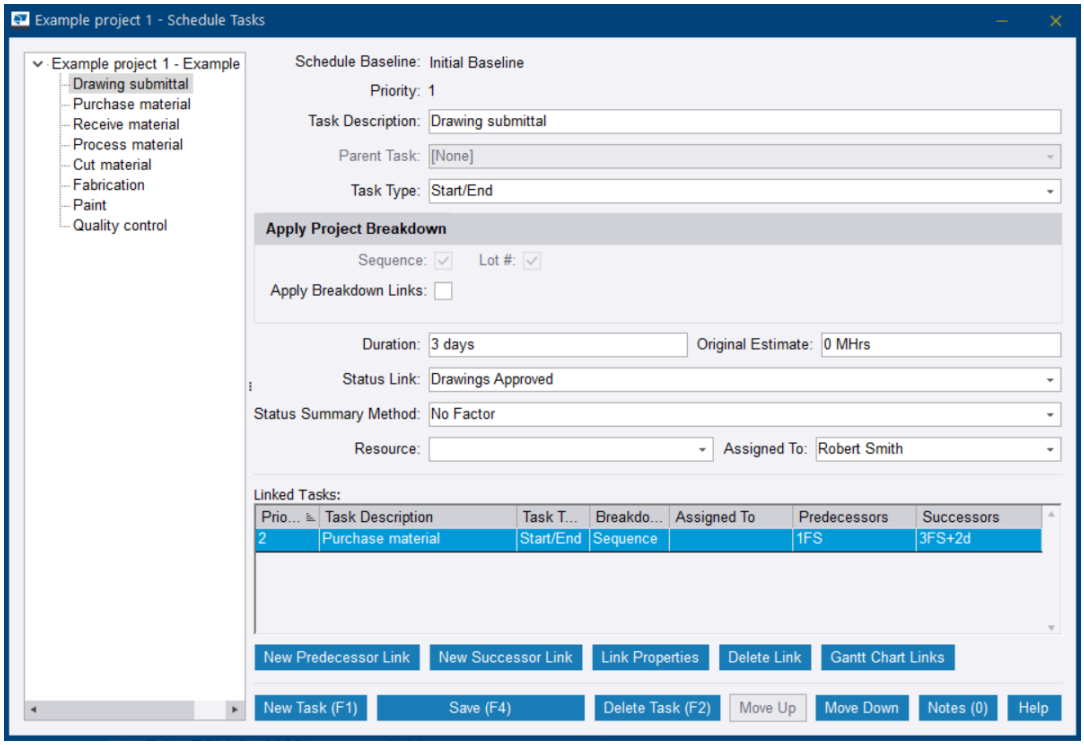
You can create and print a report that is an exact copy of the Gantt chart. Note that all content that you have selected in the **Gantt Chart Display Settings** section will be visible in the report as well.

1. In the lower-right corner of the **Gantt Chart** tab, click **Report**.

2. In the **Print Review** dialog box, click **Setup...** and adjust the paper size, orientation, margins, and printer properties according to your needs.
3. Click **Print**.
4. When the report has been printed, click **Close** to close the **Print Review** dialog box.

Apply a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. Existing schedules can be saved as templates, and then applied to a new job using the **Apply Template** button. The schedule can always be modified to fit the project requirements.



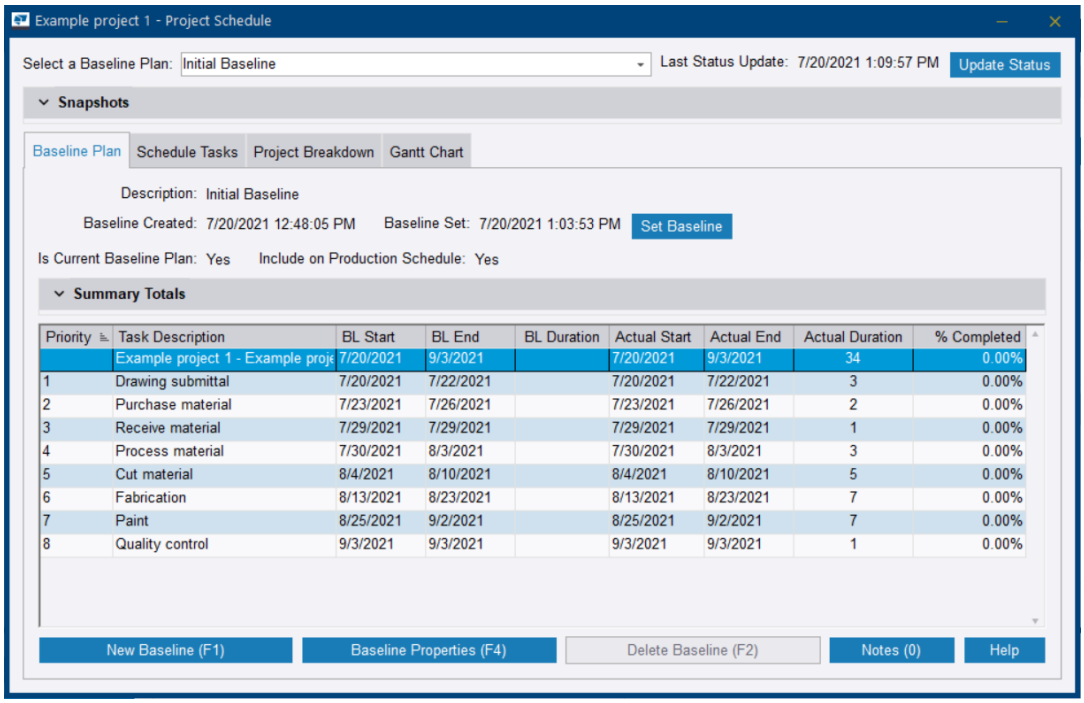
1. Open the **Schedule Tasks** dialog box.
2. In the lower-right corner, click **Apply Template**.
3. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the schedule template that you want to use.
4. Click **OK**.

   The schedule template is now applied to the project schedule.
5. Click the **Close** button (**X**) to close the **Schedule Tasks** dialog box.

Update the project schedule

When you update a project schedule, Tekla PowerFab collects all time and progress status information on the current project in **Production Control**, **Project Management**, and **Purchasing**. Once the update process is ready, all activity is updated to the chart on the **Gantt Chart** tab. For example, if drawings have been submitted and approved, the percentage completed for drawing submittal will be updated.

You can see the last time the project schedule was updated in the upper-right corner of the **Project Schedule** dialog box, after **Last Status Update**.



1. In the upper-right corner of the **Project Schedule** dialog box, click **Update Status**.

   The **Status Update** dialog box opens, displaying the progress of the update process.

2. Once the update is completed, click the **Close** button (**X**) to close the **Status Update** dialog box.

Export the project schedule to XML format

You can export the project schedule and save it in the desired folder as an XML file. You can select from two XML options: either the option used in Primavera, or the option used in Microsoft Projects.

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. On the menu, select **Export**, and then, select the preferred XML option.

3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

The project schedule is saved in the selected location as an XML file.

Create a project schedule report

You can create different project schedule reports according to your needs. You can either view the completion percentage and duration of the schedule tasks, or compare the changes made to schedule tasks from one baseline plan to another.

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. Click the arrow on the right side of the **Baseline Plan** field of the **Schedule Report** dialog box, and select the baseline plan that you want to use in the report.
4. If you wish, add a snapshot of the selected baseline plan to the report by clicking the arrow on the right side of the **Snapshot** field, and selecting a snapshot in the list.

   If you only want to select from snapshots marked as savepoints, select the **Only Show Savepoints** checkbox.
5. If you want to compare two different versions of the project schedule, do the following:
   a. Select the **Run Comparison Report** checkbox.
   b. Click the arrow on the right side of the lower **Baseline Plan** field, and select a baseline plan in the list.
   c. Click the arrow on the right side of the lower **Snapshot** list, and select a snapshot in the list.

      To be able to compare two versions of a project schedule, ensure that you select a different baseline plan and snapshot than in the lists above.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, click the report that you want to view, print, or export.

   For comparison, click the **Comparison Report** to view the tasks that have changed between the two baseline plans.
8. According to your needs, do any of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. In the confirmation dialog box, click **Yes** to confirm printing the report. d. In the **Select Printer** dialog box, click a printer to select it. e. Click **OK**.
Export the report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. Click **Save**. g. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. h. To open the file after exporting it, select the **Open Exported Document** checkbox. i. In the **Report Selection** dialog box, click **Export**.

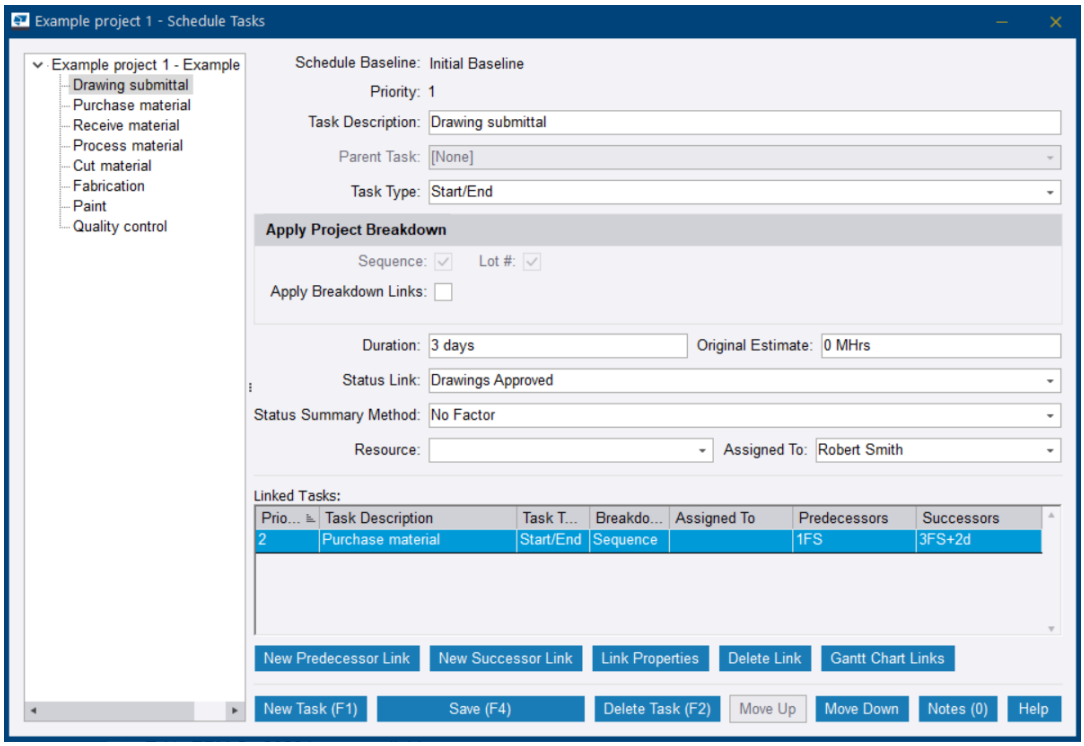
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Example: Create a project schedule

The following steps provide an example workflow for creating a project schedule in the **Project Schedule** dialog box.

1. Apply a schedule template

Schedule templates can contain all of the schedule items and attributes required for a typical setup. Existing schedules can be saved as templates, and then applied to a new job using the **Apply Template** button. The schedule can always be modified to fit the project requirements.

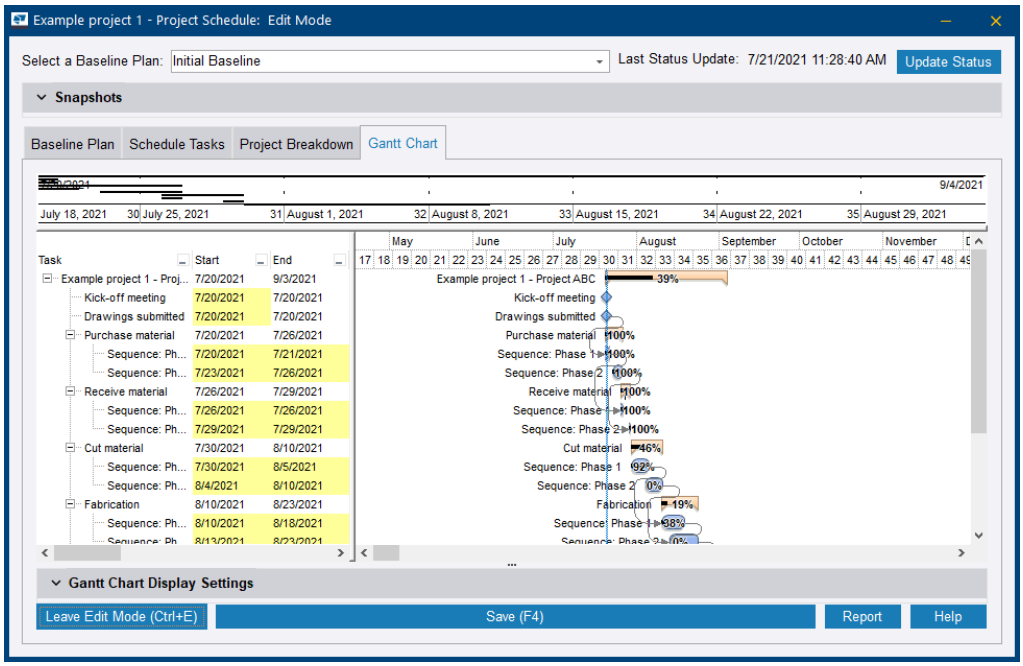


1. Open the **Schedule Tasks** dialog box.
2. In the lower-right corner, click **Apply Template**.
3. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select the schedule template that you want to use.
4. Click **OK**.

   The schedule template is now applied to the project schedule.
5. Click the **Close** button (**X**) to close the **Schedule Tasks** dialog box.

2. Modify the schedule dates

1. Open the **Gantt Chart** tab.



2. Click **Enter Edit Mode**.

   Any information that is highlighted with yellow can be modified.

3. To modify what is shown in the chart, click the arrows on the left side of **Gantt Chart Display Settings** and select the checkboxes for items that you want to show.

   For more information on the display settings, see Modify the Gantt chart (page 798).

4. Click **Save** to update the view.

   You can also modify if the chart displays time as days, weeks, or months. To do so, right-click anywhere in the chart, and select the suitable **Scale chart to** option.

5. To modify the dates of tasks in the chart, do one of the following:

   - Click the **Start** or **End** cell of the task, and select a date in the calendar.
   - Click a task, hold down the left mouse button, drag the task to the right location, and release the left mouse button.

   Repeat this process for all tasks to move them in the correct locations.

6. Click **Save**.

3. Set the baseline

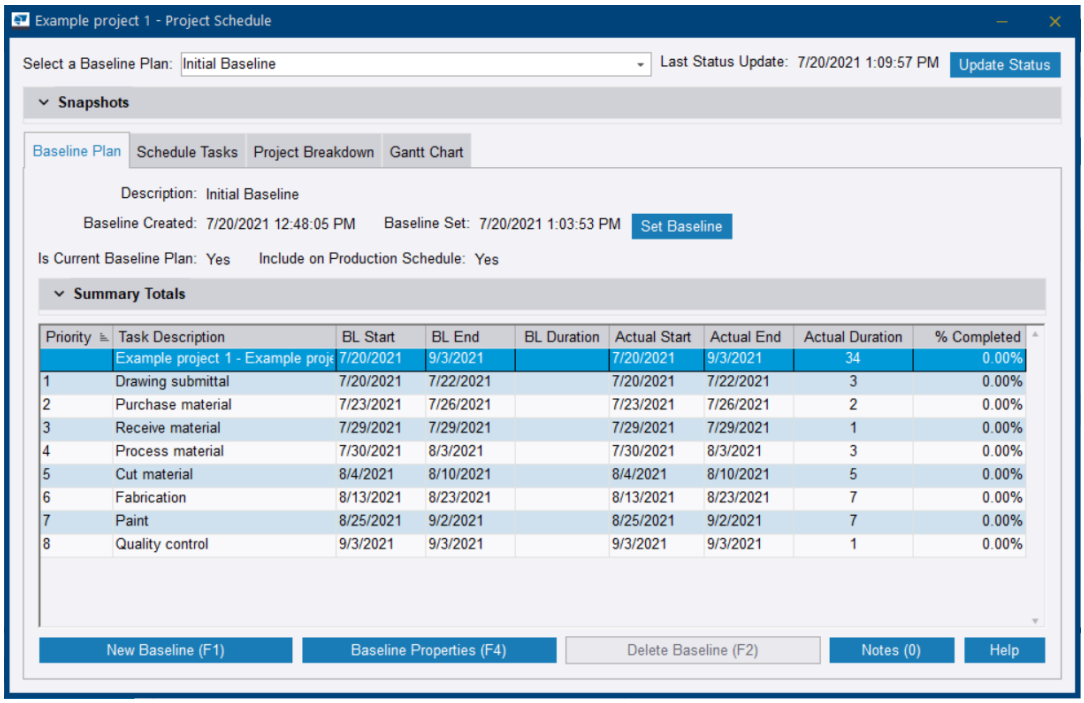
When tasks have been moved to the desired dates, you need to set the project baseline. You can later compare the baseline duration to the actual duration

during the project. The baseline also sends information to the production schedule.

If you have modified the dates on the **Gantt Chart** tab, you can set the baseline easily. Do the following:

1. Click the **Baseline Plan** tab to open it.
2. Click **Set Baseline**.
3. In the confirmation dialog box, click **Yes** to set the baseline values.

The baseline is saved, and the baseline dates update in the blank columns.



4. Add project breakdown information

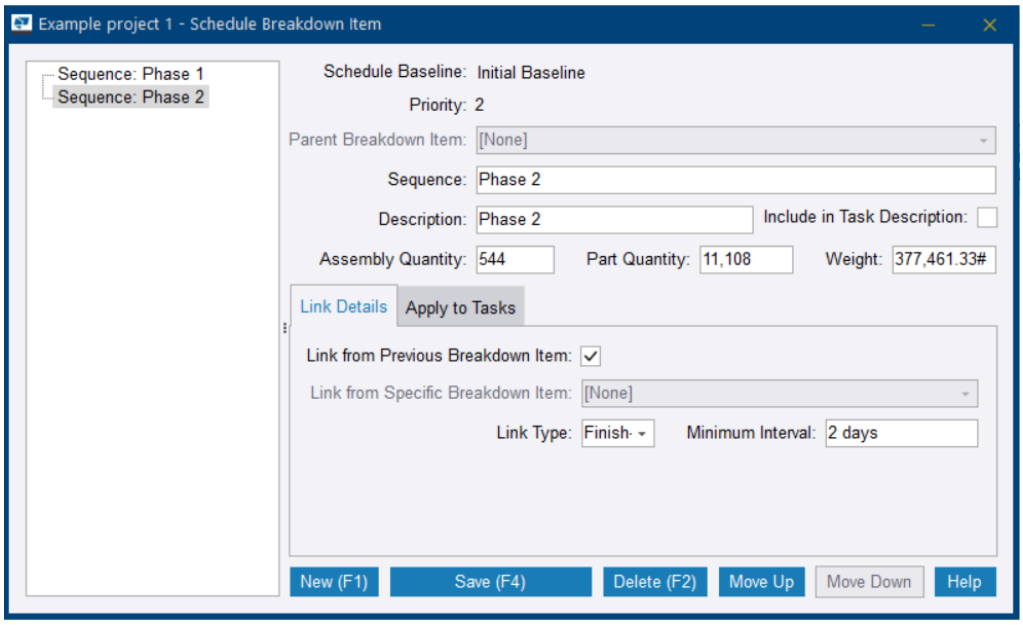
Use the **Project Breakdown** to divide a project into sub-tasks in order to schedule and track the completion of the task. For example, if your project has sequences and lot numbers, they should be added as breakdown items. You can also apply the breakdown items to the desired schedule tasks and link the breakdown items to each other.

For more information, see Add, modify, and delete breakdown items (page 792).

1. Open the **Project Breakdown** tab.
2. Click **New**.
3. In the **Schedule Breakdown Item** dialog box, enter the exact sequence number in the **Sequence** field.

4. If necessary, add a description or other information about the breakdown item.
5. Click **Add**.

   Repeat steps 2 to 5 for all sequences.



6. To add a lot, do the following:
   a. Click **New**.
   b. Click the arrow on the right side of the **Parent Breakdown Item** field, and select a sequence in the list.
   c. In the the **Lot #** field, type the exact lot number.
   d. Add a description or other information about the lot.
   e. Click **Add**.

   Repeat steps a to e for all necessary lots.

9.13 Define time-tracking settings

You can define the settings that control adding and modifying time-tracking records in the **Time Tracking Settings** dialog box.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Time Tracking Settings**.
3. On the **Standard Fields** tab of the **Time Tracking Settings** dialog box, modify the included fields as follows:

a. If you want to display a field when adding a time-tracking record and allow the user to type information to the field, select the **Show Field** checkbox next to the field.

b. If you want to make the field mandatory, select the **Required** checkbox.

   The user needs to type information in a required field in order to add a time-tracking record.

c. To change the title of the field in the **New Time Tracking Record** dialog box, type a new name in the **Title** field.

Repeat steps a to c for all necessary fields.

4. On the **User Defined Fields** tab, define any custom fields as follows:

   a. If you want to display a field when adding a time-tracking record and allow the user to type information to the field, select the **Show Field** checkbox next to the field.

   b. If you want to make the field mandatory, select the **Required** checkbox.

      The user needs to type information in a required field in order to add a time-tracking record.

   c. To name the field, type a name in the **Title** field.

   Repeat steps a to c to create all necessary fields.

5. To enable adding a time-tracking record without start and end time, on the **Input Settings** tab, select the **Allow date entry only (without time)** checkbox.

6. On the **Input Settings** tab, select how Tekla PowerFab calculates the time:

   - **Compute start time from end time and hours**: When you change the times of an input record, the start time is automatically calculated according to the end time and the total hours.
   - **Compute end time from start time and hours**: When you change the times of an input record, the end time is automatically calculated according to the start time and the total hours.
   - **Compute hours from start time and end time**: When you change the start or end time, the regular hours are automatically calculated.

   Note that you can select either **Compute start time from end time and hours** or **Compute end time from start time and hours**, not both.

7. To save the time-tracking settings, click **Save**.

9.14 Manage time-tracking information

You can add new time-tracking records to a project schedule, view and modify the existing time-tracking records, and import time-tracking records.

To adjust the time-tracking settings, see Define time-tracking settings (page 814).

Add a time-tracking record

1. To access time-tracking data , use one of the following methods:
   - To enter information for any project, go to **Maintenance** --> **Time Tracking** --> **Time Tracking Input**
   - To enter information for a specific project, go to the **Project Management** module:
     a. Click **Project Schedule**.

        The **Project Schedule** dialog box opens.

     b. In the **Project Schedule** ribbon tab, select **Time Tracking Input**

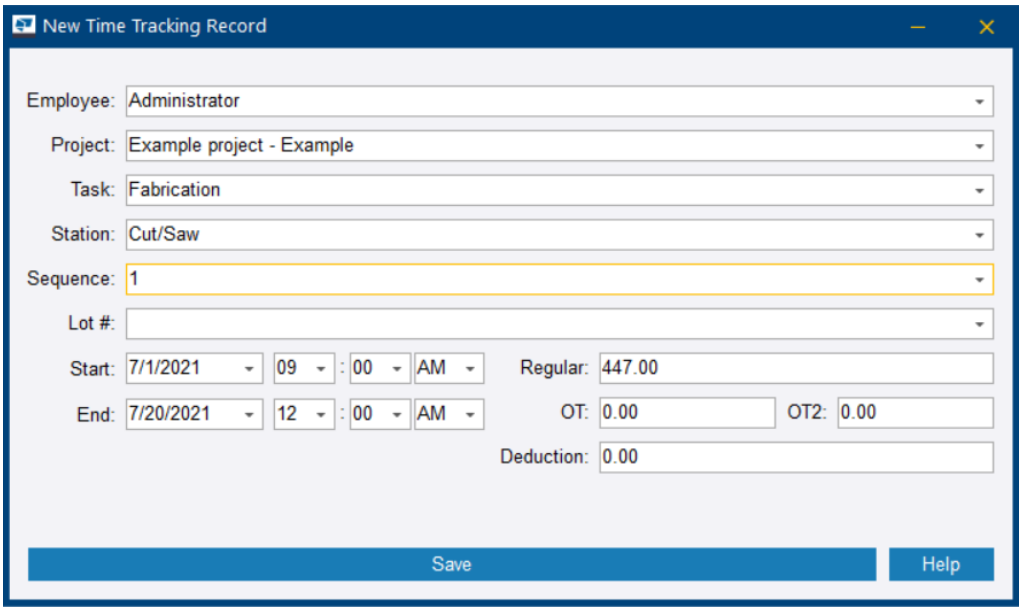
        Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Input**.
   - You can also enter information for a specific project from the **Production Control** module:
     a. Select a project.

     b. In the **Production Control** ribbon tab, select **Project Schedule**

     c. In the **Project Schedule** ribbon tab, select **Time Tracking Input**

        Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Input**.

The **New Time Tracking Record** dialog box opens.



2. In the dialog box, define the following properties:

Option	Description
Employee	The Tekla PowerFab user who is adding the record. Tekla PowerFab automatically uses the user that is logged in, but you can select another user as well. Note that the **Employee** field is optional. If you do not want the hours entered to be applied to a specific employee, you can leave the field blank. Select a user in the list.
Project	The project management job for which you are adding the time record. Select a project management job in the list.
Task	The schedule task for which you are adding the time record. The **Task** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Select a schedule task in the list.
Station	The station for which you are adding the time record. The **Station** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Select a station in the list.

Option	Description
Sequence	The sequence for which you are adding the time record. The **Sequence** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Select a sequence in the list.
Lot #	The lot for which you are adding the time record. The **Lot #** field is optional. If you leave the field blank, the time record will be applied to the project as a whole. Select a lot number in the list.

3. Select the start and end dates and times in the **Start** and **End** drop-down calendars.

   Tekla PowerFab automatically calculates the number of working hours. The calculation method that is used can be set in **Time Tracking Settings**.

4. If necessary, modify the working hours as needed:

   a. In the **Regular** field, type the time that will be logged as regular hours for the project, task, station, sequence, or lot.

   b. In the **OT** and **OT2** fields, type the time that will be logged as overtime and double overtime hours for the project, task, station, sequence, or lot.

   c. In the **Deduction** field, type the time used for unpaid activities, such as lunch. This time will not be logged against the project, task, station, sequence, or lot.

   If the start and end times and the hours that you added do not match, you can adjust the difference by double-clicking the field where you added hours. For example, if the difference between the start and end time is 2 hours and you enter 1.50 for regular hours, double-clicking the **OT** field sets its value to 0.50.

   If the total hours are less than the difference between the start and end time, the difference is automatically added as deduction hours.

5. Click **Save**.

The record is added.

NOTE Tekla PowerFab does not save the record if:

- Two time-tracking records marked to the same Tekla PowerFab user overlap.

- A Tekla PowerFab user is selected and the total sum of regular, overtime, and double overtime hours is greater than the difference in the start and end time.

Modify or delete time-tracking records

1. To access existing time-tracking details, use one of the following methods:
   - Go to **Maintenance** --> **Time Tracking** --> **Time Tracking Detail**.
   - Access from the **Project Management** module as follows:
     a. Click **Project Schedule**.

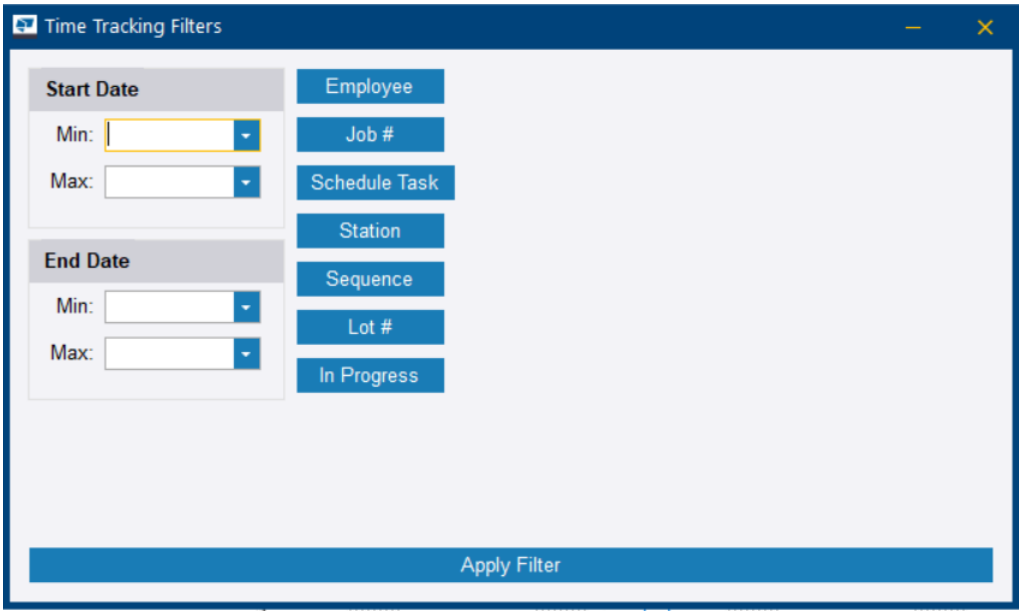
        The **Project Schedule** dialog box opens.

     b. In the **Project Schedule** ribbon tab, select **Time Tracking Detail**

        Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Detail**.
   - Access from the **Production Control** module as follows:
     a. Open a project.
     b. In the **Production Control** ribbon tab, select **Project Schedule**.
     c. In the **Project Schedule** ribbon tab, select **Time Tracking Detail**.

        Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Detail**.

   The **Time Tracking Filters** dialog box opens.



2. Select the minimum and maximum start and end dates in the calendars in the **Start Date** and **End Date** sections.
3. To only view and modify specific time-tracking records, click the available filtering buttons.
4. In the selected filter dialog box, click the arrow buttons to move the values that you want to include to the **Included** list.
5. Click **OK**.
6. Click **Apply Filter**.

   The **Time Tracking Detail** dialog box opens, displaying all previously created time- tracking records.

   To only view records that match particular criteria, you can select items in the navigation tree on the left.
7. Do either of the following:

To	Do this
Modify a time-tracking record	a. Click **Properties**. b. Modify the properties of the time-tracking record. For more information, see Add a time-tracking record (page 816). c. Click **Save** to update the time-tracking record.
Delete time-tracking records	**Note**: Deleting time-tracking records is permanent and cannot be undone. a. In the **Time Tracking Detail** dialog box, click the time-tracking records that you want to delete. To select multiple items, hold down **Ctrl**. To select a range of subsequent items, hold down **Shift**. b. Click the **Time Tracking Detail** ribbon tab. c. On the menu, select **Delete Selected Records**. d. In the first confirmation dialog box, click **Yes**. e. In the second confirmation dialog box, click **Yes** to permanently delete the tracking records.

Import time-tracking records

1. Access the **Time Tracking Detail** dialog box using one of the following methods:
   - Go to **Maintenance** --> **Time Tracking** --> **Time Tracking Detail**.
   - Access from the **Project Management** module as follows:
     a. Click **Project Schedule**.

        The **Select Project** dialog box opens.

     b. Select the project, use the arrow to move it to the **Included** box, and click **OK**.

        The **Project Schedule** dialog box opens.

     c. In the **Project Schedule** ribbon tab, select **Time Tracking Detail**.

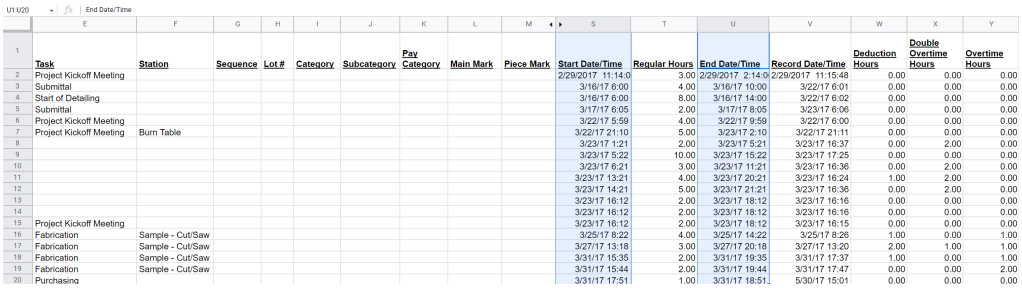
        Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Detail**.

   Alternative: On the **Gantt Chart** tab, select an item and right-click it. In the menu that opens, select **Time Tracking Detail**.
2. Click **Apply Filter**.

   The **Time Tracking Detail** dialog box opens.
3. In the **Time Tracking Detail** ribbon tab, select **Import Time Tracking Records - Excel**.
4. In the **Open** dialog box, select the file that you want to import.

   See below for an example. You can also find a sample file here.

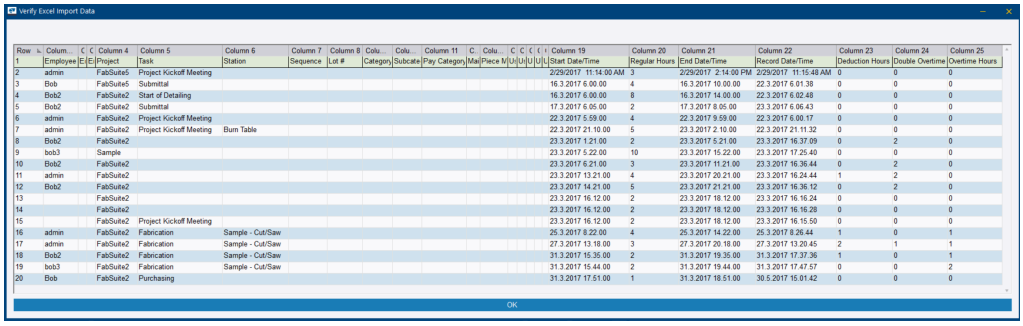
   The minimum required fields are the **Start Date/Time** and **End Date/Time**. If not included in the file, you are prompted to select a project.



	E	F	G	H	I	J	K	L	M	S	T	U	V	W	X	Y
1	Task	Station	Sequence	Lot #	Category	Subcategory	Pay Category	Main Mark	Piece Mark	Start Date/Time	Regular Hours	End Date/Time	Record Date/Time	Deduction Hours	Double Overtime Hours	Overtime Hours
2	Project Kickoff Meeting									2/29/2017 11:14:0	3.00	2/29/2017 2:14:0	2/29/2017 11:15:48	0.00	0.00	0.00
3	Submittal									3/16/17 6:00	4.00	3/16/17 10:00	3/22/17 6:01	0.00	0.00	0.00
4	Start of Detailing									3/16/17 6:00	8.00	3/16/17 14:00	3/22/17 6:02	0.00	0.00	0.00
5	Submittal									3/17/17 6:05	2.00	3/17/17 8:05	3/23/17 6:06	0.00	0.00	0.00
6	Project Kickoff Meeting									3/22/17 5:59	4.00	3/22/17 9:59	3/22/17 6:00	0.00	0.00	0.00
7	Project Kickoff Meeting	Burn Table								3/22/17 21:10	5.00	3/23/17 2:10	3/22/17 21:11	0.00	0.00	0.00
8										3/23/17 1:21	2.00	3/23/17 5:21	3/23/17 16:37	0.00	2.00	0.00
9										3/23/17 5:22	10.00	3/23/17 15:22	3/23/17 17:25	0.00	0.00	0.00
10										3/23/17 6:21	3.00	3/23/17 11:21	3/23/17 16:36	0.00	2.00	0.00
11										3/23/17 13:21	4.00	3/23/17 20:21	3/23/17 16:24	1.00	2.00	0.00
12										3/23/17 14:21	5.00	3/23/17 21:21	3/23/17 16:36	0.00	2.00	0.00
13										3/23/17 16:12	2.00	3/23/17 18:12	3/23/17 16:16	0.00	0.00	0.00
14										3/23/17 16:12	2.00	3/23/17 18:12	3/23/17 16:16	0.00	0.00	0.00
15	Project Kickoff Meeting									3/23/17 16:12	2.00	3/23/17 18:12	3/23/17 16:15	0.00	0.00	0.00
16	Fabrication	Sample - Cut/Saw								3/25/17 8:22	4.00	3/25/17 14:22	3/25/17 8:26	1.00	0.00	1.00
17	Fabrication	Sample - Cut/Saw								3/27/17 13:18	3.00	3/27/17 20:18	3/27/17 13:20	2.00	1.00	1.00
18	Fabrication	Sample - Cut/Saw								3/31/17 15:35	2.00	3/31/17 19:35	3/31/17 17:37	1.00	0.00	1.00
19	Fabrication	Sample - Cut/Saw								3/31/17 15:44	2.00	3/31/17 19:44	3/31/17 17:47	0.00	0.00	2.00
20	Purchasing									3/31/17 17:51	1.00	3/31/17 18:51	5/30/17 15:01	0.00	0.00	0.00

5. Double-click the file name.

The **Verify Excel Import Data** dialog box opens showing the column headings in the Excel file.



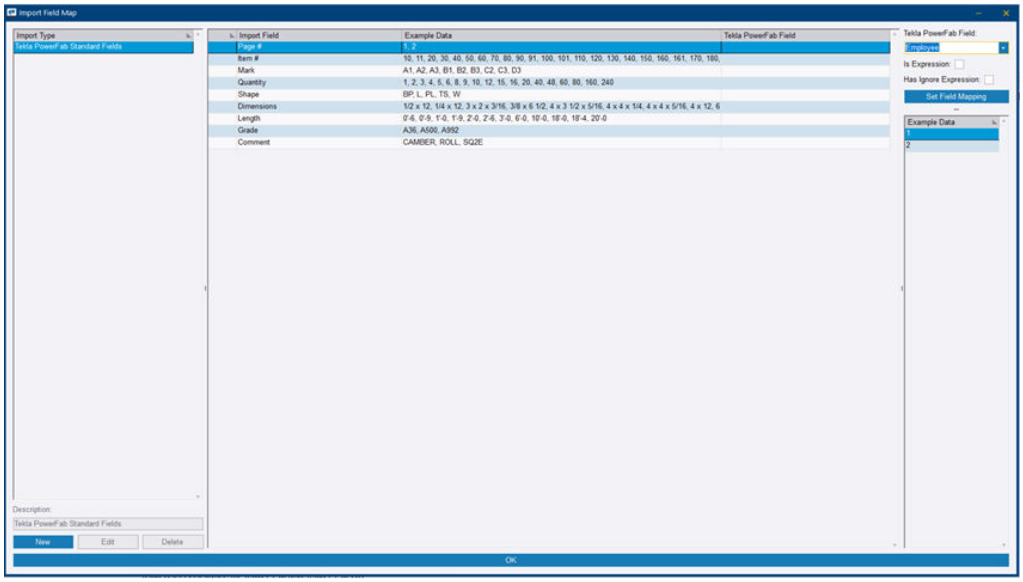
6. Verify the time-tracking information.

TIP If you want to exclude a row in Microsoft Excel, hold down **Alt** and double-click a row.

---

7. Click **OK**. The **Import Field Map** dialog box opens.
8. To set mapping, select an **Import Field** in the list, select the corresponding field in the **Tekla PowerFab Field** list, and click **Set Field Mapping**.

   You can also use regular expressions to map items to fields and to ignore records based on a pattern. For more information, see Regular expressions (page 824).



9. To import, click **OK**.

The import starts.

If you have not included the required fields, the program prompts you to select the items that you are going to import into. Select the correct item and click **Add** --> **Proceed With Import**.

If there are records that fail to import, the program asks if you want to export them to a separate text file that is saved to the **Log** directory.

10. When the import is completed, click **Open Import Log** and view the import details.
11. To close the import log and the **Import** dialog box, click the **Close** button (**X**).

View a time-tracking summary

1. In the **Project Schedule** dialog box, click the **Project Schedule** ribbon tab.
2. On the menu, select **Time Tracking Summary**.
3. In the upper-left corner of the **Time Tracking Filters** dialog box, select the fields that you want to view in the time-tracking summary.

   The selected fields will be columns in the summary.
4. Click the arrows on the right side of the fields in the **Start Date** and **End Date** sections, and select the minimum and maximum start and end dates in the calendars.
5. To only view and modify specific time-tracking records, click the available filtering buttons.
6. In the filter dialog box, click the arrow buttons to move the values that you want to include to the **Included** list.
7. Click **OK**.
8. Click **Apply Filter**.

   A dialog box opens, displaying a summary of the time-tracking records created.
9. View the time-tracking information.
10. Do any of the following:
    - To create a new time-tracking record, click **New**.

      For more information, see Add a time-tracking record.
    - To access the **Time Tracking Detail** dialog box, click **Time Tracking Detail**.

      For more information, see Modify, delete, or import time-tracking records.

- To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

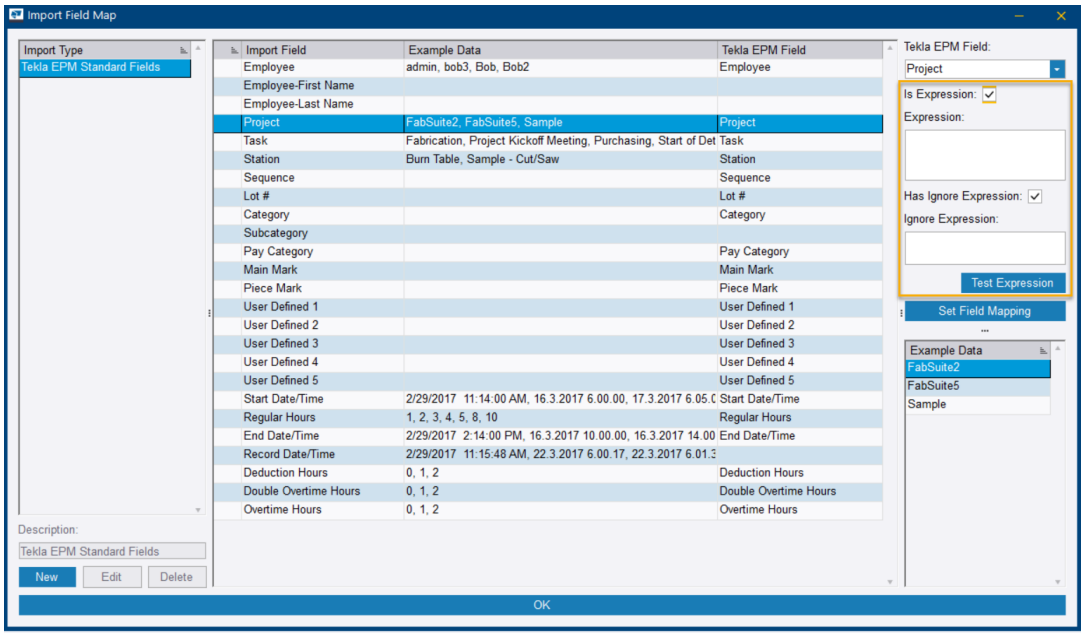
Define time-tracking settings (page 814)

Regular expressions

You can use regular expressions to specify a pattern for importing multiple fields or for ignoring records that you do not want to import.

For the syntax of regular expressions, see Regular Expressions.

The **Expression** option allows to extract multiple fields from a single value in the import by specifying a regular expression with the field names as placeholders in the expression.



If you have a column with the **Project #** category and a sub-category separated by slashes, for example, 22-012/CAT1/SUBCAT2, you can set the expression to `` `Project`/`Category`/`Sub-Category` ``. As a result, the individual values (**Project**=22-012, **Category**=CAT1, **Sub-Category**=SUBCAT2) are extracted and used for those fields.

You can use **Ignore Expression** to indicate that a row must be ignored.

If you have a column with the **Project #** category, and the data set includes job types that you do not want in Tekla PowerFab, for example, ones beginning with the letter M, you set the **Ignore Expression** to `M.*`. As a result, any time-tracking records projects beginning with an "M" are not be imported.

9.15 Manage contract and invoicing information

You can view the current contract and invoice information, add new contract details and invoices, or modify contract and invoice information in the **Contract & Invoicing** dialog box.

In the **Contract & Invoicing** dialog box, you can view the total sum of the contract, approved change orders included or not included in the contract, the sum that has been invoiced, and the sum remaining in the contract.

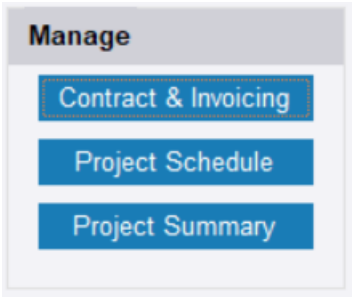
To access the contract and invoicing information, do the following steps:

1. Open a project management job.

   The **Project** dialog box opens.

2. Do either of the following:

   - On the **Project Settings** tab in the **Manage** area, click **Contract & Invoicing**.



   - On the **Summary** tab in the **Manage** area, click **Contract & Invoicing**.

   The **Contract & Invoicing** dialog box opens.



To work on contracts, see Manage contract information (page 825).

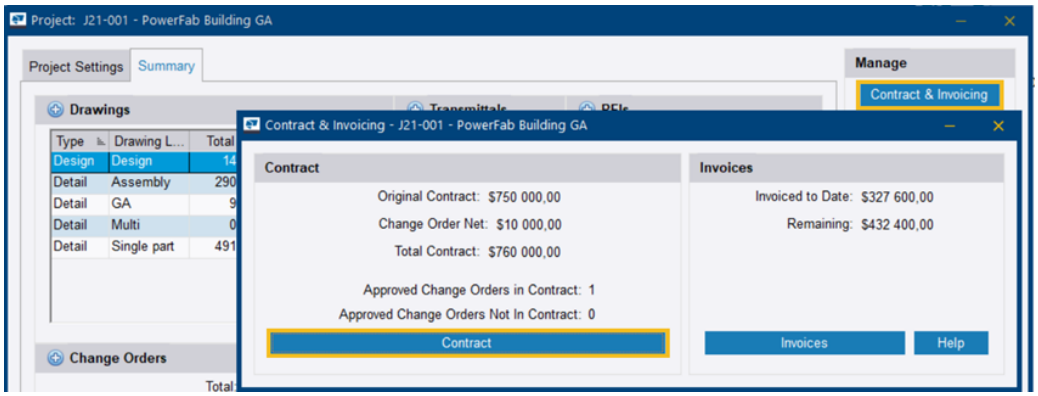
To work on invoices, see Manage invoices (page 830).

Manage contract information

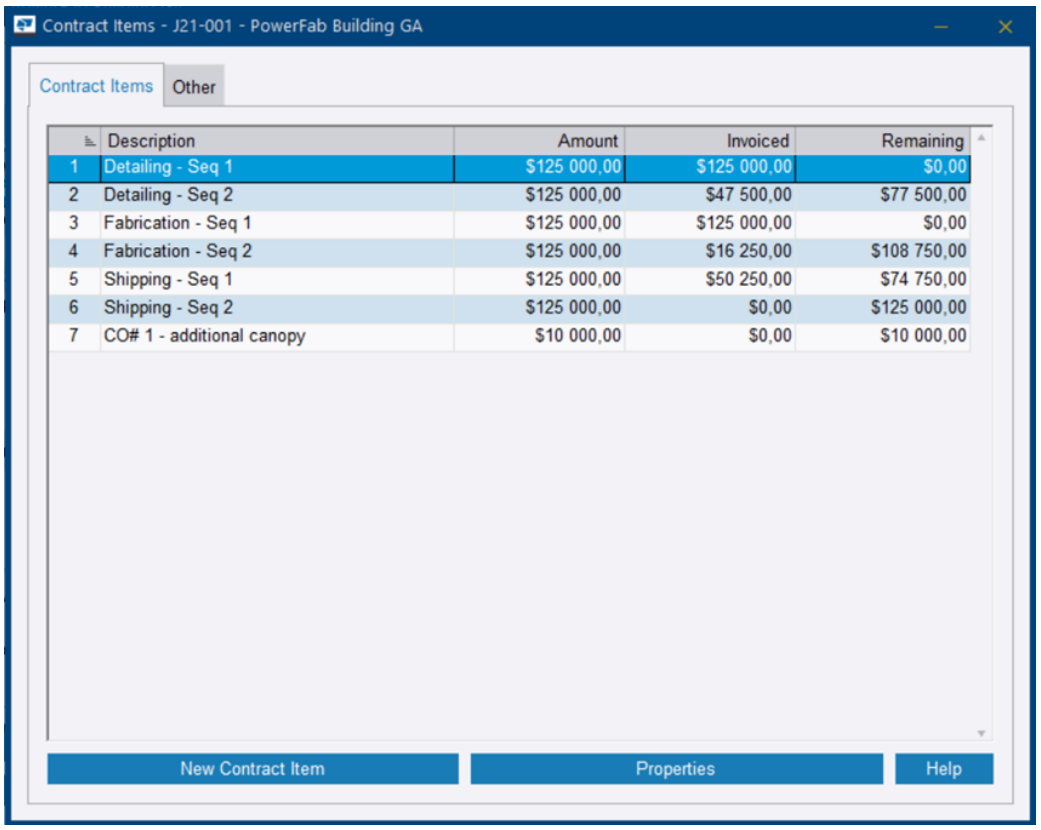
You can add new contract items to either the original contract or a change order in the **Contract Items** dialog box. Contract items represent parts of the contract, such as detailing or materials. You can also modify, move, or delete existing contract items. Furthermore, you can define and adjust the properties of the project contract.

To access the **Contract Items** dialog box, do the following:

- In the **Contract & Invoicing** dialog box, click **Contract**.



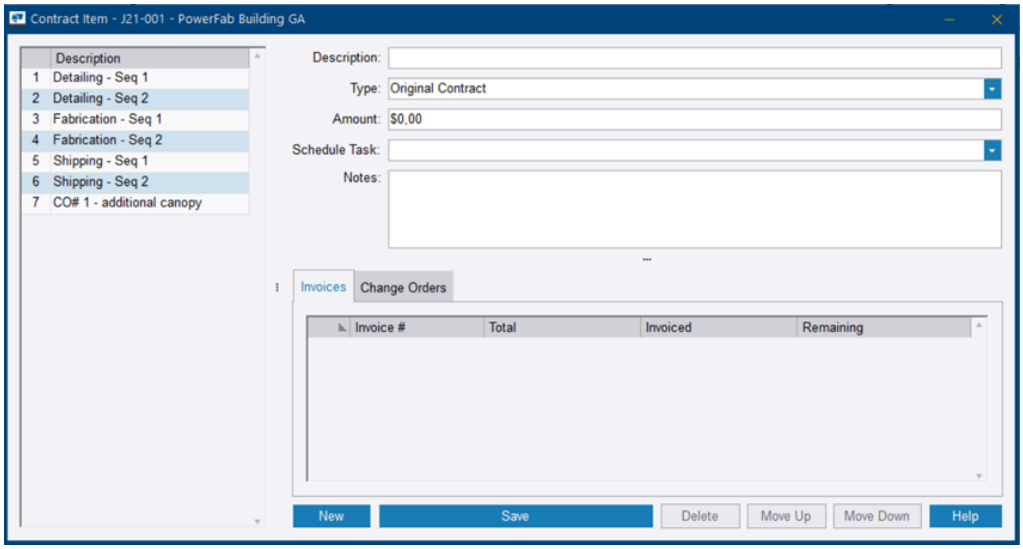
The **Contract Items** dialog box opens.



Add a contract item to the original contract

1. On the **Contract Items** tab of the **Contract Items** dialog box, click **New Contract Item**.

   The **Contract Item** dialog box opens.



2. In the **Description** field, type a description for the contract item.

   The description is used in project management reports.

3. For **Type**, select **Original Contract** in the drop-down list.

4. In the **Amount** field, type the costs of the contract item.

5. For **Schedule Task**, select the project schedule task that you want to link to the new contract item.

   When you link a contract item to a schedule task, Tekla PowerFab automatically finds the completion percentage of the contract item from the project schedule. This allows you to automatically calculate the amount to be invoiced based on the completion percentage.

6. In **Notes**, type any additional notes about the contract item.

7. Click **Save**.

The new contract item is added to the list on the left-hand pane.

The **Contract & Invoicing** dialog box now shows the totals for the contract and the sum to be invoiced.

You can now create invoices for the contract item. For more information, see Manage invoices (page 830).

All invoices related to the contract item are displayed in the **Invoices** section, below the contract item properties.

Add a contract item as a change order

1. On the **Contract Items** tab of the **Contract Items** dialog box, click **New Contract Item**. The **Contract Item** dialog box opens.
2. Type a description for the contract item.

   The description is used in project management reports.
3. For **Type**, select **Change Order**.
4. For **Schedule Task**, select the project schedule task that you want to link to the new contract item.

   When you link a contract item to a schedule task, Tekla PowerFab automatically finds the completion percentage of the contract item from the project schedule. This allows you to automatically calculate the amount to be invoiced based on the completion percentage.
5. Type any additional notes about the contract item.
6. Click **Save**.

   The new contract item is added to the list on the left-hand pane.
7. To define the costs of the contract item, go back to the **Project Management** dialog box, and click **Change Orders**.
8. In the **Change Orders** dialog box, select the change order that you want to link to the contract item.
9. Click the arrow on the right side of the **Contract Item** list, and select the new contract item.
10. Click **Edit** to save the changes.

When you return to the **Contract Item** dialog box, you can see that the costs of the selected change order are now used in the **Amount** field for the contract item. The selected change order is displayed in the **Change Orders** section, below the contract item properties.

The net amount of the change order will also be visible in the **Contract & Invoicing** dialog box.

Modify a contract item

1. On the left-hand pane of the **Contract Item** dialog box, select the contract item that you want to modify.
2. Modify the description, type, amount, schedule task, and notes.
3. Click **Save** to update the contract item properties.

Move a contract item up or down

1. On the left-hand pane of the **Contract Item** dialog box, select the contract item that you want to move.

2. Click the **Move Up** and **Move Down** buttons to move the item to the desired position.

Delete a contract item

Deleting a contract item is permanent and cannot be undone.

NOTE The contract items that have been invoiced cannot be deleted.

1. On the left-hand pane of the **Contract Item** dialog box, select the contract item that you want to delete.
2. Click **Delete**.
3. To permanently delete the contract item, click **Yes** in the confirmation dialog box.

Adjust the contract properties

1. In the **Contract Items** dialog box, click the **Other** tab to open it.
2. Adjust the contract properties:

Option	Description
Contract #	The contract number. The contract number is displayed in the standard **AIA G702** invoice form. Type the contract number in the **Contract #** field.
Contract For	A brief description of the contract, displayed in the standard **AIA G702** invoice form. Type a description in the **Contract For** field.
Retainage - Completed Work	The percentage of the invoiced completed work amount that is retained until the end of the project. The default value is 10%. Type a value in the **Retainage - Completed Work** field.
Stored Materials	The percentage of the invoiced stored materials amount that is retained until the end of the project. The default value is 10%. Type a value in the **Stored Materials** field.
Notes	Any additional notes or information about the contract.

3. Click **Save**.

   A message appears, telling you that the information has been saved.
4. Click **OK** to close the message.

See also

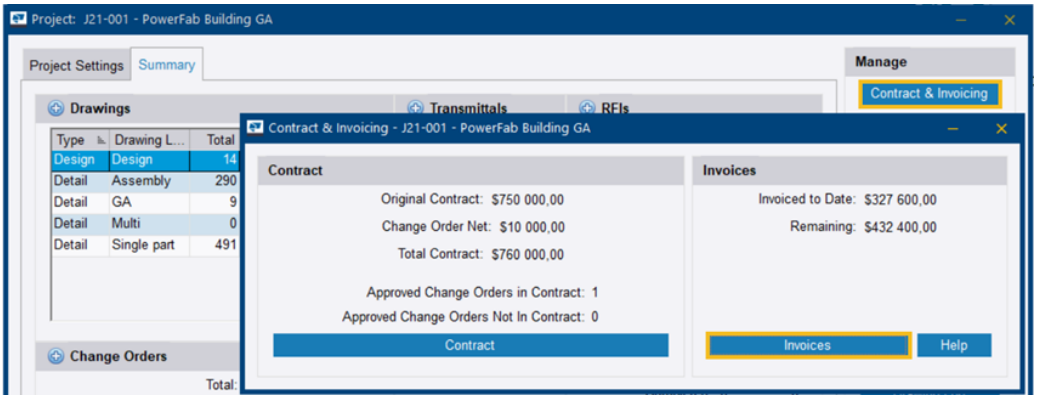
View and adjust the project schedule (page 776)

Manage invoices

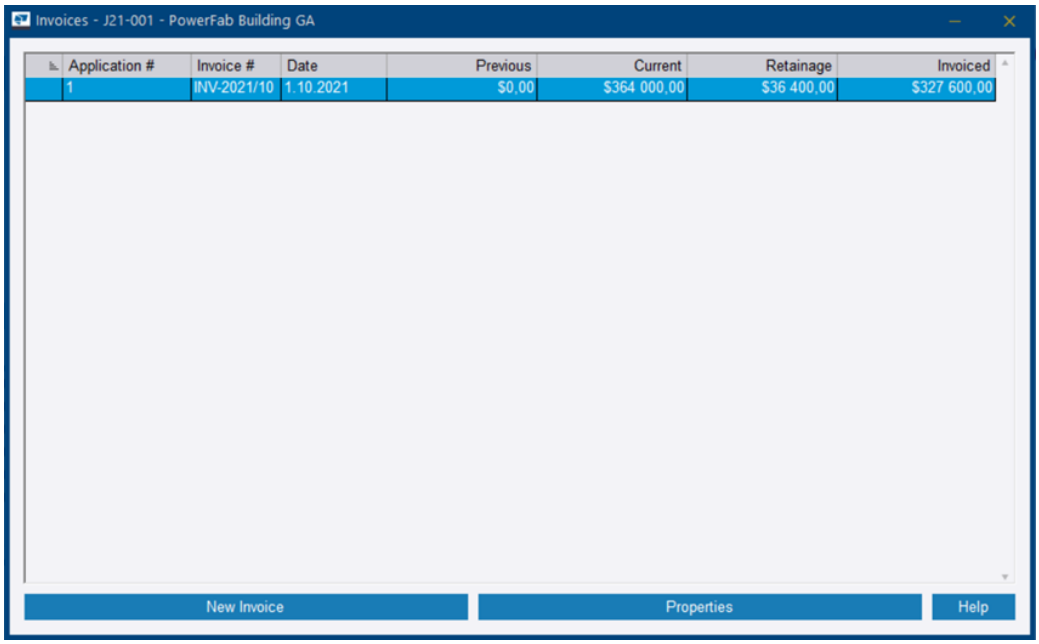
You can create new invoices for contract items, modify or delete existing invoices, and create standard invoice documents or invoice reports in the **Invoices** dialog box.

To access the **Invoices** dialog box, do the following:

- In the **Contract & Invoicing** dialog box, click **Invoices**.



The **Invoices** dialog box opens.



Create an invoice

1. In the **Invoices** dialog box, click **New Invoice**.
2. At the top of the **Invoices** dialog box, define the invoice properties:

   Properties marked with an asterisk (*) are mandatory information.

Option	Description
Application # *	An identification number used to identify the invoice on the **AIA G702** and **AIA G703** reports. When creating a new invoice, the **Application #** field is automatically populated with the next available number. If necessary, type another number in the **Application #** field.
Invoice #	The invoice number used in your accounting software. Type the invoice number in the **Invoice #** field.
Date *	The date when the invoice was created. Click the arrow on the right side of the **Date** field, and select a date in the calendar.
Period Start *, **End** *	Dates that determine the date range during which the worked that is billed on the invoice was completed. Click the arrows on the right side of the **Period Start** and **End** fields, and select the start and end dates in the calendars.
Retainage - Completed Work	The retainage percent applied to the completed work. Type a value in the **Retainage - Completed Work** field. Note that when you create the final invoice, the value needs to be set to `0%`, so that the retainage withheld from the previous invoices can be billed.
Stored Materials	The retainage percent applied to the stored materials. Type a value in the **Stored Materials** field. Note that when you create the final invoice, the value needs to be set to `0%`, so that the retainage withheld from the previous invoices can be billed.

Option	Description
Created By *	The Tekla PowerFab user who is creating the invoice. When creating a new invoice, the default user is the one that is currently logged in to Tekla PowerFab on the current workstation. If necessary, click the arrow on the right side of the **Created By** list and select another user.
Invoice To *	The company and contact person that will receive the invoice. Click the arrow on the right side of the leftmost **Invoice To** list and select the company. Click the arrow on the right side of the rightmost **Invoice To** list and select the contact person.
Notes	Any additional notes or information about the invoice. Type any information in the **Notes** field.

3. In the list in the middle of the **Invoices** dialog box, select the contract item for which you want to create the invoice.

   Note that the properties at the bottom of the dialog box change according to the selected contract item. If the contract item is linked to a schedule task, the **% Complete** field is populated automatically.

4. Do one of the following:

   - To apply the sum that is to be invoiced to the completed work according to the completion percentage, click **Apply to Completed Work**.
   - To apply the sum that is to be invoiced to the stored materials according to the completion percentage, click **Apply to Stored Materials**.
   - To manually determine the sum to be invoiced and apply it to the completed work or the stored materials, type the sum in either the **Current - Completed Work** field or the **Stored Materials** field.
   - To set the sum to the full amount remaining, double-click the **Current - Completed Work** field or the **Stored Materials** field.

   The next material in the list of contract items is selected.

   If necessary, to add the currently selected contract item to the invoice, repeat step 4.

5. Click **Save** to save the invoice.

Modify an invoice

1. In the **Invoices** dialog box, select the invoice that you want to modify.
2. Click **Properties**.
3. At the top of the **Invoices** dialog box, modify the invoice properties:

Option	Description
Application #	An identification number used to identify the invoice on the **AIA G702** and **AIA G703** reports. When creating a new invoice, the **Application #** field is automatically populated with the next available number. If necessary, type another number in the **Application #** field.
Invoice #	The invoice number used in your accounting software. Type the invoice number in the **Invoice #** field.
Date	The date when the invoice was created. Click the arrow on the right side of the **Date** field, and select a date in the calendar.
Period Start, **End**	Dates that determine the date range during which the work that is billed on the invoice was completed. Click the arrows on the right side of the **Period Start** and **End** fields, and select the start and end dates in the calendars.
Retainage - Completed Work	The retainage percent applied to the completed work. Type a value in the **Retainage - Completed Work** field. Note that when you create the final invoice, the value needs to be set to `0%`, so that the retainage withheld from the previous invoices can be billed.
Stored Materials	The retainage percent applied to the stored materials. Type a value in the **Stored Materials** field. Note that when you create the final invoice, the value needs to be set to `0%`, so that the retainage withheld from the previous invoices can be billed.

Option	Description
Created By	The Tekla PowerFab user who is creating the invoice. When creating a new invoice, the default user is the one that is currently logged in to Tekla PowerFab on the current workstation. If necessary, click the arrow on the right side of the **Created By** list and select another user.
Invoice To	The company and contact person that will receive the invoice. Click the arrow on the right side of the leftmost **Invoice To** list and select the company. Click the arrow on the right side of the rightmost **Invoice To** list and select the contact person.
Notes	Any additional notes or information about the invoice. Type any information in the **Notes** field.

4. If necessary, do either of the following:
   - To change if the invoiced amount is applied to the completed work or the stored materials, click either **Apply to Completed Work** or **Apply to Stored Materials**.
   - To manually change the amount to be invoiced, type a new value in the **Current - Completed Work** or the **Stored Materials** field.
5. Click **Save** to save the invoice.

Delete an invoice

Deleting an invoice is permanent and cannot be undone.

1. In the **Invoices** dialog box, select the invoice that you want to delete.
2. Click **Properties**.
3. In the lower-right corner of the **Invoices** dialog box, click **Delete**.
4. To permanently delete the invoice, click **Yes** in the confirmation dialog box.

View, print, or export invoice documents or invoice reports

1. In the **Invoices** dialog box, click the **Invoice** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.

3. In the **Report Selection** dialog box, select the desired invoice report.

   The **AIA G702** and **AIA G703** reports are standard forms for creating invoices.

4. Do any of the following:

To	Do this
View the invoice document or invoice report	• In the **Report Selection** dialog box, click **View**. The selected report or document opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the invoice document or invoice report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. Click **Print**. c. To confirm printing the document or report, click **Yes** in the confirmation dialog box. d. In the **Select Printer** dialog box, click a printer to select it. e. Click **OK**.
Export the invoice document or invoice report	a. In the **Report Selection** dialog box, click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Modify the file name as needed. e. Browse to the location where you want to save the exported file, and click **Save**. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. In the **Report Selection** dialog box, click **Export**.

5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

9.16 Import and export project management information

You can import drawing status information as an XML file, or export the production status to an XML file or to Trimble Connect.

See also

Import drawing status information (page 836)

Export the production status to Tekla Structures or Advance Steel (page 1064)

Export the production status to SDS/2 (page 1065)

Publish the production status to Trimble Connect (page 838)

Import drawing status information

Use the **Import** command to import drawing status from an XML file to Tekla PowerFab.

1. In the **Project Management** dialog box, click the **Project Management** ribbon tab.
2. On the menu, select **Import**.
3. In the **Open** dialog box, browse to find the XML file that you want to import.
4. Click the XML file to select it.
5. Click **Open**.
6. In the **Import Tekla PowerFab Exchange File** dialog box, view the import status.
7. When the import process is completed, click the **Close** button to close the **Import Tekla PowerFab Exchange File** dialog box.

Export the production status to Tekla Structures or Advance Steel

You can export the production status of the current job as an XML file to either Tekla Structures or Advance Steel.

The menu options for Advance Steel can be found only if the import file is from that software.

1. In the **Project Management** dialog box, click the **Project Management** ribbon tab.
2. On the menu, select either of the following:

- **Data Exchange** --> **Export Production Status to XML - Tekla Structures**
- **Data Exchange** --> **Export Production Status to XML - Advance Steel**

3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

The production status is saved in the selected location as an XML file.

Export the production status to SDS/2

You can export the production status of the current job to SDS/2 as an XML file.

The menu options for SDS/2 can be found only if the import file is from that software.

1. In the **Project Management** dialog box, click the **Project Management** ribbon tab.
2. On the menu, select **Data Exchange** --> **Export Production Status to XML - SDS/2** .
3. In the **SDS/2 Settings** dialog box, define SDS/2 import settings as follows:
   a. Click **New Field**.
   b. In the **SDS/2 Object** list, select the SDS/2 object type.
   c. In the **SDS/2 Category** list, select a software solution for member properties.
   d. In the **SDS/2 Field** list, select the field to which the information is exported in SDS/2.
   e. In the **Tekla PowerFab Field** list, select the Tekla PowerFab field from which the information is exported to the selected SDS/2 field.
   f. Click **New Field**.

   Repeat steps a to f to match all necessary SDS/2 and Tekla PowerFab fields to each other.

   If you want to save the SDS/2 import settings for later use, type a description for the settings in the **Description** field, and click **Save**.
4. Click **OK**.

5. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
6. If necessary, change the file name.
7. Click **Save**.

Publish the production status to Trimble Connect

Use the **Publish Status to Trimble Connect** command to update the status of a production control job manually to Trimble Connect.

You can also create a **Publish to Trimble Connect** automated event (page 208) to update the production status to Trimble Connect automatically.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Export** --> **Publish Status to Trimble Connect** .

The production status is updated to Trimble Connect.

9.17 View, print, or export project management reports

You can create various reports containing information about the current project management job. For example, you can create a list of transmittals, a notice informing the recipient about overdue drawings, or a standard invoice.

Create a project management report

1. In the **Project Management** dialog box, click the **Project Management** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include specific items in the report, in the **Project Management Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include in the report to the **Included** list.
   - Type the maximum and minimum values for the items that you want to include in the report.
5. Click **OK**.

6. At the bottom of the **Project Management Report Filters** dialog box, select checkboxes depending on which kind of reports you want to create.

   For example, to only create drawing reports, select the **Drawings** checkbox only.
7. Click **Make Report**.
8. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

View the report

In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

See also

Customize reports (page 141)

View, print, or export the project summary

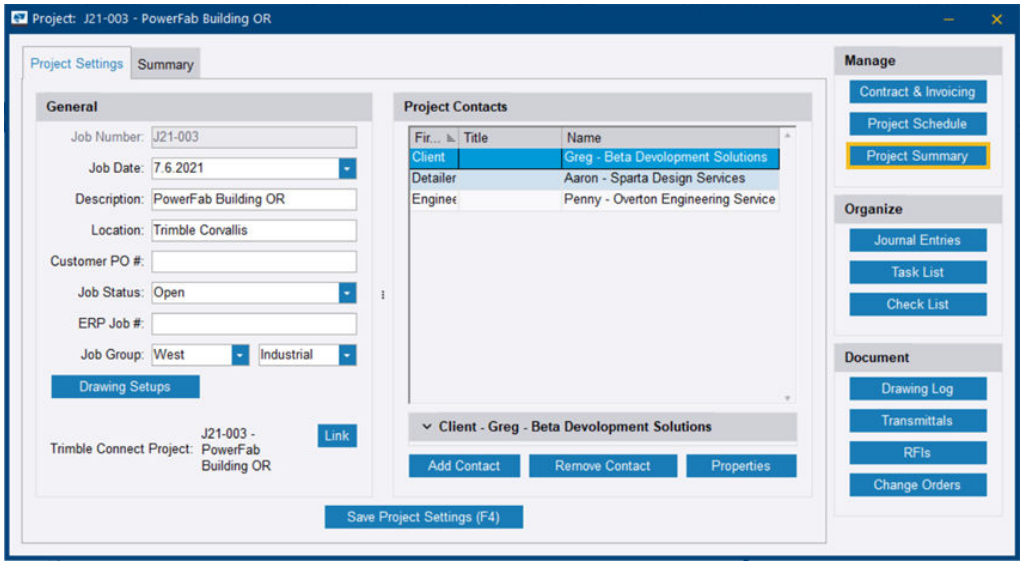
Use the **Project Summary** command to view the project summary report of project management jobs that are linked to one or more of the following modules: **Production Control**, **Combining**, **Estimating**, and **Purchasing**.

By creating the project summary, you can:

- Compare the materials used in **Production Control** with the estimated materials and the pre-purchased materials in **Combining**.
- View the total values for purchased materials, materials moved from other jobs, and materials moved to scrap.
- View the current production status: see which materials are listed on a purchase order and have not yet been received, which materials are in stock but have not been processed, and which have been charged to the job and taken from stock.

Create a project summary report

1. In the upper-right corner of the **Project Management** dialog box, click **Project Summary**.



   The **Report Selection** dialog box opens.

2. Select the desired project summary report.

The **Full Project Summary** report provides a snapshot of the current status of the project and the module components that are currently linked to each other. It contains:

- A shape summary, which allows you to compare materials by shape. The job progress is displayed by weight and cost. All items entered into the bill of materials in **Production Control** appear in the **Production Control** column.
- A purchase order summary, which shows all the purchase orders associated with the project management jobs.
- An inventory transfer summary, which shows materials transferred from a different job into the current project management job.
- The production and shipping status summary report, which shows the quantity of pieces that have been processed. The items are sorted by the route assigned in **Production Control**. The production and shipping status information is automatically updated when changes are made.

The project summary reports also have reports for all the breakdown areas, but these reports are not displayed by default. To customize the displayed reports, click **Edit Report Types** in the **Report Selection** dialog box.

View the project summary report

In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the project summary report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the project summary report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.

4. Browse to the location where you want to save the exported file, and click **Save**.
5. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
6. To open the file after exporting it, select the **Open Exported Document** checkbox.
7. In the **Report Selection** dialog box, click **Export**.

10 Production Control

The **Production Control** module handles the entire fabrication process: pulling the material from **Purchasing** and inventory cut lists, tracking the production in the shop, filing quality control reports, and shipping materials.

Before you start working in the **Production Control** module, remember to adjust the production control settings according to your needs. For more information, see Set up the Production Control module (page 843).

10.1 Set up the Production Control module

Before you start to manage the fabrication process in the **Production Control** module, we recommend that you take the time to customize the properties and items according to your needs. Once you have created and modified all necessary items and settings, working in the **Production Control** module is easier and more efficient.

When setting up the **Production Control** module, you can:

- Define the company standard settings used in the **Production Control** module.
- Modify the available display and input fields in the **Production Control** dialog box.
- Modify the menu setup of the **Production Control** menu and create shortcuts for menu items.
- Set up stations and routes for piece tracking.
- Enter information for piece tracking and loading trucks.
- View production status reports for either a single job or a group of jobs.
- View and print cut lists.
- View and print station summary reports and shipping lists.
- View and print different kinds of production control and purchasing reports for either a single job or a group of jobs.

Define company standard settings for Production Control

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab..
2. On the menu, select **Production Control** --> **Company Standards**.

   The **Company Standards** dialog box opens.
3. Modify the settings on the various tabs as needed.

You can find further company standard settings by clicking the buttons.

Define general settings

1. On the **General** tab, modify the following properties:

Option	Description
Job # Increment	Allows you to select the default option for automatic job numbering. The options are: • **Increment from Last Job #**: When you create a new job, Tekla PowerFab uses the next available job number after the latest job number created. • **Increment from Largest Job #**: Tekla PowerFab uses the next available job number after the largest job number created. • **Don't Increment**: Automatic job numbering is not used. You can modify the job number when you create a new job.
Keep Job Selection Screen Open	When selected, the **Select <Module> Job** dialog box stays open after a job has been opened.
Open to Filter Selection	When selected, the **<Module> Filters** dialog box automatically opens when you open a job. In the dialog box, you can set filters to only show the items that you want to see in the job. The job opens when you have set the filters.
Job # Regular Expression	Allows the use of regular expressions to enforce a desired format for the job numbers. For more details on regular expressions, click **Regular Expression Help.**
When changes to PDC break links to combined INV material	Allows you to select how Tekla PowerFab handles situations where a material link is broken between

Option	Description
	Production Control and **Inventory** while importing a revised or modified bill of materials. Tekla PowerFab automatically unlinks all changed material. This prevents cutting materials to incorrect lengths. The options are: • **Prompt to Uncombine the Unlinked INV Material**: Tekla PowerFab asks the user if the materials should be immediately uncombined or not, which is the first step of automatically correcting cut lists. This is the default option. • **Always Uncombine the Unlinked INV Material**: Tekla PowerFab automatically uncombines the unlinked materials. • **Never Uncombine the Unlinked INV Material**: Tekla PowerFab does not uncombine the unlinked material, but leaves the combining result as is. Instead, the user should perform the necessary corrections manually. Click the arrow on the right side of **When changes to PDC break links to combined INV material** field, and click a suitable option in the list to select it.
TFS - Drop Job Reserve	Allows you to select how Tekla PowerFab handles drop material when a take from stock operation has been performed. Note that you can select a different option for an individual job, if necessary. The options are: • **Keep reserved for the TFS job**: Tekla PowerFab keeps all drop material saved for the job until you unreserve it manually. This is the default option. • **Prompt for the new job reserve**: In the **Cut Lists** dialog box, Tekla PowerFab asks you if you want to reserve the drop material for a job. • **Prompt to unreserve**: Tekla PowerFab asks you if you want to unreserve the drop material or not. • **Always unreserve**: Tekla PowerFab automatically unreserves all drop material and moves it to open inventory, immediately

Option	Description
	available for use. Scrap length materials go to inventory history.
Allow Cut List Grade Substitution	When selected, Tekla PowerFab can use inventory stock materials with another material grade in cut lists. Note that Tekla PowerFab only allows grade substitutions that have previously been set up in the **Shape/Grade/Size Maintenance** dialog box. For more information, see Add grade substitutions (page 324).
Warn when creating a cut list if parts are missing CNC files	When selected, Tekla PowerFab alerts you when saving a cut list that contains parts without CNC files.
Cut List Screens - Show Date/Time Changed	When selected, the **Cut Lists** dialog box shows the date and time when the cut lists were last changed.
Allow manual alteration of external nest remnants	When selected, allows the user to manually override the remnant information that would otherwise come in from external nesting integrations.
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).

2. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define input settings

On the **Input Settings** tab, select how Tekla PowerFab interprets and displays the information in the **Production Control** module, if the information is from an imported bill of materials, or directly entered in the **Production Control** dialog box.

1. On the **Input Settings** tab, modify the following properties.

Option	Description
Main Mark Input Type	Allows you to select the input format for main marks. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.

Option	Description
Piece Mark Input Type	Allows you to select the input format for piece marks. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Drawing Number Input Type	Allows you to select the input format for drawing numbers. Note that the input format of drawing numbers in a production control job needs to match the input format set in the linked project management job. Otherwise, the drawings will not be available in the **Production Control** module or in Tekla PowerFab Go. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Sequence Input Type	Allows you to select the input format for sequences. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Use Lot Numbers	When selected, you can divide a sequence or phase into subcategories within a production job by using lot numbers. It is highly recommended to select the **Use Lot Numbers** option. Note that selecting or clearing the **Use Lot Numbers** checkbox only applies to new production control jobs automatically. If necessary, the **Use Lot Numbers** checkbox can be manually selected or cleared for existing jobs as well.
Main Piece Case	Allows you to select uppercase or lowercase letters, or both, for main mark numbers. This makes recognizing the main pieces easier.
Accessory Piece Case	Allows you to select uppercase or lowercase letters, or both, for piece mark numbers. This makes recognizing the piece marks easier.
Main Member Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Main Member Instance Tracking** checkbox, instance tracking will be activated for all

Option	Description
	new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of main piece marks for each production job individually.
Accessory Part Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Accessory Part Instance Tracking** checkbox, instance tracking will be activated for all new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of piece mark items for each production job individually.
Piece Mark Force Same Info	When selected, the same information is forced to accessories with the same piece marks. Selecting the **Piece Mark Force Same Info** checkbox prevents adding or importing items with the same piece mark but different material information to the production control job. Note that the **Piece Mark Force Same Info** option is connected to the **Edit Line Item - Update accessories with the same piece mark** list. You cannot select an option in the **Edit Line Item - Update accessories with the same piece mark** unless the **Piece Mark Force Same Info** checkbox is selected.
Edit Line Item - Update accessories with the same piece mark	Allows you to select how Tekla PowerFab accessories with the same piece mark are updated when you make changes to a line item. The options are: • **Prompt to update the other line items**: Tekla PowerFab alerts the user that there are other accessories in the job that may need to be updated, and allows you to update the other accessories. This is the default option. • **Always update the other line items**: Tekla PowerFab automatically updates the other accessories to match the changes you made. • **Never update the other line items**: Tekla PowerFab never updates the other accessories to match the changes you made.
AutoCalc Drawing Number	When selected, Tekla PowerFab enters a drawing number into the drawing number field based on

Option	Description
	the main mark. This option works correctly if the first number of each shop detail drawing main piece is the drawing number. If the marking system that you use does not have the drawing number as the first number of the main mark, do not select the **AutoCalc Drawing Number** checkbox.
Default Finish	The default finish for items. The available finish options are set in the **Finish Maintenance** dialog box. You can change the finish for each main mark item in a production control job. The finish of the main mark item is also applied to all of the included accessories. Click the arrow on the right side of **Default Finish** field, and click a suitable default option in the list to select it.
Trailer Capacity	The maximum weight that can be added on a trailer. The trailer capacity can be changed for individual loads, if needed. You can also modify the capacities of specific trailers in the **Load Tracking Settings** dialog box. For more information on the load tracking settings, see Define load tracking settings (page 862).
Piece Tracking by Time	When selected, allows you to make piece tracking entries in that include the completion time, so that you can tell in which shift an item was completed. The completion time is also visible in piece tracking reports.
Production Code - Default Aggregate Units	Defines the default units of measure for labor items within the production codes.

2. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define import settings

On the **Import Settings** tab, set the default settings used when importing a bill of materials into **Production Control**.

1. On the **Import Settings** tab, modify the follolwing properties:

Option	Description
When assembly has no part with a piece mark matching the main mark	Allows you to select how Tekla PowerFab applies comment lines in rare cases where a bill of materials is imported to **Production Control** and Tekla PowerFab cannot identify a main mark. The options are: • **Don't add a comment line as the main piece**: Tekla PowerFab never adds the comment line as the main piece. This is the default option because most often, the main mark item in the bill of materials is the largest single piece, whereas the piece marks are the items that attach to the main piece. • **Prompt to add a comment line as the main piece**: Tekla PowerFab asks you if you want to add a comment line as the main piece. This allows you to use the name of the item for main marks instead of the material size. • **Always add a comment line as the main piece**: Tekla PowerFab always adds a comment line as the main piece. This allows you to use the name of the item for main marks instead of the material size.
When there are validation errors	Allows you to select how Tekla PowerFab handles validation errors regarding shop detail drawings when a bill of materials is imported to **Production Control**. The options are: • **Continue the import without prompting the user**: Tekla PowerFab continues the import process without notifying you about the validation errors. However, you can view the validation errors in the import log. This is the default option, and it is useful when the user performing the import process does not need to know or make decisions on validation errors. • **Prompt the user to continue the import**: Tekla PowerFab asks you how the validation errors should be handled while continuing the import.

Option	Description
	• **Don't continue the import**: Tekla PowerFab stops the import immediately when a validation error is found. The user can then review the drawings for issues by themselves.
Use as Production Code	Allows you to select if you want to use assembly main marks, piece marks, drawing descriptions, assembly descriptions, reference numbers, or a combination of drawing and piece mark or main mark and piece mark, or none of the above as product codes. Click the arrow on the right side of the **Use as Production Code** field, and select a suitable option in the list.
Prompt to confirm import fields	When selected, Tekla PowerFab asks you to confirm the import fields while importing a bill of material into **Production Control**. By selecting the **Prompt to confirm import fields** checkbox, you can exclude any fields whose values you do not want to import.
Show supplemental import file selection (KISS, CIS/2, BIF)	When selected, Tekla PowerFab allows you to import multiple supplementary files, such as bolt lists, from a detailing software.

2. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define report settings

1. On the **Report Settings** tab, modify the following properties:

Option	Description
Prompt for weight type (net/gross)	Select if you want to select whether to use net or gross weight of materials for each report. The gross weight is the system weight as dimensioned in Tekla PowerFab, whereas the net weight is loaded from the CNC files added for items. If CNC files have not been added for the items included in the report, net weight cannot be used in the report. Gross weight is used instead.

Option	Description
Cut List - Prompt to split cutting details to a quantity of one	Select if you want to create cut list reports that show each quantity of inventory listed separately. If the checkbox is cleared, multiple inventory pieces with the same exact cutting details are shown as a single inventory item in reports.
Default	Select if you want to split cutting details to the quantity of one by default.

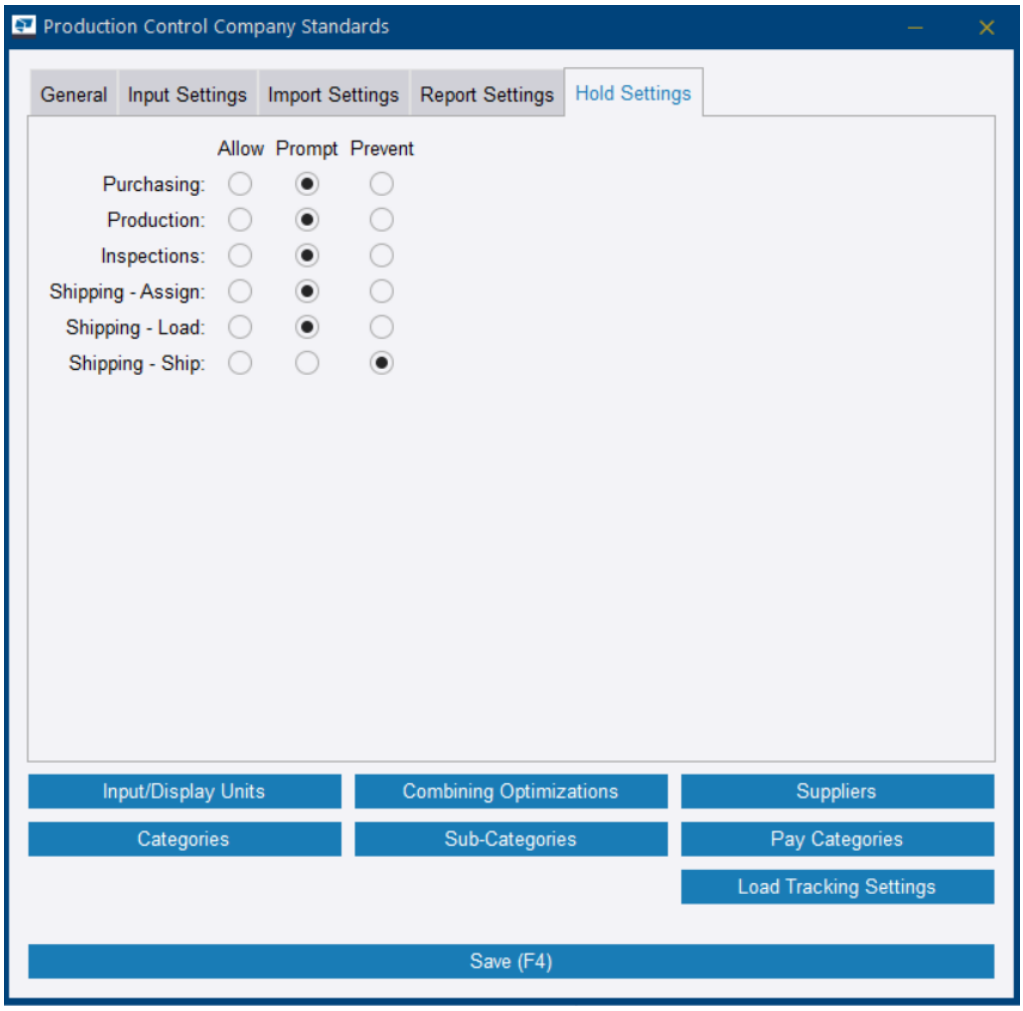
Define settings for drawings on hold

You can flag drawings that are put on hold for Production and Purchasing.

When flagged for Production, people working on assemblies can stop and wait to see if changes are coming.

When flagged for Purchasing, you can make sure that materials from drawings that have been put on hold in the requisition stage do not move forward in the process.

1. Go to **Maintenance** --> **Production Control** --> **Company Standards**.
2. Go to the **Hold Settings** tab.



Allow: The system keeps acting as usual even if drawings are on hold.

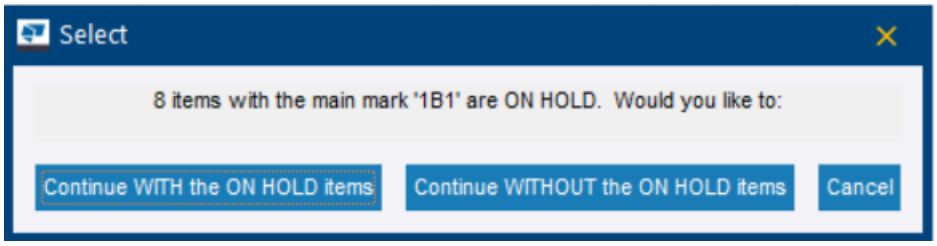
Prompt: Gives you options for further action to select from

Prevent: Prevents the drawings on hold from moving forward

3. Select the phase which you want to adjust and select the suitable hold setting.

   Example:

   A combining run when **Prompt** is selected for **Production**:



4. **Click Save**.

See also

Manage approval statuses for drawings (page 875)

Manage drawings (page 694)

Define default input and display units for Production Control

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

---

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
3. Select the measurement system and the units of measurement on the drop-down menus.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.
5. Click **Save**.

The input and display units are saved as defaults.

You can also adjust the units used in individual jobs. For more information, see Modify a production control job (page 934).

See also

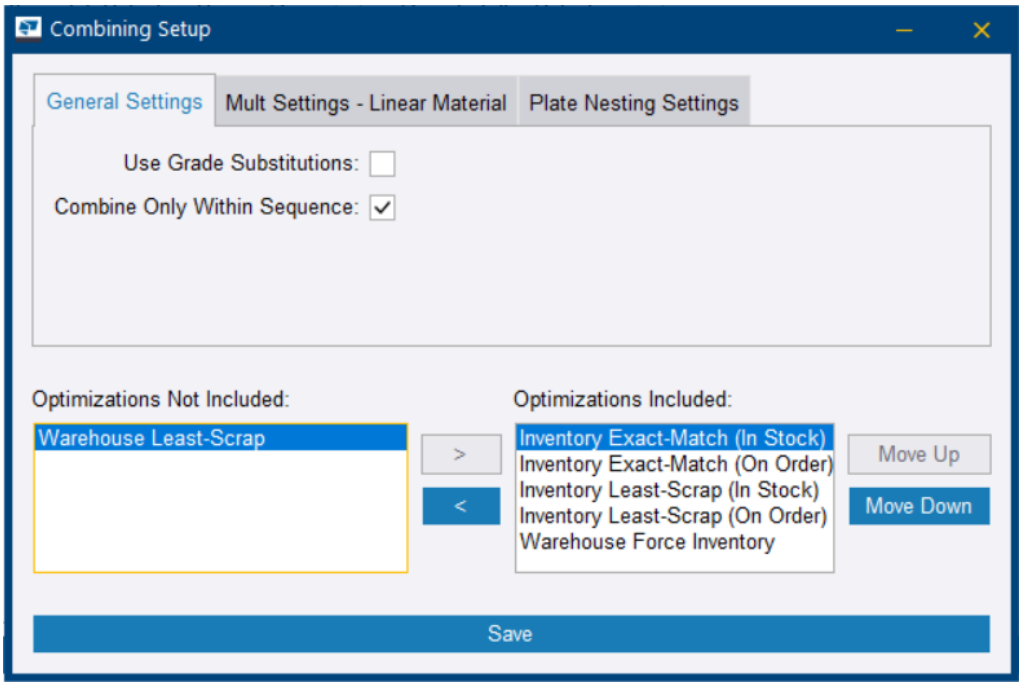
Define company standard settings for Production Control (page 844)

Define default combining optimizations for Production Control

You can define company-level settings for material optimization.

1. To define company-level settings, go to **Maintenance** --> **<Module> Company Standards**.
2. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



3. Modify the settings on the various tabs as needed.

See also

Combine materials in the Production Control module (page 996)

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Combine Only Within Sequence	Select if you want to mult and nest only materials that are in the same

Option	Description
	sequence onto the inventory items or purchasable lengths. The selection of **Combine Only Within Sequence** uses additional material for each sequence. This may be desirable in some cases, but it may also lead to excess drop amounts.
Optimizations Not Included/ Optimizations Included	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Multing Software	Select the multing software that you are using.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Plate Nesting Software	Select the software that you are using.
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut**

Option	Description
	Along Width: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define company standard settings for Production Control (page 844)

Define combining optimizations for a production control job (page 917)

Troubleshoot combining issues (page 1235)

Define default suppliers for Production Control

You can define default suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material. This way, you can use material pricing from the selected supplier pricing data sets for each material group.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Suppliers**.

   The **Suppliers** dialog box opens.
3. Select suppliers for each material group on the drop-down lists.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the supplier settings are updated.

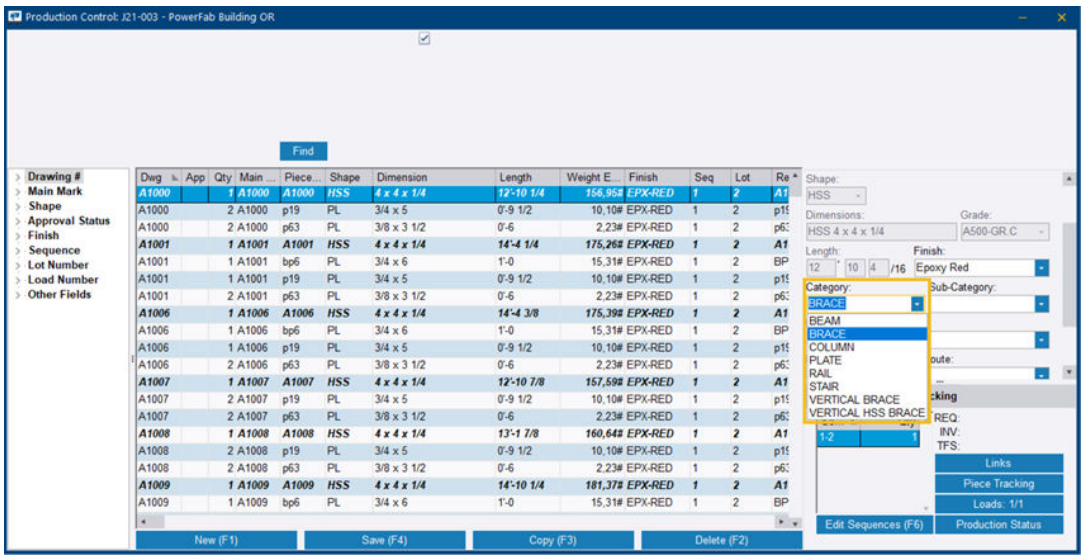
See also

Define company standard settings for Production Control (page 844)

Define suppliers for a production control job (page 921)

Define default categories and sub-categories for Production Control

Categories and subcategories are breakdown items used in reporting and scheduling. You can create and use them for sorting, tracking, and reporting. Categories also help you to quickly identify the items in your jobs. For example, you can categorize jobs by fabrication type.



See also Customize input fields (page 126).

To further filter items, you can also add subcategories.

TIP You can also create new categories and subcategories manually when creating or modifying a job.

Manage categories
You can add new categories and modify and delete existing categories

Categories are considered a main breakdown item for project summaries and project schedules.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Categories**.

   The **Company Categories** dialog box opens.

3. Modify the settings as needed.

To	Do this
Add a new category manually	a. Click **New**. b. In the **Category** field, type a name for the category. For example, `Skewed beam`. c. Click **Add**. The new category is added to the **Category** list. Repeat steps a to c for all new categories.
Modify a category	a. Click a category name. b. Click **Edit**, change the category name, and click **Edit** again.
Delete a category	a. Click a category name. b. Click **Delete**. c. Click **Yes** to confirm deleting the category.

4. Close the **Company Categories** dialog box.
5. In the **<Module> Company Standards** dialog box, click **Save** to update the categories.

The changes in categories are saved.

Manage subcategories
You can add new subcategories and modify and delete existing subcategories

Subcategories are considered a main breakdown item for project summaries and project schedules.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click the **Sub-Categories** button.

   The **Company Sub-Categories** dialog box opens.
3. To add add a subcategory, click **New**.
4. In the **Sub-Category** field, type a name for the subcategory.
5. Click **Add**.

   The new subcategory is added to the **Sub-Category** list.

   Repeat steps 1 to 4 for all new subcategories.
6. To modify or delete a subcategory, click a subcategory in the **Company Categories** dialog box to select it and do either of the following:
   - Click **Edit**, change the subcategory name, and click **Edit** again.
   - Click **Delete** and then, click **Yes** to confirm deleting the subcategory.
7. Close the **Company Sub-Categories** dialog box.
8. In the **<Module> Company Standards** dialog box, click **Save** to update the subcategories.

The changes in subcategories are saved.

Define default pay categories for Production Control

Pay categories are breakdown items used in reporting and scheduling. Create pay categories to assign unit costs to fabricated items per weight unit. You can use pay categories as report filters to help you to sort information in reports. Tekla PowerFab also contains specific shipping reports that are designed to be used with pay categories.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Pay Categories**.
3. Modify the properties in the dialog box.

To	Do this
Create a new pay category	a. Click **New**. b. In the **Pay Category** field, type the pay category name. For example, `Beams`, `Columns`, or `Bracing`. c. Type a description for the pay category. For example, `Light`, `Medium`, or `Heavy`. d. In the **Lower Bound Unit Weight** field, type the lowest weight that is applicable to the pay category.

To	Do this
	e. In the **Unit Price** field, type a pricing per hundredweight that is applicable for the material type. f. Select the appropriate **Cost Code** and **Cost Type**. g. Click **Add**. h. Click **Save**.
Modify an existing pay category	a. In the list, click the pay category that you want to modify. b. Modify the pay category type, description, unit weight, and unit price according to your needs. c. Click **Save**.
Delete a pay category	Note that deleting a pay category is permanent and cannot be undone. a. In the list, click the pay category that you want to delete. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete the pay category.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
5. In the **Company Standards** dialog box, click **Save** to update the pay categories.

The **Company Standards** dialog box closes. The pay categories are available in the **Production Control** module.

See also

Define company standard settings for Production Control (page 844)

Define load tracking settings

You can manage which fields and options are available when adding loads in the **Load Tracking** dialog box by modifying the properties in the **Load Tracking Settings** dialog box.

NOTE Any changes made in the **Load Tracking Settings** dialog box are applied to both new and existing production control jobs.

Access Load Tracking Settings

1. Go to **Maintenance** --> **Production Control** --> **Company Standards**.

2. Click the **Load Tracking Settings** button.

The **Load Tracking Settings** dialog box opens.

Click the tabs at the top of the dialog box to modify the visibility of different items in the **Load Tracking Settings** dialog box.

Adjust trailer number settings

1. Click the **Trailer #** tab to open it.
2. If you want to allow adding a trailer number in the **Trailer #** field, select the **Show Field** checkbox.

   The **Trailer #** field will be available in the **Load Tracking** dialog box.
3. In the **Title** field, type the name that you want to use for the **Trailer #** field.
4. If you want the trailer number to be mandatory information, select the **Value Required** checkbox.

   The user cannot add a load without entering a trailer number.
5. To add trailer numbers that can be selected, do the following:
   a. If necessary, select the **Restrict to Preset List** checkbox.

      Selecting the **Restrict to Preset List** prevents the users from typing new values, and forces them to select a value in the list.

      Leaving the **Restrict to Preset List** checkbox unselected allows the users to type a new value or select a value in the list.
   b. To create a new value, click **New**.
   c. Type the value in the **Trailer #** field.
   d. Type the trailer capacity weight in the **Capacity** field.
   e. Click **Add**.

      Repeat steps b to e for all values that you want to add.

      You can also select an existing value in the list and use the **Edit** and **Delete** buttons to modify or delete the value.

Adjust the load tracking fields

The **Carrier**, **Load Category 1**, **Load Category 2**, **Load Category 3**, and **Shipped From** tabs each represent a user-defined field that you can add to the **Load Tracking** dialog box. The fields can be re-named and adjusted, so that you get all the necessary fields and options.

1. Click one of the previously mentioned tabs to open it.
2. If you want to show the field and allow adding information to it, select the **Show Field** checkbox.
3. In the **Title** field, type the name that you want to use for the field.

4. If you want the field to be mandatory, select the **Value Required** checkbox.

   When the **Value Required** checkbox is selected, the user cannot add a load without entering information in the field.

5. To add options that can be selected for the field, do the following:

   a. If necessary, select the **Restrict to Preset List** checkbox.

      Selecting the **Restrict to Preset List** prevents the users from typing new values, and forces them to select an existing value.

      Leaving the **Restrict to Preset List** checkbox unselected allows the users to either type a new value or select an existing value.

   b. To create a new value, click **New**.

   c. Type the desired value in the related field.

   d. Click **Add**.

      Repeat steps b to d for all values that you want to add.

      You can also select an existing value in the list and use the **Edit** and **Delete** buttons to modify or delete the value.

Adjust receiving date settings

1. Click the **Date Received** tab to open it.
2. If you want to allow selecting a receiving date in the **Date Received** list, select the **Show Field** checkbox.

   The **Date Received** list will be available in the **Load Tracking** dialog box.

3. In the **Title** field, type the name that you want to use for the **Date Received** field.

Close the Load Tracking dialog box

Click **OK** at the bottom of the dialog box, or click the **Close** button (**X**) in the upper-right corner.

Manage production control jobs

You can manage existing jobs in many ways in the **Job Maintenance** dialog box. The options available depend on the module. You can, for instance, copy and delete jobs.

To access the **Job Maintenance** dialog box, do the following:

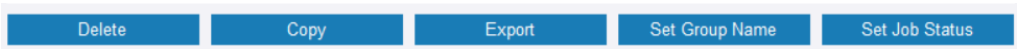
1. Click the **Maintenance** ribbon tab.
2. On the menu, select **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.

3. Select the job that you want to modify.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
4. At the bottom of the dialog box, click any of the available buttons.



For more information, see the following links:

Delete production control jobs (page 865)

Copy a production control job (page 866)

Export production control jobs (page 866)

Set job groups for production control jobs (page 867)

Set job statuses for production control jobs (page 867)

Delete production control jobs

You can delete any unnecessary jobs. Note that the jobs are deleted permanently. To use the jobs for reference later, export them before deleting them.

For information on exporting jobs, see Export production control jobs (page 866).

NOTE When you delete jobs, Tekla PowerFab saves them in the database as KISS files. Users with administrative rights can recover the deleted jobs within 30 days from deleting them.

---

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to delete.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Delete**.
4. To delete the job, click **Yes** in the **Confirm** dialog box.

The job is permanently deleted.

See also

Export production control jobs (page 866)

Manage production control jobs (page 864)

Recover deleted files (page 102)

Copy a production control job

You can copy an existing job to use it as the base of a new similar job. Copying an existing job makes creating the new job quicker, as you do not have to set all properties manually or create items one by one.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to copy.
3. At the bottom of the dialog box, click **Copy**. The **Enter Value** dialog box opens.
4. Type a number for the new job.
5. Click **OK**.

Tekla PowerFab creates a new job based on the selected job. You can modify the properties of the new job by using the **Edit** functionality in the module.

See also

Manage production control jobs (page 864)

Export production control jobs

Export jobs to move jobs from one database to another.

We recommend that you create backup copies of jobs to recover deleted jobs. Users with administrator rights can recover deleted production control jobs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job that you want to export.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Export**.

   The **Save As** dialog box opens.
4. Browse to the folder where you want to save the file.

   Use the automatically generated name or type a new one.
5. Click **Save**.

The selected production control job is saved as a Tekla PowerFab-specific type of KISS file. The exported KISS files contain load and piece tracking information that KISS files do not normally contain.

See also

Manage production control jobs (page 864)

Set job groups for production control jobs

Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs.

You can, for example, record the client and industry sector, but you can create your own system to best suit your needs.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the jobs for which you want to create a job group.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. At the bottom of the dialog box, click **Set Group Name**.
4. Select if you want to add or update the primary group or the secondary group name.
5. Type a name for the group.

You can find the job groups in the navigation tree in the module and use them for filtering jobs.

See also

Manage production control jobs (page 864)

Set job statuses for production control jobs

Job status determines if a job is still in progress (**Open**) or finished (**Closed**). By setting job statuses for jobs, you can filter and view only the current jobs in the job selection dialog box in Tekla PowerFab and in Tekla PowerFab Go.

1. Go to **Maintenance** --> **<Module>** --> **Job Maintenance**.

   The **Job Maintenance** dialog box opens.
2. Select the job whose status you want to change.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
3. Click **Update Selected** and select **Job Status**.
4. Select the desired job status in the list.
5. Click **OK**.

You can filter jobs by selecting status in the module navigation tree.

See also

Job status maintenance (page 276)

Manage production control jobs (page 864)

Open a production control job (page 928)

Modify a production control job (page 934)

Define critical length and width differences

If any change to a production control item is greater than the inventory record linked to the production control item, the change is automatically considered critical and will break the link to the inventory item. If the change is less than the linked inventory record, you can allow the link to the inventory item to remain up to the critical length and width differences that you set in the **Purchasing Standards** dialog box.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Production Control** --> **Purchasing Standards**.
3. In the **Purchasing Standards** dialog box, enter the maximum acceptable width and length differences.
4. Click **Save**.

The maximum acceptable width and length differences are saved. These values are used in two types of situations:

Example 1: Comparing two bills of materials

At the beginning of a project, the steel detailer may send an advanced bill of materials to be imported to the **Combining** module. The materials in the bill of materials are then combined and purchased.

Later in the project, when the bill of materials is imported from the shop detail drawings to **Production Control**, you can compare the two lists for material differences. Tekla PowerFab will use the maximum values defined in the **Purchasing Standards** dialog box to recognize critical differences, and highlight them in red.

Example 2: Automatic linking of materials

When importing a revised bill of materials into an existing **Production Control** job, Tekla PowerFab uses the maximum values defined in the **Purchasing Standards** dialog box to determine which materials can be linked automatically. Tekla PowerFab stops the automatic process of linking materials if the differences exceed the maximum values.

Tekla PowerFab then alerts you that there are changes that have switched off the automatic linking of materials, so that the you can manually review the affected purchased items and make adjustments accordingly.

Manage stations and routes

Production stations and routes define the steps that an item in production goes through in the fabrication process. Stations and routes are also used for tracking labor time, the date a station is completed, and the batch ID for parts to be fabricated in the job.

A station is typically a specific operation or area of the production workflow that you wish to record as each assembly or part passes through. This allows you to record who did the work, when it was done, and how long it took them.

Assigning labor groups to a station can help you apply your own specific determinations for labor applications. When you assign labor groups to a station, Tekla PowerFab assigns all labor time from the assigned labor groups in the linked estimating job to the station.

For example, if the labor time for cutting includes bringing the material into the shop, labor groups **GetPc** (get piece) and **Move** can be assigned to the **Cut/Saw** station. In this case, Tekla PowerFab would gather the labor time for all these labor groups from the linked estimating job and use the labor time in the project schedule.

A route is a specific list of stations that determine what work is required and the order in which it should be done in a particular set of circumstances. Routes are applied to the production control bill of materials, which in turn dictates what stations a given assembly or part is required to pass through in order for it to be complete.

You can create new routes and stations, or modify and delete the existing ones.

See also

Create, modify, and delete routes (page 872)

Manage stations (page 869)

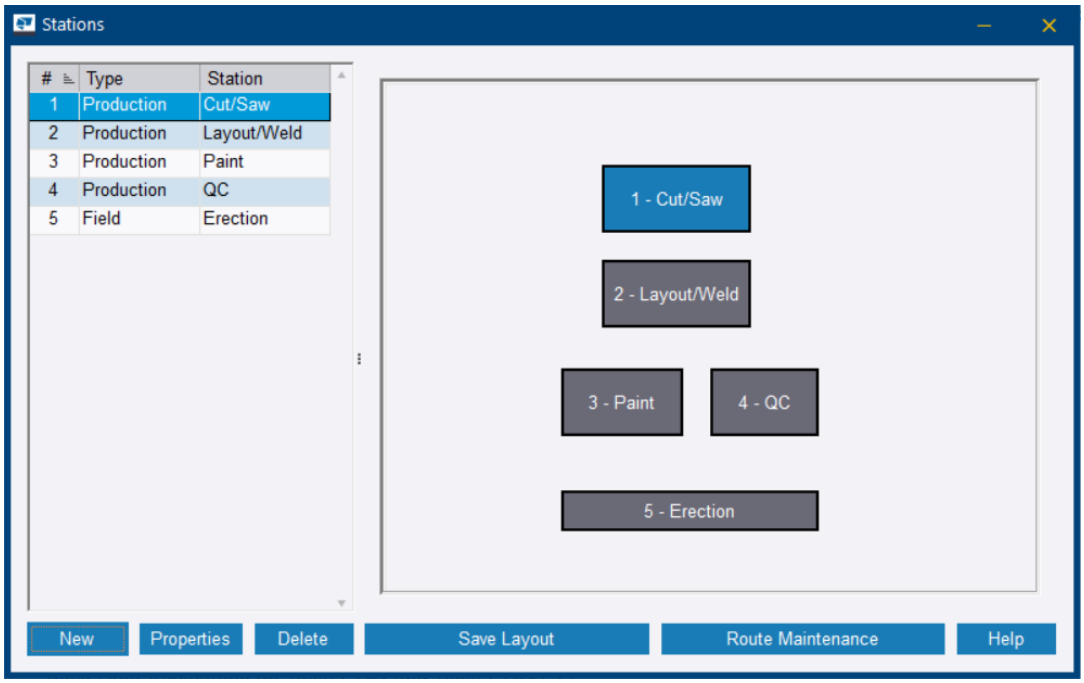
Manage stations

You can create new stations, or modify or delete the existing ones in the **Stations** dialog box. You can also change how the stations are displayed when creating routes.

To access the **Stations** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Production Control** --> **Station and Route Setup** .

The **Stations** dialog box opens.



On the left-hand pane, you can view the existing stations.

On the right side of the dialog box, you can drag and drop the stations to change the layout that is used in the **Routes** dialog box.

Create a station

1. Go to **Maintenance** --> **Production Control** --> **Station and Route Setup**. The **Stations** dialog box opens.
2. Click **New**. The **Station Details** dialog box opens.
3. Modify the automatically generated station number according to your needs.
4. Type a description for the new station.

   For example, `Iron worker`.
5. In the **Type** list, select **Production** or **Field**.
   - Production: Production steps that happen within the workshop, such as cutting.
   - Field: Production steps that happen outside the workshop, such as erecting.
6. To assign labor groups to the new station, do the following:
   a. Click the **Select Labor Groups** button.
   b. In the **Select labor groups to associate with this station** dialog box, click the arrow buttons to move the desired labor groups to the **Included** list.

c. Click **OK**.

7. Click **Save**.

   You return to the **Stations** dialog box.

   The new station is added to the list on the left-hand pane and a box representing the station appears in the graphical area.

8. To resize the newly created station in the graphical area, use the mouse to drag the outlines of the box until the size matches the other boxes.
9. Use the mouse to drag the new station to the desired position.
10. Click **Save Layout**.

NOTE You must add the new station to a route to be able to track it.

To do so, see Create, modify, and delete routes (page 872).

Modify a station

1. Go to **Maintenance** --> **Production Control** --> **Station and Route Setup**. The **Stations** dialog box opens.
2. In the left-hand pane, click the station that you want to modify.
3. Click **Properties**.
4. Modify the station number and description according to your needs.
5. On the **Routes** tab, view the routes that contain the selected station.

   To modify the routes, double-click the desired route. For detailed instructions on modifying routes, see Create, modify, and delete routes (page 872).

6. To modify the labor groups assigned to the station, do the following:
   a. Click the **Labor Group** tab to open it.
   b. Click the **Select Labor Groups** button.
   c. In the **Select labor groups to associate with this station** dialog box, click the arrow buttons to move the desired labor groups to the **Included** list.
   d. Click **OK**.
7. Click **Save** to update the station properties.

Delete a station

Deleting a station is permanent and cannot be undone. If a station is used in a production control job or a route, it cannot be deleted.

1. Go to **Maintenance** --> **Production Control** --> **Station and Route Setup**.

   The **Stations** dialog box opens.

2. In the left-hand pane, click the station that you want to delete.
3. Click **Delete**.
4. In the confirmation dialog box, click **Yes** to permanently delete the station.

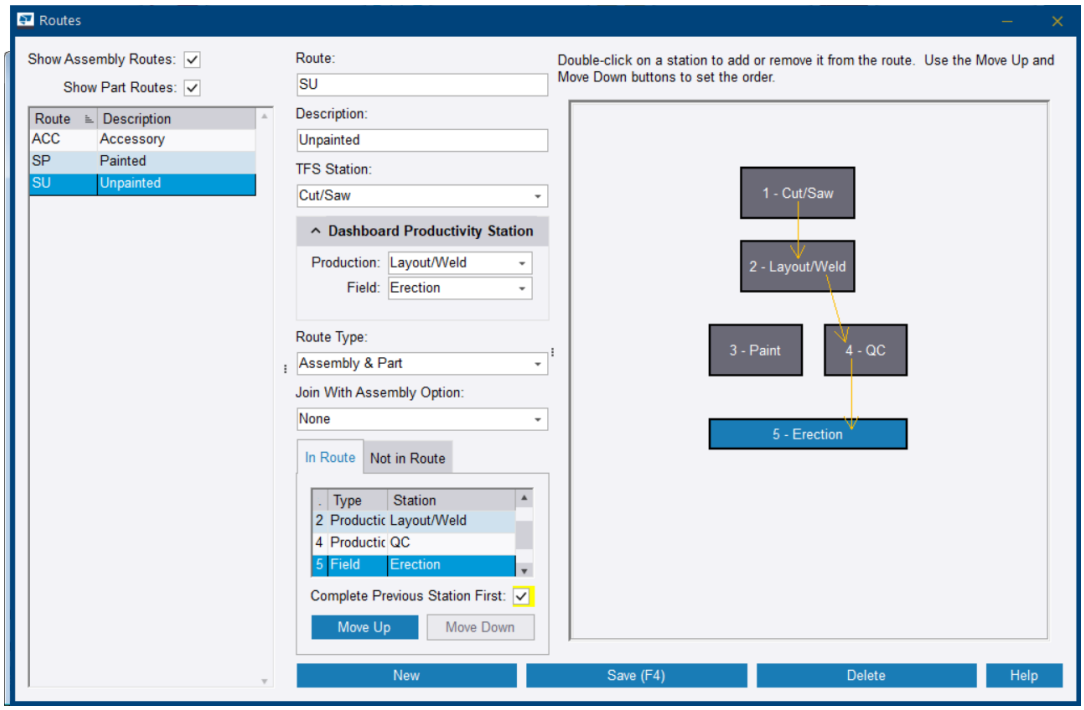
Create, modify, and delete routes

Production stations and routes define the steps that an item goes through in the fabrication process. Often, items with different finishes have different routes. You can create new routes, and modify or delete existing ones in the **Routes** dialog box.

NOTE You need to create all the necessary stations before you can add them to routes.

To access the **Routes** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Production Control** --> **Station and Route Setup**.
3. In the **Stations** dialog box, click **Route Maintenance**.



You can see the existing routes on the left-hand pane of the **Routes** dialog box.

On the right side of the dialog box, you can see all available stations. Yellow arrows show the order of the stations on the route.

Create a new route

1. Click **New**.
2. In the **Route** field, type an abbreviation for the route.

   For example, you can abbreviate the route for painted parts as `P`.
3. Type a description for the route.
4. Click the arrow on the right side of **TFS Station** list, and select the station that is used for cutting and charging materials to the production control job.

   In reports, this station is where the material cutting is completed and the drops are sent to their assigned location. This station will be marked as completed when you take the item from stock.
5. If you track production with the Tekla PowerFab Go dashboard, expand the **Dashboard Productivity Station** section, and select the stations after which the item is considered complete.

   If you have both production and field stations on the selected route, there are two lists: **Production** list for the station where the production is considered complete, and **Field** list for the station where the field work is considered complete.
6. In the **Route Type** list, select which items can be assigned to the route:
   - **Assembly**: only main marks, or assemblies, can be assigned to the route
   - **Part**: only part marks, or accessory parts, can be assigned to the route
   - **Assembly & Part**: both assemblies and accessories can be assigned to the route.
7. If you selected **Part** or **Assembly & Part** as the route type, in the **Join With Assembly Option** list, select when accessory parts should join the assembly to which they belong:
   - **Join with assembly for first station**: The accessory part follows the assembly route starting from the first station.

     Note that if the part route and the assembly route have the same first station, selecting **Join with assembly for first station** will mean that the accessory part goes through the same station twice.
   - **Join with assembly for...**: The accessory part joins the assembly route before this station. Select the station in the list below.
   - **Join with assembly after...**: The accessory part joins the assembly route after this station. Select the station in the list below.
   - **Join with assembly after TFS station**: The accessory part joins the assembly route after the station that you selected in the **TFS Station** list.
8. Select the included stations and adjust their order:

- Click the **Not in Route** tab to see the stations that are not included in the route, and double-click all stations that you want to include in the order that they should appear in the route.
- Open the **In Route** tab to see the stations that are included in the route.

  To move a station earlier or later in the route, select the station and click the **Move Up** and **Move Down** buttons.

9. If you require a particular station to be completed before an assembly or part can move on to the next station, select the station and then select the **Complete Previous Station First** checkbox. Repeat this step for all stations in the route.
10. Click **Add**.

The new route is now available for all production control jobs.

Modify a route

1. In the list on the left side of the **Routes** dialog box, select the route that you want to modify.
2. Modify the route abbreviation, description, TFS station, route type, or join with an assembly option.
3. To modify the included stations and their order, do the following:
   - Click the **Not in Route** tab to see the stations that are not included in the route, and double-click all stations that you want to include in the order that they should appear in the route.
   - Open the **In Route** tab to see the stations that are included in the route.

     To move a station earlier or later in the route, select the station and click the **Move Up** and **Move Down** buttons.
   - If you require a particular station to be completed before an assembly or part can move on to the next station, select the station and then select the **Complete Previous Station First** checkbox.
4. If you track production with the Tekla PowerFab Go dashboard, expand the **Dashboard Productivity Station** section, and select the stations after which the item is considered complete.

   If you have both production and field stations on the selected route, there are two lists: **Production** list for the station where the production is considered complete, and **Field** list for the station where the field work is considered complete.
5. Click **Save** to update the route.

Delete a route

Note that deleting a route is permanent and cannot be undone.

1. In the left-hand pane, select the route that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the selected route.

Manage approval statuses for drawings

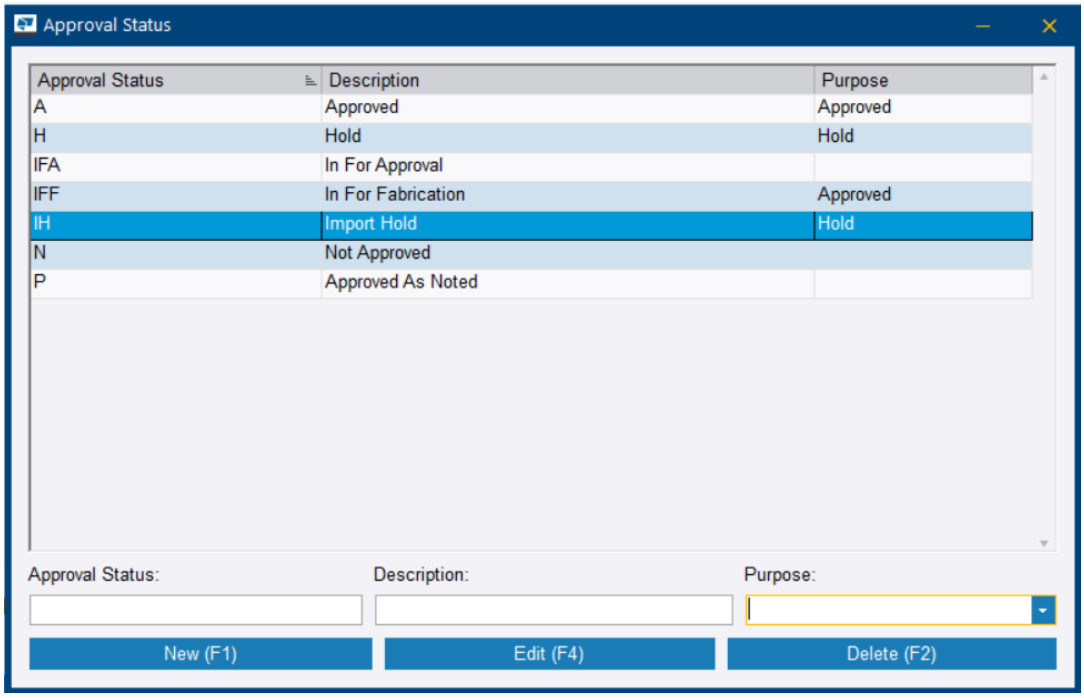
You can create, modify, or delete approval statuses for drawings in the **Approval Status** dialog box.

To access the **Approval Status** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Production Control** --> **Approval Status Maintenance**.

You can also access **Approval Status** from **Maintenance** --> **Project Management**.

The **Approval Status** dialog box opens. You can view all existing approval statuses.



If you create new approval statuses, the only available purpose options are **Approved** and **Hold**.

Approved means that drawings are ready for fabrication. The **Approved** purpose is used as the status link in the project schedule.

Hold means that the drawings are not ready for fabrication. Items with the **Hold** option can move through fabrication processes, but they will be highlighted in red, and warning pop ups will appear during processing updates. Any loads that contain items with the **Hold** purpose option cannot be shipped.

Create an approval status option

1. Click **New**.
2. In the **Approval Status** field, type an abbreviation for the new approval status.
3. In the **Description** field, type a description for the new approval status.
4. If you wish, in the **Purpose** list, select if items with the status option are approved or on hold.
5. Click **Add**.

Modify an existing approval status

1. In the list, click the approval status that you want to modify.
2. Modify the approval status abbreviation, description, and purpose according to your needs.
3. Click **Edit** to save the changes.

Delete an approval status

Deleting an approval status is permanent and cannot be undone.

1. In the list, click the approval status that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the approval status.

Manage material finish options

You can create, modify, or delete material finish options in the **Finish Maintenance** dialog box. You can also select the shipping routes used for each finish option.

Create a new finish option

1. Go to **Maintenance** --> **Production Control** --> **Finish Maintenance**. The **Finish Maintenance** dialog box opens.
2. Click **New**.
3. Type an abbreviation and a description for the new finish option.
4. If necessary, click the arrow on the right side of the **Shipping Route** list and select the shipping route that you want to use for production control items with the new finish option.

   Setting a shipping route for the finish is optional.

   For more information on shipping routes, see Manage default shipping routes (page 896).
5. Click **Add**.

Modify an existing finish option

1. Go to **Maintenance** --> **Production Control** --> **Finish Maintenance**. The **Finish Maintenance** dialog box opens.
2. Click the finish option that you want to modify to select it.
3. Modify the abbreviation, description, and shipping route according to your needs.
4. Click **Save**.

The properties of the finish option are updated.

Delete a finish option

Note that deleting a finish option is permanent and cannot be undone.

1. Go to **Maintenance** --> **Production Control** --> **Finish Maintenance**. The **Finish Maintenance** dialog box opens.
2. Click the finish option that you want to delete.
3. Click **Delete**.
4. In the confirmation dialog box, click **Yes** to permanently delete the finish option.

Manage global production codes

In the **Global Production Code Maintenance** dialog box, you can create, modify, and delete production codes that are available in all production control and estimating jobs.

Production codes link items or groups of items in an estimating job to items or groups of items in a production control job. They are used to group together

material with similar work and to apply labor averages from estimating to the production control bill of materials.

Tekla PowerFab calculates the labor times based on the production code. This means that using production codes allows you to plan production more accurately.

NOTE You can only adjust production codes in the **Global Production Code Maintenance** dialog box, not labor times. Tekla PowerFab automatically calculates the labor times for the items that have been assigned a production code.

We recommend that you assign matching production codes to parts in both **Estimating** and **Production Control**. This way, you can view the planned and executed labor times in the project schedule.

Individual estimating or production control jobs may override properties of a production code for an individual job or may add additional production codes to be available on a narrower basis.

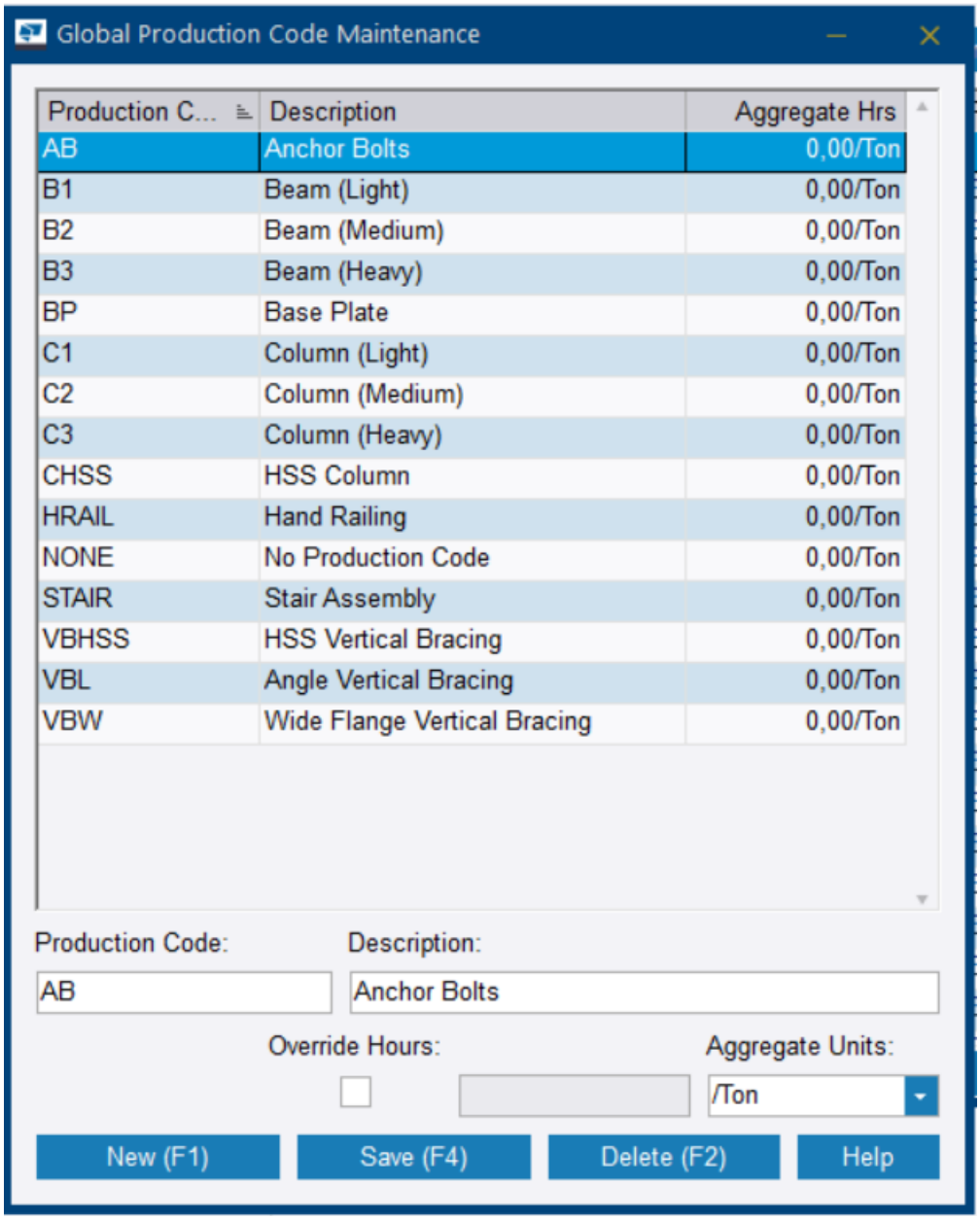
See also the following information:

- Link a production control job to an estimating job and a project management job (page 922)
- Manage production codes (page 572)
- Manage production codes used in a production control job (page 962)

Access Global Production Code Maintenance dialog box

1. Click the **Maintenance** ribbon tab.
2. On the menu, select**Production Control** --> **Global Production Code Maintenance**.

The **Global Production Code Maintenance** dialog box opens.



Production Code: An abbreviation for the production code

Description: A description for the production code. For example, you can use `B1` for beams or `C1` for columns.

Override Hours: Select if you want to use aggregate units for the planned hours instead of the original estimated hours. Then type the hours in the field.

However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the labor group percentages cannot be applied to any production control stations.

Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule.

Manually overriding hours can also prevent you from comparing the linked production control job with the estimating job.

An override applied in a production control job does not affect the estimate nor global information. The estimated hours are always created in the estimate. They are not overwritten by the production code properties.

Aggregate Units: Select the suitable units in the drop-down menu.

The hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the hours is to pull labor information from the estimate in the form of hours per ton and labor percentages by labor group.

Create a production code

1. At the bottom of the dialog box, click **New**.
2. Name the production code and type a description.
3. Do any of the following:

To	Do this
Use the estimated labor times of items within the production code in **Production Control**	The hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the hours is to pull labor information from the estimate in the form of hours per ton and labor percentages by labor group. • In the **Aggregate Units** list, select a calculation option.
Override the estimated labor time of items within the production code in **Production Control**	Manually overriding hours applies an aggregate unit, hours per ton, that can be applied to production control items. However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the labor group percentages cannot be applied to any production control stations. Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule.

To	Do this
	Manually overriding hours can also prevent you from comparing the linked production control job with the estimating job. a. Select the **Override Hours** checkbox. b. Type the labor time in the field on the right side of the checkbox. To change the units, right-click in the field and select a suitable option in the context menu.

4. Click **Add**.

The new production code is added.

Modify a production code

1. Select the production code that you want to modify.
2. Modify the properties.
3. To update the production code properties, click **Save**.

Delete a production code

1. Select the production code that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the production code.

Manage cut lists

You can create, modify, and delete cut lists for production control jobs. You can also lock cut lists and create cut list reports.

When you have ordered all the material for a production control job, you can create cut lists to communicate how each bar and sheet should be cut in the workshop.

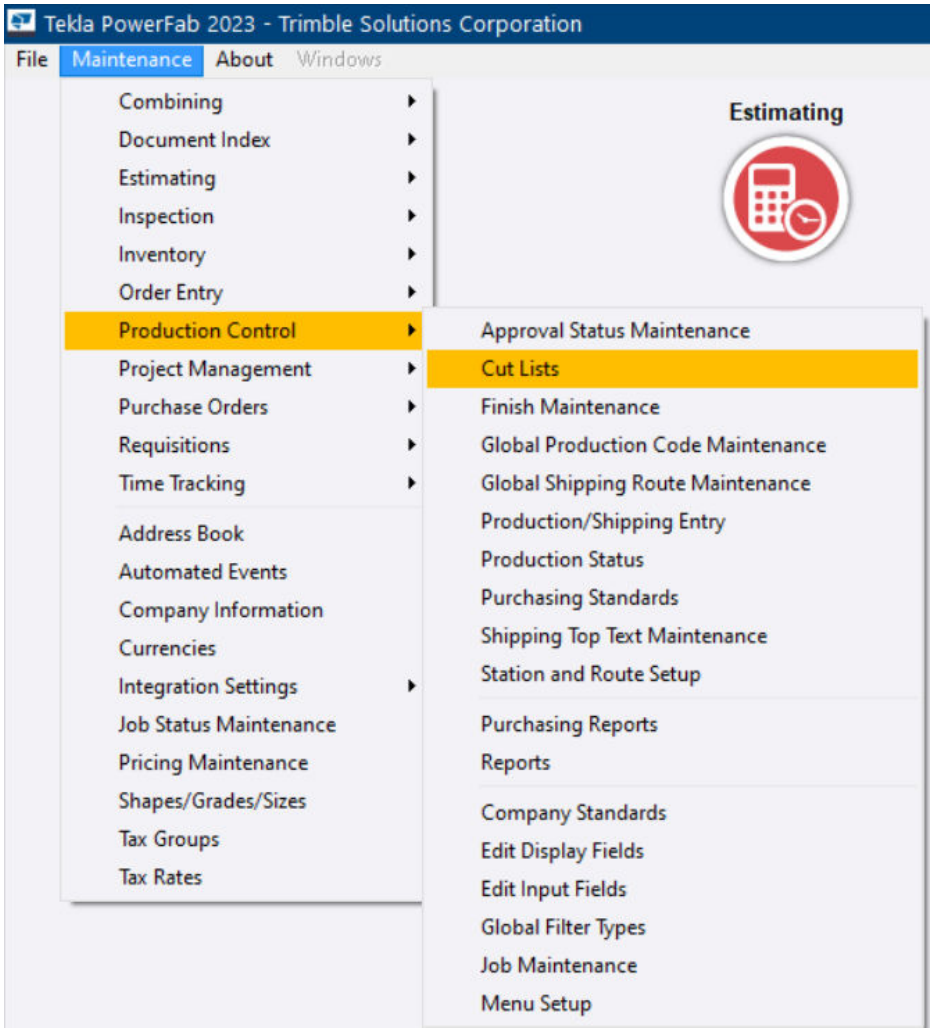
To create a cut list, the production control job items must be combined and linked to the material in inventory on order or in stock. Material that is on a requisition can have a cut list report printed, but it is not saved to prepared or saved cut lists.

TIP You can customize the grid and select the display fields to suit your needs. See Customize the layout of a dialog box (page 131).

Access Cut Lists dialog box

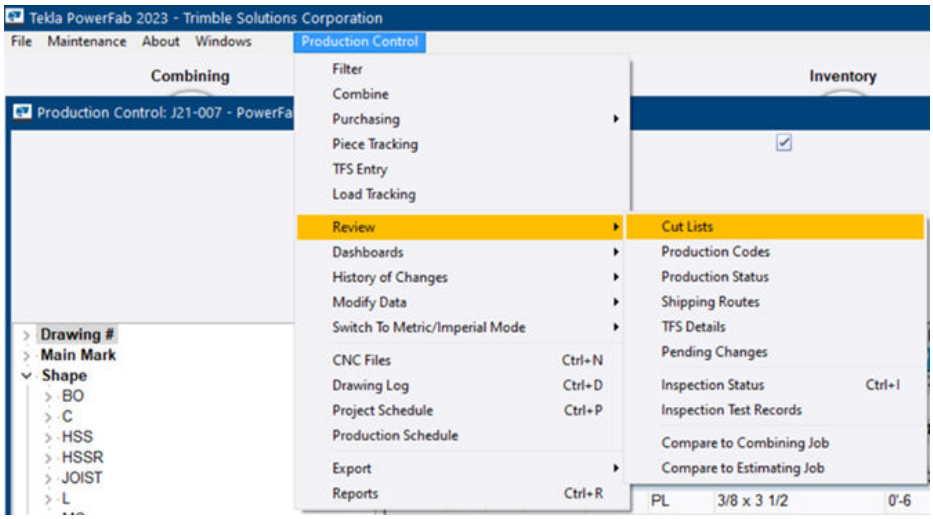
You can select if you want to manage and view cut lists for a specific job or for multiple jobs at time.

- To access the **Cut Lists** dialog box, do either of the following:
  - To view and manage several Cut Lists at a time, do the following:
    1. Go to **Maintenance** --> **Production Control** --> **Cut Lists**.

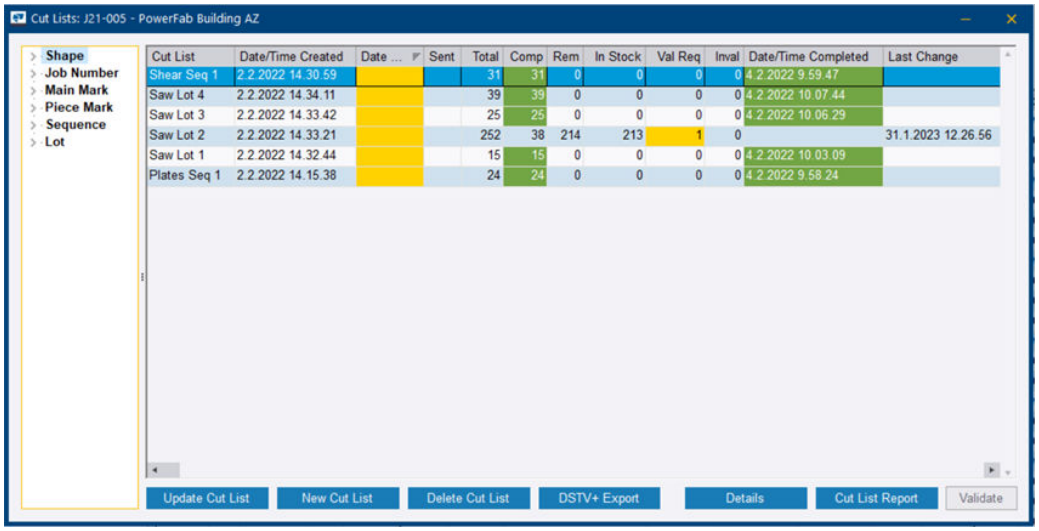


    The **Select Production Control Jobs** dialog box opens.

    2. Select the job or jobs in the list and move to **Included**.
    3. Click **OK**.
  - To view and manage a job-specific cut list, do the following:
    1. In the **Production Control** module, open a job.
    2. In the **Production Control** ribbon tab, select **Review** --> **Cut Lists**.



The **Cut Lists** dialog box opens.



Navigation tree: Use to drill down to find the cut list you are looking for.

Cut List: Cut list name. To change this, click **Update Cut List** and select **Set Description**.

Date/Time Created: Date and time when the cut list was originally created. This value cannot be changed.

Date Req: Date when the cut list must be completed. If a date required has not been entered, this field is highlighted in yellow. If the date required has passed and the cut list has not been completed, the field is highlighted in red.

Total: The total number of cutting details on the cut list

Comp: The number of cutting details that have been cut

Rem: The number of cutting details remaining to be cut

Val Req: The number of cutting details that must be validated. See Validate or revalidate cut list items (page 891) If the number is greater than zero, it is highlighted in yellow.

Inval: The number of cutting details that have been invalidated. If the number is greater than zero, it is highlighted in red.

Date/Time Completed: The date and time when the last cutting detail on the cut list has been completed. If the cut list has been completed, the date and time is highlighted in green.

Create a cut list

You can create cut lists for the current production control job in the **Cut Lists** dialog box or from the purchasing reports.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Click **New Cut List**.

   The **Production Control Purchasing Report Filters** dialog box opens.

3. Select the items that you want to include in the cut list:

   When you are creating a new cut list, Tekla PowerFab by default filters the items in the new cut list so that only items that are not yet assigned to a cut list are included.

   a. In the **Production Control Purchasing Report Filters** dialog box, click **Reset** to reset the default filter.

   b. To limit the items included in the cut list, select a filter type in the **Type** list, and click **Select**.

      The **Filter** dialog box opens.

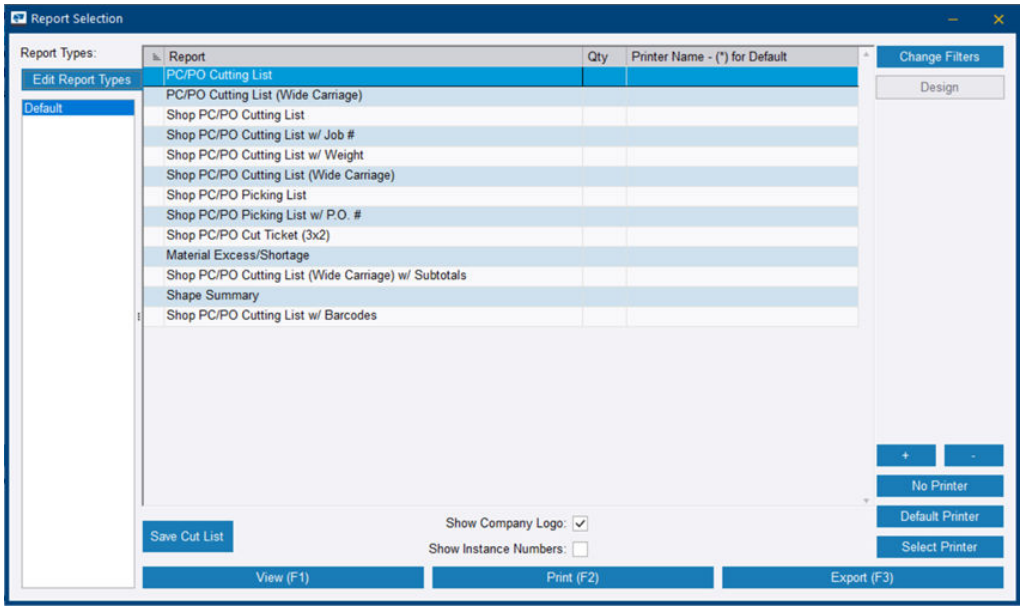
   c. Click the arrow buttons to move the items that you want to include to the **Included** list.

   d. Click **OK**.

      You return to the **Production Control Purchasing Report Filters** dialog box.

4. Click **Make Report**.

The **Report Selection** dialog box opens. You can view, print, or export the report to view the cut list filter results.



a. Select the report that best suits your needs and click **View**.

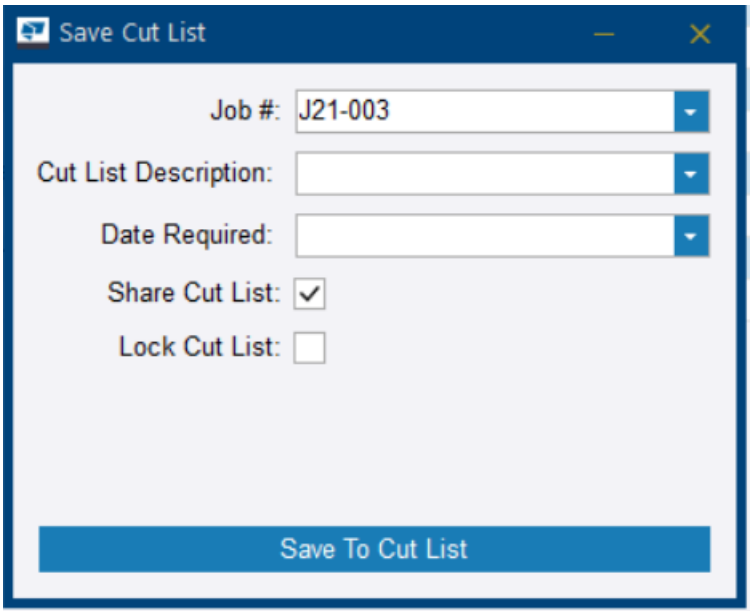
   Tekla PowerFab Report Viewer opens.

   Before you save the cut list, view the cut list report to check that it contains the required materials. If the cutting details contain items that do not match the current filter, they are highlighted in italics and strikethrough on the reports.

b. View the report and close it.

5. In the **Report Selection** dialog box, click **Save Cut List**.

The **Save Cut List** dialog box opens.



6. Select values for **Cut List Description** and **Date Required**, and select **Share Cut List**, and **Lock Cut List** as needed.

   Cut List Description: You can select an existing cut list to save the filtered items there or type a new description.

   Share Cut List availability depends on the selection of integrations.
7. Set a priority for the cut list (Optional).
8. Click **Save To Cut List**.

   If the combined details are not a complete match for the filter, for next steps see Save cut list - partially matched filter (page 886). Otherwise, do the next step.
9. When prompted, click **OK** to return to the **Report Selection** dialog box.
10. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The saved cut list records the selected items to be cut based on the filter.

See also

Manage cut lists (page 881)

Save cut list - partially matched filter
When you are saving the cut list, and the combined details are not a complete match for the filter, you need to decide, what you want to include.



1. Click one of the following:

   Include all items saves all combined items as being cut when processed to the cut list.

   Include only items matching the current filter saves only the combined items matching the filter as being cut when processed. The items not matching the filter remain combined to the drop and returned to inventory when processed.

   - If you select this, you are prompted to confirm your selection. Click **Yes** to continue.

   Don't save partially matched cutting details to the cut list saves only the inventory items whose combining details completely match the set filter.

   Cancel exits the dialog box without saving.

   NOTE Inventory items that are already saved to a cut list are not saved to another cut list even if they match the filter and can be viewed on the report.

   You get a confirmation that the cut list was saved.

2. To close the message, click **OK**.

See also

Manage cut lists (page 881)

View the details of a cut list item

You can view the details of a cut list item in the **Cut Lists** dialog box. You can also cut or delete a cut list item.

From the initial cut lists window details provides you with the the list of inventory items on the cut list. From that list of the inventory items the details will provide the production item details being cut from the inventory item. "*" items in the production items list do not match the filter as saved for the cut list.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Select the cut list whose details you want to view.

3. Click **Details**.

   The **Cut Lists** dialog box opens. It provides you with the the list of inventory items on the cut list.

4. Perform any of the available actions.

   - To view the details of the production items that are being cut from the inventory item, click **Details**. Items marked with an asterisk (*****) do not match the filter as saved for the cut list.
   - To cut a cut list item, see Cut a cut list item (page 889).
   - To permanently delete a cut list item, click **Delete** and confirm by clicking **Yes**.
   - To swap material, see Swap a cut list item (page 888)

5. When you have viewed the item details, click the **Close** button (**X**) to close the item details.

See also

Manage cut lists (page 881)

Swap a cut list item (page 888)

Cut a cut list item (page 889)

Swap a cut list item

Before cutting an item, it is possible to select an alternative from the inventory, if the original item is not available.

Items with no combining details of different lengths are available along with all inventory items that are the same length. Items of different length that have combining details are not available for selection. Once you have chosen, the new bar length is displayed as the material to cut in Tekla PowerFab and Tekla PowerFab Go.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Open a cut list.
3. Click **Swap Material**.

   The **Available to Swap** dialog box opens.

4. Select the desired item and set the quantity.

   Optionally, select **Use Grade Substitutions** to use other suitable grades.

5. To complete the swap, click **Swap**.

See also

Manage cut lists (page 881)

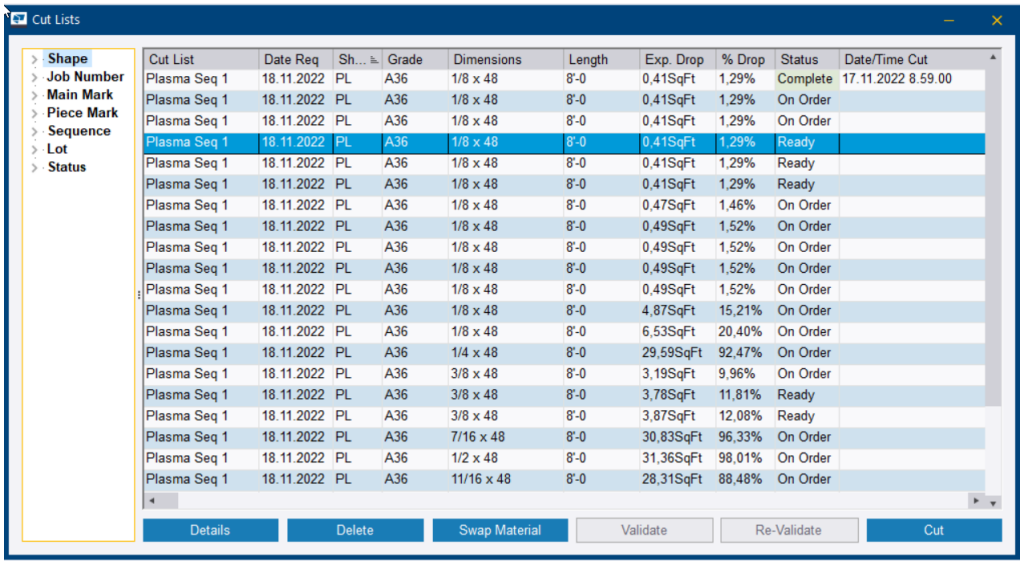
Cut a cut list item

You can define the cut properties and cut a cut list item in the **Cut Lists** dialog box.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

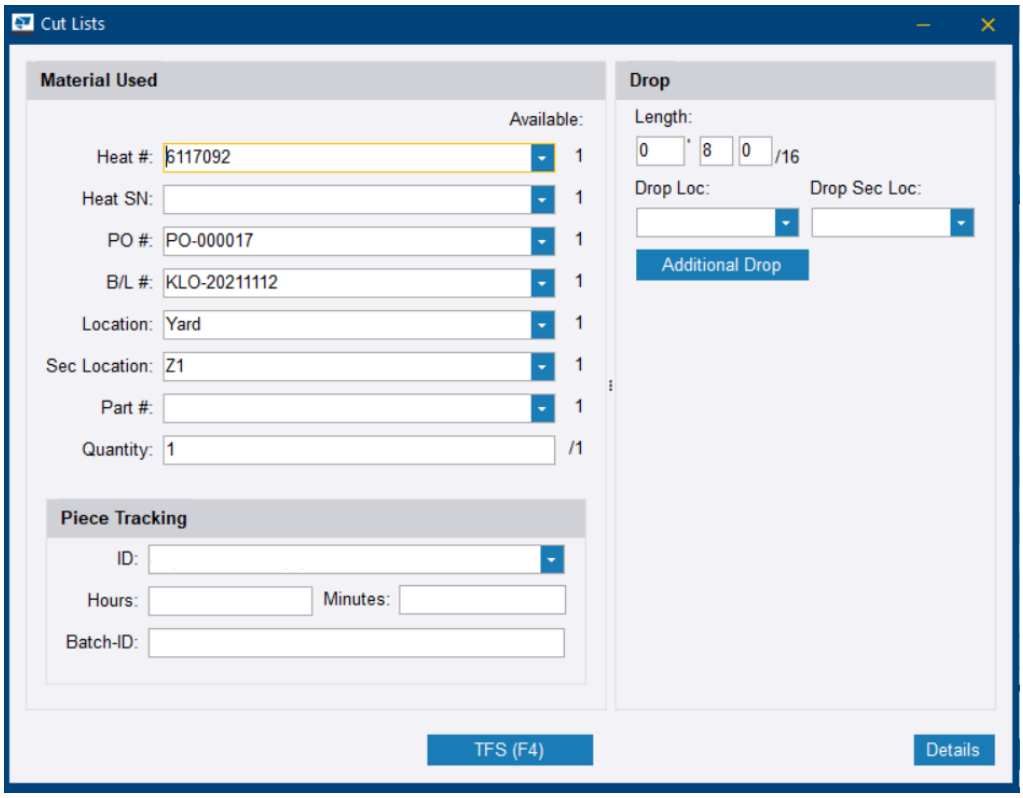
2. Select the cut list whose details you want to view.
3. Click the cut list item whose details you want to view.



NOTE The required materials need to be in stock.

4. Click **Cut**.

A new **Cut Lists** dialog box opens.



5. In the **Material used**, define properties for the used material.
6. In the **Drop** section, define the drop properties.
7. In the **Piece Tracking** section, define the user who cut the item, the hours used, and the batch ID.
8. Click **TFS**.

   The item is taken from stock and cut according to the properties that you defined. The production control job is updated with the date/time stamp of the cut, and the **Status** column is highlighted with green.

See also

Manage cut lists (page 881)

Update a cut list

You can change the name or required date of a cut list and share or lock a cut list.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).
2. Select the cut list that you want to modify.

3. Click **Update Cut List**.
4. Do any of the following:

To	Do this
Change the name of the cut list	a. Select **Set Description**. The **Enter Value** dialog box opens. b. Type a new name for the cut list. c. Click **OK**. The cut list name is updated in the **Cut List** column.
Change the required date of the cut list	a. Select **Set Date Required**. The **Enter Value** dialog box opens. b. To open a calendar for selecting a date, click the arrow on the right side of the field. c. Select the new required date in the calendar. d. Click **OK**. The required date is updated in the **Date Req** column.
Share or unshare a cut list with other users	Do either of the following • Select **Share**. • Select **Unshare**.
Lock or unlock a cut list	Locking a cut list prevents additional material from being nested onto the expected drop of stock used on that cut list. Do either of the following • Select **Lock**. • Select **Unlock**.

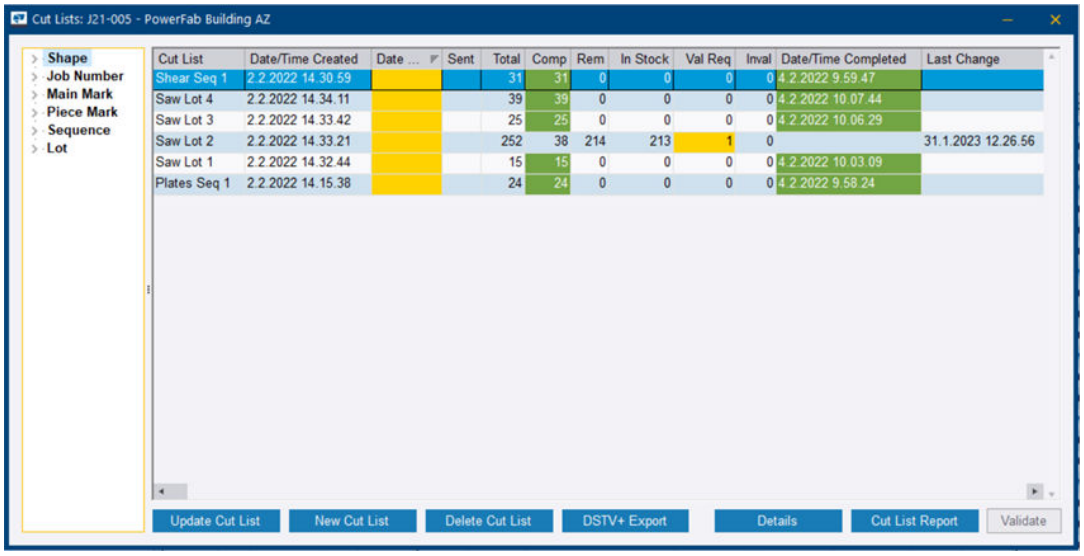
See also

Manage cut lists (page 881)

Validate or revalidate cut list items

When material changes occur, you may need to validate or revalidate cut list items.

When material changes occur, items in the **Val Req** column in the **Cut Lists** dialog box may be highlighted with yellow. This means that you need to verify that the items still work with the cutting details, or validate the cut list.



Revalidating parts consists of uncombining the purchased materials and recombining them to correct the cutting details. Depending on the changes that have occurred, you may need to combine the items to a different or additional stock length of materials.

Validate cut list items

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).
2. Double-click the cut list that contains items that need to be validated.
3. Select the items that you want to validate.
4. At the bottom of the dialog box, click **Validate**.

Revalidate cut list items

If the **Inval** column is highlighted with red, you need to revalidate cut list items.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).
2. Double-click the cut list that contains items that need to be revalidated.
3. Select the items that you want to revalidate.
4. At the bottom of the dialog box, click **Re-Validate**.

See also

Manage cut lists (page 881)

Lock or unlock a cut list

Locking a cut list prevents additional material from being nested onto the expected drop of stock used on that cut list.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Do either of the following:

   - To lock a cut list, select the cut list and click **Update Cut List** --> **Lock**.

     When a cut list is locked, its name in the **Cut List** column is highlighted with red.

   - To unlock a locked cut list, select the cut list and click **Update Cut List** --> **UnLock**.

See also

Manage cut lists (page 881)

Share or unshare a cut list

You can share a cut list with other users.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Do either of the following:

   - To share a cut list to other users, select the cut list and click **Update Cut List** --> **Share**.
   - To stop sharing a cut list to other users, select the cut list and click **Update Cut List** --> **Unshare**.

See also

Manage cut lists (page 881)

Export a cut list to DSTV +

If you have enabled the DSTV+ integration, you can export cut list information as a `.zip` package of CNC files that follow the DSTV+ file standard.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).

2. Select the cut list that you want to export.
3. Click **DSTV+ Export**.
4. Browse to and select the folder where you want to export the files.

5. If necessary, change the file name.
6. Click **Save**.

   The cut list information is exported to the selected folder. You can see the export status in the **Status** dialog box.
7. To close the **Status** dialog box, click **OK**.

Next, you can extract the files from the `.zip` package and import the files to the relevant machine, so that the machine will know how to cut the related parts.

See also

Manage cut lists (page 881)

View, print, or export cut list reports

You can create reports for cut lists. After creating a report, you can print or export it.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).
2. Select the cut lists for which you want to create reports.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click **Cut List Report**.
4. In the **Report Selection** dialog box, click the report that you want to view or print.
5. Do any of the following:

To	Do this
View the cut list report	In the **Report Selection** dialog box, click **View**. The selected reports opens in **Tekla PowerFab Report Viewer**.
Print the cut list report	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No**

To	Do this
	Printer to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Manage cut lists (page 881)

Delete a cut list

Deleting a cut list is permanent and cannot be undone.

1. Access the **Cut Lists** dialog box.

   See Access Cut Lists dialog box (page 881).
2. Click the cut list that you want to delete.
3. Click **Delete Cut List**.
4. In the confirmation dialog box, click **Yes** to permanently delete the cut list.

See also

Manage cut lists (page 881)

Manage default shipping routes

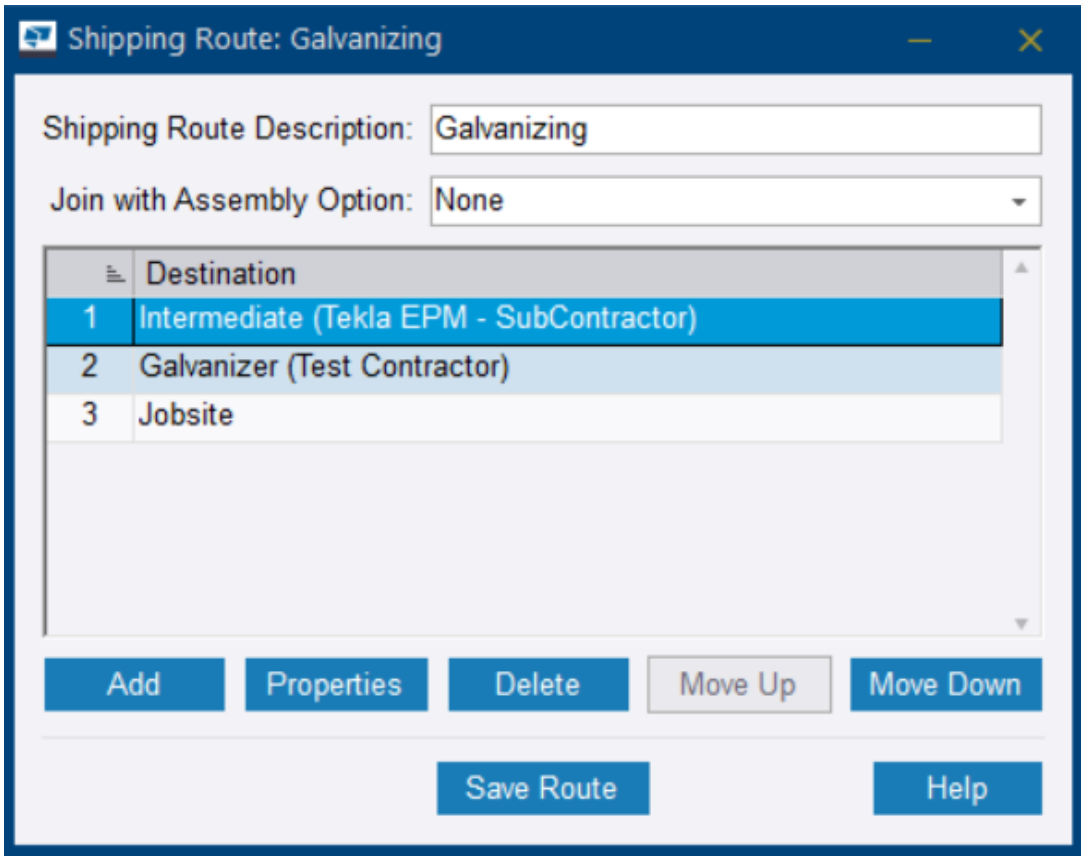
Shipping routes determine where each assembly needs to be shipped to. You can create, modify, and delete shipping routes that are available for all production control jobs in the **Shipping Route Maintenance** dialog box.

Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as sending material to an external galvanizer. Items that are returned from one destination can then be shipped to another destination.

The initial location of all items is the shop location. If no shipping route is assigned for items, the items will be shipped from the shop to the jobsite. Items can either be returned to the shop and be added to another load with other material items, or shipped from the intermediate destination directly to the jobsite or next destination.

Shipping route properties

You can modify the shipping route properties in the **Shipping Route** dialog box that opens when you create a new route and modify the properties of an existing route in **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.



Shipping Route Description: Type a description for the shipping route.

Join with Assembly Option: Select if and when the weight of an accessory part is included in the shipping weight of the assembly.

- **None**: The weight of the accessory is not included in the shipping weight of the assembly. If the **Jobsite** destination is in the shipping route, select the **None** option.
- **Join with assembly for first destination**: The weight of the accessory is joined to the shipping weight of the assembly for all of its destinations except for the first one.
- **Join with assembly for...**: The weight of the accessory is included in the shipping weight of the assembly for the destination that you select in the **Join with Assembly For** list, and for any other destinations after that one.
- **Join with assembly after...**: The weight of the accessory is included in the shipping weight of the assembly for all destinations after the destination you select in the **Join With Assembly After** list.

Add: Opens the **Shipping Destination Properties** dialog box for adding a new destination.

Properties: Opens the **Shipping Destination Properties** dialog box for modifying an existing destination.

Delete: Removes the selected destination from the shipping route.

Move Up/**Move Down**: Moves the selected destination one step earlier/later in the shipping route.

Save Route: Saves the shipping route details.

Create a shipping route

1. Go to **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.

   The **Shipping Route Maintenance** dialog box opens.

2. Click **New**.

   The **Shipping Route** dialog box opens.

3. Modify the shipping route properties.

4. To add, modify, or remove destinations, see Manage shipping destinations (page 899).

   NOTE The shipping route can have any number of destinations, or no destinations at all. If the **Jobsite** destination is present, it is always the last destination on the shipping route. The **Jobsite** destination is the **Ship To** address defined for each production control job in the **Production Control Job Edit** dialog box.

5. To change the order of destinations in the shipping route, do the following:
    a. Select the destination that you want to move to an earlier or later position on the shipping route.
    b. Click the **Move Up** and **Move Down** buttons as needed..
6. Click **Save Route**.

The new shipping route is now available in all production control jobs.

Copy a shipping route

You can copy an existing shipping route to create a new shipping route.

1. Go to **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.

    The **Shipping Route Maintenance** dialog box opens.
2. In the list, select the shipping route that you want to use as the basis of a new shipping route.
3. Click **Copy**.

    The **Shipping Route** dialog box opens.
4. In **Shipping Route Description**, type a description for the new shipping route.
5. Modify the shipping route properties.
6. Click **Save Route**.

Modify a shipping route

1. Go to **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.

    The **Shipping Route Maintenance** dialog box opens.
2. Select the shipping route that you want to modify.
3. Click **Properties**.
4. Modify the shipping route properties.

    For more information, see Manage shipping destinations (page 899)
5. Click **Save Route**.

Delete a shipping route

NOTE Deleting a shipping route is permanent and cannot be undone.

1. Go to **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.

   The **Shipping Route Maintenance** dialog box opens.
2. Select the shipping route that you want to delete.
3. Click **Delete**.
4. Click **Yes** to permanently delete the shipping route.

See also

Define shipping routes for a production control job (page 924)

Manage shipping routes for a production control job (page 966)

Manage shipping destinations

You can add a new destination to a shipping route, modify the properties of an existing destination, and delete destinations in the **Shipping Route** dialog box.

You can manage shipping destinations when you are creating new shipping routes or modifying existing ones in the **Shipping Route Maintenance** dialog box in **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**.

For instructions, see Manage default shipping routes (page 896).

You can also manage shipping destinations for a job in the **Production Control** module. On the **Production Control** ribbon tab, select **Review** --> **Shipping Routes**.

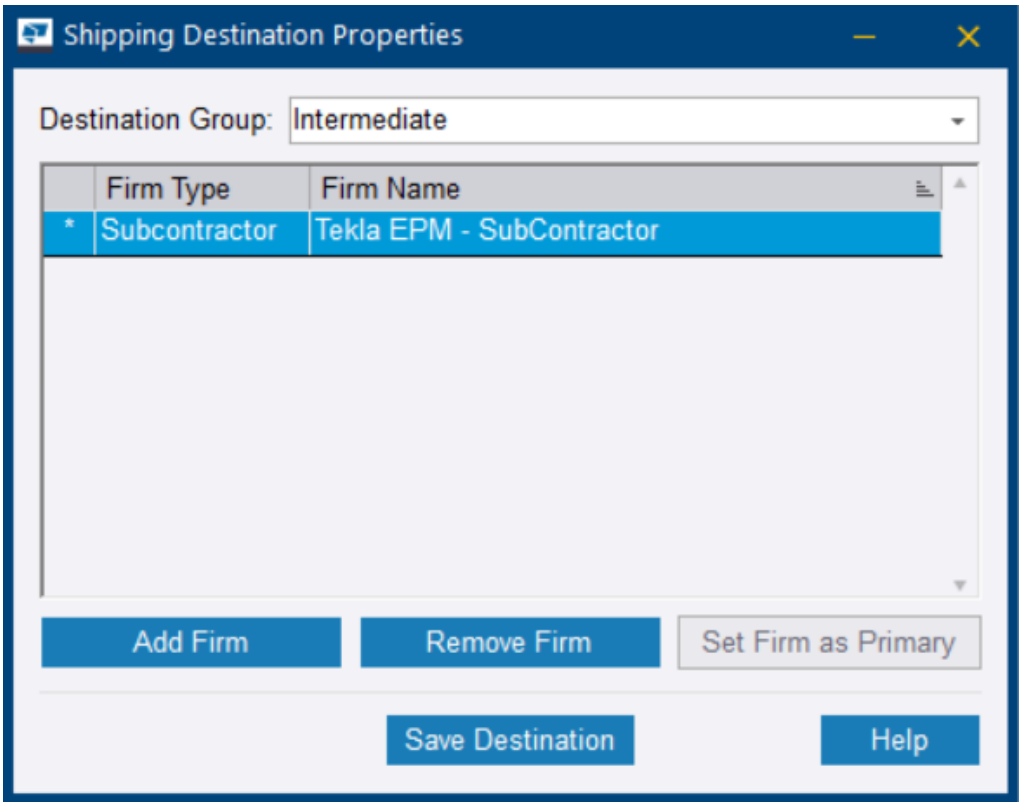
For instructions, see Manage shipping routes for a production control job (page 966)

Add a new destination

To add a new destination to a shipping route, do the following in the **Shipping Route** dialog box:

1. Click **Add**.

The **Shipping Destination Properties** dialog box opens.



2. Type a descriptive name in **Destination Group**.
3. Click **Add Firm**.
4. Select the firm type and firm name, and click **OK**.

   You can only select firms that are already saved in the **Address Book**.
5. Click **OK**.
6. Click **Save Destination**.

Modify a destination

To modify a destination in a shipping route, do the following in the **Shipping Route** dialog box:

1. In the **Destination** list, click the destination that you want to modify.
2. Click **Properties**.

   The **Shipping Destination Properties** dialog box opens.
3. Modify the firms in the destination group:
   - To change the destination group, select from the **Destination Group** list.

- To add a firm, click **Add Firm**, select the firm type and firm name, and click **OK**.

  You can only select firms that are already saved in the **Address Book**.
- To remove a firm from the destination, click the firm, click **Remove Firm**, and click **Yes** to confirm deleting the firm.
- To set a firm as the primary firm, click the firm, and click **Set Firm as Primary**.

  The primary firm will have the remaining totals reported against it in production statuses, production control reports, and project summary reports. However, parts assigned to the shipping route can be shipped for any of the firms that you have added.

4. Click **Save Destination**.

Delete a destination

To delete a destination from a shipping route, do the following in the **Shipping Route** dialog box,

1. In the **Destination** list, click the destination that you want to remove from the shipping route.
2. Click **Delete**.
3. Click **Yes** to permanently delete the shipping route.

Remember to click **Save Route** to save the changes in the route.

See also

Manage default shipping routes (page 896)

Manage shipping routes for a production control job (page 966)

Manage top text items for shipping tickets

You can create standard memos, notes, or other text items to be added at the top of shipping tickets in the **Shipping Top Text Maintenance** dialog box. You can add new top text items, or modify and delete existing top text items.

Create a top text item

1. Go to **Maintenance** --> **Production Control** --> **Shipping Top Text Maintenance**.

   The **Shipping Top Text Maintenance** dialog box opens.
2. Click **New**.
3. In the **Description** field, type a name for the top text item.

4. In the **Top Text** field, type the information to be added at the top of shipping tickets.
5. Click **Add**.

Modify a top text item

1. Go to **Maintenance** --> **Production Control** --> **Shipping Top Text Maintenance**.

   The **Shipping Top Text Maintenance** dialog box opens.
2. Select the top text item that you want to modify.
3. In the **Description** field, modify the item name.
4. In the **Top Text** field, modify the top text.
5. To save you changes, click **Edit**.

Delete a top text item

1. Go to **Maintenance** --> **Production Control** --> **Shipping Top Text Maintenance**.

   The **Shipping Top Text Maintenance** dialog box opens.
2. Select the top text item that you want to delete.
3. Click **Delete**.

   You are prompted to confirm the deletion.
4. To permanently delete the top text item, click **Yes**.

See also

Create and view a shipping ticket (page 1008)

Add piece tracking and load tracking information and loads to production control jobs

You can add information to any product control job in the **Production/Shipping Entry** dialog box in Tekla PowerFab. You can add piece tracking information and loads, ship and unship loads, and add piece marks to trucks.

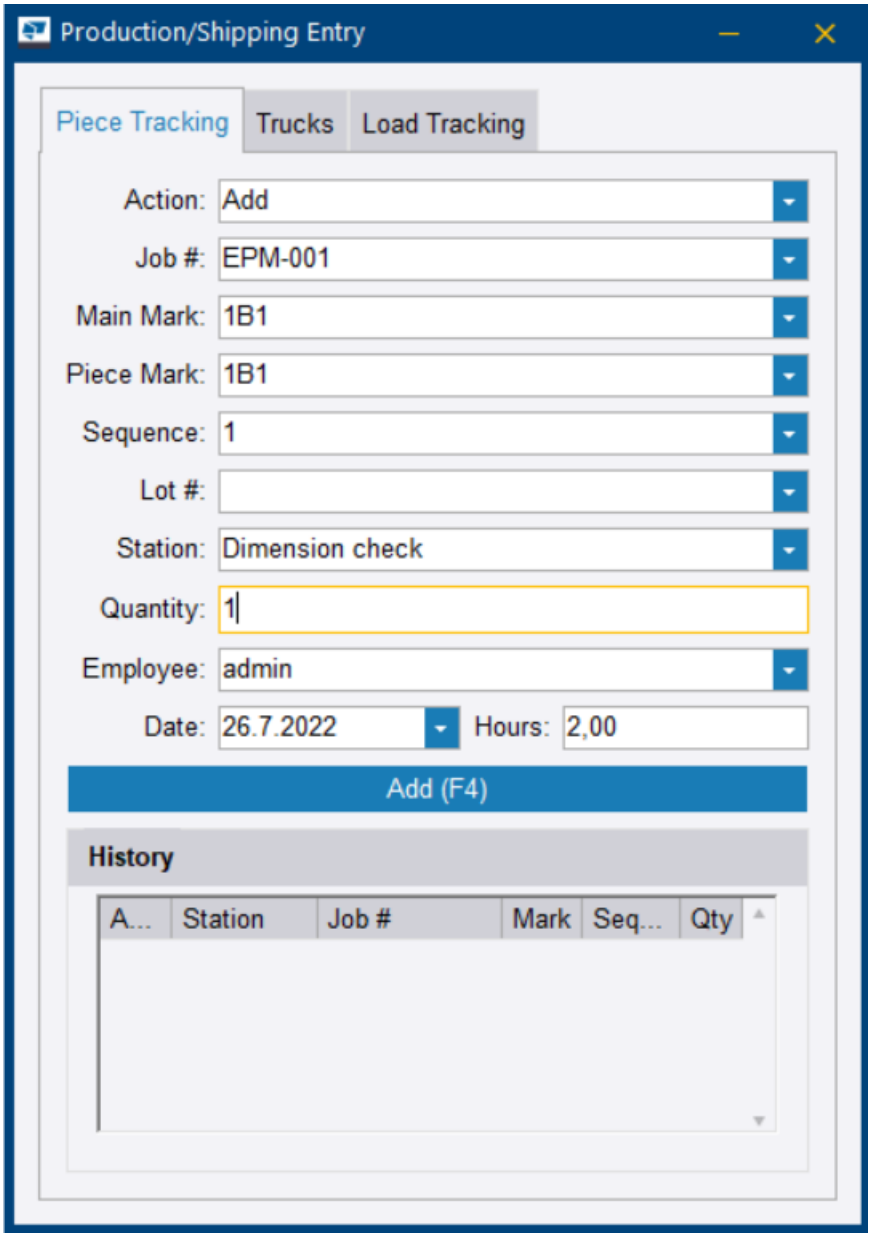
NOTE The **Production/Shipping Entry** dialog box only allows you to add one item at a time.

To open the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.

2. On the menu, select **Production Control** --> **Production/Shipping Entry**.

   The **Production/Shipping Entry** dialog box opens on the **Piece Tracking** tab.



Add piece tracking information

In the **Production/Shipping Entry** dialog box do the following:

1. In the **Action** list, select the action that you want to perform. You can add or delete items.
2. In the **Job #** list, select the production control job for which you want to perform the action.

3. Select the main mark, piece mark, sequence, lot number, station, the employee who is adding the information, and date.

   NOTE The employee must be a Tekla PowerFab user.

4. In the **Quantity** field, enter the number of pieces being worked on.
5. In the **Hours** field, enter the hours used for working on the item.
6. To perform the action, click **Add** or **Delete**.

The action is updated to the selected job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

Add loads, ship loads, and unship loads

In the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Trucks** tab to open it.
2. In the **Action** list, select the action that you want to perform.

   You can add or validate, ship, or unship trucks.
3. In the **Job #** list, select the production job for which you want to perform the action.
4. Select the load number, shipping date, and destination in the appropriate lists.
5. If necessary, click **View** to view the items assigned to the selected load.
6. If the load needs to be returned, select the **To Be Returned** checkbox.

   The load must be returned even if the materials will not be physically returned. Returning the loaded items allows the piece marks to be loaded onto a new shipping ticket that contains items delivered to the job site. This way, Tekla PowerFab can keep accurate records of when parts were received and shipped.
7. To perform the action, click **Add/Validate**, **Ship**, or **Un-Ship**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
8. If needed, create and view the shipping ticket:
   a. Click **Shipping Ticket**.
   b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
   c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.

To	Do this
Print the shipping ticket	1. To change the number of the printed copies, click **+** or **-**. 2. Click **Print**. The **Select Printer** dialog box opens. 3. Select a printer. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. The **Export Options** dialog box opens. 2. Select the **Export Format** 3. To browse to the location where you want to save the file, click **Browse** and select the location. 4. Click **Save**. 5. Modify the file name as needed. 6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. 7. To open the file after exporting it, select the **Open Exported Document** checkbox. 8. Click **Export**.

Add piece marks to trucks

In the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Load Tracking** tab to open it.
2. In the **Action** list, select the action that you want to perform.

   You can add, delete, return, or unreturn items.
3. Select the main mark, piece mark, sequence, lot number, load number, and date.
4. If necessary, click **View** to view the items assigned to the selected load.
5. In the **Quantity** field, enter the number of pieces that are worked on.
6. Click **Add**, **Delete**, **Return**, or **Un-Return**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
7. If necessary, view the shipping ticket:

a. Click **Shipping Ticket**.

b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

c. Do any of the following:

To	Do this
View the shipping ticket	In the **Report Selection** dialog box, click **View**
Print the shipping ticket	1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. In the **Report Selection** dialog box, click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name as needed. 6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. 7. To open the file after exporting it, select the **Open Exported Document** checkbox. 8. In the **Report Selection** dialog box, click **Export**.

Create global production control reports

Global production control reports contain information from multiple production control jobs. You can create either purchasing reports or production reports.

See also

Create purchasing reports for all jobs (page 906)

Create production reports for all or several jobs (page 908)

Create purchasing reports for all jobs

You can create, view, and print purchasing reports involving all production control jobs in the **Purchasing Reports** dialog box.

Create a purchasing report

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Production Control** --> **Purchasing Reports**.
3. In the **Select Production Control Jobs** dialog box, click the arrow buttons to move the production control jobs that you want to include in the reports to the **Included** list.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.
4. Click **OK**.
5. To limit the items that are included in the reports, in the **Production Control Purchasing Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
6. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
   b. Type the maximum and minimum values for the items whose heat documents you want to view.
7. Click **OK**.

   To further limit the items in the reports, repeat steps 5 to 7 for all necessary filter types.
8. Click the arrow on the right side of **Weight Type** field, and select the weight type that you want to use in the report.

   Note that the **Weight Type** list is only visible if you have selected it on the **Report Settings** tab of the **Company Standards** dialog box.

   The net weight option is only available if CNC files have been loaded for the items included in the report.
9. Click **Make Report**.
10. In the **Report Progress** dialog box, click the report that you want to view or print.

    To modify the visible reports, click the **Edit Report Types** button.

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Save a cut list

1. Click **Save Cut List**.
2. In the **Job #** list, select the job.
3. In the **Cut List Description** field, either enter a description directly in the field, or click the arrow on the right side of the field to select an option in the list.
4. Click the arrow on the right side of the **Date Required** field, and click a date in the calendar to select it.
5. If you do not want anyone to make changes to the cut list, select the **Lock Cut List** checkbox.
6. Click **Save To Cut List**.

   Tekla PowerFab saves the cut list. You can view and modify the cut list in the selected production control job and in the Tekla PowerFab Go web application.
7. Click **OK** to close the **Message** dialog box.
8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Create production reports for all or several jobs

You can view, print, or export reports that include information from all or several production control jobs. The available reports include master shipping lists and station summaries.

Create production control reports

1. Go to **Maintenance** --> **Production Control** --> **Reports**.

   The **Production Control Filters** dialog box opens.

2. To only include specific types of items in the reports, select a filter type in the **Type** list, and click **Select**.
3. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include in the reports to the **Included** list.
   - Type the maximum and minimum values for the items that you want to include in the reports.
4. Click **OK**
5. Click **Make Report**.

   The **Report Selection** dialog box opens.
6. Select the report that you want to view, print, or export.

You can modify the visible report types by clicking **Edit Report Types**.

View a report

- In the **Report Selection** dialog box, click **View**.

The selected report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print a production report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Export a production report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Browse to the location where you want to save the exported file, and click **Save**.
5. Modify the file name as needed.

6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

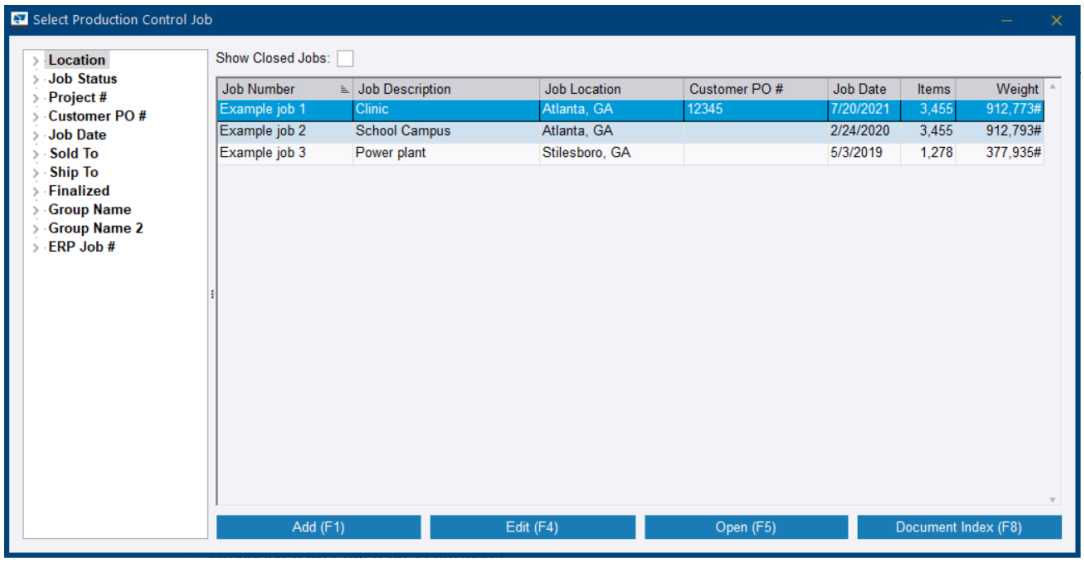
10.2 Open the Production Control module

To manage the production process, open the **Production Control** module.

- At the top of the Tekla PowerFab window, click the **Production Control** button.



The **Select Production Control Job** dialog box open. You can view all existing jobs



NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Next, you can create a new job, open or modify an existing job, or view and modify the documents attached to a job.

Create a production control job

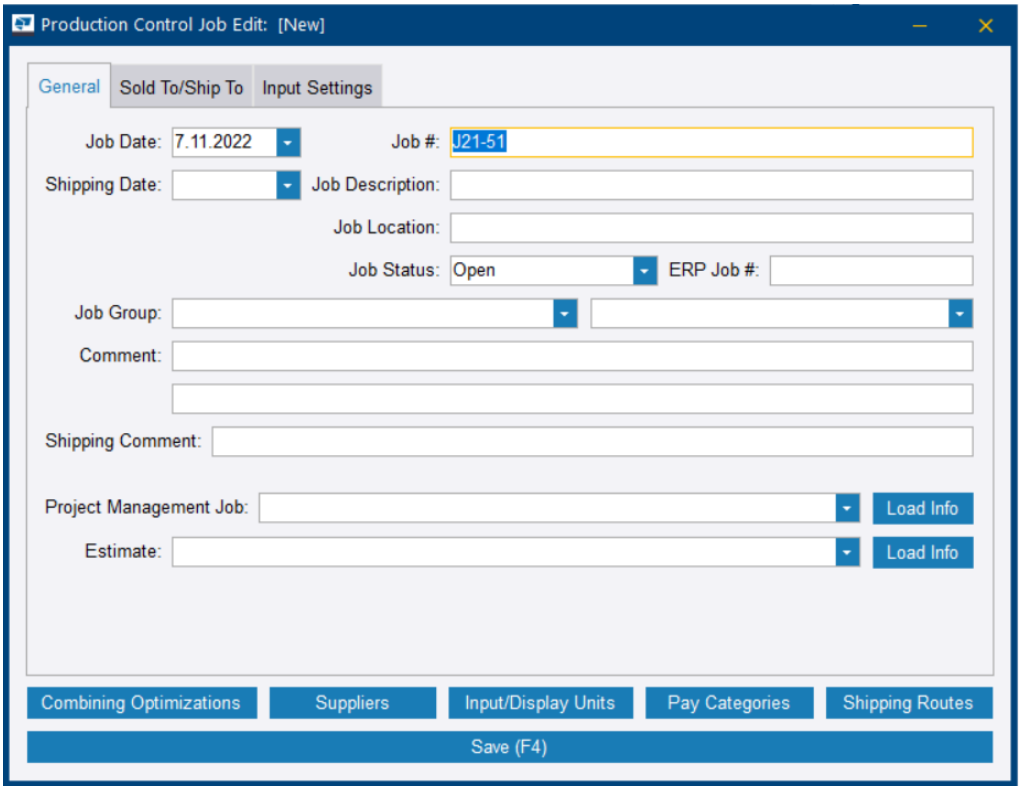
To create a new job, you need to define a few properties.

1. Open the module.

   The **Select <Module> Job** dialog box opens.

2. Click **Add**

   The **<Module> Job Edit** dialog box opens.



Continue to defining the properties on the tabs.

By clicking the buttons, you can find more settings.

NOTE Defining job-specific properties is optional. If you do not define job-specific properties, Tekla PowerFab uses the default properties defined in **Maintenance** --> **Company Standards**.

Define general settings

1. In the **<Module> Job Edit** dialog box, select the **General** tab.
2. Add or modify the properties as needed.

Option	Description
Job Date	The date your company received the job. Tekla PowerFab automatically uses the current date.
Job #	A unique number for the job. Note that the job number cannot be modified after the job has been created.
Shipping Date	The estimated shipping date of the job.
Job Description	The description of the job.
Job Location	The town or city where the job takes place.
Job Status	The job is either still in progress (**Open**) or it has been finished (**Closed**). Estimating has three additional default values, **Bidding**, **Awarded**, and **Lost**. You can filter the **Select <Module> Job** dialog box by **Job Status**, so that only open jobs are shown. See also Job status maintenance (page 276).
ERP Job #	The accounting system job number. Typing the accounting system job number in the **ERP Job #** field allows you to link material items properly when you export information to an accounting system, such as Trimble Viewpoint.
Job Group	Job groups allow you to identify and classify jobs that are similar. This makes filtering and reporting easier when you have a long list of jobs. Either type a job group directly in the blank field, or select an existing job group.
Comment	Any additional comments on the job.
Shipping Comment	Comments on the shipping of the job. For example, you can add information on shipping restrictions.
Project Management Job	Select the project management job that you want to link to the production control job. Linking allows you to import useful information from the selected project management job. The project management job needs to be linked to the production control job to access the drawings in the **Production Control** module. To load general and client contact information from the selected project management job to the production control job, click **Load Info**.

Option	Description
Estimate	Select the estimating job that you want to link to the production control job. Linking allows you to apply the labor from the estimating job to the production control job. To load general information from the estimating job the production control job. Tekla PowerFab will fill the related fields on the **General** tab with information from the selected estimating job. To load information from the selected estimating job, click **Load Info**.

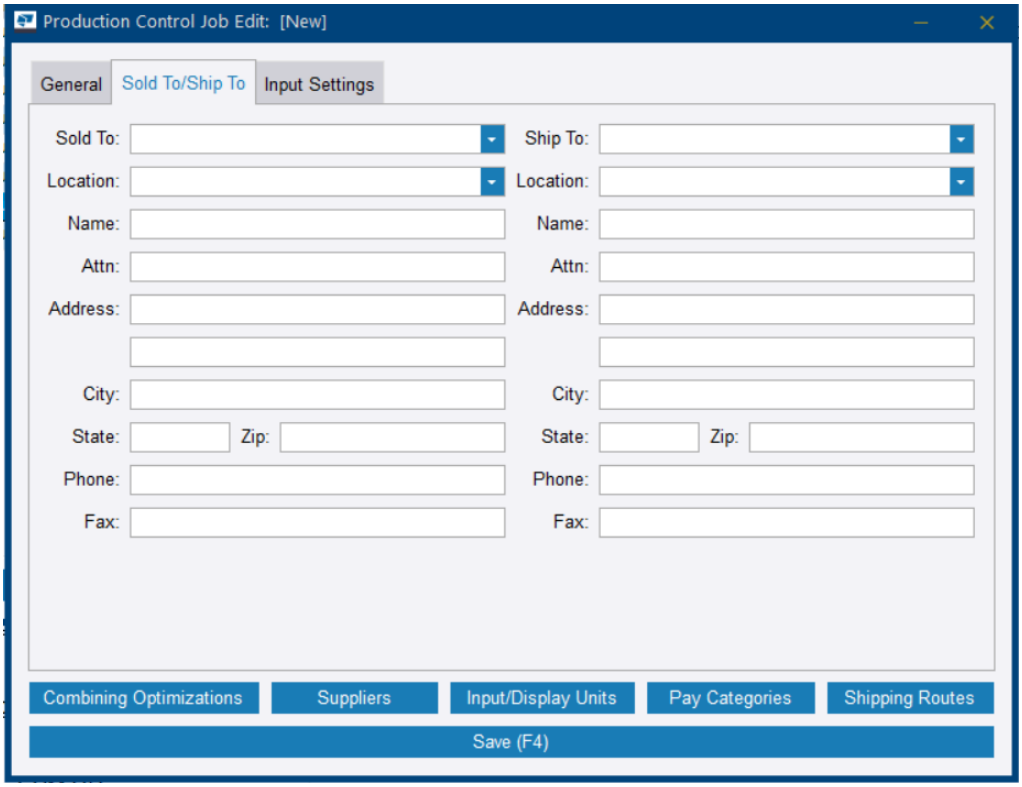
3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define client details (Sold To/Ship To)

On the **Sold To/Ship To** tab, you can define buyer contact information for the job.

1. **<Module> Job Edit** dialog box, select the **Sold To/Ship To** tab.



2. Add or modify the properties as needed.

Option	Description
Sold To	Select the buyer in the list. Note that only companies and contacts that have already been saved in the **Address Book** as **Client** can be selected.
Ship To	Select the receiver in the list.

   The contact information is automatically added to the blank fields. You can modify the details as needed.

3. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

Define input settings

On the **Input Settings** tab, select how Tekla PowerFab interprets and displays the information in the **Production Control** module, if the information is from an imported bill of materials, or directly entered in the **Production Control** dialog box.

For information on defining default input settings, see Define default input and display units for Production Control (page 854).

1. Click the **Input Settings** tab to open it.
2. Modify the settings as needed.

Option	Description
Main Mark Input Type	Allows you to select the input format for main marks. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Piece Mark Input Type	Allows you to select the input format for piece marks. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.

Option	Description
Drawing Number Input Type	Allows you to select the input format for drawing numbers. Note that the input format of drawing numbers in a production control job needs to match the input format set in the linked project management job. Otherwise, the drawings will not be available in the **Production Control** module or in Tekla PowerFab Go. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Sequence Input Type	Allows you to select the input format for sequences. Select a suitable option on the drop-down menu. We recommend selecting the **Any Input - Logical Sort** option.
Use Lot Numbers	When selected, you can divide a sequence or phase into subcategories within a production job by using lot numbers. It is highly recommended to select the **Use Lot Numbers** option. Note that selecting or clearing the **Use Lot Numbers** checkbox only applies to new production control jobs automatically. If necessary, the **Use Lot Numbers** checkbox can be manually selected or cleared for existing jobs as well.
Main Piece Case	Allows you to select uppercase or lowercase letters, or both, for main mark numbers. This makes recognizing the main pieces easier.
Accessory Piece Case	Allows you to select uppercase or lowercase letters, or both, for piece mark numbers. This makes recognizing the piece marks easier.
Main Member Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Main Member Instance Tracking** checkbox, instance tracking will be activated for all new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of main piece marks for each production job individually.

Option	Description
Accessory Part Instance Tracking	When selected, the history of each individual instance, or piece, within an item can be identified and tracked through all production steps. If you select the **Accessory Part Instance Tracking** checkbox, instance tracking will be activated for all new production control jobs. However, existing jobs will not be affected. You can still activate or deactivate the instance tracking of piece mark items for each production job individually.
Piece Mark Force Same Info	When selected, the same information is forced to accessories with the same piece marks. Selecting the **Piece Mark Force Same Info** checkbox prevents adding or importing items with the same piece mark but different material information to the production control job. Note that the **Piece Mark Force Same Info** option is connected to the **Edit Line Item - Update accessories with the same piece mark** list. You cannot select an option in the **Edit Line Item - Update accessories with the same piece mark** unless the **Piece Mark Force Same Info** checkbox is selected.
AutoCalc Drawing Number	When selected, Tekla PowerFab enters a drawing number into the drawing number field based on the main mark. This option works correctly if the first number of each shop detail drawing main piece is the drawing number. If the marking system that you use does not have the drawing number as the first number of the main mark, do not select the **AutoCalc Drawing Number** checkbox.
Default Finish	The default finish for items. The available finish options are set in the **Finish Maintenance** dialog box. You can change the finish for each main mark item in a production control job. The finish of the main mark item is also applied to all of the included accessories. Click the arrow on the right side of **Default Finish** field, and click a suitable default option in the list to select it.

Option	Description
TFS - Drop Job Reserve	Select the way of dealing with the drop from a cut. You can keep the remnants in the job, reserve them for a different job, or unreserve them.
Allow Cut List Grade Substitution	When selected, allows you to choose items with subsitutable grades while processing a cut list.
Piece Tracking by Time	When selected, allows you to make piece tracking entries in that include the completion time, so that you can tell in which shift an item was completed. The completion time is also visible in piece tracking reports.

- Click **Save**.

  The **<Module> Job Edit** dialog box closes.
- Continue to add or modify properties.

When you click **Save**, the changes you made are saved.

You can find and define further job-specific settings by clicking the buttons.

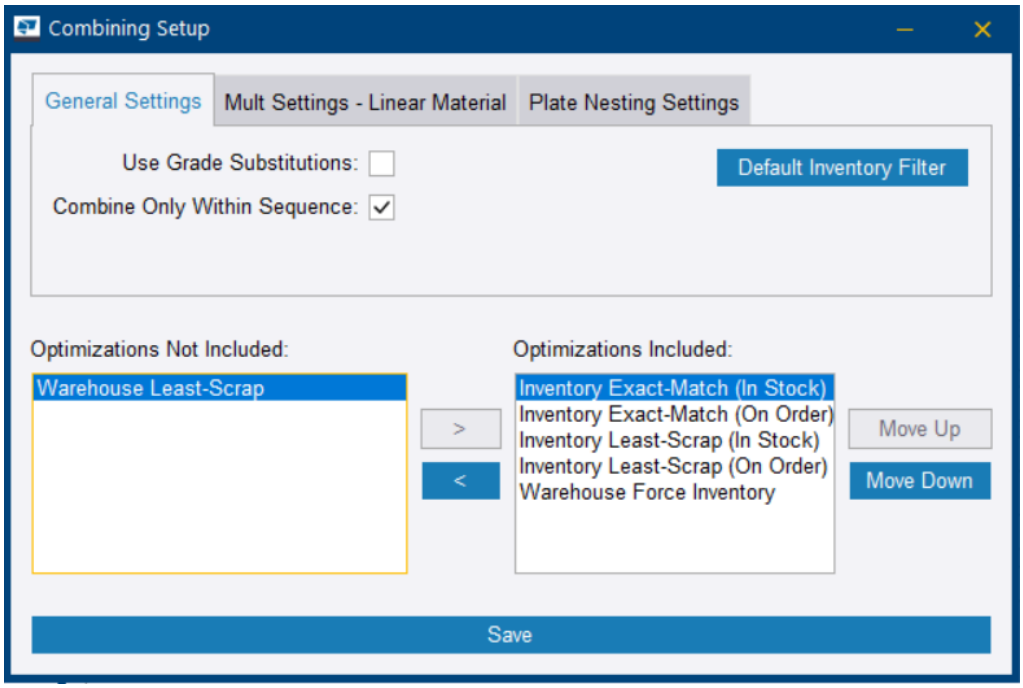
Define combining optimizations for a production control job

You can define job-specific settings for material optimization.

You are in the **Production Control** module. You are either creating a new job or modifying an existing job in the **Production Control Job Edit** dialog box.

1. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



2. Modify the settings on the various tabs as needed.

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Combine Only Within Sequence	Select if you want to mult and nest only materials that are in the same

Option	Description
	sequence onto the inventory items or purchasable lengths. The selection of **Combine Only Within Sequence** uses additional material for each sequence. This may be desirable in some cases, but it may also lead to excess drop amounts.
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. To define the inventory material available for combining, click **Default Inventory Filter** and select the filters.
5. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla

Option	Description
	PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define default combining optimizations for Production Control (page 854)

Troubleshoot combining issues (page 1235)

Define suppliers for a production control job

You can define job-specific suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material.

You are in the **Production Control** module. You are either creating a new job ormodifying an existing job in the **Production Control Job Edit** dialog box.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Click **Suppliers**.

   The **Suppliers** dialog box opens.
2. Select suppliers for each material group on the drop-down lists.
3. Click **OK**.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.

- Continue to add or modify properties.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Create a production control job (page 911)

Modify a production control job (page 934)

Define default suppliers for Production Control (page 858)

Define input and display units for production control jobs

You can define input and display units for individual jobs. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

You are in the **Production Control** module. You are either creating a new job or modifying an existing job in the **Production Control Job Edit** dialog box.

1. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
2. Select the measurement system and the units of measurement on the drop-down menus.
3. Click **OK**. You return to the **<Module> Job Edit** dialog box.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved.

See also

Create a production control job (page 911)

Modify a production control job (page 934)

Define default input and display units for Production Control (page 854)

Link a production control job to an estimating job and a project management job

By linking a production control job to an estimating job and a project management job, you can compare the estimated and actual working hours and material information.

1. At the top of the Tekla PowerFab window, click the **Production Control** button.
2. In the **Select Production Control Job** dialog box, select the production control job that you want to link to a project management job.
3. Click **Edit**.
4. In the **Production Control Job Edit** dialog box, click the arrow on the right side of the **Project Management Job** list and select the desired project management job.

   The project name and job number do not need to match.
5. To load general information from the selected project management job to the production control job, click **Load Info**.

   Tekla PowerFab fills the related fields on the **General** tab with information from the selected project management job, and loads the addresses from the first company tab in the project management job onto the **Sold To/ Ship To** tab.
6. Click **Save**.
7. Re-open the **Production Control Job Edit** dialog box.
8. Click the arrow on the right side of the **Estimate** list and select the desired estimating job in the list.

   The job numbers do not need to match.
9. To load general information from the selected estimating job to the production control job, click **Load Info**.

   Tekla PowerFab fills the related fields on the **General** tab with information from the selected estimating job.
10. Click **Save**.

Define pay categories for a production control job

Pay categories are breakdown items used in reporting and scheduling. You can use pay categories as filters to help you to sort information in reports. Tekla PowerFab also contains specific shipping reports that are designed to be used with pay categories.

You are in the **Production Control** module. You are either creating a new job or modifying an existing job in the **Production Control Job Edit** dialog box.

1. Click **Pay Categories**. The **Pay Categories** dialog box opens.
2. Modify the properties in the dialog box.

To	Do this
Create a new pay category	a. Click **New**.

To	Do this
	b. In the **Pay Category** field, type the pay category name. For example, `Beams`, `Columns`, or `Bracing`. c. Type a description for the pay category. For example, `Light`, `Medium`, or `Heavy`. d. In the **Lower Bound Unit Weight** field, type the lowest weight that is applicable to the pay category. e. In the **Unit Price** field, type a pricing per hundredweight that is applicable for the material type. f. Select the appropriate **Cost Code** and **Cost Type**. g. Click **Add**. h. Click **Save**.
Modify an existing pay category	a. In the list, click the pay category that you want to modify. b. Modify the pay category type, description, unit weight, and unit price according to your needs. c. Click **Save**.
Delete a pay category	Note that deleting a pay category is permanent and cannot be undone. a. In the list, click the pay category that you want to delete. b. Click **Delete**. c. In the confirmation dialog box, click **Yes** to permanently delete the pay category.

3. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
4. In the **Production Control Job Edit** dialog box, click **Save**.

See also

Create a production control job (page 911)

Define default pay categories for Production Control (page 861)

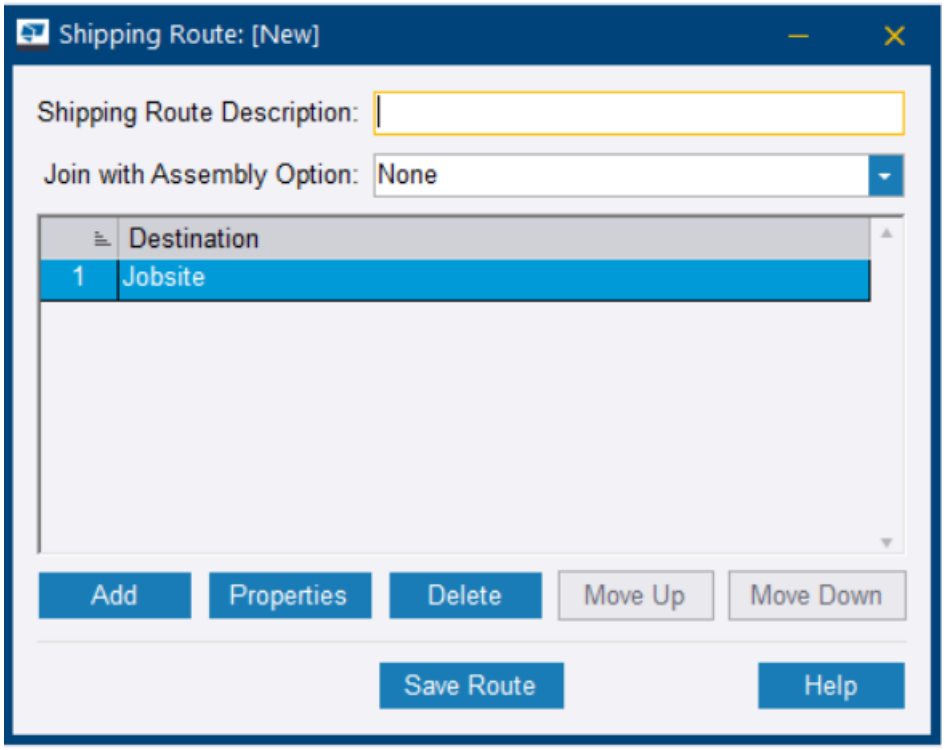
Define shipping routes for a production control job

You can view and modify the shipping routes used for load tracking in the current production control job. You can also create new job-specific shipping routes or delete existing ones.

Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as sending material to an external galvanizer. Items that are returned from one destination can then be shipped to another destination.

Shipping route properties

When you are either creating a new job or modifying an existing job in the **Production Control Job Edit** dialog box, you can open the **Shipping Route** dialog box to modify the shipping route properties.



Shipping Route Description: Type a description for the shipping route.

Join with Assembly Option: Select if and when the weight of an accessory part is included in the shipping weight of the assembly.

- **None**: The weight of the accessory is not included in the shipping weight of the assembly. If the **Jobsite** destination is in the shipping route, select the **None** option.
- **Join with assembly for first destination**: The weight of the accessory is joined to the shipping weight of the assembly for all of its destinations except for the first one.

- **Join with assembly for...**: The weight of the accessory is included in the shipping weight of the assembly for the destination that you select in the **Join with Assembly For** list, and for any other destinations after that one.
- **Join with assembly after...**: The weight of the accessory is included in the shipping weight of the assembly for all destinations after the destination you select in the **Join With Assembly After** list.

Add: Opens the **Shipping Destination Properties** dialog box for adding a new destination.

Properties: Opens the **Shipping Destination Properties** dialog box for modifying an existing destination.

Delete: Removes the selected destination from the shipping route.

Move Up/**Move Down**: Moves the selected destination one step earlier/later in the shipping route.

Save Route: Saves the shipping route details.

Create a shipping route

When you are either creating a new job or modifying an existing job in the **Production Control Job Edit** dialog box, you can open the **Shipping Route** dialog box to create a new shipping route.

1. Click **Shipping Routes**.

   The **Shipping Route Maintenance** dialog box opens.
2. Click **New**.

   The **Shipping Route** dialog box opens.
3. In **Shipping Route Description**, type a description for the new shipping route.
4. Select a value for **Join With Assembly Option**.
5. To add, modify, or remove destinations, see Manage shipping destinations (page 899).

   NOTE The shipping route can have any number of destinations, or no destinations at all. If the **Jobsite** destination is present, it is always the last destination on the shipping route. The **Jobsite** destination is the **Ship To** address defined for each production control job in the **Production Control Job Edit** dialog box.
6. To change the order of destinations in the shipping route, do the following:
   a. Select the destination that you want to move to an earlier or later position on the shipping route.
   b. Click the **Move Up** and **Move Down** buttons.

7. Click **Save Route**.

Copy a shipping route

You are in the **Shipping Route Maintenance** dialog box.

1. In the list, select the shipping route that you want to use as the basis of a new shipping route.
2. Click **Copy**.

   The **Shipping Route** dialog box opens.
3. In **Shipping Route Description**, type a description for the new shipping route.
4. Modify the shipping route properties.
5. Click **Save Route**.

Modify a shipping route

You are in the **Shipping Route Maintenance** dialog box.

1. Select the shipping route that you want to modify.
2. Click **Properties**.

   The **Shipping Route** dialog box opens.
3. Modify the shipping route properties.

   To add, modify, or remove destinations, see Manage shipping destinations (page 899).
4. Click **Save Route**.

Delete a shipping route

Deleting a shipping route is permanent and cannot be undone.

NOTE Job-specific shipping routes cannot be deleted if any parts are assigned to them.

In the **Shipping Route Maintenance** dialog box, do the following:

1. Select the shipping route that you want to delete.
2. Click **Delete**.
3. Click **Yes** to permanently delete the shipping route.

Find a production control job

You can search to find a specific job.

1. In the **Select Production Control Job** dialog box, click the **Production Control** ribbon tab.

2. Select **Find Job** or press **Ctrl+F** on the keyboard.

   The **Enter Value** dialog box opens.

3. Select the job in the drop-down menu or enter the job number in the search box.
4. Click **OK**.

The selected job is highlighted. To open the job, double-click it or click **Open**.

NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

Open a production control job

To view or modify the items in an existing production control job, you need to open the job.

1. In the **Select Production Control Job** dialog box, select the job that you want to open.

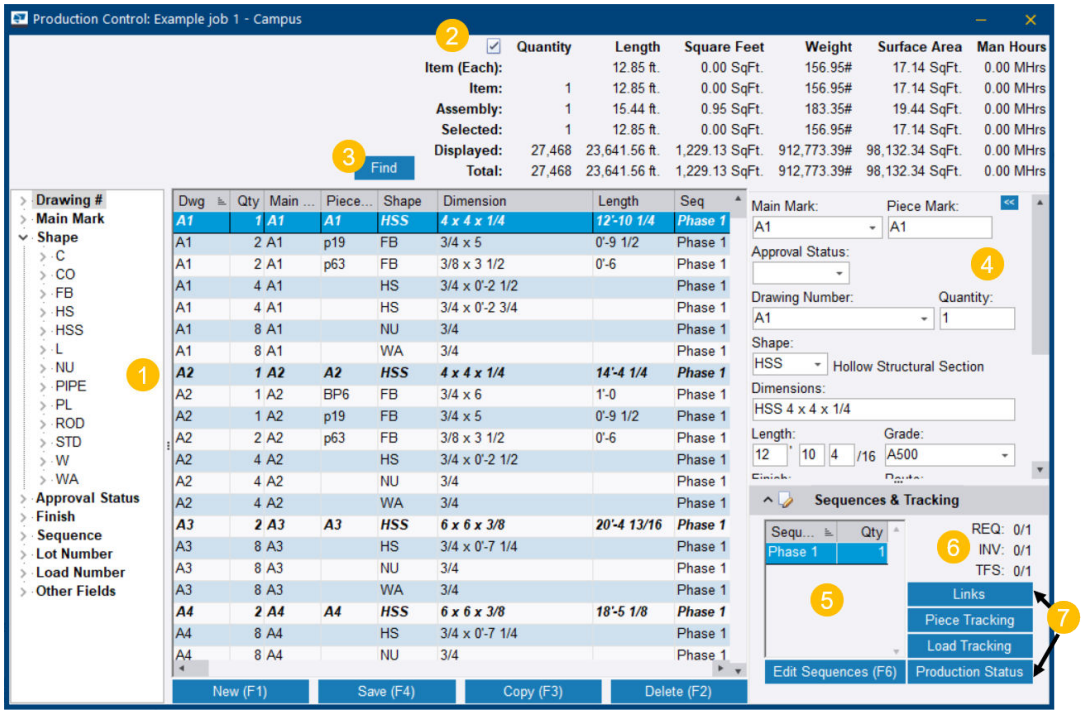
   NOTE Jobs whose statuses are set to **Closed** are not shown by default. To show closed jobs, select the **Show Closed Jobs** checkbox.

2. Double-click the job, or click **Open**.

The **Production Control** dialog box opens.

NOTE If the **Open to Filter Selection** checkbox has been selected in **Maintenance** --> **Production Control** --> **Company Standards**, the **Production Control Filters** dialog box opens first.

See Filter information in the Production Control dialog box (page 930).



(1) Navigation tree: Allows you to view items by drawing number, shape, sequence, or load.

Click **+** to expand a category, and click a subcategory to only display items of that category.

(2) Summary: By default, shows the quantity, length, area, and weight of each item, the current item and assembly, the selected items, all items shown in the display area, and the entire job.

You can click the checkbox in the upper-left corner of the summary to select for which items you want to show the summary.

(3) Find: Use the button to find items of a specific shape, material grade, or material dimension, or a specific item in the production control job. For instructions, see Find production control items (page 931).

(4) Input section: Allows you to modify the information of new or selected material items.

(5) Sequence: The section shows the sequences of the selected item, and the **Edit Sequences** button allows you to manage the sequences. For instructions, see Manage the sequences and lots of selected production control items (page 982).

(6) Information grid: allows you to view the overall situation of the material item:

- **REQ**: The number of pieces that are on a requisition and have not yet been combined or purchased.
- **INV**: The number of pieces that have been combined in the production control job and are currently listed in a purchase order.
- **TFS**: The number of pieces that have been taken from stock and are being worked in the shop.

(7) Links, **Piece Tracking**, **Loads**, and **Production Status**: The buttons allow you to view and manage the item's station summary and the loading situation, and view the production status and the linked material items in other modules. If multiple items are selected, the information of the last selected item is shown.

For instructions, see View material links (page 955), Track production by piece mark (page 1017), Manage loads (page 999), and View production statuses of items (page 985).

See also

Filter information in the Production Control dialog box (page 930)

Filter information in the Production Control dialog box

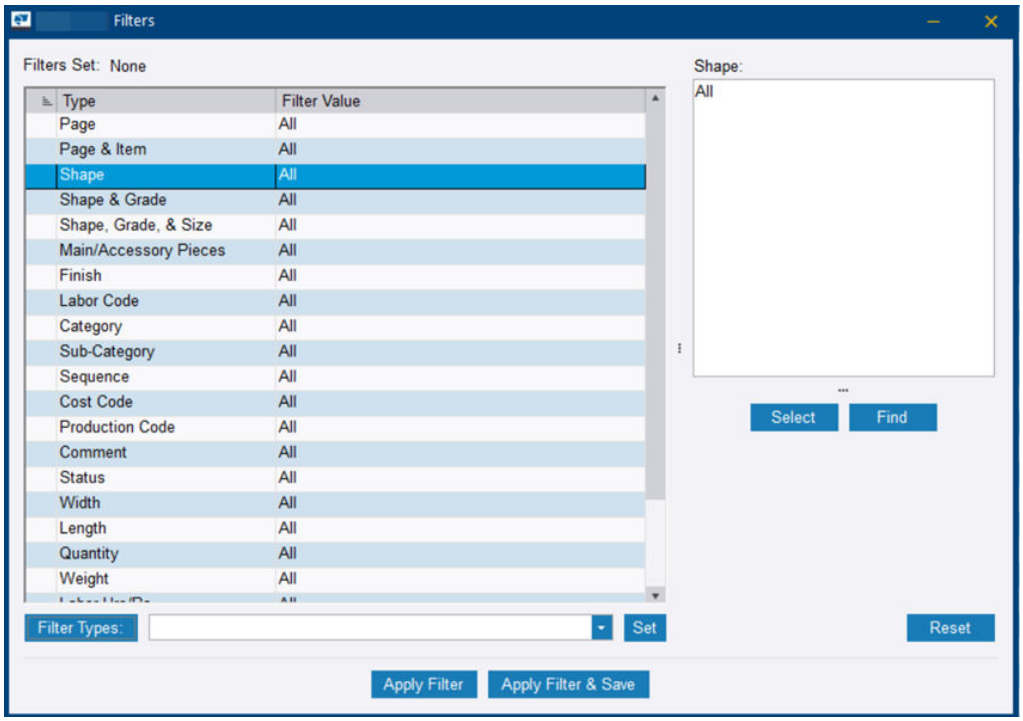
In addition to using the navigation tree for filtering items, you can set filters that determine which items are shown in the **Production Control** dialog box. You can also save the filter settings for later use.

If the **Open to Filter Selection** checkbox has been selected in **Maintenance** --> **<Module>** --> **Company Standards**, the **<Module> Filters** dialog box opens automatically when you open a job.

If the **Open to Filter Selection** checkbox has not been selected, open the **<Module> Filters** dialog box as follows:

1. In an open production control job, click the **Production Control** ribbon tab.
2. On the menu, select **Filter**.

The **<Module> Filters** dialog box opens.



3. Select a filter type in the **Type** list and click **Select**.

   The **Filter** dialog box opens.

   For some filter types, you can also click **Find** and type the desired value in the search box to use it. This way, you do not have to scroll through all the available items.

4. Click the arrow buttons to move the items that you want to display to the **Included** list.

5. Click **OK**.

   If you want to further filter the information displayed , repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

   If you want to clear all filter settings, click **Reset**.

6. Click **Apply Filter**.

The **<Module> Filters** dialog box closes, and the items are filtered according to the settings you made.

To display all information again, click **Clear Filters** in the upper-left corner.

To create and save commonly used filters, see Create and modify module-wide filters (page 134).

Find production control items

Use the **Find** button in to quickly find items in an open production control job. You can search for items by material shape, grade, and dimensions, or by page and item number.

1. In an open production control job, click **Find**.
2. Do one of the following:

To	Do this
Find all items that have a particular shape, grade, and dimensions	a. In the **Find** menu, select **Find Shape/Grade/Size**. b. In the **Find** dialog box, select the right shape, grade, and dimensions in the available lists. You can also start typing the shape, grade, or dimensions. Tekla PowerFab will suggest options that match what you have typed. c. Click **Find**. The **Find** dialog box closes. Only the items that match your search are now shown in the current production control job.
Find the right item on a particular page of the job	a. In the **Find** menu, select **Find Item**. b. In the **Find** dialog box, select the main mark and piece mark in the available list. You can also start typing the main mark or piece mark. Tekla PowerFab will suggest options that match what you have typed. c. Click **Find**. The **Find** dialog box closes. Only the items that match your search are now shown

See also

Manage production control items (page 973)

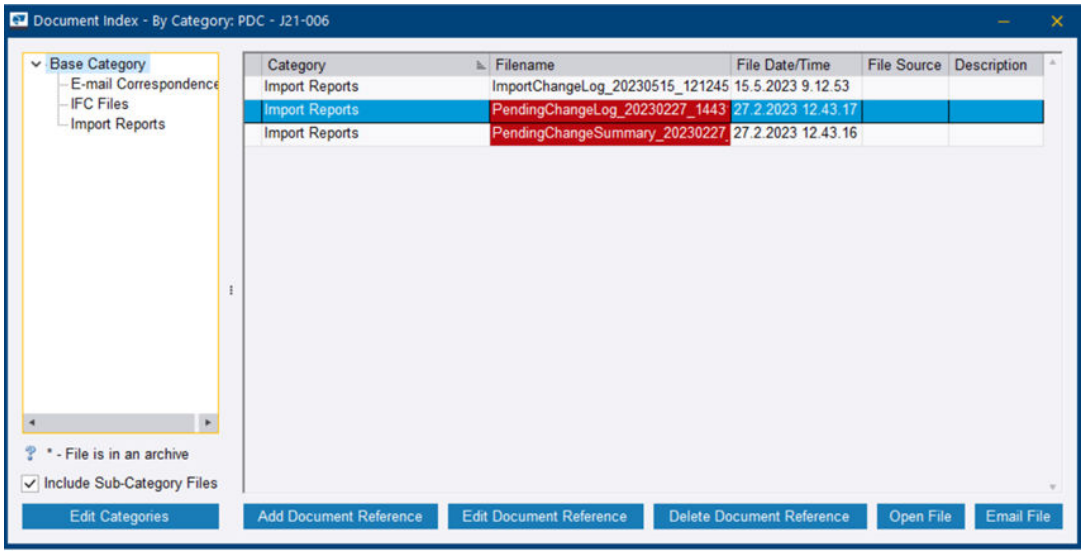
Manage files for a production control job

Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document

index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

See also

Document Index (page 183)

Set the standard categories for attached documents (page 184)

Modify a production control job

You can modify the properties of an individual job at any time, no matter if the current properties have been set for all jobs in **Company Standards** or for an individual job when creating it.

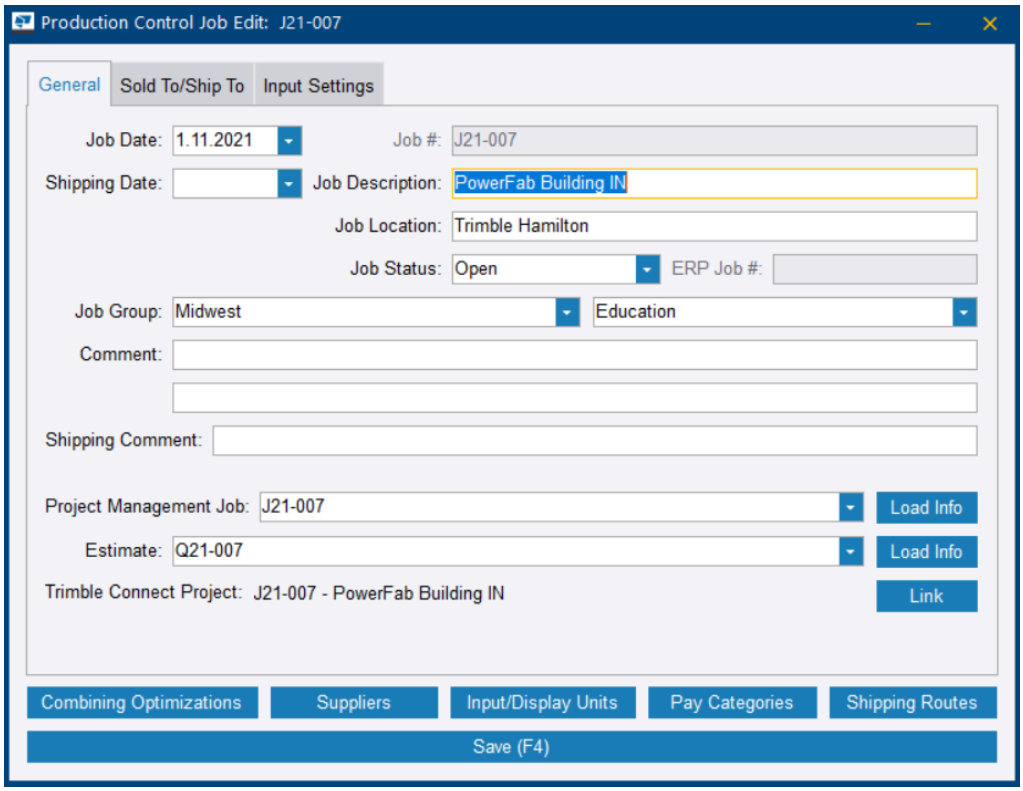
The changes override the company standard settings for the current job.

NOTE	You cannot change the job number.

1. Open the module.

   The **Select <Module> Job** dialog box opens.
2. Select the job that you want to modify.
3. Click **Edit**.

The **<Module> Job Edit** dialog box opens.



For details on the properties, see Create a production control job (page 911).

4. Click **Save**.

The **<Module> Job Edit** dialog box closes. The job is updated to match the changes that you made.

See also

Create a production control job (page 911)

View the production dashboard

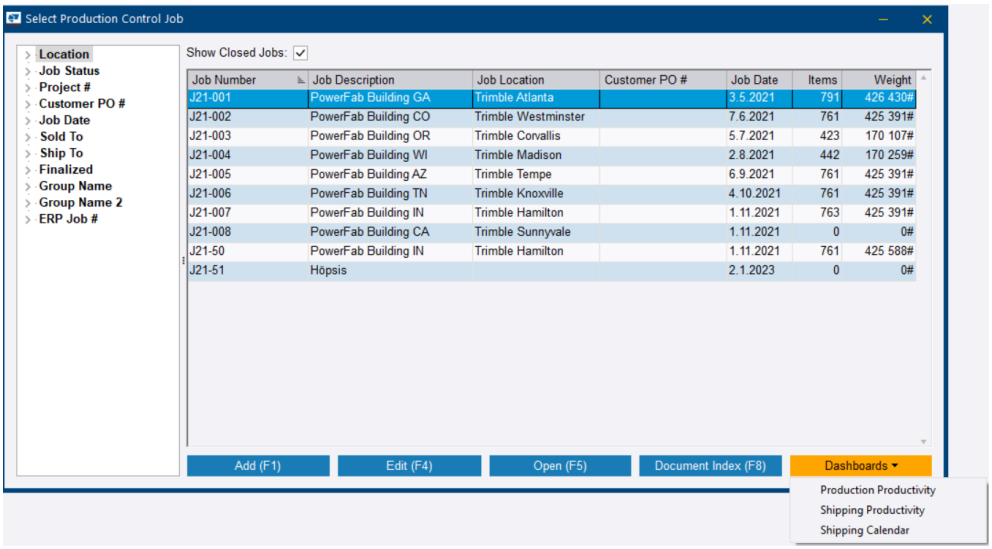
You can view and manage the Tekla PowerFab Go production productivity dashboard and the shipping calendar for a job directly from Tekla PowerFab desktop application.

For a user to be able to view the dashboard, the Administrator must add the user's **PowerFab Go Site Address** in **File** --> **Administration**. See Define Tekla PowerFab administration settings (page 91).

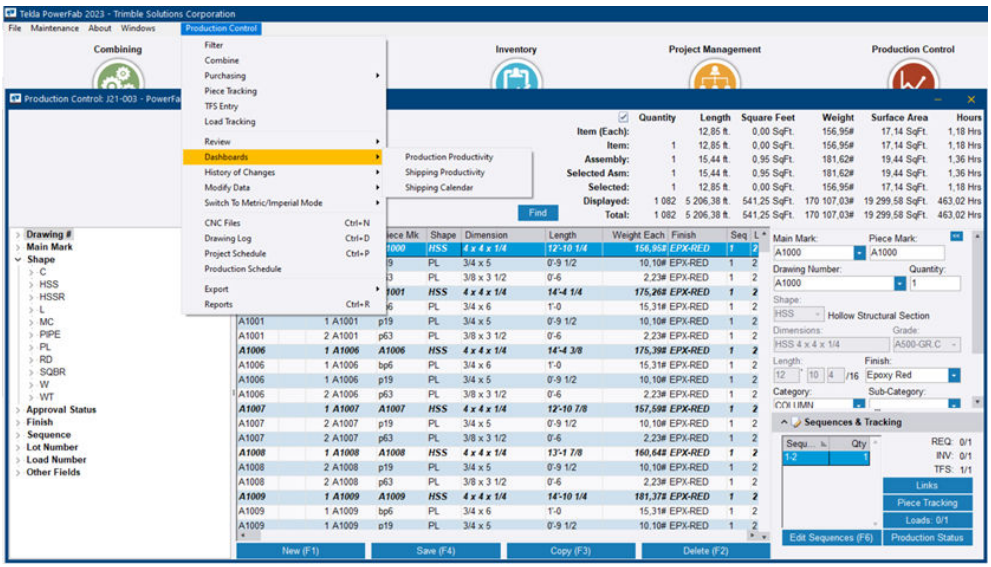
The user must have a Tekla PowerFab subscription.

For more information on the production dashboard, see Tekla PowerFab Go User Guide.

- In **Production Control**, do either of the following:
  - To get an overview, in the **Select Production Control Job** dialog box, click **Dashboards**.



  - To open a dashboard for a job, in the **Select Production Control Job** dialog box, open a job, click the **Production Control** ribbon tab, and select **Dashboards**.



The **Dashboard** view opens.

To access other functionalities of Tekla PowerFab Go, you have to open Tekla PowerFab Go in a browser.

10.3 Manage production control job information

You view and adjust multiple details of production control jobs, such as the changes made to the jobs, and the production statuses and inspection statuses of items. You can also view and adjust the project schedule and the production schedule, or create production reports.

Import files to a production control job

1. Go to **File** --> **Import**.

   The **Import** dialog box opens.
2. In the navigation tree on the left, select **Production Control** and the file type that you want to import.
3. To select the file, click the ellipsis button (**...**) and select the file you want to import.
4. Click **Open**.
5. Click **Import**.

   TIP You can also click **Test Import**, which simulates the import process and checks for issues but does not actually import any material.

   The **Production Control Job Edit** dialog box opens.
6. In **Job #**, type the name of the job you want to update.
7. Click **Save**.

   The **Import** dialog box opens.
8. Select the desired option and click **OK**.
9. Click **Yes** to confirm.

   The **Import** log and **Change Summary** dialog boxes open.

Required columns for production control Excel imports

- Drawing #
- Main Mark
- Piece Mark
- Quantity
- Shape
- Dimensions
- Length
- Grade

See also

Manage changes to a production control job (page 938)

Import files to Tekla PowerFab (page 144)

Manage changes to a production control job

You can view and assess the impact of changes caused by importing new or revised drawings or bills of materials into Tekla PowerFab. You can also visualize the changes within the project model via Trimble Connect.

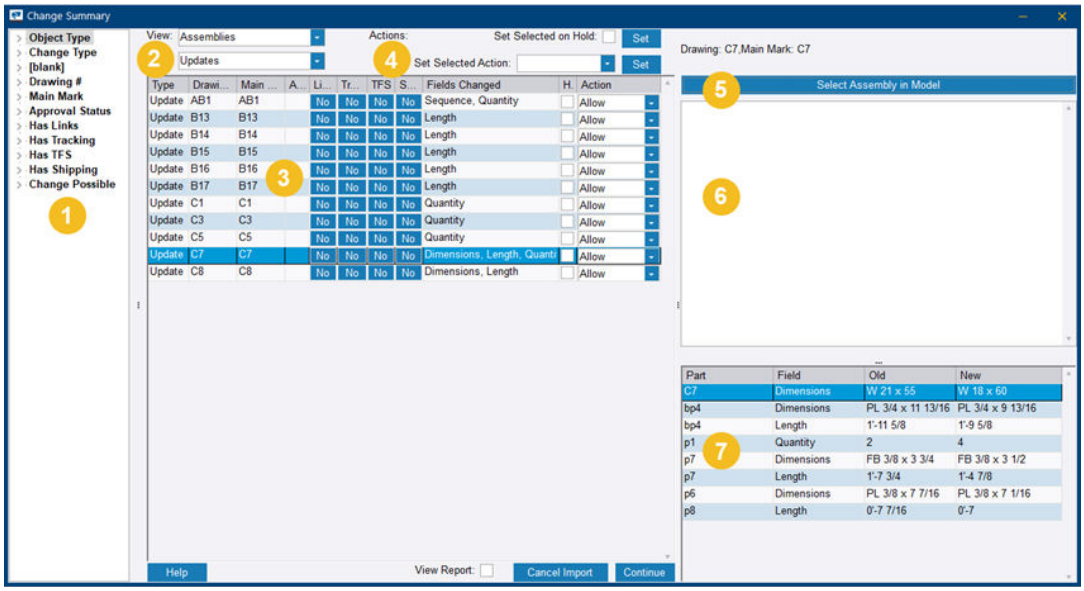
Before the actual import, you can view a summary of changes and decide to accept the changes, reject them, or save them for later.

When the changes are saved for later, they are put on hold so that another person can review them and decide on the appropriate action. When a drawing is on hold, it cannot be worked on until the change has been reviewed and processed.

For instructions for importing files, see Import files to a production control job (page 937).

View the summary of revisions

When you are importing files, and revisions are found, the **Change Summary** dialog box opens.



(1) Navigation tree: You can narrow down the list of items shown.

- **Object Type**: **Assembly** (default), **Drawing**, **All**
- **Change Type**: **Update** (default), **Addition**, **All**

If there are no assembly updates in the job, you can see all changes to all items.

(2) View: An alternative way of selecting the **Object Type** (default **Assemblies**) and **Change Type** (default **Updates**)

(3) Grid: The list of changes

- Colors:
  - Red: Update not possible
  - Yellow: Highlights impacts if import performed
- **Type**: Change type
- **Drawing #**: Drawing number
- **Main Mark**: If the line represents a drawing, this cell is blank. Then the approval status is shown. **IH** stands for "Import Hold".
- Buttons:
  - **Linked**: **Yes** appears if the material in the assembly in the production control job is linked to a requisition, purchase orders or inventory, or a cut list.
  - **Tracking**: **Yes** appears if anything in the assembly has piece-tracking entries.
  - **TFS**: **Yes** appears if anything in the assembly has been taken from stock.
  - **Shipped**: **Yes** appears if anything from the assembly is on a load.
- **Hold**: When selected, puts the selected item on hold and sets the **Approval Status** to **IH** (Import Hold).
- **Action**: Allows you to select the desired action for the selected row
  - **Allow** implements the changes once the import is completed. You can select **Allow** only if the changes can be made. The changes are applied to the **Production Control** bill of materials and the associated assembly drawings are updated in the drawing log.

    For changes that cannot be made, you can only select **Save for Later** or **Prevent**.
  - **Save for Later** saves the changes and puts the selected items on hold so that they can be reviewed.
  - **Prevent** rejects the changes.

  TIP To customize the grid, right-click it, and select **Customize grid**.

(4) Quick edit items: Allow you to select and apply actions for multiple rows at once.

- **Set Selected on Hold**: Allows you to place the selected items on hold.

- **Set Selected Action**: Allows you to select **Allow**, **Save for Later** or **Save for Later** in the **Action** column for the selected items.

(5) Select Assembly in Model: Allows you to launch the Trimble Connect model comparison tool

(6) Summary of changes

(7) Details regarding the changes

Manage changes

When you are importing revised drawings or bills of materials, you can review the changes and select the subsequent actions in the **Change Summary** dialog box.

1. In the navigation tree or **View** menus, select the object type and change type.
2. Select one or more changes.

   TIP To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

3. To review the impact of a change, click one of the following buttons (optional):
   - **Linked**: **Yes** appears if the material in the assembly in the production control job is linked to a requisition, purchase orders or inventory, or a cut list.

     Clicking this button opens the material **Links** dialog box.
   - **Tracking**: **Yes** appears if anything in the assembly has piece-tracking entries.

     Clicking this button opens the **Production Status** dialog box.
   - **TFS**: **Yes** appears if anything in the assembly has been taken from stock. Clicking this button opens the **Production Status** dialog box.
   - **Shipped**: **Yes** appears if anything from the assembly is on a load.

     Clicking this button opens the **Production Status** dialog box.
4. Select one of the following in **Actions**:
   - To implement the change, select **Allow**. This automatically removes the **Hold** flag.
   - To postpone implementing the change or have someone else to review it, select **Save for Later**. The item is put on hold.
   - To reject the change, select **Prevent**.

TIP If you have selected multiple items, you can put all items on hold by selecting **Set Selected on Hold** or select an action for all of the selected items in **Set Selected Action**.

5. To complete the import of the changes with the selected values, click **Continue**.

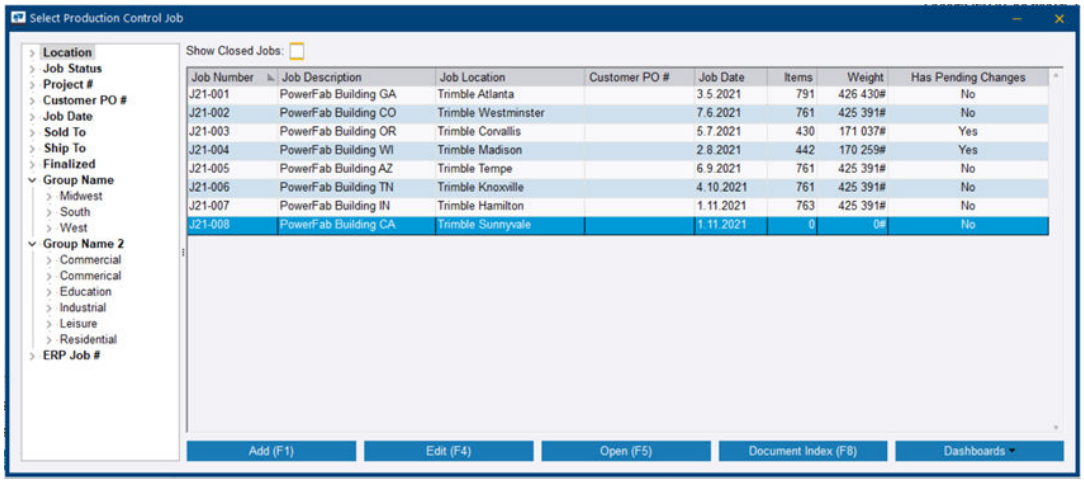
   While you are importing, changes that affect the items being imported may occur. Then the **Continue** button changes to **Retry**.

   When you click **Retry**, this reloads all the changes and reports the new status of the changes.

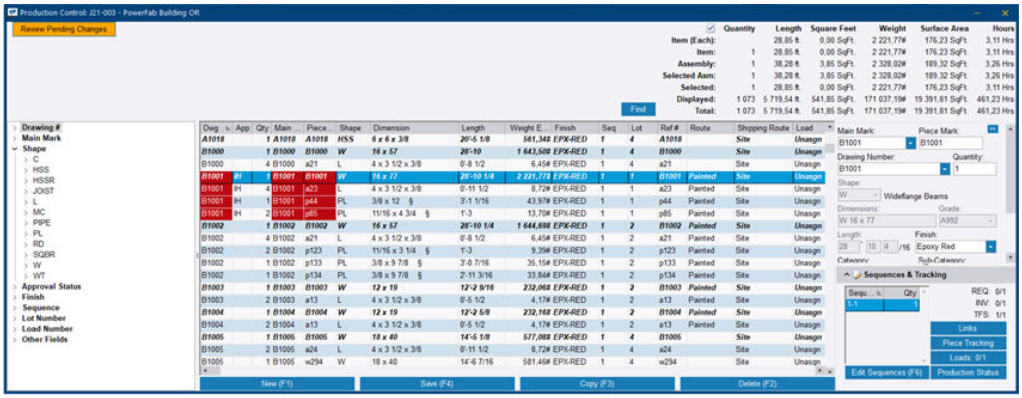
6. To confirm your action, select a suitable option.

Review and manage saved changes in a job

To get an overview of which jobs have pending changes, you can customize the grid in **Select Production Control Job** to include the **Has Pending Changes** column. See Customize the layout of a dialog box (page 131).



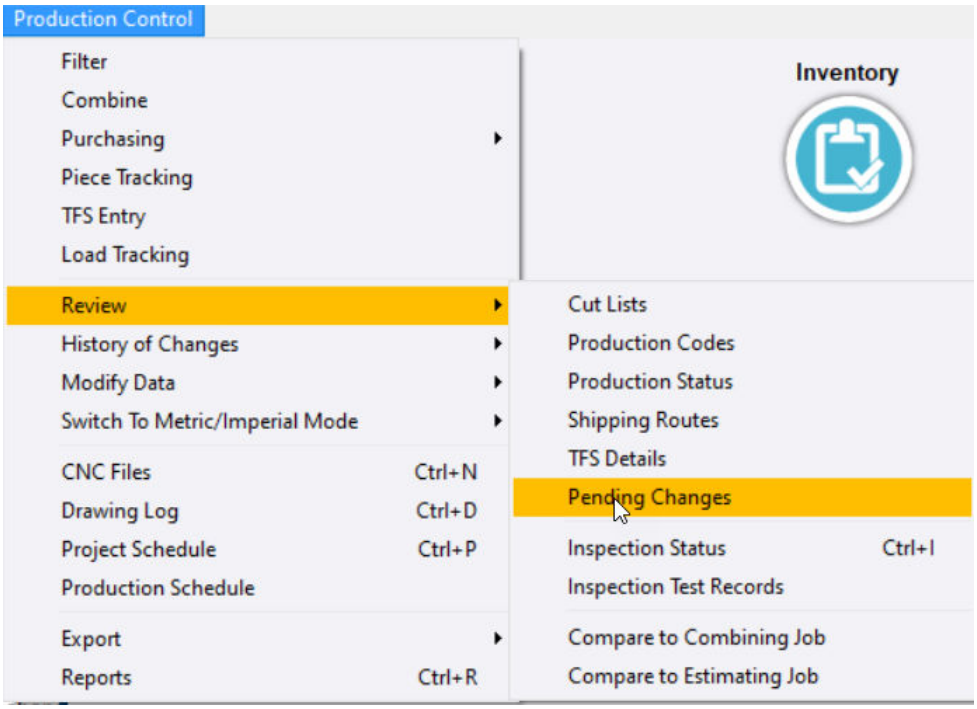
1. Open a job.



If there are changes that have been saved for later, the dialog box shows the **Review Pending Changes** button.

Red color indicates items that have a hold placed on them. **IH** status in the **App** column stands for "Import Hold".

2. To view changes that have been saved for later, do either of the following:
   - Click **Review Pending Changes**.
   - In the **Production Control** ribbon tab, go to **Review** > **Pending Changes**.



The **Pending Changes** dialog box opens showing the change summary.

3. To review the impact of a change, click one of the following buttons (optional):
   - **Linked**: **Yes** appears if the material in the assembly in the production control job is linked to a requisition, purchase orders or inventory, or a cut list. Clicking this button opens the material **Links** dialog box.
   - **Tracking**: **Yes** appears if anything in the assembly has piece-tracking entries. Clicking this button opens the **Station Summary** dialog box.

     You can change the piece tracking information for this assembly.
   - **TFS**: **Yes** appears if anything in the assembly has been taken from stock. Clicking this button opens the **TFS Details** dialog box.

     You can reverse or update the TFS for this part.

- **Shipped**: **Yes** appears if anything from the assembly is on a load. Clicking this button opens the **Loads** dialog box.

  You can remove the part or assembly from the load.

4. Select one of the following in **Actions**.
   - To implement the change, select **Allow**.
   - To postpone implementing the change or have someone else to review it, select **Save for Later**. The item remains in hold and in **Pending Changes**.
   - To remove the change, select **Delete**.

   TIP If you have selected multiple items, you can put all items on hold by selecting **Set Selected on Hold** or select an action for all of the selected items in **Set Selected Action**.

View changes in Trimble Connect

You can view the changes in Trimble Connect. The comparison model created can interact with the change management view at the assembly and part level.

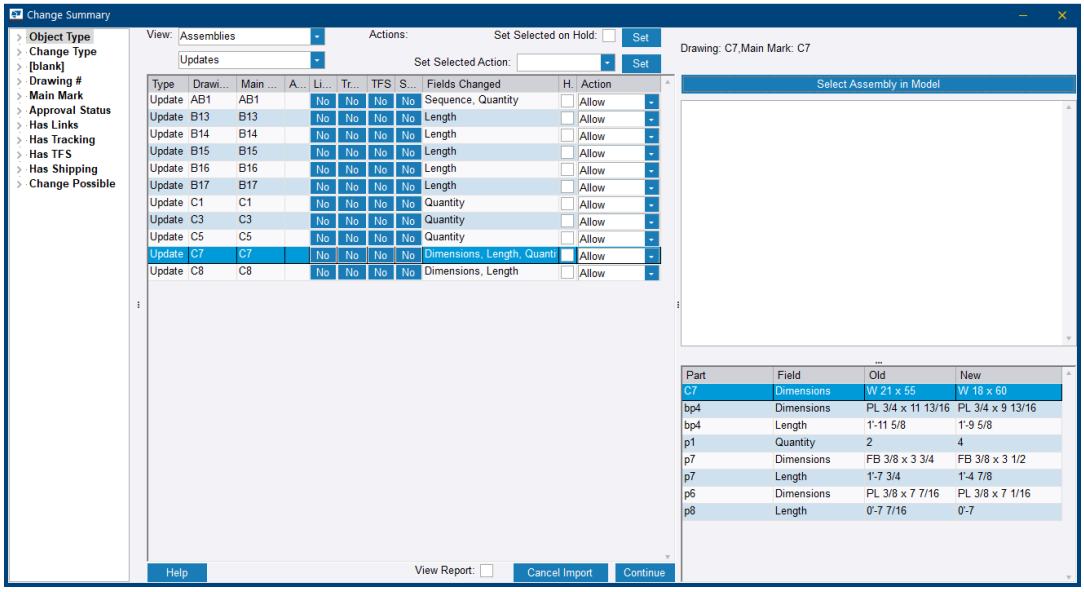
NOTE This feature is only compatible using the PowerFab-eXchange-based import.

Before you start, make sure you have the following in place:

- Tekla PowerFab 2023i or later installed. See Dowload Tekla PowerFab (page 52) and Install Tekla PowerFab (page 48).
- Trimble Connect installed. See Install Trimble Connect (page 64).
- A production control job with revision import (material change) using the Tekla PowerFab eXchange format. See also Tekla PowerFab Exchange.
- A Trimble Connect project created and linked to a production control job. See Use Trimble Connect with a production control job (page 1052).

The following procedure is a worked example. Your own results depend on your project and scenario, for example.

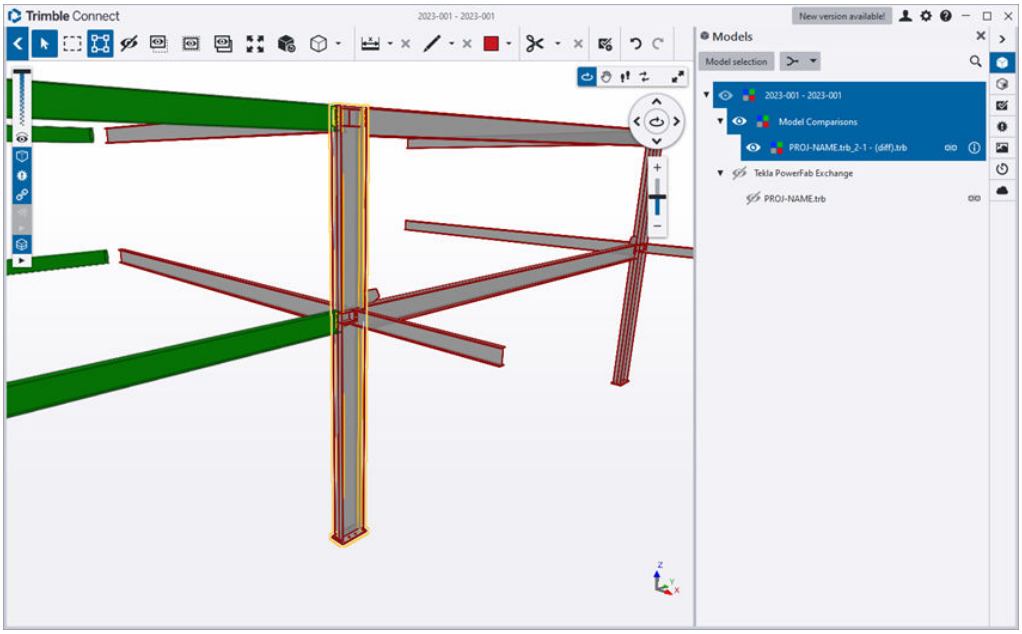
When you have imported files, the **Change Summary** dialog box opens.



To launch the Trimble Connect model comparison tool, do the following:

1. Highlight the assembly of your choice.
2. Do one of the following:
   - Click **Select Assembly in Model**.
   - Right-click the selected assembly and select the appropriate action in the list that opens.

   Trimble Connect model opens with the selected assembly highlighted showing the changes.

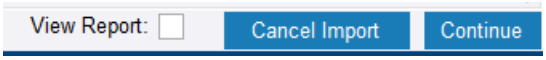


Red contours: Previous model, previous assembly or part properties

Gray: Current, revised model, current, revised assembly or part properties

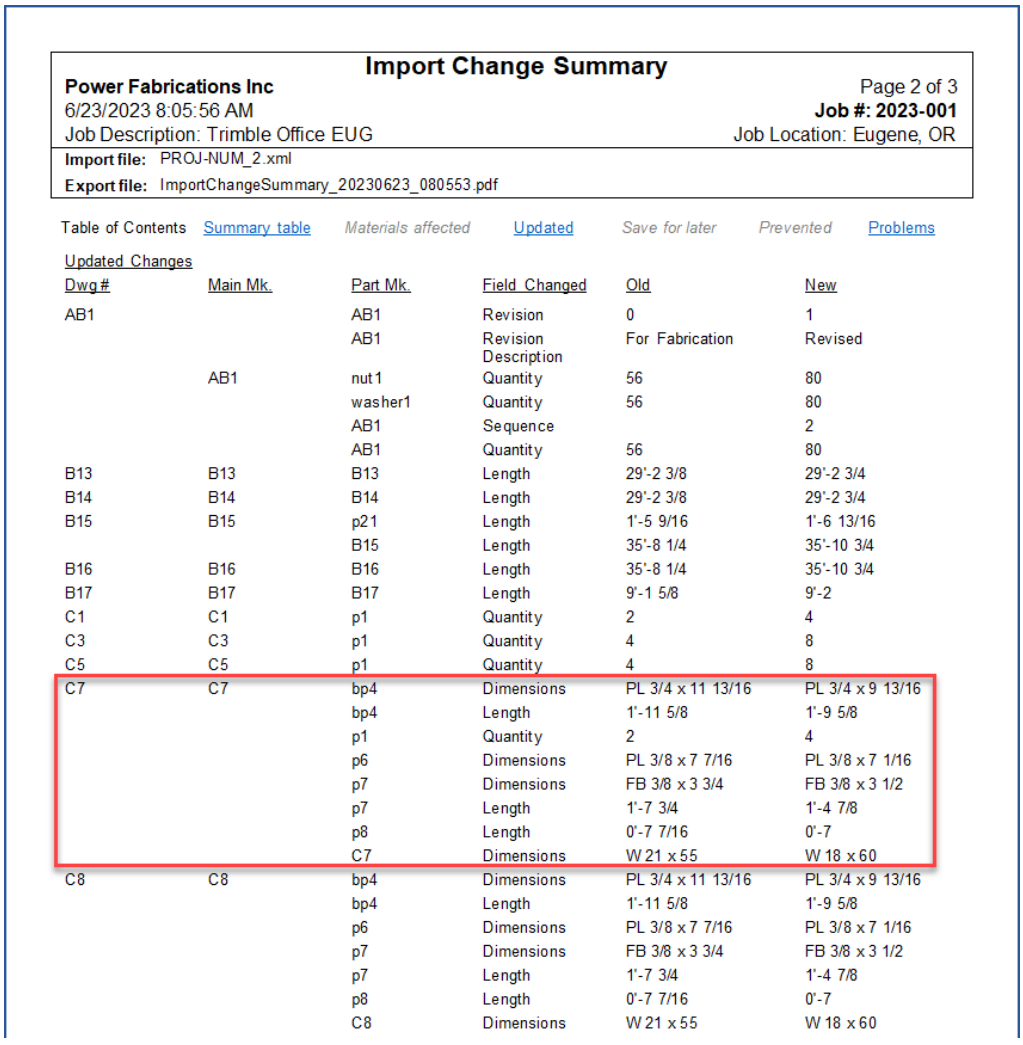
View change report

1. In the **Change Summary** dialog box, select **View Report**.



2. Click **Continue**.

   The report on the changes opens in **Tekla PowerFab Report Viewer**. It is automatically saved to the **Document Index**.



Import Change Summary

Power Fabrications Inc Page 2 of 3
6/23/2023 8:05:56 AM **Job #: 2023-001**
Job Description: Trimble Office EUG Job Location: Eugene, OR

Import file: PROJ-NUM_2.xml
Export file: ImportChangeSummary_20230623_080553.pdf

Table of Contents | Summary table | Materials affected | Updated | Save for later | Prevented | Problems

Updated Changes

Dwg #	Main Mk.	Part Mk.	Field Changed	Old	New
AB1		AB1	Revision	0	1
		AB1	Revision Description	For Fabrication	Revised
	AB1	nut1	Quantity	56	80
		washer1	Quantity	56	80
		AB1	Sequence		2
		AB1	Quantity	56	80
B13	B13	B13	Length	29'-2 3/8	29'-2 3/4
B14	B14	B14	Length	29'-2 3/8	29'-2 3/4
B15	B15	p21	Length	1'-5 9/16	1'-6 13/16
		B15	Length	35'-8 1/4	35'-10 3/4
B16	B16	B16	Length	35'-8 1/4	35'-10 3/4
B17	B17	B17	Length	9'-1 5/8	9'-2
C1	C1	p1	Quantity	2	4
C3	C3	p1	Quantity	4	8
C5	C5	p1	Quantity	4	8
C7	C7	bp4	Dimensions	PL 3/4 x 11 13/16	PL 3/4 x 9 13/16
		bp4	Length	1'-11 5/8	1'-9 5/8
		p1	Quantity	2	4
		p6	Dimensions	PL 3/8 x 7 7/16	PL 3/8 x 7 1/16
		p7	Dimensions	FB 3/8 x 3 3/4	FB 3/8 x 3 1/2
		p7	Length	1'-7 3/4	1'-4 7/8
		p8	Length	0'-7 7/16	0'-7
		C7	Dimensions	W 21 x 55	W 18 x 60
C8	C8	bp4	Dimensions	PL 3/4 x 11 13/16	PL 3/4 x 9 13/16
		bp4	Length	1'-11 5/8	1'-9 5/8
		p6	Dimensions	PL 3/8 x 7 7/16	PL 3/8 x 7 1/16
		p7	Dimensions	FB 3/8 x 3 3/4	FB 3/8 x 3 1/2
		p7	Length	1'-7 3/4	1'-4 7/8
		p8	Length	0'-7 7/16	0'-7
		C8	Dimensions	W 21 x 55	W 18 x 60

See also Excel Spreadsheet Sample Import Files.

View all changes in a production control job

Tekla PowerFab records every change made in the system. This is useful because you can view all changes made in the current production control job at once. You can then filter the information to see changes made by a particular user or on a particular date. You can also print the list of changes.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **History of Changes** --> **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user, revision number, category, sub-category, or pay category	a. Select the right filter type and click **Select**. b. Click the arrow buttons to move the values that you want to see in the list of changes to the **Included** list. c. Click **OK**.
Filter changes by date	a. Select the **Transaction Date** filter and click **Select**. b. Select the start (**Min**) and end (**Max**) dates in the calendar. You can also select the **Expression** checkbox for the dates. This way, you can select the base date and define how many days before or after are taken into account in the list of changes. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Selection** dialog box, do any of the following:

To	Do this
View the list of changes	• Click **View**. The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

To	Do this
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes since importing the bill of materials (page 947)

View, print, and export job-specific production control reports (page 956)

View all changes since importing the bill of materials

You can view and review all changes that have been made in a production control job since a bill of materials has been imported. Use the **History of Changes** command.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.

2. On the menu, select **History of Changes** --> **History of Changes**.
3. In the **History of Changes** dialog box, select the items whose changes you want to view in the available lists.

   To view all items, clear all text from the lists.
4. Click **OK**.
5. To only include changes of specific properties, click the arrow buttons to move the properties that you want to include to the **Included** list.
6. If necessary, filter the changes:

To	Do this
Filter changes by user	a. In the **Filters** section, click **Edit** on the right side of the **User** filter. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. In the **Filters** section, click **Edit** on the right side of the **Date** filter. b. Select the start (**Min**) and end (**Max**) dates in the calendars. c. Click **OK**.

7. In the lower-left corner of the dialog box, select checkboxes to indicate if you want to include changes related to sequences, piece tracking, or load tracking.
8. Click **View History of Changes**.

   The history of changes appears. The items in the dialog box are color-coded to show any changes that have been made:

   - Items highlighted with green have not been changed since they were imported.
   - Items highlighted with yellow have been changed since they were imported. The **Type** column shows how the items have changed.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes in a production control job (page 945)

View, print, and export job-specific production control reports (page 956)

View the production schedule

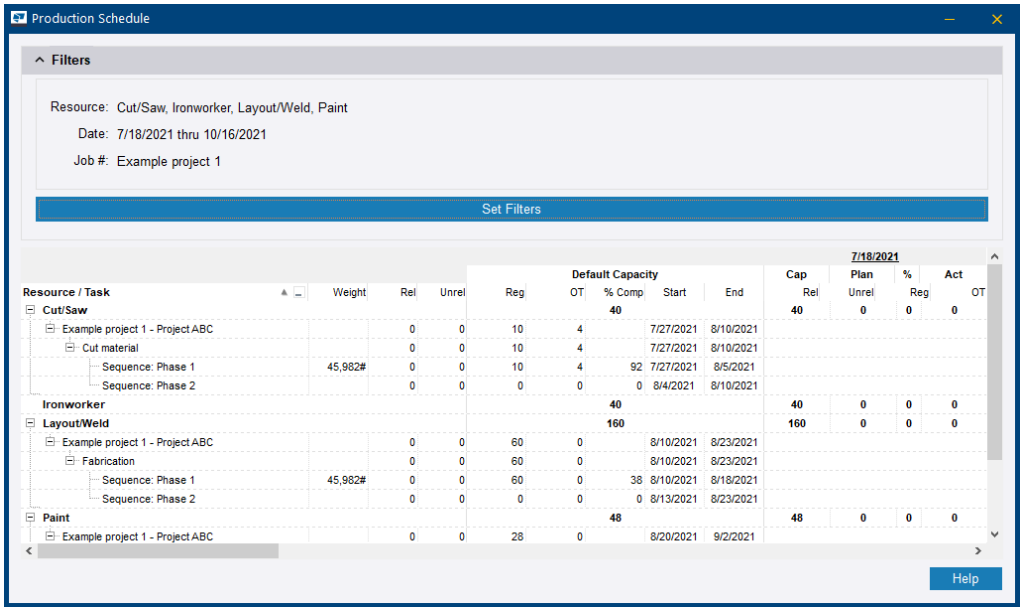
Use the **Production Schedule** dialog box to view the projected hours for jobs by week. The hours are loaded from the project schedule.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Production Schedule**.

   The **Production Schedule Filters** dialog box opens.
3. Filter the production schedule information as needed:
   a. Click the arrows on the right side of the **Start** and **End** fields, and select suitable start and end dates in the calendars.

      The default time between the start and end dates is three months.
   b. Click the arrow on the right side of the **Scale** field, and in the list, select if you want to view the information by day, week, or month.
   c. To only include particular resources in the production schedule, click **Resource**, and click the arrow buttons to move the resources that you want to include to the **Included** list.
   d. To only include particular jobs in the production schedule, click **Job #**, click the arrow buttons to move the jobs that you want to include to the **Included** list.
4. Click **Apply Filter**.

   The **Production Schedule** dialog box opens.



- On the left side, you can see the resources and any tasks assigned to them. For each task assigned to a resource, the production schedule

shows the regular and overtime hours, the percentage completed, and start and end dates. This information consists of the schedule task in the project schedule and the production status information. To update the information, click **Update Status** in the **Project Schedule** dialog box.

- In the middle, you can view the default capacities of the resources and the time for those resources by tasks. The default capacity for each resource is displayed at the top in bold. Any hours highlighted with red indicate that the station is over capacity. If necessary, you can modify the resource capacity in the **Resource Maintenance** dialog box.

  Below the resource, you can see the released and unreleased hours of each task, and the regular and overtime hours. This information reflects the information in the **Resource Maintenance** dialog box. To update the information, click **Update Status** in the **Project Schedule** dialog box.
- On the right side, the sections represent a block of time by the scale that you selected in step 3. The columns on the top display the capacity, the hours planned against the resource, the percentage of the capacity that is planned, and the actual hours used.

5. If necessary, do any of the following:

To	Do this
Change the filters or scale of the production schedule	Do either of the following: • To change the filters that you set in step 3, click the **Set Filters** button and modify the filters according to your needs. Then, click **Apply Filter**. • Click on the right side of the **Resource / Task** column. Then, select the resources and tasks that you want to see in the production schedule, or type the resource or the task that you want to see in the **Filter For** field.
View more or fewer details about a resource or a task	• On the left side of the dialog box, click **+** or **-** on the left side of a resource or task. When you click **+**, the task or the resource expands, so that you can see the task or resource details by the set project breakdown categories. When you click **-**, the task or the resource collapses and the details are hidden.
Collapse or expand all tasks	a. Right-click anywhere in the production schedule. b. In the context menu, select **Collapse All** or **Expand All**.

To	Do this
Modify a task	a. Double-click a task at the lowest level of the hierarchy. b. In the **Task Schedule** dialog box, do any of the following: • To change the start or end date of the task, click **Set** on the right side of the start or end date, select a new date in the calendar, and click **OK**. • To move a task forward or backward in the production schedule, click **Move**, select an option in the menu, and click **Yes** to confirm the changes. • To modify the equally divided working hours, click **Manually Schedule**, type the number of manually scheduled hours, and click **OK**.
Print the current production schedule	a. Right-click anywhere in the production schedule. b. In the context menu, select **Report**. The production schedule opens in the **Print Preview** dialog box. c. Adjust the printing settings according to your needs, and click **Print**.

See also

Modify resource capacity (page 951)

View, print, and export job-specific production control reports (page 956)

Modify resource capacity

In the **Resource Maintenance** dialog box, you create, modify, and delete resources used in the production schedule and the project schedule. You can view and modify the applicable working hours per day, week, or month.

Open the Resource Maintenance dialog box

1. In the **Production Schedule** dialog box, click the **Production Schedule** ribbon tab.
2. On the menu, select **Resource Maintenance**.

Add a resource

You can add resources in a variety of ways. It may be useful to have one resource for the shop, or one for each of the several bays or shop sites. Another task, like detailing, can have its own resource as well.

The capacity for each resource is entered by day and summarized by week or by month.

When a task in the project schedule is assigned to a resource, the resource is added to the production schedule with the same start and end dates. Planned hours for the task are then distributed equally among the days in that duration. You can change the distribution and allocation of the planned hours manually.

1. Click **New**.
2. Type a description for the resource.
3. Click the arrow on the right side of the **Calendar** field and select a suitable schedule calendar in the list.
4. In the **Default Capacity** field, type the number of hours available to this resource during a standard working day.
5. Click the arrow on the right side of **Fixed Date** field and select the date after which adjustments to the schedule no longer affect the new resource.

   For example, if the fixed date is set to Friday, any adjustments to the schedule on the next Thursday will not affect it.
6. Click **Add**.

Modify a resource

1. In the list, select the resource that you want to modify.
2. Modify the description, calendar, default capacity, and fixed date according to your needs.
3. In the **Resource Utilization** section, filter which capacity and utilization information is displayed:
   a. To modify the time range, click the arrows on the right side of the start and end dates and select suitable dates.
   b. Click the arrow on the right side of **Scale** field, and select if you want to view the capacity and utilization information by day, week, or month. When the scale is set to by week or month, the date displayed for each record is by default the beginning date of each period. This settings can be changed in **Project Company Standards**.
   c. To update the view, click **Reload**.
   d. If you want to open the production schedule for the selected resource, click **View**.

4. To adjust the capacity of a date period, do the following:
    a. In the **Resource Utilization** section, double-click a date.
    b. In the **Resource Capacity** dialog box, select a date period.

        To select multiple items, hold down **Ctrl**.

        To select a range of subsequent items, hold down **Shift**.
    c. Type a new value in the **Capacity** field.

        If necessary, you can restore the default hours by clicking the **Default** button.
    d. To update the capacity of all selected date periods, click **Update Selected**.
    e. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
5. In the **Resource Maintenance** dialog box, click **Save** to save the changes.

Delete a resource

Deleting a resource is permanent and cannot be undone.

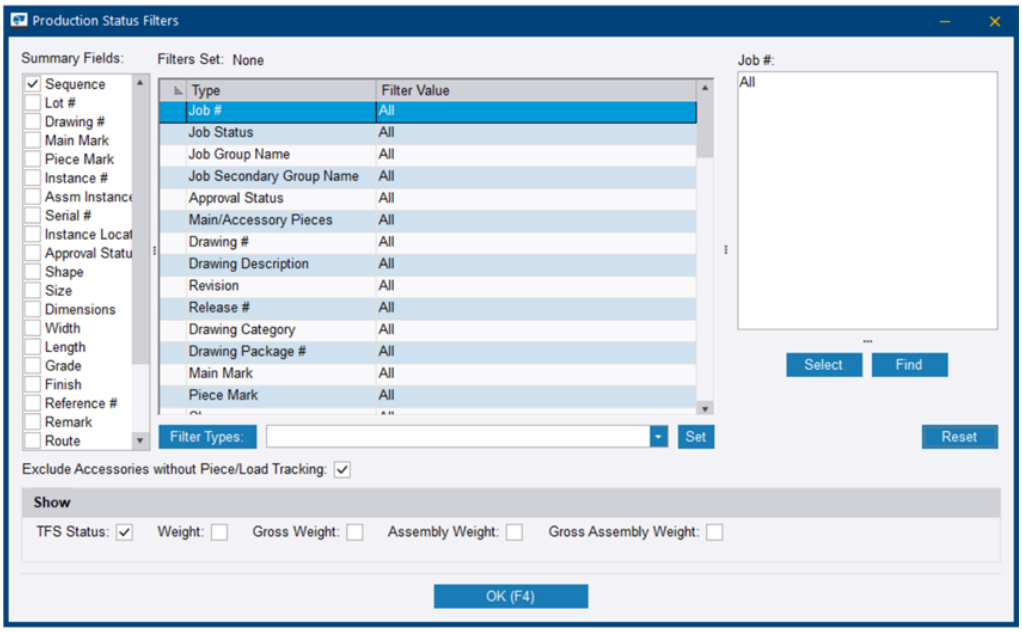
1. In the list, select the resource that you want to delete.
2. Click **Delete**.
3. In the confirmation dialog box, click **Yes** to permanently delete the resource.

View production statuses of jobs

You can view the current production station of items in a single production control job or a group of jobs by using the **Production Status** command.

1. Do either of the following:
    - To view the status of several or all jobs, go to **Maintenance** --> **Production Control** --> **Production Status**.
    - To view the status of one job:
        a. Go to the **Production Control** module and open a job.
        b. Click the **Production Control** ribbon tab and select **Review** --> **Production Status**.

The **Production Status Filters** dialog box opens.



Exclude Accessories without Piece/Load Tracking: When selected, accessory parts that are not flagged for either accessory piece tracking or load tracking are not included in the summary. If this option is not selected, all parts that match the filter are included, and accessories without piece/load tracking are only included in the total quantity and TFS Status fields.

TFS Status, Weight, **Gross Weight**, **Assembly Weight**, **Gross Assembly Weight**: When selected, the corresponding column is shown in the **Production Status** dialog box.

2. Select **Summary Fields** checkboxes to include the related properties as columns in the production status summary.

   Selecting **Summary Fields** checkboxes can make it easier to view the overall production progress of multiple jobs.

3. To only view the status of specific types of items, select a filter type in the **Type** list, and click **Select**.

   For example, to only view particular jobs, select **Job #** and click **Select**.

4. Click **Filter** to change the summary fields and filters in use.

   - Click the arrow buttons to move the items that you want to view to the **Included** list.
   - Type the maximum and minimum values for the items that you want to view.

5. Click **OK**.

   To further limit the visible items, repeat steps 3 to 5 for all necessary filter types.

6. Click **OK** to view the production statuses of selected items.

The **Production Status** dialog box opens, displaying a summary of the production statuses of items in the selected production control jobs.

The information is color-coded:

- Completed stations and operations are highlighted with green. The completion date is also displayed.
- All work that is in progress is highlighted with yellow.
- If no progress has been made regarding the station or operation, items are highlighted with red.

You can export the production status summary to Microsoft Excel to save the production status information. Right-click in the display area of the **Production Status** dialog box, and in the context menu, select **Export to Excel**.

See also

Set and update sequences (page 982)

View material links

The **Links** button in production control jobs allows you to view the properties of the requisition, inventory, and inventory history materials to which the selected production control items are linked.

1. Select items in the **Production Control** dialog box.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Links** button near the lower-right corner.

   The **Links** dialog box opens, showing a list of all the linked material items in other Tekla PowerFab modules.

3. Select the item that you want to view in its own location in Tekla PowerFab.

4. Click one of the following:

   - **Open Inventory** or **Open Inventory History**

     The name of the button changes depending on whether or not the material is still in the inventory or has already been taken from stock.

   - **Open Purchase Order**
   - **Open Cut List**

TIP Alternatively, you can double-click any item to open the inventory or inventory history.

See also

Manage production control job information (page 936)

View, print, and export job-specific production control reports

You can create various reports based on the information of the current production control job, including cut lists, bills of materials, and master load lists. Then, you can either view the report in **Tekla PowerFab Report Viewer** and email it, print the report, or export the report to another file format.

NOTE Before creating a cut list, the materials need to be loaded into a purchase order.

Create a report

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.
3. To only include specific types of items in the report, in the **Production Control Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to include in the report to the **Included** list.

     To select multiple items, hold down **Ctrl**.

     To select a range of subsequent items, hold down **Shift**.
   - Type the maximum and minimum values for the items that you want to include in the report.
5. Click **OK**.

   To further limit the items included in the report, repeat steps 3 to 5 for all necessary filter types.
6. To include the full assemblies of all included parts in the report, select the **Include Full Assembly of Filtered Parts** checkbox.

7. Click the arrow on the right side of **Weight Type** field, and select the weight type that you want to use in the report.

   Note that the **Weight Type** list is only visible if you have selected it on the **Report Settings** tab of the **Company Standards** dialog box.
8. Click **Make Report**.
9. In the **Report Selection** dialog box, click the report that you want to view, print, or export.

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the confirmation dialog box, click **Yes**.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK** to print the report.
6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.

8. In the **Report Selection** dialog box, click **Export**.

   The report is saved in the selected export format.

9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Customize reports (page 141)

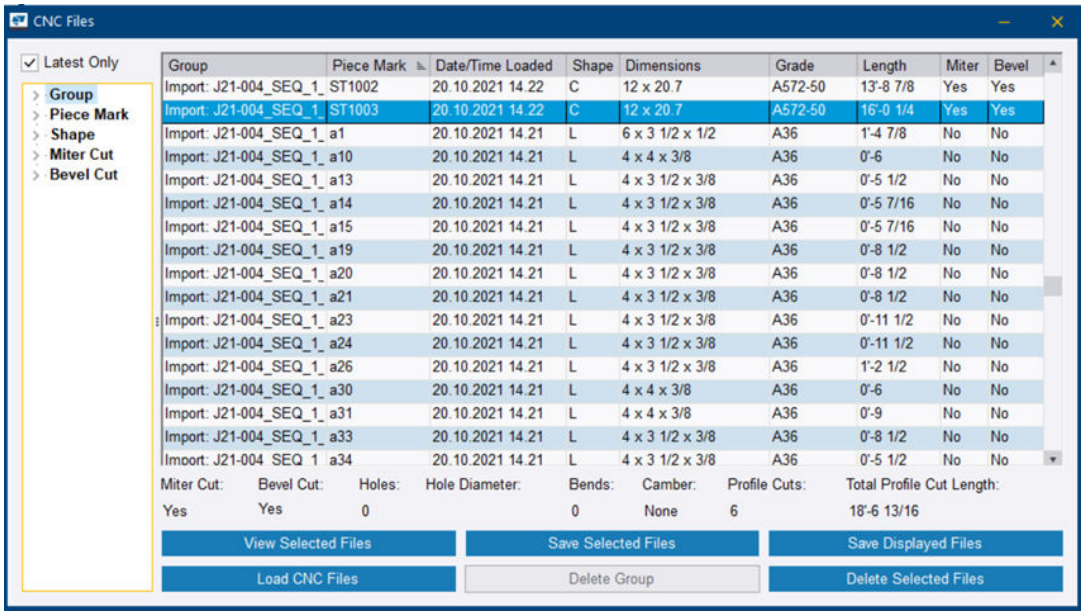
Import, view, or delete CNC files

You can import CNC files to Tekla PowerFab, and view or delete the previously loaded CNC files that are associated with the current production control job in the **CNC Files** dialog box.

To access the **CNC Files** dialog box, do the following:

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **CNC Files**.

The **CNC Files** dialog box opens.



Note that:

- By default, only the latest versions of all CNC files are shown. If you want to show all versions of CNC files, clear the **Latest Only** checkbox in the upper-left corner.
- You can use the navigation tree on the left side of the dialog box to only show particular CNC files. Click **+** on the left side of any category to expand the category and select a sub-category, or expand the sub-category to

further limit which files are shown. Only files that match the selected value are shown.

- You can manage the display fields in **Maintenance** --> **Production Control** --> **Edit Display Fields**.

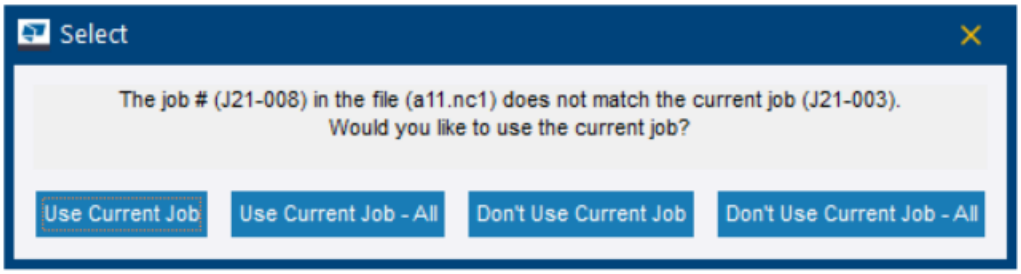
Import CNC files

1. At the bottom of the dialog box, click **Load CNC Files**.
2. In the **Import** dialog box, click **...** to set the folder from which CNC files are imported.
3. Browse to and select the folder.
4. Click **OK**.
5. Type the file extension used for CNC files in the selected folder.

   Currently, Tekla PowerFab can read DSTV and DXF files. The most common extensions for these are .nc1 and .dxf respectively.
6. Click **OK** to import the CNC files.

   The **Enter Value** dialog box opens. You are expected to enter a group name, which allows you to identify the CNC files that were loaded into Tekla PowerFab at the same time.
7. Type a name for the group of CNC files.
8. Click **OK**.

   The detailer's job number is included in the DSTV file. If the job number of your production control job is different, you receive the following prompt:



   Use Current Job: Adds the file to the current job even though the job number is different

   Use Current Job - All: Adds all files to the current job even though the job # is different

   Don't Use Current Job: Ignores the file

   Don't Use Current Job - All: Ignores all files with that job number in the DSTV file

   When the job numbers match, Tekla PowerFab imports all CNC files from the folder that you selected.

9. Review the import results and click **Close**.

View CNC files

1. Select the CNC files that you want to view in the list.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. At the bottom of the dialog box, click **View Selected Files**.

Note that Windows may ask you to select the application with which you want to open the CNC files.

Save CNC files to another location

To save CNC files from Tekla PowerFab to your computer or a shared drive:

1. Do any of the following:
   - To select which CNC files you want to save, select the files and click **Save Selected Files**.

     To select multiple items, hold down **Ctrl**.

     To select a range of subsequent items, hold down **Shift**.
   - To save all files currently shown in the **CNC Files** dialog box, click **Save Displayed Files**.
2. In the **Browse for Folder** dialog box, browse to and select the folder where you want to save the files.
3. Click **OK**.

The CNC files are saved in the selected folder.

Delete CNC files

Deleting CNC files from Tekla PowerFab is permanent and cannot be undone. Note that all files imported from the same folder are deleted at once.

- Do any of the following:

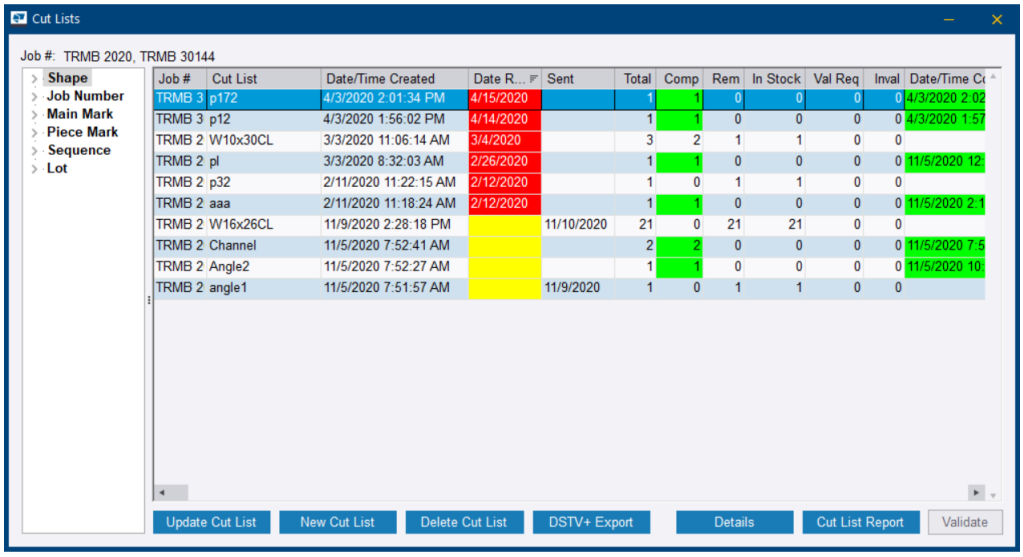
To	Do this
Delete a group of CNC files	1. In the navigation tree, expand the **Group** section, and select the group that you want to delete. 2. At the bottom of the dialog box, click **Delete Group**. 3. In the confirmation dialog box, click **Yes** to permanently delete the CNC files.

To	Do this
Delete selected CNC files	1. Select the CNC files that you want to delete. To select a range of subsequent items, hold down **Shift**. To select multiple items, hold down **Ctrl**. 2. At the bottom of the dialog box, click **Delete Selected Files**. 3. In the confirmation dialog box, click **Yes** to permanently delete the CNC files.

Manage job-specific cut lists

You can create, modify, and delete cut lists for the current production control job in the **Cut Lists** dialog box. You can also lock cut lists, and create cut list reports.

1. Access the **Cut Lists** dialog box. See Access Cut Lists dialog box (page 881)



The items in cut lists are highlighted with green, yellow, or red:

- Green: Item completed
- Red: Item needs attention or is locked. For example, the item can be past the assigned due date.
- Yellow: Item needs attention. For example, the item may be missing information or need validation.

You can limit the visible cut lists by selecting a job, shape, main mark, piece mark, sequence, or lot by clicking options in the navigation tree on the left.

The combining result for which items have been purchased needs to be reviewed to verify that the saved cutting patterns are still valid. Items may need to be recombined. After recombining, the changes need to be saved to the current cut list.

For instructions and details on the properties, see Manage cut lists (page 881).

See also

Create a cut list (page 884)

View the details of a cut list item (page 887)

Swap a cut list item (page 888)

Cut a cut list item (page 889)

Update a cut list (page 890)

Validate or revalidate cut list items (page 891)

Lock or unlock a cut list (page 893)

Share or unshare a cut list (page 893)

Export a cut list to DSTV + (page 893)

View, print, or export cut list reports (page 894)

Delete a cut list (page 895)

Manage production codes used in a production control job

Production codes link items or groups of items in an estimating job to items or groups of items in a production control job. They are used to group together material with similar work and to apply labor averages from estimating to the production control bill of materials.

You can override the estimated hours and use aggregate units to calculate the planned labor time on a job. This labor time can then be used in production schedules and project schedules.

Production codes can be as broad or as specific as you like. For example, you can use one production code for the entire estimating job to add the labor estimates to the production control job. The hours will then be calculated based on all the work that must be done for the entire job. However, you can also set every piece mark to have its own production code, so that hours in the estimating job and in the production control job match for each item.

See also the following:

- Instructions for managing production codes that are available in all production control and estimating jobs in Manage global production codes (page 877).
- To assign production codes to material items, use the **Global Edit** command. For more information, see Modify multiple production control items (page 980).
- Information on import settings in Define company standard settings for Production Control (page 844)
- Link a production control job to an estimating job and a project management job (page 922)

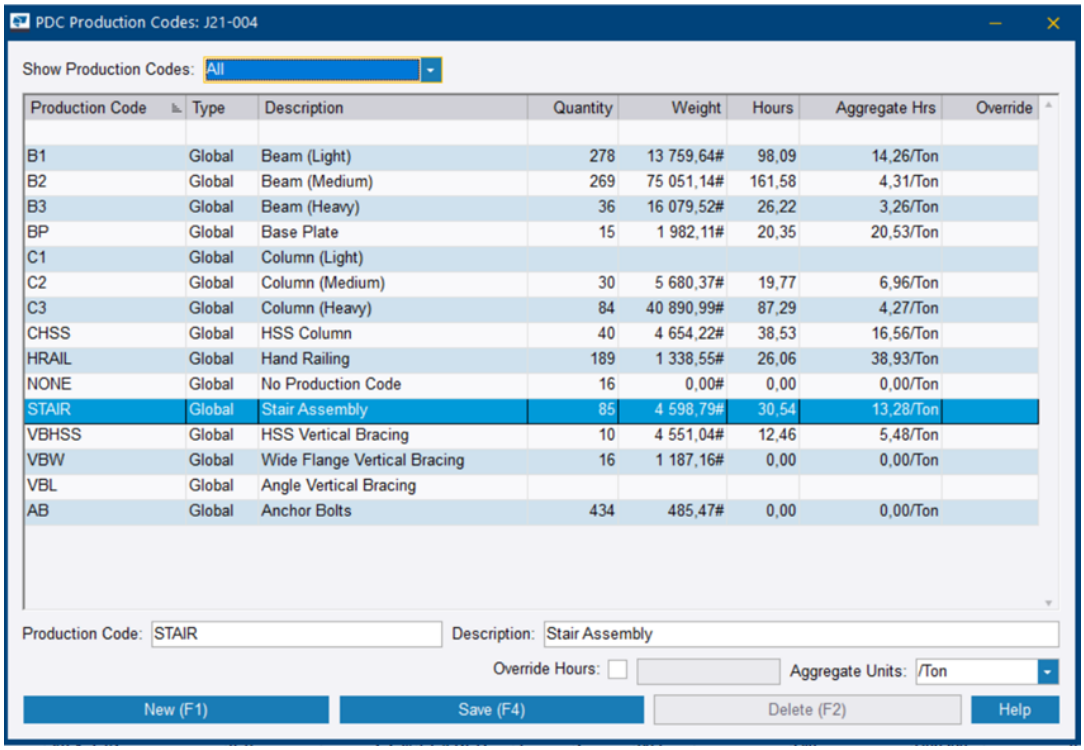
We recommend that you assign matching production codes to parts in both **Estimating** and **Production Control**. This way, you can view the planned and executed labor times in the project schedule.

You can also create a report that lists all production codes used in an estimating job. The report is called **Production Code Summary**. For more information on creating reports, see View, print, and export job-specific production control reports (page 956).

Access the PDC Production Codes dialog box

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **Production Codes**.

The **PDC Production Codes** dialog box opens.



Show Production Codes: Select an option to filter the production codes that are displayed:

- **Global**: Production codes that can be used in all jobs in both **Production Control** and **Estimating**
- **Estimate-Specific**: Production codes that can only be used within a specific estimating job and the linked production control job. These are the production codes that you can create in the current dialog box.
- **Production Control-Specific**: Production codes only for the production control job
- **In Use**: Production codes that are in use

Override Hours: Select if you want to use aggregate units for the planned hours instead of the original estimated hours. Then type the hours in the field.

However, if the manual override is used, the labor information does not include labor group percentages. Therefore, the labor group percentages cannot be applied to any production control stations.

Further, the information cannot be applied to tasks in the project schedule and to resources that feed information to the production schedule.

Manually overriding hours can also prevent you from comparing the linked production control job with the estimating job.

An override applied in a production control job does not affect the estimate nor global information. The estimated hours are always created in the estimate. They are not overwritten by the production code properties.

Aggregate Units: Select the suitable units in the drop-down menu.

The hours associated with the production codes are only used in **Production Control**. Production codes do not affect or apply labor to estimating items. The purpose of the hours is to pull labor information from the estimate in the form of hours per ton and labor percentages by labor group.

See also Manage production codes (page 572).

Create a production code

1. In Production Control module, open a job and go to **Production Control** --> **Review** --> **Production Codes**.

   The **PDC Production Codes** dialog box opens.
2. Click **New**.
3. Define the properties.
4. Click **Add**.

The new production code is added.

Modify a production code

1. In Production Control module, open a job and go to **Production Control** --> **Review** --> **Production Codes**.

   The **PDC Production Codes** dialog box opens.
2. Select the production code that you want to modify.
3. Modify the properties.
4. To update the production code properties, click **Save**.

Delete a production code

Note that deleting a production code is permanent and cannot be undone.

1. In Production Control module, open a job and go to **Production Control** --> **Review** --> **Production Codes**.

   The **PDC Production Codes** dialog box opens.
2. Select the production code that you want to delete.
3. Click **Delete**.
4. In the confirmation dialog box, click **Yes** to permanently delete the production code.

Manage shipping routes for a production control job

You can view and modify the shipping routes used for load tracking in the current production control job. You can also create new job-specific shipping routes or delete existing ones.

Shipping routes can be used to send items within a job to multiple shipping destinations, including intermediate destinations, such as sending material to an external galvanizer. Items that are returned from one destination can then be shipped to another destination.

Open the shipping routes dialog box

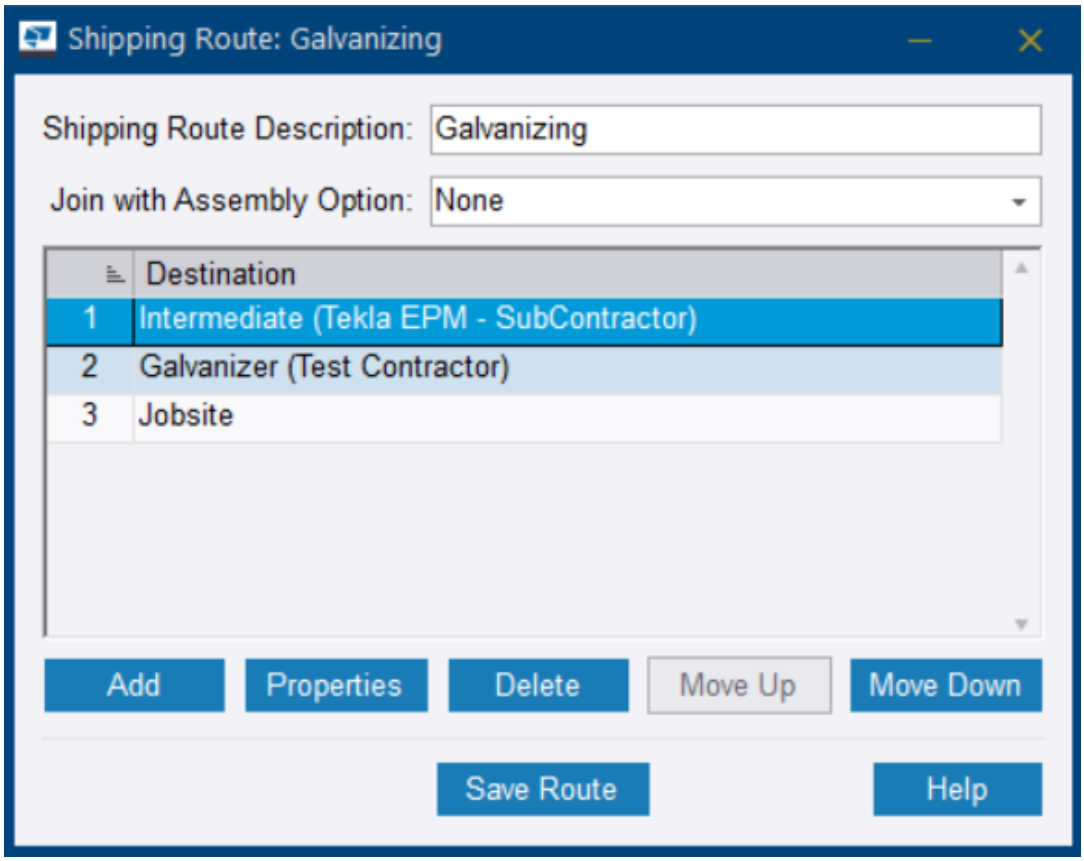
1. To open the **Shipping Route Maintenance** dialog box, do either of the following:
   - In the **Select Production Control Job** dialog box,
     a. Double-click to open an existing job.
     b. Click the **Production Control** ribbon tab.
     c. On the menu, select **Review** --> **Shipping Routes**.
   - In the **Select Production Control Job** dialog box,
     a. Either add a new job by clicking **Add** or modify an existing job by selecting it and clicking **Edit**.

        The **Production Control Job Edit** dialog box open.
     b. Click **Shipping Routes**.

The **Shipping Route Maintenance** dialog box opens, displaying all shipping routes created for an existing production control job.

Shipping route properties

When creating a new shipping route, and copying or modifying a shipping route, you can modify the shipping route properties in the **Shipping Route** dialog box.



Shipping Route Description: Type a description for the shipping route.

Join with Assembly Option: Select if and when the weight of an accessory part is included in the shipping weight of the assembly.

- **None**: The weight of the accessory is not included in the shipping weight of the assembly. If the **Jobsite** destination is in the shipping route, select the **None** option.
- **Join with assembly for first destination**: The weight of the accessory is joined to the shipping weight of the assembly for all of its destinations except for the first one.
- **Join with assembly for...**: The weight of the accessory is included in the shipping weight of the assembly for the destination that you select in the **Join with Assembly For** list, and for any other destinations after that one.
- **Join with assembly after...**: The weight of the accessory is included in the shipping weight of the assembly for all destinations after the destination you select in the **Join With Assembly After** list.

Add: Opens the **Shipping Destination Properties** dialog box for adding a new destination.

Properties: Opens the **Shipping Destination Properties** dialog box for modifying an existing destination.

Delete: Removes the selected destination from the shipping route.

Move Up/**Move Down**: Moves the selected destination one step earlier/later in the shipping route.

Save Route: Saves the shipping route details.

Create a shipping route

You are in the **Shipping Route Maintenance** dialog box.

1. Click **New**.

   The **Shipping Route** dialog box opens.
2. In **Shipping Route Description**, type a description for the new shipping route.
3. Select a value for **Join With Assembly Option**.
4. To add, modify, or remove destinations, see Manage shipping destinations (page 899).

   NOTE The shipping route can have any number of destinations, or no destinations at all. If the **Jobsite** destination is present, it is always the last destination on the shipping route. The **Jobsite** destination is the **Ship To** address defined for each production control job in the **Production Control Job Edit** dialog box.
5. Click **Save Route**.

Copy a shipping route

You are in the **Shipping Route Maintenance** dialog box.

1. In the list, select the shipping route that you want to use as the basis of a new shipping route.
2. Click **Copy**.

   The **Shipping Route** dialog box opens.
3. In **Shipping Route Description**, type a description for the new shipping route.
4. Modify the shipping route properties.
5. Click **Save Route**.

Modify a shipping route

You are in the **Shipping Route Maintenance** dialog box.

1. Select the shipping route that you want to modify.

2. Click **Properties**.

   The **Shipping Route** dialog box opens.

3. Modify the shipping route properties.

   To add, modify, or remove destinations, see Manage shipping destinations (page 899).

4. Click **Save Route**.

Delete a shipping route

Deleting a shipping route is permanent and cannot be undone.

NOTE Job-specific shipping routes cannot be deleted if any parts are assigned to them.

In the **Shipping Route Maintenance** dialog box, do the following:

1. Select the shipping route that you want to delete.
2. Click **Delete**.
3. Click **Yes** to permanently delete the shipping route.

View and adjust TFS details

Performing the TFS (take from stock) process tells Tekla PowerFab that materials have been cut. Use the **TFS Details** dialog box to view TFS reports, save heat documents attached to items, and reverse the TFS status of an item or a group of items.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **TFS Details**.
3. To only view the TFS details of particular items, the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the values that you want to view to the **Included** list.
   b. Enter the maximum and minimum values for items whose TFS details you want to view.
5. Click **OK**.
6. Click **Details**.

   The **TFS Details** dialog box opens, displaying all heat documents attached to the current job.

When heat documents are attached, the number of the documents is displayed in the **Docs** column.

The items in the **Docs** column that are highlighted with red have no heat documents attached.

7. In the **TFS Details** dialog box, do any of the following:

To	Do this
Update the information in the **TFS Details** dialog box	Click **Refresh**.
View and attach documents to items	Click **Open Document Index**. For more information on working in **Document Index**, see Manage files for a production control job (page 932).
Save attached documents into a folder	a. Do one of the following: • To save all documents attached to items in the **TFS Details** dialog box, click **Save Documents** --> **Save Documents - All** . • To save the documents attached to particular items, click the items for which you want to create reports, and click **Save Documents** --> **Save Documents - Selected** . b. Browse to and select the folder where you want to save the documents, or click **Make New Folder** to create a new one. c. Click **OK**. The attached documents are saved into the selected folder.
Print attached documents	a. Do one of the following: • To print all documents attached to items in the **TFS Details** details dialog box, click **Print Documents** --> **Print Documents - All**. • To print documents attached to particular items, click the items whose attached documents you want to print, and click **Print Documents** --> **Print Documents - Selected**. • In the **Select Printer** dialog box, click a printer to select it. • Click **OK**.

To	Do this
Create TFS reports	a. Do one of the following: • To create reports for all items in the **TFS Details** dialog box, click **Reports** --> **Reports - All**. • To create a report for particular items, click the items for which you want to create reports, and click **Reports** --> **Reports - Selected**. b. In the **Report Selection** dialog box, click the report that you want to view, print, or export. c. Do one of the following: • To view the report, click **View**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook. • To print the report, click **Print**, click a printer to select it, and click **OK**. • To export the report, click **Export**, modify the export properties, and click **Export**.
Reverse the TFS process	Reversing the TFS process returns the selected materials from inventory history to inventory. Note that the materials will be returned as cut lengths, not the original stock lengths. a. Click the materials whose TFS process you want to reverse. To select multiple items, hold down **Ctrl**. To select a range of subsequent items, hold down **Shift**. b. In the first confirmation dialog box, click **Yes** to remove any record of the TFS process from the selected materials. c. In the second confirmation dialog box, click **Yes** to return the selected materials in inventory history as cut lengths. d. Type the number of materials to be returned to inventory. e. Click **Reverse**. The materials are returned to inventory and removed from the **TFS Details** dialog box.

8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Compare the materials in a production control job and a combining job

You can view if there are differences between the production control job materials and a pre-purchased material list in the **Combining** module by using the **Compare to Combining Job** command.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **Compare to Combining Job**.
3. In the **Select Combining Job** dialog box, double-click the combining job that you want to use in the comparison.

   The **Compare to Combining Job** dialog box opens, displaying the similarities and differences between the production control job and the combining job.

   Matching items in the production control job and the combining job are highlighted with green.

   Items that do not match in the combining job and the production control job are highlighted with red.
4. To adjust which comparison results are shown, do any of the following:
   - In the **CMB Material Smaller than PDC Material** section, define how much smaller the combining job items can be compared to the production control items without being considered critically different.
   - In the **CMB Material Larger than PDC Material** section, define how much larger the combining job items can be compared to the production control items without being considered critically different.
   - To only show items that differ in the production control job and the combining job, select the **Only Show Differences** checkbox.
   - To only show items that are greater than the maximum acceptable length and width differences set at the top of the **Compare to Combining Job** dialog box, select the **Only Show Critical Differences** checkbox.

   To update the comparison results, click **Refresh**.
5. To view the comparison results as a report, click **View Report**.

   The comparison report opens in **Tekla PowerFab Report Viewer**.

   You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

See also

Compare the labor hours in a production control job and an estimating job (page 973)

Compare the labor hours in a production control job and an estimating job

Use the **Compare to Estimating Job** command to view if there are differences in the labor hours recorded in the current production control job and the labor hours listed in an estimating job.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **Compare to Estimating Job**.
3. In the **Select Estimating Job** dialog box, double-click the estimating job that you want to use in the comparison.

   The **Compare to Estimate Job** dialog box opens, displaying the labor hours.

   The labor hours of the estimate are displayed on the left, sorted by labor group.

   The labor hours of the production control job are displayed on the right, sorted by production station.

   The total values appear at the bottom of the dialog box.
4. Review the comparison results.
5. To view the comparison results as a report, click **View Report**.

   The comparison report opens in **Tekla PowerFab Report Viewer**.

   You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

10.4 Manage production control items

You can manage production control items in many ways. add new production control items, modify existing production control items, copy material items from one drawing to another, take production control items from stock, combine items, or send items to a purchase order or a requisition.

For more information, see the following links:

Add a production control item (page 974)

Modify production control items (page 979)
Copy materials from one drawing to another (page 986)
Take production control items from stock (page 992)
Combine materials in the Production Control module (page 996)
Send production control items to purchasing (page 986)

Add a production control item

You can add an item to a production control job in the **Production Control** dialog box.

1. At the bottom of the **Production Control** dialog box, click **New**.
2. Define the item properties in the input fields.

   NOTE The visible input fields and their order depend on the settings that you have defined in. **Maintenance** --> **Production Control** --> **Edit Input Fields**.

   The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Approval Status	The approval status of the item. The available approval statuses are set in the **Approval Status** dialog box that you can access via **Maintenance** --> **Production Control** --> **Approval Status Maintenance**. Select an approval status from the drop-down menu.
Category, **Sub-Category**	A class used for sorting items within a job For example, you can create categories based on the shop where the item is created. You can create the available categories and subcategories in **Company Standards**.

Option	Description
	For more information, see Define default categories and sub-categories for Production Control (page 859). Select an existing **Category** or **Sub-Category** on the drop-down menu or type in a new category.
Camber	A text field for camber size, that is, curvature in an item so as to compensate for deflection induced by loads
Dimensions *	The material dimension, or material size, of each piece Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: a. Click in the **Dimensions** field. b. Click **Add Size**. c. Define the dimension properties. d. Click **Save**. You can now select the dimension and use it.
Drawing Number	A property that is used as the drawing number and the drawing name. You can use the main mark as the drawing number. Either select an existing drawing number from the drop-down menu or type in a new drawing number.
Finish	The finish type of the item Select the finish type from the drop-down menu.

Option	Description
Grade *	The material grade of each piece You can set the default grade of the selected shape in **Maintenance** --> **Shapes/Grades/Sizes**. Either select the grade from the drop-down menu or type the grade indicator in the field.
Instance Tr	When selected, instance tracking can be used for the item. This allows you to see more details about the item. Selecting the **Instance Tr** checkbox may be useful in, for example, nuclear jobs.
Length	The length of each piece Type in the length.
Load Tracking	When selected, an accessory item can be tracked by load and be viewed in shipping reports. Main marks, or assemblies, are tracked by default. For more information on load tracking, see Manage loads (page 999).
Main Mark *	The main mark of the item. The main mark is the number of the main member to which accessory items can be attached. If an item has an identical main mark and piece marks, Tekla PowerFab considers the item a main member. Either select an existing main mark from the drop-down menu or type in the name of the new main mark. You can enter a maximum of 25 characters, depending on the **Mark Input Type** option that you have selected in the **Company Standards** dialog box.
Pay Category	The pay category assigned to the item. Pay categories can be used to

Option	Description
	assign unit costs to fabricated items per pound. You can set **Pay Categories** in **Maintenance** --> **Production Control** --> **Company Standards**.
Piece Mark *	The piece mark of the item. Piece marks are used for the accessory items that are attached to a main member. Type in the name of the piece mark. You can enter a maximum of 25 characters, depending on the **Mark Input Type** option that you have selected in the **Company Standards** dialog box.
Piece Tracking	When selected, an accessory piece within an item can be tracked by piece mark. Main marks, or assemblies, are tracked by default. For more information on piece tracking, see Track production by piece mark (page 1017).
Prod. Code	The production code applied to the item Production codes group similar items together within jobs. Production codes group items so that you can apply hour per ton and per labor group percentages to items in the linked production control job. The production code can be used to color-code or filter items in Trimble Connect. For more information, see Use Trimble Connect with a production control job (page 1052) Select a production code from the drop-down menu or type in a new code.
Quantity *	The number of pieces to be added Type in the number.

Option	Description
Reference Number	A reference number that links items in inventory or purchasing to the production control job The reference number can be different depending on the case: • If an item is sent from **Production Control** to **Purchasing** or **Inventory**, Tekla PowerFab creates a copy of the record, and the item is linked to include the reference number. • If an item is sent to **Purchasing** from an advanced bill of material, the system mark number or a combination of the page number and the item number in the combining job (for example, 1-30) becomes the reference number. • If the item is sent to **Purchasing** later in the process, the reference number is the mark or piece mark number. Type in the number. The maximum number of characters is 255.
Remark	Any comments or remarks that you want to add about the item Type in the remarks or select an existing remark in the list.
Revision #	Drawing revision
Route	The item route defines the stations that the item goes through in the fabrication process. The available route options are set in the **Routes** dialog box. Click the arrow on the right side of the **Route** field and select a route in the list.
Shape *	The material shape of each piece
Shipping Route	The shipping route assigned to the item. Shipping routes can be used to send items within a job to multiple

Option	Description
	shipping destinations, including intermediate destinations, such as an external galvanizer. You can set shipping routes in **Maintenance** --> **Production Control** --> **Global Shipping Route Maintenance**. For more information, see Manage default shipping routes (page 896). Select a shipping route from the drop-down menu.
TFS Quantity	The quantity of the items that have been processed on a cut list or taken from stock manually from inventory and are linked to an inventory history record.

3. Click **Add**.

The new item is added to the list in the **Production Control** dialog box.

See also

Modify production control items (page 979)

Modify production control items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Production Control** --> **Edit Input Fields**.

For more information, see the following links:

Modify a single production control item (page 979)

Modify multiple production control items (page 980)

Modify the selected production control items (page 981)

Adjust sequences (page 981)

Modify a single production control item

You can modify a single production control item directly in the **Production Control** dialog box.

1. In the **Production Control** dialog box, select the item that you want to modify.
2. On the right side of the dialog box, modify the item properties.

   For example, change the quantity, enable load tracking, or select a new shipping route. For more information on the available properties, see Add a production control item (page 974).
3. Modify the item's sequences and lots as needed.

   For more information, see Manage the sequences and lots of selected production control items (page 982).
4. Click **Save**

See also

Modify multiple production control items (page 980)

Modify the selected production control items (page 981)

Adjust sequences (page 981)

Modify multiple production control items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Modify Data** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.
3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
4. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
5. Click **OK**.

   To further limit the items to modify, repeat steps 3 to 5.
6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

See also

Modify the selected production control items (page 981)

Modify the selected production control items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Production Control** dialog box, click the items that you want to modify to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Production Control** ribbon tab.
3. On the menu, select **Modify Data** --> **Global Edit Selected**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

5. Click **Update**.

The properties of the selected items are updated.

See also

Modify multiple production control items (page 980)

Adjust sequences

Using sequences and lots is a useful way to group, control, filter, and report on items. Sequences and lots are also the most commonly used breakdown items in project schedules. In **Production Control**, you can add items to different sequences, and modify or update the sequences of items. You can also filter the information in the **Production Control** dialog box by sequence.

For more information, see the following links:

Set and update sequences (page 982)

Manage the sequences and lots of selected production control items (page 982)

Remove all items from a sequence (page 983)

Add multiple items to a sequence (page 983)

Remove multiple items from sequences (page 984)

Set and update sequences

You can set and update the sequences of main mark items in a production control job by using the **Set Sequences** command.

NOTE You should set sequences before combining materials for purchase.

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1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Modify Data** --> **Set Sequences**.
3. In the **Set Sequences** dialog box, click the arrow buttons to move the items that you want to add to the same sequence to the right side of the dialog box.
4. If you only want to add a specific number of pieces to the sequence, select the item on the right side of the dialog box and type a new value in the **Quantity to Update** field.
5. Select the **Update Sequence** checkbox and type the new sequence number in the **New Sequence** field.
6. If you want to update the lot number as well, select the **Update Lot #** checkbox and type the new lot number in the **New Lot #** field.
7. Click **Update Sequences**.
8. In the confirmation dialog box, click **Yes** to confirm setting the sequences.

   The sequences are set.

   Repeat steps 3 to 8 for all items whose sequences you want to set.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage the sequences and lots of selected production control items

You can add individual material items to a sequence, or remove some or all pieces of a material from a sequence.

1. In the **Production Control** dialog box, select the main member of an item whose sequences you want to modify.
2. In the lower-right corner of the dialog box, click **Edit Sequences**.

3. In the **Set Sequences** dialog box, use the arrow buttons to move the items whose sequences you want to edit to the right side.
4. In the **Quantity to Update** field, define the number of pieces whose sequence will be updated.
5. Select the **Update Sequence** checkbox.
6. To adjust the item's sequence, do one of the following:
   - To add the item to an existing sequence, click the arrow on the right side of the **New Sequence** field and select a sequence in the list.
   - To add the item to a new sequence, type the number of the new sequence in **New Sequence** field.
   - To remove the item from a sequence, leave the **New Sequence** field blank.
7. To adjust the item's lot, do one of the following:
   - To add the item to an existing lot, click the arrow on the right side of the **New Lot #** field and select a lot in the list.
   - To add the item to a new lot, type the number of the new lot in **New Lot #** field.
   - To remove the item from a lot, leave the **New Lot #** field blank.
8. To update the items' sequence and lot information, click **Update Sequences**.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Remove all items from a sequence (page 983)

Remove all items from a sequence

Use the **Unsequence All** command to remove all pieces of a material item from a sequence.

1. In the **Production Control** dialog box, select an item that has been assigned to the sequence.
2. At the lower-right corner of the dialog box, click **Edit Sequences**.
3. In the **Sequences** dialog box, click **Unsequence All**.
4. In the confirmation dialog box, click **Yes** to remove all the sequenced items from the sequence.

See also

Remove multiple items from sequences (page 984)

Add multiple items to a sequence

To add mulitple selected production control items to a sequence, use the **Sequence All Selected** command. Note that you can only use the **Sequence All Selected** command if the items have not yet been added to another sequence.

1. In the **Production Control** dialog box, select the items that you want to add to a sequence.
2. Click the **Production Control** ribbon tab.
3. On the **File** menu, select **Modify Data** --> **Sequence All Selected**.
4. In the **Sequence All** dialog box, do one of the following:
   - To add the items to an existing sequence, click the arrow on the right side of the **Sequence** field, and select a sequence in the list.
   - To add the items to a new sequence, type a new sequence number in the **Sequence** field.
5. Click **Sequence All**.

The items are added to the selected sequence.

See also

Remove all items from a sequence (page 983)

Remove multiple items from sequences (page 984)

Remove multiple items from sequences

To quickly remove the selected production control items from sequences, use the **Unsequence All Selected** command. Once the items have been removed from the original sequences, you can add them to new sequences according to your needs.

1. In the **Production Control** dialog box, select the items that you want to remove from sequences.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Modify Data** --> **Unsequence All Selected**.
4. In the confirmation dialog box, click **Yes** to unsequence the selected items.

See also

Set and update sequences (page 982)

Remove all items from a sequence (page 983)

View production statuses of items

You can review the production statuses of main mark items in the current production control job in the **Production Status** dialog box.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **Production Status**.
3. To only review the production statuses of particular items, click **Filter**.

   The **Production Status Filters** dialog box opens.
4. Select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
5. Do one of the following, depending on the filter type:
   - Click the arrow buttons to move the values that you want to review to the **Included** list.
   - Type the maximum and minimum values for the items that you want to review.
6. Click **OK**.

   To further limit the items that you want to review, repeat steps 3 to 5 for all necessary filter types.
7. Select checkboxes next to the item properties that you want to view in the left-hand pane and at the bottom of the dialog box.
8. If you do not want to view the production status of items without piece tracking or load tracking, select the **Exclude Accessories without Piece/ Load Tracking** checkbox.
9. Click **OK**.

The **Production Status** dialog box opens, displaying the production stations, field stations, and shipping conditions of items in the current production control job.

The information is color-coded:

- Completed stations and operations are highlighted with green. The completion date is also displayed.
- All work that is in progress is highlighted with yellow.
- If no progress has been made regarding the station or operation, items are highlighted with red.

You can export the production status summary to Microsoft Excel to save the production status information. Right-click in the display area of the **Production Status** dialog box, and in the context menu, select **Export to Excel**.

Copy materials from one drawing to another

Use the **Copy Drawing** command to copy materials from one drawing into another drawing.

1. In the **Production Control** dialog box, click the item whose drawing you want to copy.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Modify Data** --> **Copy Drawing**.
4. In the **Copy Drawing** dialog box, type a number for the new drawing.
5. Click **OK**.
6. Review the new mark numbers and change them according to your needs:
   a. In the list, select the mark that you want to change.
   b. Type a new mark number.

      Repeat steps a to b for all mark numbers that you want to adjust.
7. Click **Copy**.

The **Copy Drawing** dialog box closes. The items in the original drawing are copied to the new drawing.

Send production control items to purchasing

Use the **Purchasing** commands to send production control items to the **Purchasing** module. You can send material items into requisitions or purchase orders, link materials to requisitions or purchase orders, take materials from stock in order to charge them to a job, create reports, and finalize the production control job.

For more information, see the following links:

Load all production control items into a requisition (page 987)

Load all production control items into a purchase order (page 987)

Load the selected production control items into a requisition (page 989)

Load the selected production control items into a purchase order (page 988)

Link materials in Production Control to Purchasing (page 989)

Unlink materials between Production Control and Purchasing (page 990)

Verify material links between Production Control and Purchasing (page 991)

Check purchase orders for received materials (page 991)

Take production control items from stock (page 992)

Finalize a production control job (page 1066)

Load all production control items into a purchase order

You can load all materials in a production control job into a purchase order by using the **Load Material Into Purchase Order** command.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Purchase Order**.
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.
4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

See also

Load the selected production control items into a purchase order (page 988)

Load all production control items into a requisition

Use the **Load Material Into Requisition** command to load all material items in a production control job into a requisition.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Load Material Into Requisition**.

3. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.

4. In the **Purchasing Import Filters**, do one of the following:

To	Do this
Load all items	• Click **Import**.
Filter out items that you do not want to load	a. On the left side of the dialog box, select a filter type in the **Type** list, and click **Select**. b. Click **Select**. c. Click the arrow buttons to move the items that you want to load to the requisition to the **Included** list. The items on the **Not Included** side will not be sent to purchasing. d. Repeat the process for different filter types until you have filtered out all unnecessary items. e. Click **Import**.

5. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load the selected production control items into a requisition (page 989)

Load the selected production control items into a purchase order

Use the **Load Selected Material Into Purchase Order** command to select the material items in a production control job that you want to load into a purchase order.

1. In the **Production Control** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. On the menu, select **Purchasing** --> **Load Selected Material Into Purchase Order**.

3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   If necessary, you can also create a new purchase order and load the items into it.

4. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are loaded into the selected purchase order. To view and use the purchase order, go to the **Purchasing** module and open the **Purchase Orders** tab.

See also

Load all production control items into a purchase order (page 987)

Load the selected production control items into a requisition

Use the **Load Selected Material Into Requisition** command to select the materials in a production control job that you want to load into a requisition.

1. In the **Production Control** dialog box, select the items that you want to load.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Purchasing** --> **Load Selected Material Into Requisition**.
4. In the **Select Requisition** dialog box, select a requisition and click **OK**.

   If necessary, you can also create a new requisition and load the items into it.
5. If you only want to send the items in specific sequences or lots into the requisition, in the **Purchasing Import Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
6. In the **Filter** dialog box, click the arrow buttons to move the sequences and lots whose items you want to load into the requisition to the **Included** list.
7. Click **OK** to close the **Import Items** dialog box. the **Production Control** dialog box.

Materials are sent to the selected requisition. To view and use the requisition, open the **Purchasing** module and go to the **Requisitions** tab.

See also

Load all production control items into a requisition (page 987)

Link materials in Production Control to Purchasing

Link materials in **Production Control** to pre-purchased advanced bill materials by using the **Link Job** command. Tekla PowerFab uses reference numbers to

match the materials across modules. Any unlinked materials, such as loose pieces, will be loaded into a requisition or a purchase order to be purchased.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Link Job**.
3. To limit which materials are linked, in the **Link Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
   b. Type the maximum and minimum values for the items whose heat documents you want to view.
5. Click **OK**.
6. If necessary, select the **If updating a cut list item, exclude from being cut** checkbox.

   By selecting the checkbox, you can ensure that Tekla PowerFab does not invalidate the entire cut list when an item in the cut list is updated. Updated items will be saved in the inventory to be processed later.
7. Click **Link**.
8. In the **Link Items** dialog box, click if you want to load material information to a requisition or a purchase order.
9. Click the desired requisition or purchase order.
10. Click **OK** to load the materials.
11. Click **OK** to close the **Link Items** dialog box.

See also

Unlink materials between Production Control and Purchasing (page 990)

Verify material links between Production Control and Purchasing (page 991)

Unlink materials between Production Control and Purchasing

Use the **Un-Link Job** command to unlink materials between **Production Control** and **Purchasing** when you need to manually manage the materials.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Un-Link Job**.
3. To only unlink specific types of materials, in the **Un-Link Filters** dialog box, select a filter type in the **Type** list, and click **Select**.

4. In the **Filter** dialog box, do one of the following depending on the filter type:
    a. Click the arrow buttons to move the items whose heat documents you want to view to the **Included** list.
    b. Type the maximum and minimum values for the items whose heat documents you want to view.
5. Click **OK**.
6. Click **Un-Link**.
7. In the **Un-Link Items** dialog box, review the un-linking results.
8. Click **OK** to close the dialog box.

See also

Link materials in Production Control to Purchasing (page 989)

Verify material links between Production Control and Purchasing

You can verify that all material in **Production Control** is currently linked to purchasing by using the **Verify Links** command. This is a quick way to verify that the material links between **Production Control**, **Requisitions**, and **Inventory** are maintained. This command can be useful when importing revised drawings, for example.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Verify Links**.
3. In the **Verify Links** dialog box, check that all material items are linked to purchasing.
4. Click **OK** to close the dialog box.

See also

Link materials in Production Control to Purchasing (page 989)

Unlink materials between Production Control and Purchasing (page 990)

Check purchase orders for received materials

You can check purchase orders for received materials that will be used for production control items by using the the **Check Material For TFS** and **Check Selected Material For TFS** commands.

Check purchase orders for all materials

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.

2. On the menu, select **Purchasing** --> **TFS** --> **Check Material For TFS**.
3. To only take specific materials from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to take from stock to the **Included** list.
   - Type the maximum and minimum values for the items that you want to take from stock.
5. Click **OK**.
6. Click **TFS**.
7. In the **TFS** dialog box, review the information and do any of the following:
   - Click **Close** to close the dialog box.
   - Click **Reports** and view or print TFS reports according to your needs.

     For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 956).

Check purchase orders for selected materials

1. In the **Production Control** dialog box, click the items whose availability you want to check.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Purchasing** --> **TFS** --> **Check Selected Material For TFS**.
4. In the **TFS Filters** dialog box, click **TFS**.
5. In the **TFS** dialog box, review the information and do one of the following:
   - Click **Close** to close the dialog box.
   - Click **Reports** and view or print TFS reports according to your needs.

     For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 956).

Take production control items from stock

You can take purchased material items from the inventory and charge the purchased items to the current production control job. Use the **TFS** and **TFS - Selected** commands.

If you only want to take one item from stock, see Take a single cut list item from stock (page 994).

Take all items from stock

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **TFS** --> **TFS**.
3. To only take specific types of items from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to take from stock to the **Included** list.
   - Type the maximum and minimum values for the items that you want to take from stock.
5. Click **OK**.
6. Click **TFS**.
7. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select a date in the calendar.
8. Click **OK** to check which items are linked and which items are actually available to be taken from stock.
9. To confirm taking all of the remaining items from stock, click **Yes** in the confirmation dialog box.
10. In the **TFS** dialog box, review the information and do one of the following:
    a. To close the dialog box, click **Close**.
    b. To view or print TFS reports, click **Reports**. For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 956).

Take the selected items from stock

Use the **TFS - Selected** command to only take selected items from stock in a production control job. The purchased items will be taken from the inventory, and the cost of the selected items will be charged to the current production control job.

1. In the **Production Control** dialog box, click the items that you want to take from stock to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Purchasing** --> **TFS** --> **TFS - Selected**.

4. To select the sequence and lot of the items that you want to take from stock, in the **TFS Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, click the arrow buttons to move the sequences or lots whose items you want to take from stock to the **Included** list.
6. Click **OK**.
7. In the **TFS Filters** dialog box, click **TFS**.
8. In the **Enter Value** dialog box, click the arrow on the right side of the field, and select a date in the calendar.
9. Click **OK** to take the material from stock.
10. If you have selected multiple items, click **Yes** in the confirmation dialog box to take the items from stock.
11. In the **TFS** dialog box, review the information and do one of the following:
    a. To close the dialog box, click **Close**.
    b. To view or print TFS reports, click **Reports**. For more information on viewing and printing reports, see View, print, and export job-specific production control reports (page 956).

Take a single cut list item from stock

You can take a single cut list item from stock by using the **TFS Entry** command. Tekla PowerFab will then process the cut list item and charge the purchased materials to the job.

NOTE The necessary materials need to be received in the purchase order before you can take them from stock.

---

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **TFS Entry**.
3. To filter which items are shown:
    a. In the **Production Control Purchasing Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
    b. In the **Filter** dialog box, click the arrow buttons to move the items that you want to see to the **Included** list.
    c. Click **OK**.

    Repeat steps a to c to set all of the necessary filters.
4. Click **Make Report**.
5. In the **TFS Entry**, select the desired cut list in the **Cut List Serial #** list.

Only the items on the selected cut list are shown in the list below.

Note that if any changes are made to the cut list, its serial number will no longer be valid.

If you want to check the details of the selected cut list using reports, you can click **Reports** in the upper-right corner.

6. In the list of items, select the item that you want to take from stock.
7. Click **TFS**.
8. In the **Cut Lists** dialog box, define the cut list properties and add drop lengths according to your needs.
9. Click **TFS** to take the selected item from stock.

The item is removed from the inventory and charged to the current production control job.

See also

Take production control items from stock (page 992)

View or print job-specific purchasing reports

You can create purchasing reports for a particular production control job.

Create job-specific purchasing report

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Reports**.
3. To limit the items that are included in the reports, in the **Production Control Purchasing Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the values that you want to include in the reports to the **Included** list.
   - Enter the maximum and minimum values for items that you want to include in the reports.
5. Click **OK**.

   To further limit the items in the reports, repeat steps 5 to 7 for all necessary filter types.
6. Click **Make Report**.
7. In the **Report Progress** dialog box, click the report that you want to view or print.

View the purchasing report

In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the purchasing report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. In the **Select Printer** dialog box, click a printer to select it.
4. Click **OK**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Save a cut list

1. Click **Save Cut List**.
2. In the **Job #** list, select the job.
3. In the **Cut List Description** field, either enter a description directly in the field, or click the arrow on the right side of the field to select an option in the list.
4. Click the arrow on the right side of the **Date Required** field, and click a date in the calendar to select it.
5. If you do not want anyone to make changes to the cut list, click the **Lock Cut List** checkbox to select it.
6. Click **Save To Cut List**.

   Tekla PowerFab saves the cut list. You can use it in the selected production control job and with Remote Link.
7. Click **OK** to close the **Message** dialog box.
8. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

10.5 Combine materials in the Production Control module

You can mult and nest materials using the **Combine** command. You can then save and review the combining results.

1. In the **Select Production Control Job** dialog box, open a job.

2. Click the **Production Control** ribbon tab and select **Combine**

   The **Select Combining Run** dialog box opens. When you are performing the first combining run for a combining job, the list in the dialog box is empty.

3. Click a desired combining option to select it.

   The options are:

   - **Mult**: Combines linear items, like beams and angles.
   - **Nest**: Combines items that have area, like plates or gratings.
   - **Mult & Nest**: Combines all items.

   The **Combining Run Filters** dialog box opens.

   NOTE Filtering items is optional, so you can skip steps 4 to 7 if you do not want to filter out items from the combining run.

4. To only combine specific types of materials, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to combine to the **Included** list.
   - Type the maximum and minimum values for the items that you want to combine.
6. Click **OK** to apply the filter.

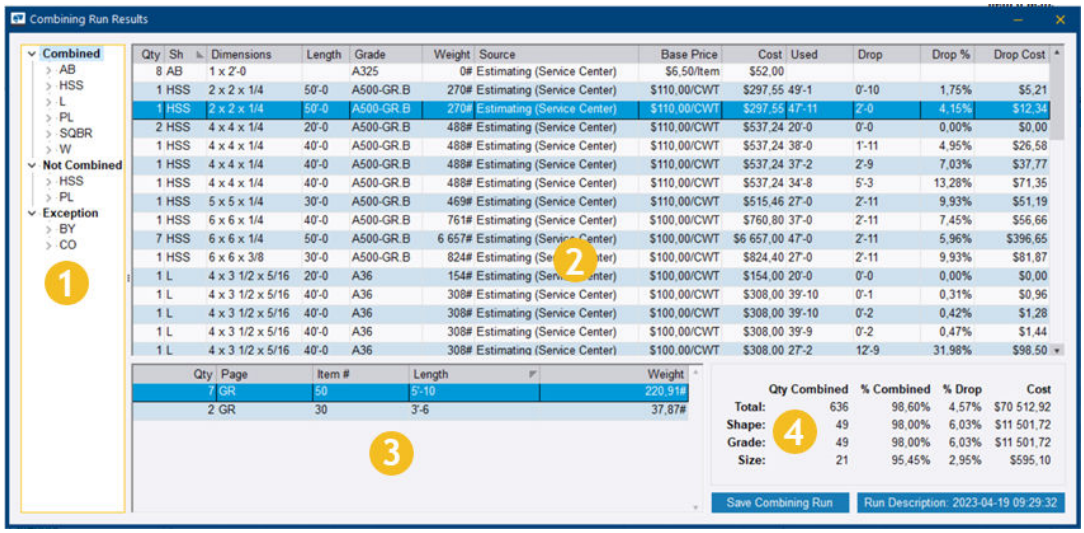
   Repeat steps 4 to 6 for each filter type that you want to set.

7. To ensure that you are using the correct settings, click the **Optimizations**, **INV Filter**, and **Suppliers** buttons.

   You can modify the settings.

8. In the **Combining Run Filters** dialog box, click **OK**.
9. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

Tekla PowerFab combines the materials. After the combining process is finished, the **Combining Run Results** dialog box opens.



(1) Navigation tree: Result statuses

- **Combined**: The items have been optimized successfully
- **Not Combined**: The items that failed to be optimized
- **Exception**: Items that cannot be optimized, such as comment and buyout lines. These can generally be ignored

(2) Display area: Combining results including each bar or sheet that is required

(3) Bottom area: The items that are combined to the selected item

(4) Summary area: Combining results with waste percentage and total material costs. The material cost represents the pricing of the materials in the pricing database that was used in the combining run.

TIP You can save the combining run to view it later and compare it with another combining run. To do so, click **Save Combining Run** at the bottom of the **Combining Run Results** dialog box. No cut lists are generated when you save the combining run.

See also

Rename a combining run (page 379)

View combining run filter settings (page 379)

Modify run-specific pricing information (page 379)

Recombine all items (page 383)

Recombine items of a shape (page 384)

Recombine items of a material grade (page 385)

Recombine a material dimension (page 385)
Update combining information and recombine all items (page 386)
Compare combining runs (page 386)
Export materials for combining (page 242)
Troubleshoot combining issues (page 1235)
Manage inventory, cut lists, and nests with ProNest (page 243)
Mult and nest materials with Steel Projects PLM (page 255)
Enable ShopData Systems for plate nesting (page 258)

10.6 Manage loads

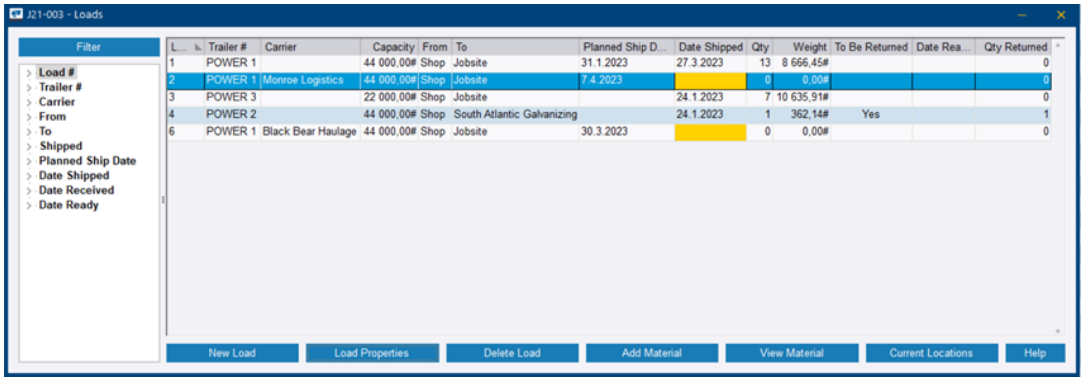
You can create new truck loads for the current production control job, assign materials to loads, and select shipping routes in the **Loads** dialog box. You can also modify and delete existing loads as needed.

NOTE Items and main marks can be shipped to multiple destinations.

To access the **Loads** dialog box, do the following:

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Load Tracking**.

The **Loads** dialog box opens.



The **Loads** dialog box displays the existing loads for the production control job, including where their destination, total weight, and their shipping status.

Date Shipped is highlighted in yellow if the load has not yet been shipped.

You also have access to the **Loads** ribbon tab with further options.

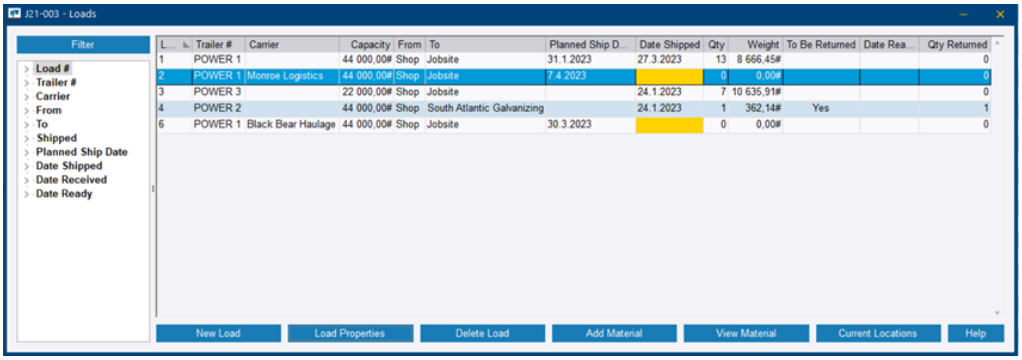
See also Add inventory to load (page 623).

Create a new load

You can start creating a new load in the **Loads** dialog box.

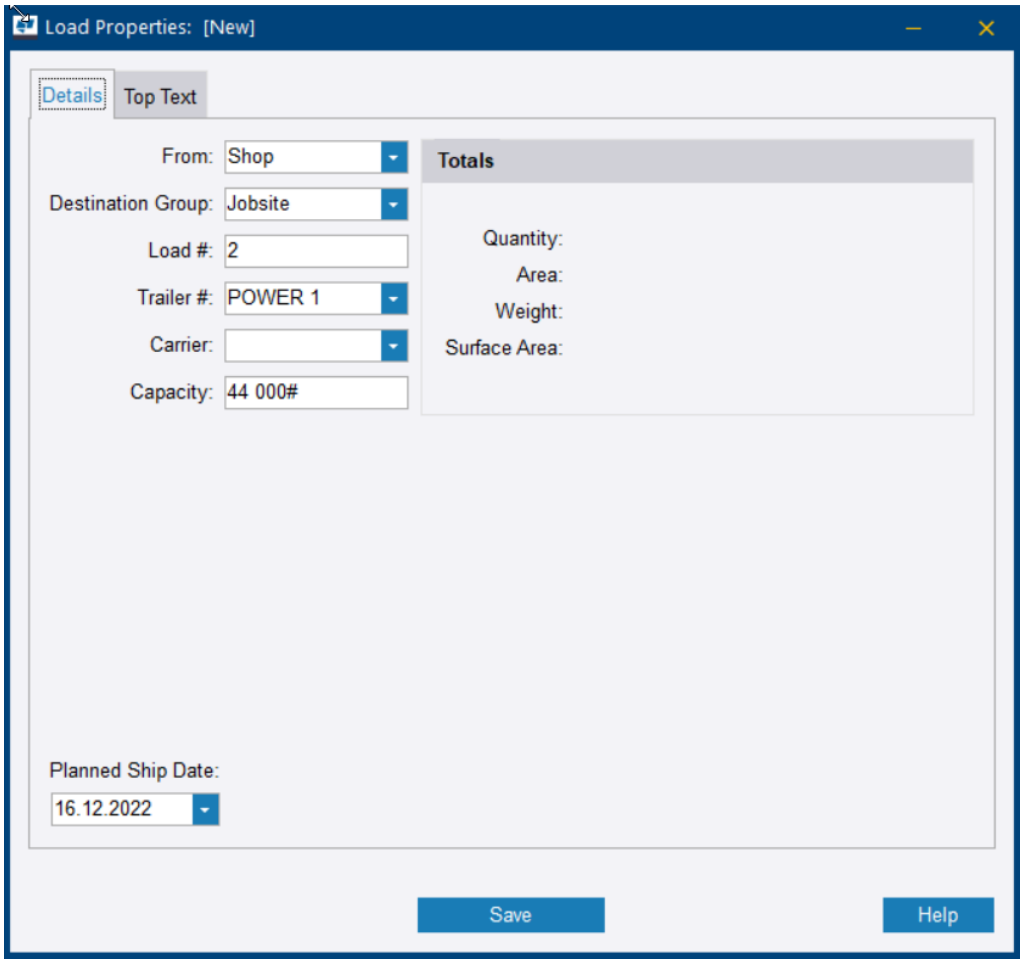
1. In a **Production Control** job dialog box, click the **Production Control** ribbon tab.
2. On the menu, click **Load Tracking**.

   The **Loads** dialog box opens.



3. Click **New Load**.

The **Load Properties** dialog box opens.



4. Define the load properties.

   For details, see Load properties (page 1001).

5. Click **Save**.

   The **Load Properties - Not Shipped** dialog box opens.

You can now proceed to adding materials. See Add or preassign materials to a load (page 1006).

Load properties

You can add and modify load properties in the **Load Properties** dialog box.

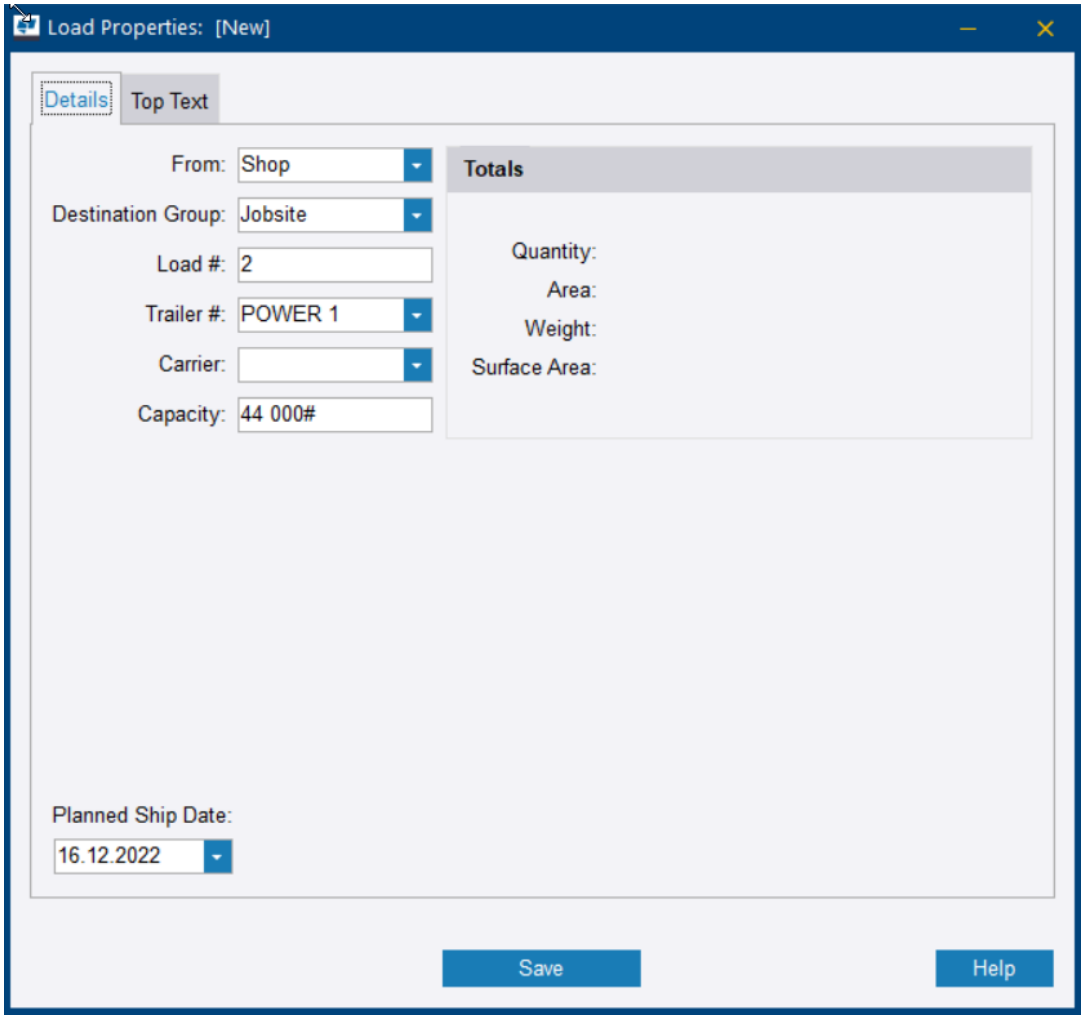
You can access the **Load Properties** dialog box as follows:

1. Open a production control job.
2. • Click **Loads**.
   • Click the **Production Control** ribbon tab and click **Load Tracking**

3. Click either **New Load** or **Load Properties**.

Details

The **Load Properties** dialog box when adding a new load:

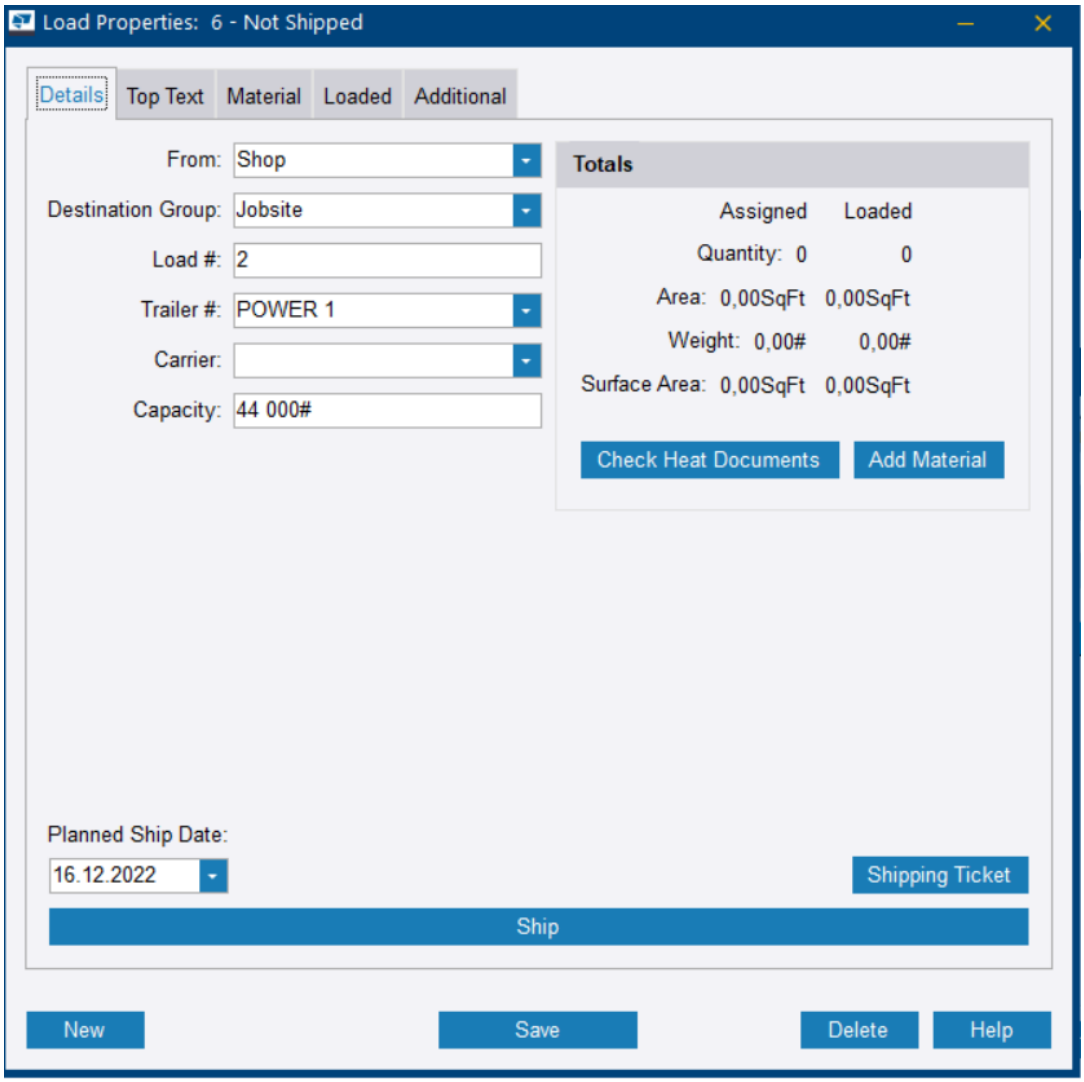


NOTE The available fields are set in **Maintenance** --> **Company Standards** --> **Load Tracking Settings**. There may be additional fields that are not listed in the following table. For more information, see Define load tracking settings (page 862).

Option	Description
From	The initial location of the load Select an option in the drop-down list. The available locations are set in **Shipping Route Maintenance**. See Manage default shipping routes (page 896) and Manage shipping routes for a production control job (page 966).

Option	Description
Destination Group	The available destinations for the load Select a destination in the drop-down list. The available destinations are set in **Shipping Route Maintenance**. Manage default shipping routes (page 896) and Manage shipping routes for a production control job (page 966)
Load #	The number of the load The field auto-increments from the previous load created on the job. You can also type in a new number.
Trailer #	The trailer number Select an option in the drop-down list or type the trailer number directly in the **Trailer #** field. The available trailers are set in the **Load Tracking Settings** dialog box in **Company Standards**. See Define load tracking settings (page 862).
Carrier	The transport company delivering the load Select an option in the drop-down list or type a carrier name directly in the field. The available carriers are set in the **Load Tracking Settings** dialog box **Company Standards**. See Define load tracking settings (page 862).
Capacity	The weight capacity Tekla PowerFab automatically adds the information according to your other selections on the **Details** tab.
Planned Ship Date	The day when you presume that the load will be shipped Select a date in the calendar.

The **Load Properties** dialog box after saving a new load contains additional tabs:



In addition to the properties for the new load, the following buttons appear:

Check Heat Documents: Opens the **Check Heat Documents** dialog box for the load. You can view if the items have heat documents attached to them. You can also save or print the available heat documents, or create reports on the items that have or do not have heat documents.

Add Material: Opens the **Add Material** dialog box. See Add or preassign materials to a load (page 1006).

Shipping Ticket: Opens the **Report Selection** dialog box for creating a shipping ticket. See Create and view a shipping ticket (page 1008).

Ship: Opens the **Load Properties - Shipped** dialog box with **Date Shipped** and **Date Received**.

Top Text

On the **Top Text** tab, you can select the text that will appear on the top of the shipping ticket reports.

See Manage top text items for shipping tickets (page 901).

Material

The **Material** tab lists all the items assigned to the load with the quantity and weight.

You can add, remove, and load items.

See Add or preassign materials to a load (page 1006).

Loaded

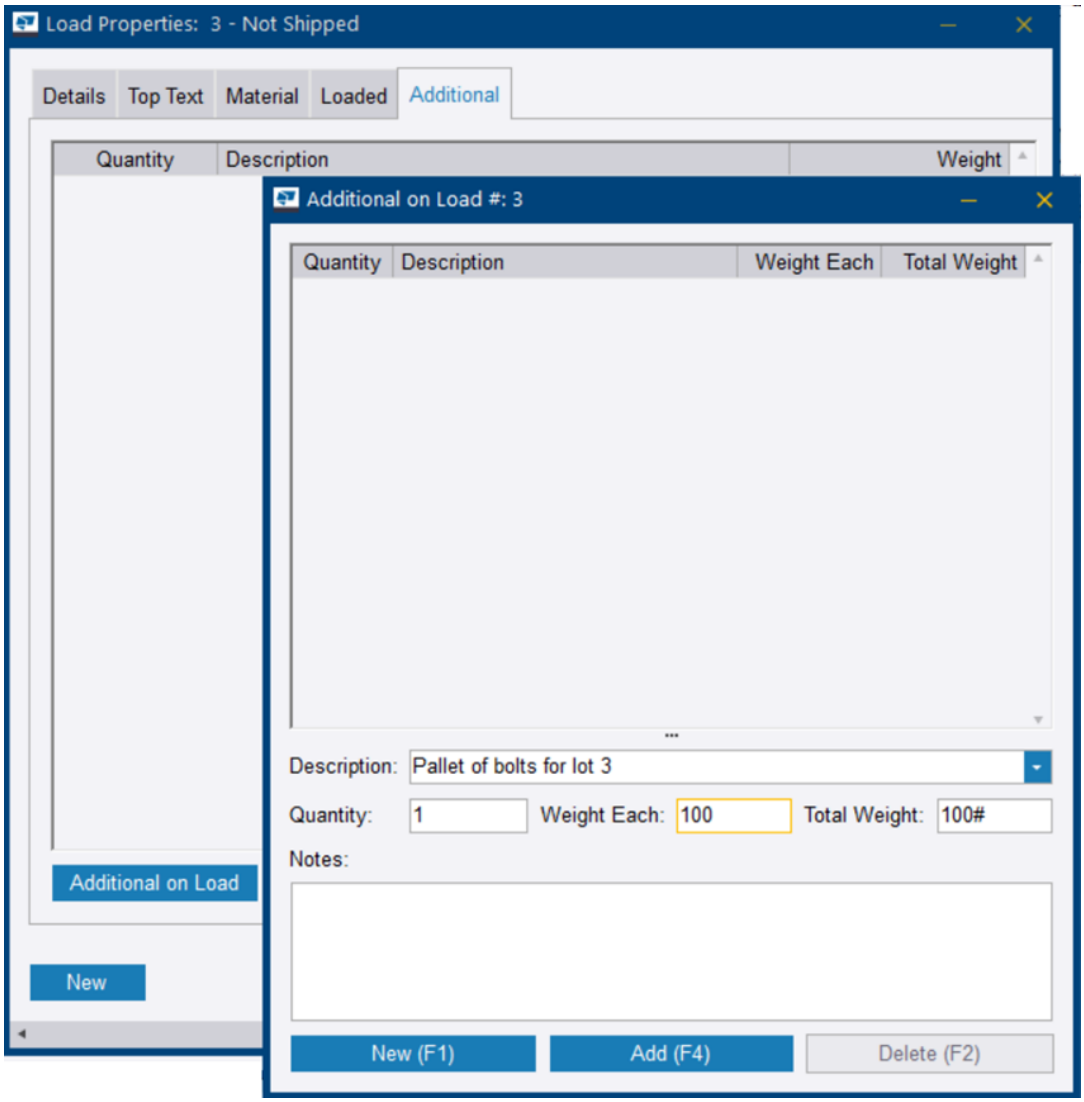
The **Loaded** tab lists all the loaded items, with the date it was loaded together with the quantity and weight.

You can unload the selected items. This option is only available when the load has not yet shipped.

Additional

The **Additional** tab shows additional items. They are goods that will be included on the load that are not directly on the production control bill of materials, such as bolts and fixings, site paint, and tools.

When you click the **Additional on Load**, you can add additional items to the load either by typing or selecting from the drop-down list.



Add or preassign materials to a load

You can add materials to a load in the **Loads** dialog box. Material items can also be preassigned to loads without actually loading the items.

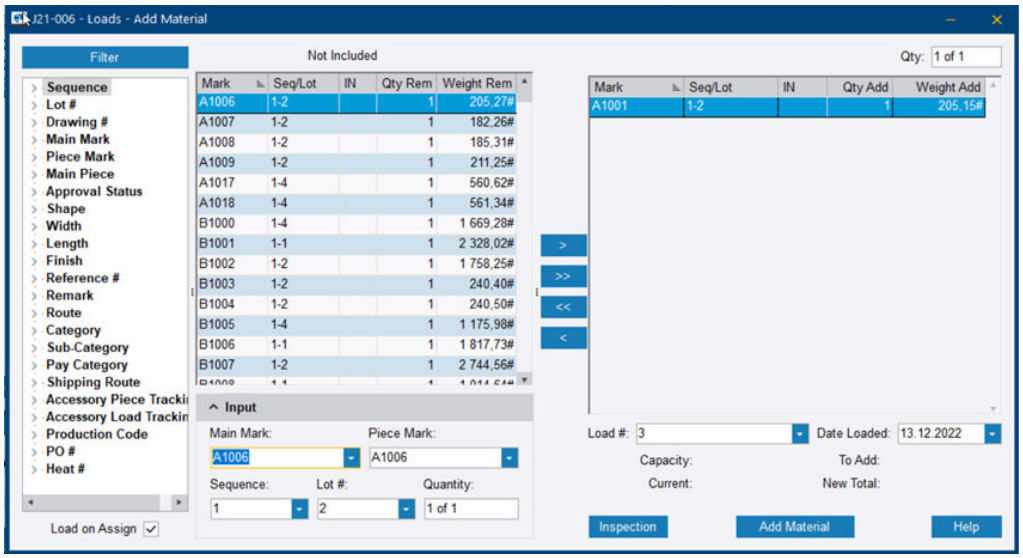
NOTE Only material that is available in the **From** location of the load and is assigned to the next destination group can be added to a load.

1. In a **Production Control** job dialog box, click the **Production Control** ribbon tab.
2. On the menu, click **Load Tracking**.

   The **Loads** dialog box opens.
3. Select the load to which you want to add material.

4. Click **Add Material**.

   The **Loads - Add Material** dialog box opens.



   Filter: Allows the list of items to be filtered based on any details of the parts.

   Inspection: Click to run tests for the items to be loaded.

   Mark column: The item is highlighted in yellow if it has any unresolved inspection failures against it. The item is highlighted in red if it is currently on hold.

5. Click the arrows to move the materials that you want to load to the **Included** list.

6. Modify the properties.

   Main Mark, **Piece Mark**, **Sequence**, **Lot #**: Use the drop-down list to filter and select specific values.

   Qty: To add only some pieces of the item to the load, select the item in the **Included** list and type the number of pieces to be loaded in the field.

   Load #, **Date Loaded**: The load number and loading date

   Load on Assign: Unselect the checkbox, if you only want to preassign material items to the selected load and not actually load the items

7. Click **Add Material**.

The items and quantities that have been moved to the **Included** side are added to the selected load.

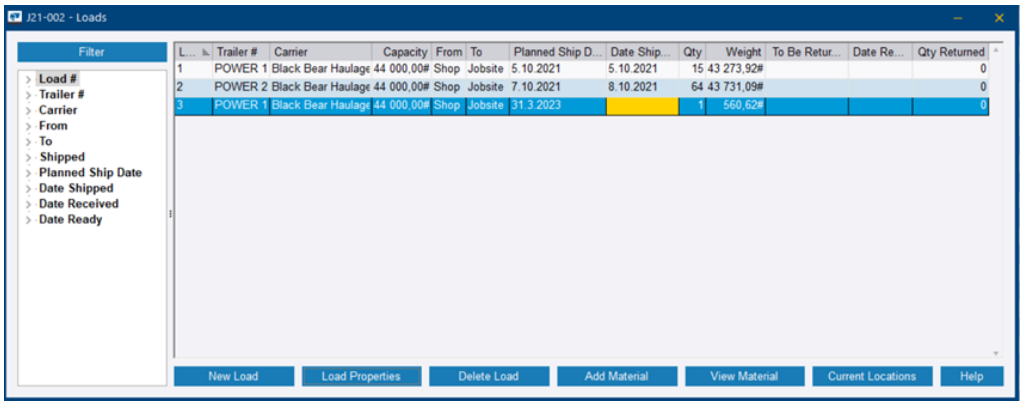
You are ready to ship the load. See Ship a load (page 1007).

Ship a load

The loads that do not have a shipping date are highlighted in yellow in the **Loads** dialog box.

Before you start, make sure you have added material to the load. See Add or preassign materials to a load (page 1006).

1. Access the **Loads** dialog box.



   For instructions, see Manage loads (page 999).

2. Select the load that you want to ship.
3. Click **Load Properties**.
4. On the **Details** tab, click **Ship**.

   The **Enter Value** dialog box opens.

5. Select the shipping date in the calendar.
6. Click **OK**.

TIP If you accidentally ship a load, you can cancel the shipping by clicking **Un-Ship**.

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7. If necessary, select the receiving date in **Date Received**.
8. Click **Save**.
9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Create and view a shipping ticket

You can create a shipping ticket and view, print, and export it.

1. In a **Production Control** job dialog box, click the **Production Control** ribbon tab.

2. On the menu, click **Load Tracking**.

   The **Loads** dialog box opens.

3. Select a load and click **Load Properties**.

   The **Load Properties** dialog box opens.

4. Click **Shipping Ticket**.

   The **Report Selection** dialog box opens.

5. Select a report.

6. Do any of the following

To	Do this
View the shipping ticket	• Click **View**.
Print the shipping ticket	a. To change the number of the printed copies, click **+** or **-**. b. Click **Print**. The **Select Printer** dialog box opens. c. Select a printer. d. Click **OK**.
Export the shipping ticket	a. Click **Export**. The **Export Options** dialog box opens. b. Select the **Export Format** c. To browse to the location where you want to save the file, click **Browse** and select the location. d. Click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

See also Manage top text items for shipping tickets (page 901)

Modify a load

You can modify the properties of any existing loads.

1. In the **Loads** dialog box, select the load that you want to modify.

2. Click **Load Properties**.
3. On the **Details** and **Top Text** tab of the **Load Properties** dialog box, modify the load properties.

   For details, see Load properties (page 1001).
4. On the **Material** tab, modify the materials in the load.
   - To add new material to the load, click **Add**.

     For more information, see Add or preassign materials to a load (page 1006).
   - To remove a material item from the load, click the material item, click **Remove**, and click **Yes** to confirm.
   - To load a material item, click **Load**.
5. On the **Loaded** tab, unload any material items by clicking **Unload**, and then, clicking **Yes** to confirm.
6. If necessary, on the **Additional** tab, add additional items to the load:
   a. Click **Additional on Load**.
   b. Click **New**.
   c. Type the description, quantity, weight per item, and the total weight.
   d. Add any additional notes.
   e. Click **Add**.

      Repeat steps a to e for all additional items that you need to add.
7. To change the shipping status of the load, click **Ship** or **Un-Ship** at the bottom of the dialog box.

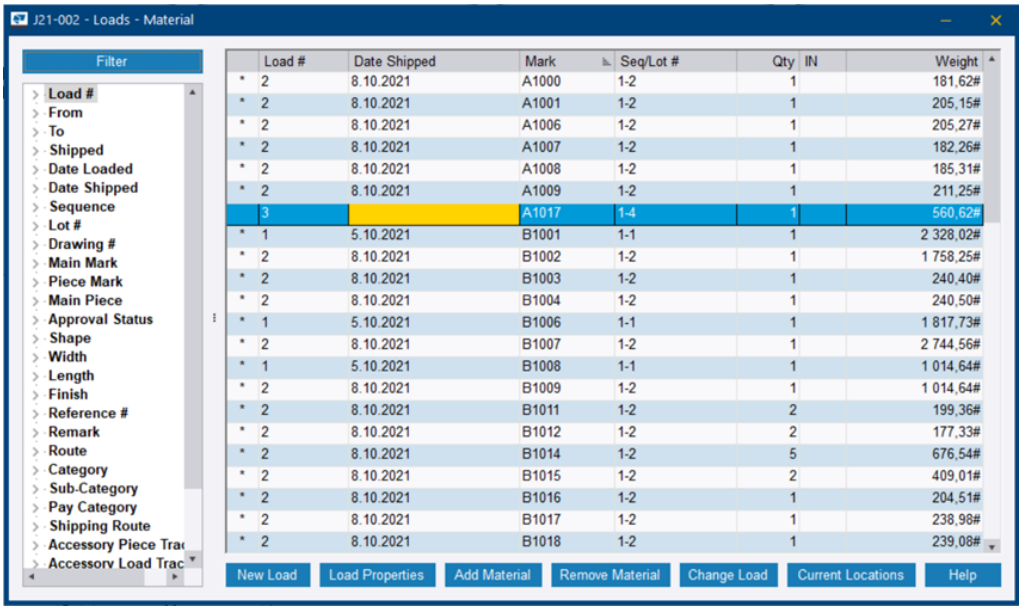
   When shipping a load, select the shipping date and click **OK**.
8. Click **Save** to update the load properties.

View the materials on a load

You can view a list of materials that have been added on loads.

1. In the **Loads** dialog box, select the load whose assigned materials you want to view.
2. Click **View Material**.

The **Loads - Material** dialog box opens.



Filter: Allows the list of items to be filtered based on any details of the parts.

Buttons: You can add a new load, view load properties, add items to a load and remove them, modify a load, and view current locations.

Date Shipped is highlighted in yellow if the load has not yet been shipped.

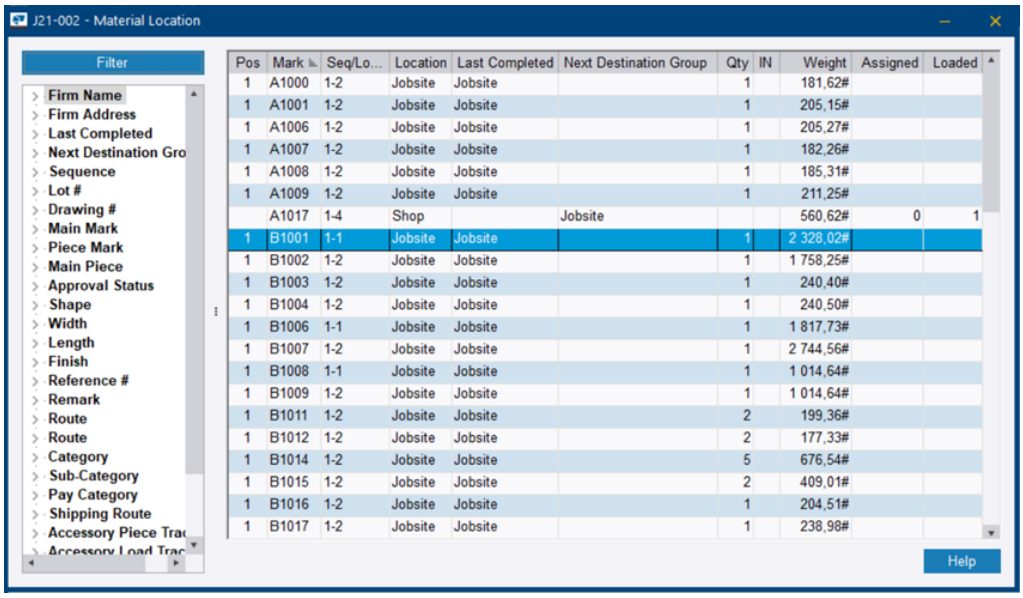
3. Click the **Close** button (**X**) to close the **Loads - Material** dialog box.

View the current location of material

You can view the current location of material that has been shipped.

1. In the **Loads** dialog box, select the load whose locations you want to view.
2. Click **Current Locations**.

The **Material Location** dialog box opens.



Filter: Allows the list of items to be filtered based on any details of the parts.

Pos: Position of the destination in the shipping route. Blank if the destination is no longer in the part's shipping route.

Location: The name of the firm that the material is currently located at. **Shop** if the material has been returned to the shop. **Jobsite** if the material has been shipped to the jobsite.

Last Completed: The name of the last completed destination group

Next Destination Group: The name of the next destination group in the shipping route. Blank if the last destination has been completed or if the destination is no longer in the part's shipping route.

Qty: Quantity at that location. If the quantity is negative, it means that the shipping information has been changed after the material proceeded to the next destination and there is a break in the chain. Negative quantities are highlighted in red.

Weight: Weight at the location

3. Click the **Close** button (**X**) to close the **Loads - Material** dialog box.

Delete a load

Deleting a load is permanent and cannot be undone.

1. In the **Loads** dialog box, click the load that you want to delete.
2. Click **Delete Load**.

3. In the confirmation dialog box, click **Yes** to permanently delete the load.

Add production control items to loads

Use the **Load All Selected** command to add the selected production control materials to a truck load.

1. In the **Production Control** dialog box, click the items that you want to load to select them.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Production Control** ribbon tab.
3. On the menu, select **Modify Data** --> **Load All Selected** .
4. In the **Loads - Add Material** dialog box, click the arrow buttons to move the items that you want to load to the **Included** list.
5. If you only want to load a particular number of pieces, select the item in the **Included** list and type the number of pieces to be loaded in the **Qty** field.
6. Click the arrow on the right side of **Load #** field and click the load to which you want to add the items.

   Note that you can only select loads that have already been added in the **Loads** dialog box. For more information on adding loads, see Manage loads (page 999).

   The total capacity and weight of the load is displayed at the bottom of the **Loads - Add Material** dialog box.
7. If necessary, click the arrow on the right side of the **Date Loaded** field, and select another loading date in the calendar.
8. Click **Add Material**.

The items are added to the selected load. The items will be marked as loaded in the **Loads** dialog box.

Add piece tracking and load tracking information and loads to the current production control job

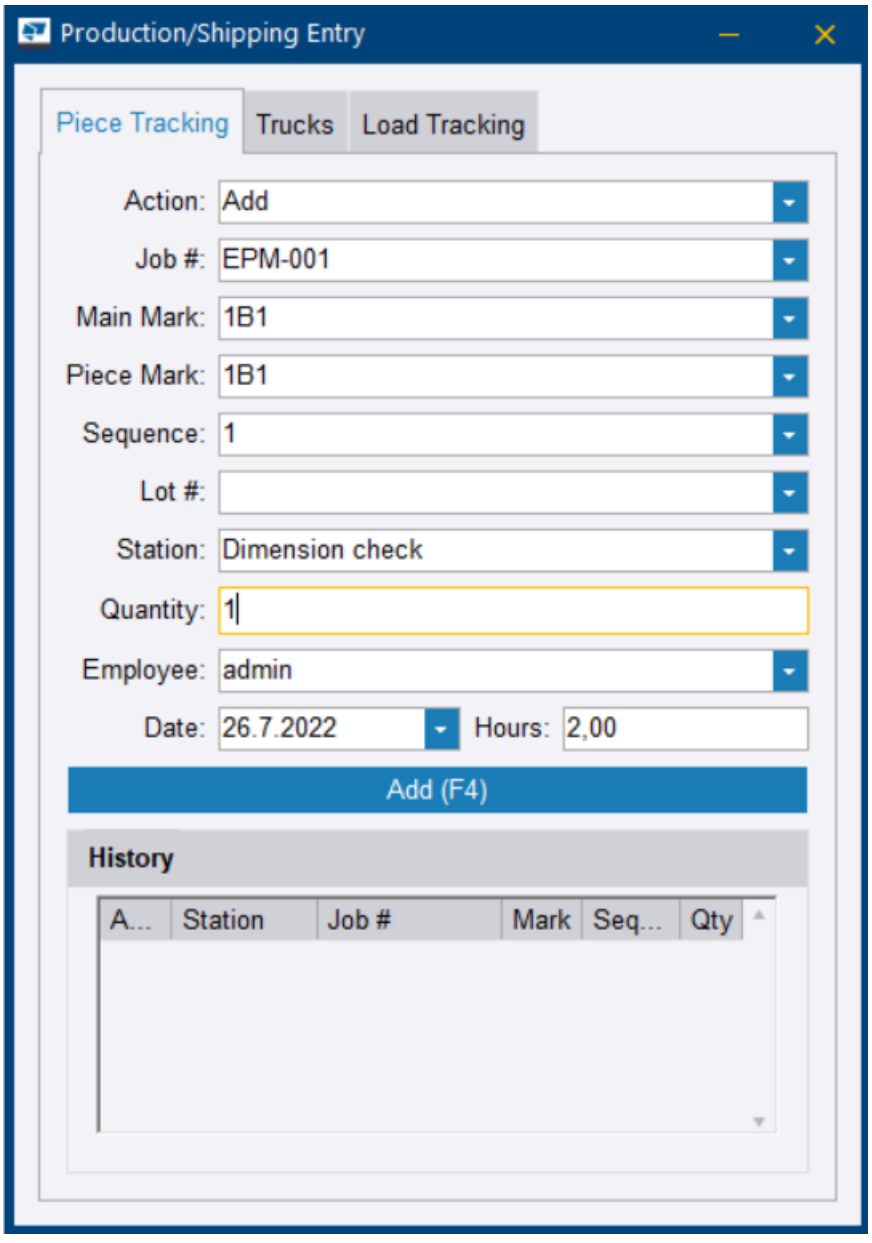
Use the **Production/Shipping Entry** dialog box to add information to the current product control job. You can add piece tracking information and loads, ship and unship loads, and add piece marks to trucks.

NOTE The **Production/Shipping Entry** dialog box only allows you to add one item at a time.

To open the **Production/Shipping Entry** dialog box, do either of the following:

- Select **Maintenance** --> **Production Control** --> **Production/Shipping Entry**.
- In the **Production Control** module, open a job and in the **Production Control** ribbon tab, select **Modify Data** --> **Production/Shipping Entry**.

The **Production/Shipping Entry** dialog box opens on the **Piece Tracking** tab.



Add piece tracking information

In the **Production/Shipping Entry** dialog box do the following:

1. In the **Action** list, select the action that you want to perform. You can add or delete items.
2. In the **Job #** list, select the production control job for which you want to perform the action.
3. Select the main mark, piece mark, sequence, lot number, station, the employee who is adding the information, and date.

   NOTE The employee must be a Tekla PowerFab user.

4. In the **Quantity** field, enter the number of pieces being worked on.
5. In the **Hours** field, enter the hours used for working on the item.
6. To perform the action, click **Add** or **Delete**.

The action is updated to the selected job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

Add loads, ship loads, and unship loads

In the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Trucks** tab to open it.
2. In the **Action** list, select the action that you want to perform.

   You can add or validate, ship, or unship trucks.
3. In the **Job #** list, select the production job for which you want to perform the action.
4. Select the load number, shipping date, and destination in the appropriate lists.
5. If necessary, click **View** to view the items assigned to the selected load.
6. If the load needs to be returned, select the **To Be Returned** checkbox.

   The load must be returned even if the materials will not be physically returned. Returning the loaded items allows the piece marks to be loaded onto a new shipping ticket that contains items delivered to the job site. This way, Tekla PowerFab can keep accurate records of when parts were received and shipped.
7. To perform the action, click **Add/Validate**, **Ship**, or **Un-Ship**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.
8. If needed, create and view the shipping ticket:
   a. Click **Shipping Ticket**.
   b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

c. Do any of the following:

To	Do this
View the shipping ticket	• Click **View**.
Print the shipping ticket	1. To change the number of the printed copies, click **+** or **-**. 2. Click **Print**. The **Select Printer** dialog box opens. 3. Select a printer. 4. Click **OK**.
Export the shipping ticket	1. Click **Export**. The **Export Options** dialog box opens. 2. Select the **Export Format** 3. To browse to the location where you want to save the file, click **Browse** and select the location. 4. Click **Save**. 5. Modify the file name as needed. 6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. 7. To open the file after exporting it, select the **Open Exported Document** checkbox. 8. Click **Export**.

Add piece marks to trucks

In the **Production/Shipping Entry** dialog box, do the following:

1. Click the **Load Tracking** tab to open it.
2. In the **Action** list, select the action that you want to perform.

   You can add, delete, return, or unreturn items.
3. Select the main mark, piece mark, sequence, lot number, load number, and date.
4. If necessary, click **View** to view the items assigned to the selected load.
5. In the **Quantity** field, enter the number of pieces that are worked on.

6. Click **Add**, **Delete**, **Return**, or **Un-Return**.

   The action is updated to the selected production control job. The action also appears in the **History** list at the bottom of the **Production/Shipping Entry** dialog box.

7. If necessary, view the shipping ticket:

   a. Click **Shipping Ticket**.

   b. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

   c. Do any of the following:

To	Do this
View the shipping ticket	In the **Report Selection** dialog box, click **View**
Print the shipping ticket	1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. 2. Click **Print**. 3. In the **Select Printer** dialog box, click a printer to select it. 4. Click **OK**.
Export the shipping ticket	1. In the **Report Selection** dialog box, click **Export**. 2. In the **Export Format** list, select an export format. 3. Click **Browse**. 4. Browse to the location where you want to save the exported file, and click **Save**. 5. Modify the file name as needed. 6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. 7. To open the file after exporting it, select the **Open Exported Document** checkbox. 8. In the **Report Selection** dialog box, click **Export**.

10.7 Track production by piece mark

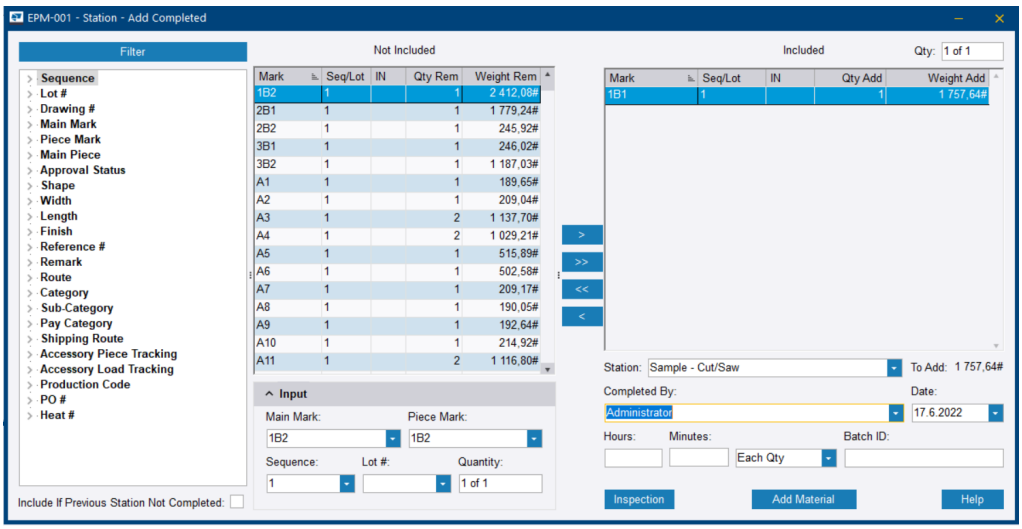
You can add tracking information by piece mark in the **Piece Tracking** dialog box. You can record the stations that the piece mark has completed, the date,

and the hours used. Piece-tracking records can also be added if the station is set as the TFS station in a route or assigned to an inspection.

1. In the **Select Production Control Job**, select a job.
2. Do either of the following:
   - On the **Production Control** ribbon tab, select **Piece Tracking**.
   - In the job dialog box, click **Piece Tracking**.

   The **Station Summary** dialog box opens.
3. To record information for completed items, click **Add Completed**.

   The **Station - Add Completed** dialog box opens.
4. Select a station in the **Station** list.



5. Click the arrow buttons to move the items that have completed the selected station to the **Included** list.

   If you cannot see all items that should be available, try selecting the **Include If Previous Station Not Complete** checkbox. When this checkbox is selected, items that have not yet completed the previous station on the route are also shown.
6. Click the arrow on the right side of the **Completed By** list and select the user that is adding the piece tracking information.
7. Click the arrow on the right side of the **Date** field and select the completion date in the calendar.
8. Type the number of working hours and minutes used, and select if they are calculated by piece or as a total.

9. If necessary, type the batch ID of the selected items in the **Batch ID** field.

   Batch ID is a generic field for grouping piece tracking entry items to provide more specific reporting.

   For example, you can type the name of the employee who is adding the piece tracking information.

10. To review the inspection test records of the items before completing stations, click the **Inspection** button. For more information, see Inspection test records (page 1040).
11. Click **Add Material** to save the piece tracking information.
12. To close the **Station Summary** dialog box, click the **Close** button (**X**) in the upper-right corner.

You can view the piece tracking information by creating a **Production Status** dialog box. For more information, see View production statuses of items (page 985).

You can also view piece tracking information by viewing any report with the word **Station** or **Stations** in the title. For more information, see View, print, and export job-specific production control reports (page 956).

10.8 Inspections

You can create and modify inspection tests and inspection records.

The inspection tests within Tekla PowerFab can be customized to suit the existing quality control procedures.

You can create comprehensive inspection records for any number of quality control aspects. This creates a digital log of every inspection and its result, which makes the analysis and reporting easy. It also helps in identifying the root causes and implementing preventative actions.

NOTE Before you create inspections, you must first add the inspection locations and have assigned inspectors in the address book.

For instructions, see the following:

- Manage inspection test locations (page 1037)
- Add contacts to the address book (page 203)

Inspection tests

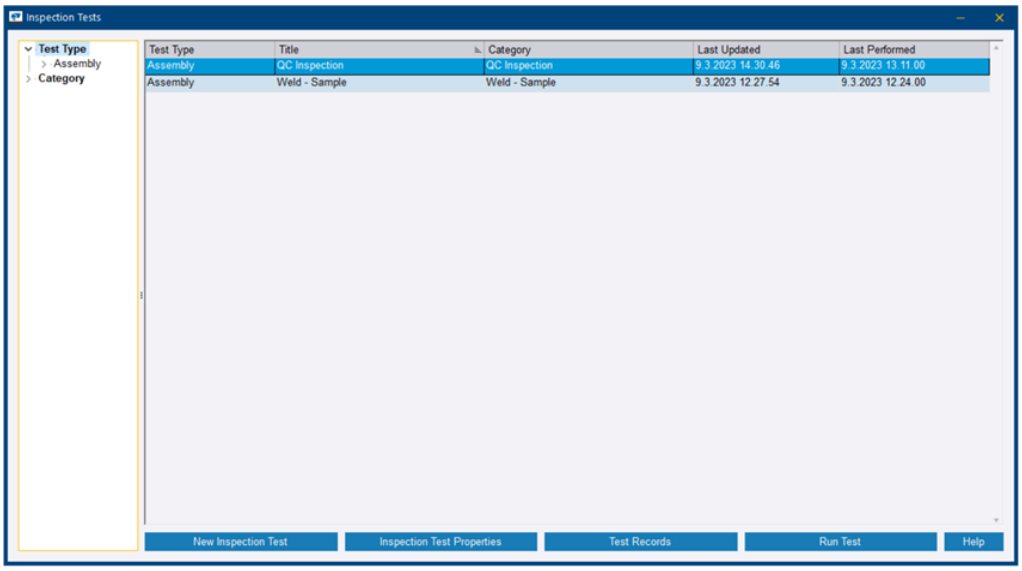
In **Maintenance**, you can create new tests, and view and modify the tests currently in the system. You can also run tests and view the results.

Create a new inspection test

In **Maintenance**, you can create new tests.

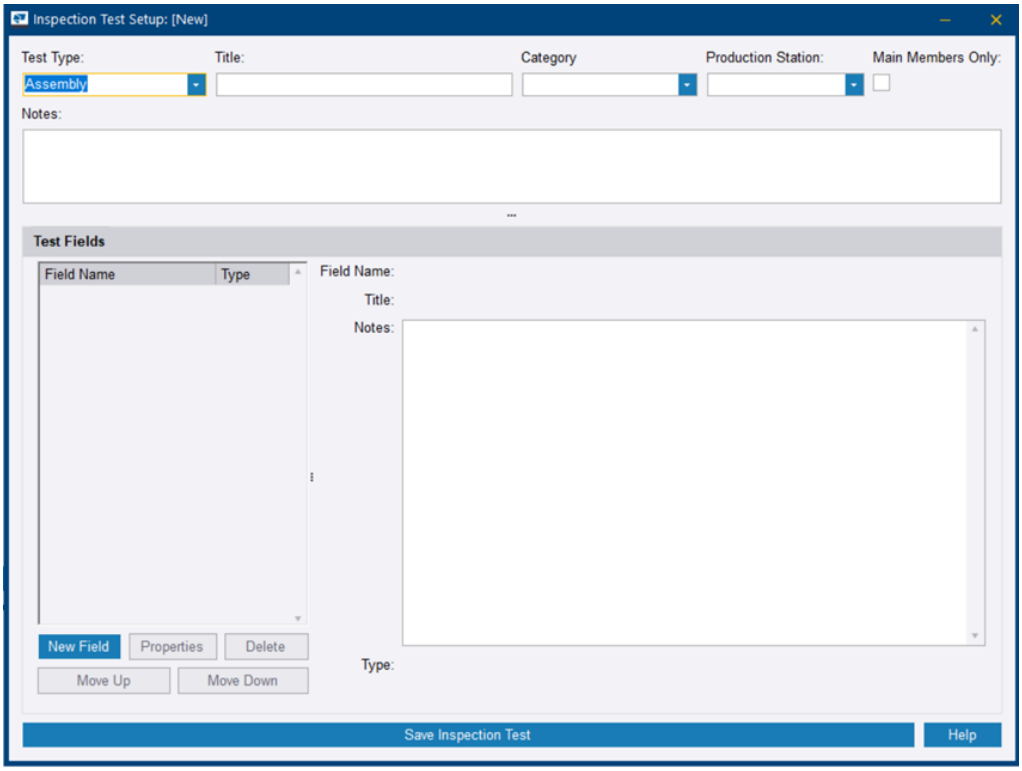
1. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

   The **Inspection Tests** dialog box opens.



2. Click **New Inspection Test**.

   The **Inspection Test Setup: [New]** dialog box opens.



3. Define the properties.

   For details on the properties, see Inspection test properties (page 1023).

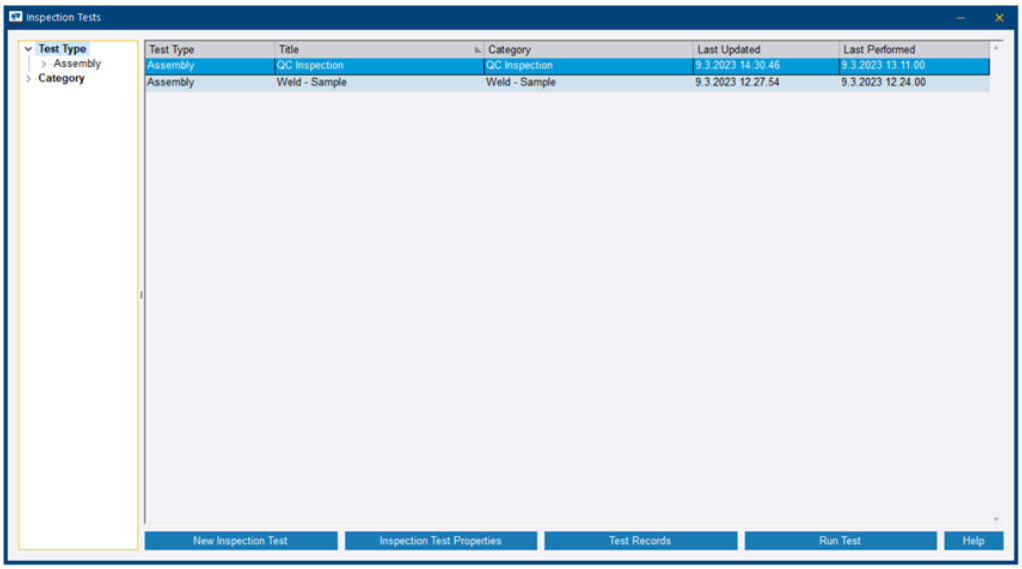
4. To save the test setup, click **Save Inspection Test**.

Create a new inspection test by copying

You can create a new inspection test by copying an existing test.

1. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

   The **Inspection Tests** dialog box opens.



2. Select a test.
3. Click **Inspection Test Properties**.
4. Enter a new title.
5. Click **Save Inspection Test**.

See also

Inspection tests (page 1019)

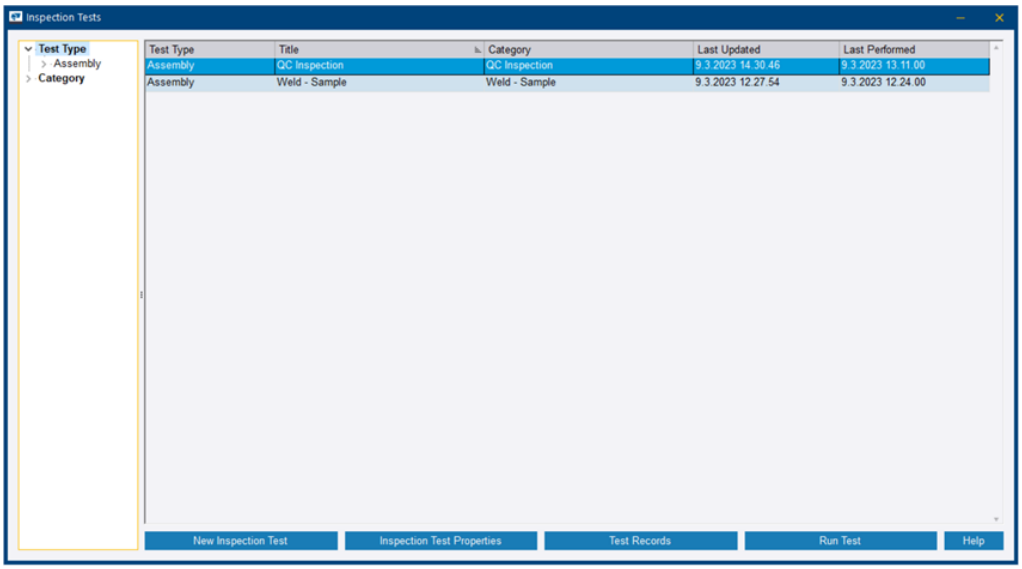
Create a new inspection test (page 1019)

View and modify inspection tests

In **Maintenance**, you can view and modify the tests currently in the system. run tests and view the results.

1. To view existing inspection tests, go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

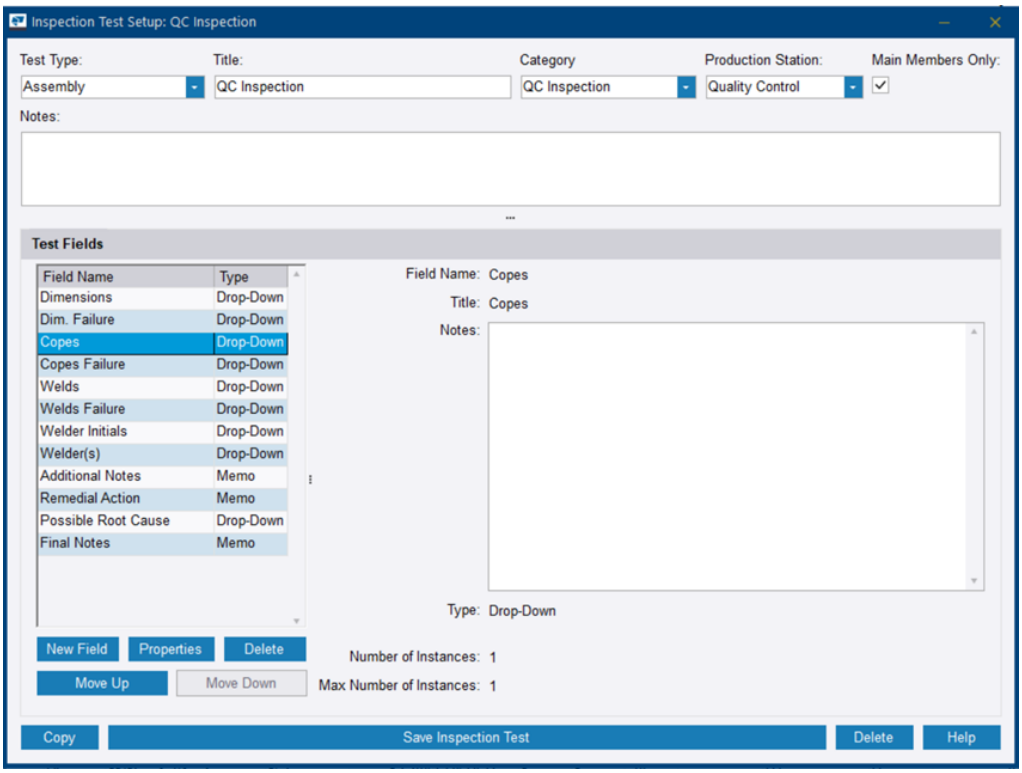
The **Inspection Tests** dialog box opens.



Use the navigation tree on the left to drill-down on the test type and category to filter the tests that are shown in the display grid.

2. To modify the properties of a test, click **Inspection Test Properties**.

   The **Inspection Test Setup** dialog box opens.

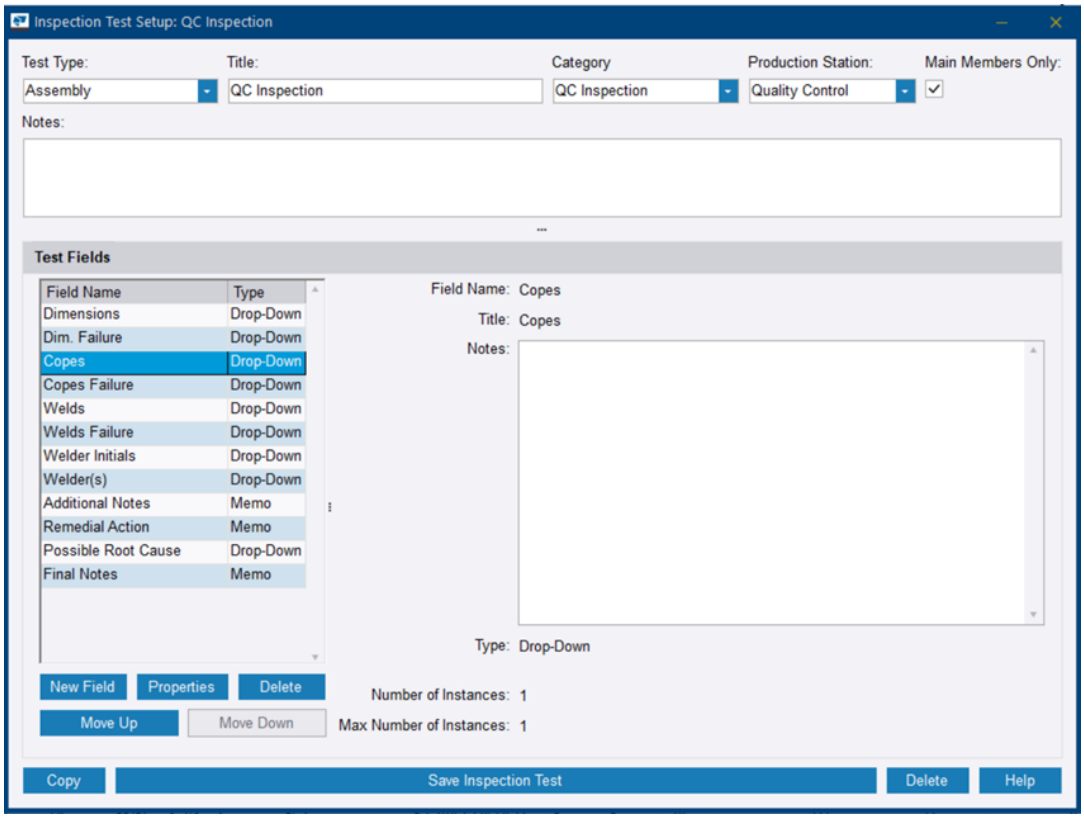


   For details on the properties, see Inspection test properties (page 1023).

3. To save the modified properties, click **Save Inspection Test**.

Inspection test properties

You can modify the testing requirements that the inspector will use for each test in the **Inspection Test Setup** dialog box.



Property	Description
Test Type	Groups together a set of related tests. Select a test type from the drop-down menu: • Assembly: The test subject is an assembly or part flagged for piece tracking in a production control job. • Employee: The test subject is a Tekla PowerFab user. • Environmental • General • Load: The test subject is a shipping load in a production control job.

Property	Description
	• Part: The test subject is a part in a production control job.
Title	Type a unique title for the test.
Category	Allows you to group together similar tests. You can either type the category name or select an existing one in the drop-down list. When you enter a title, the category is set to match, and can then be changed to a different value. For example, if you have several weld tests, you can set the category to **Weld** for all of the tests to make it easier to filter on that group of tests.
Production Station	Select the production station that is marked as completed when a successful or passed test record is added. This option is available only when the test type is set to **Assembly**.
Main Members Only	When selected, only main members are listed as available test subjects. Accessory parts flagged for piece tracking are not available. This option is available only when the test type is set to **Assembly**.
Notes	Type any additional text or instructions related to performing the test. The text in the **Notes** field appear in the **Run Test** dialog box when you add a new test record.
Test Fields	The grid on the left shows all the fields that have been entered so far as part of the test definition in the order that they are presented when entering a test record. The section on the right shows the details of the selected field.

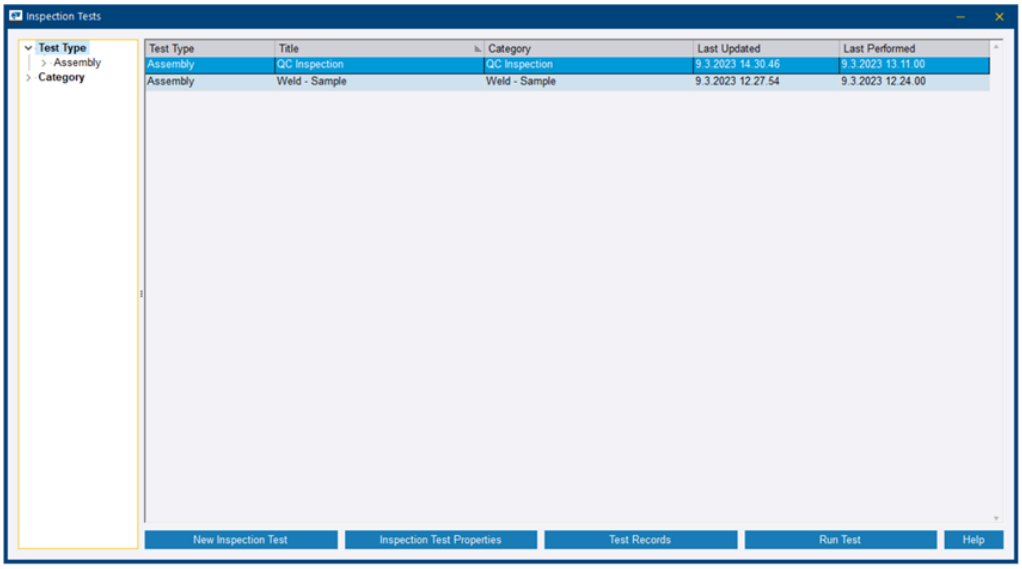
Using the buttons, you can also add, modify, move, and delete test fields.

Add and modify inspection test fields

You can add new fields and modify the properties of existing fields.

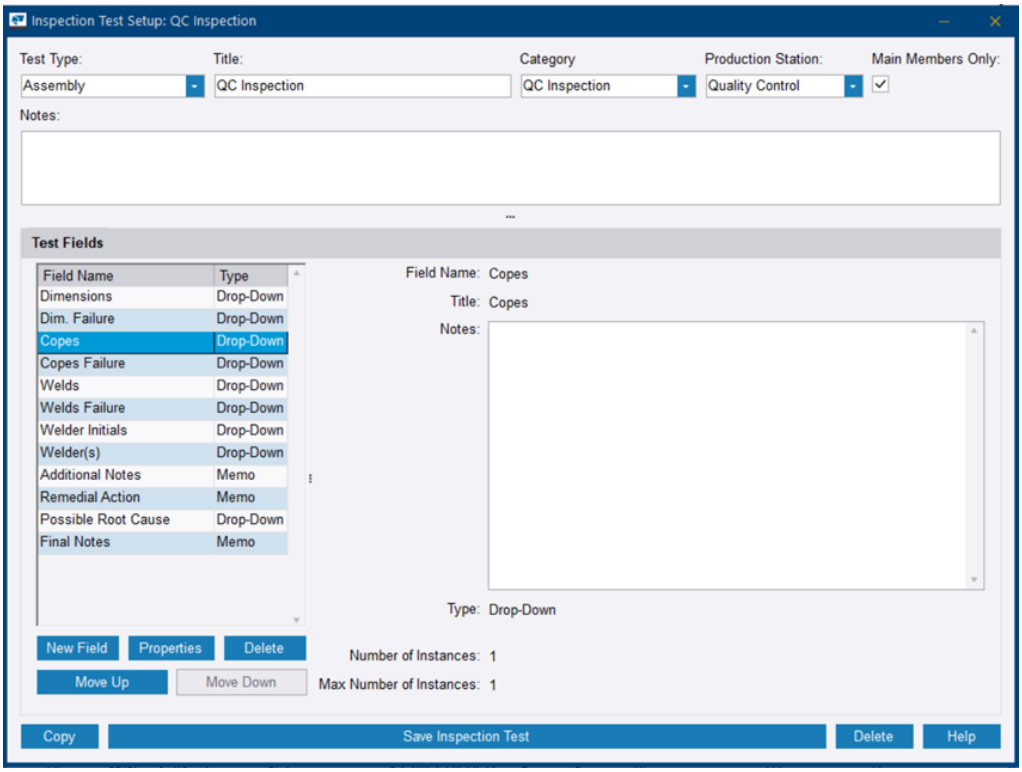
1. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

   The **Inspection Tests** dialog box opens.



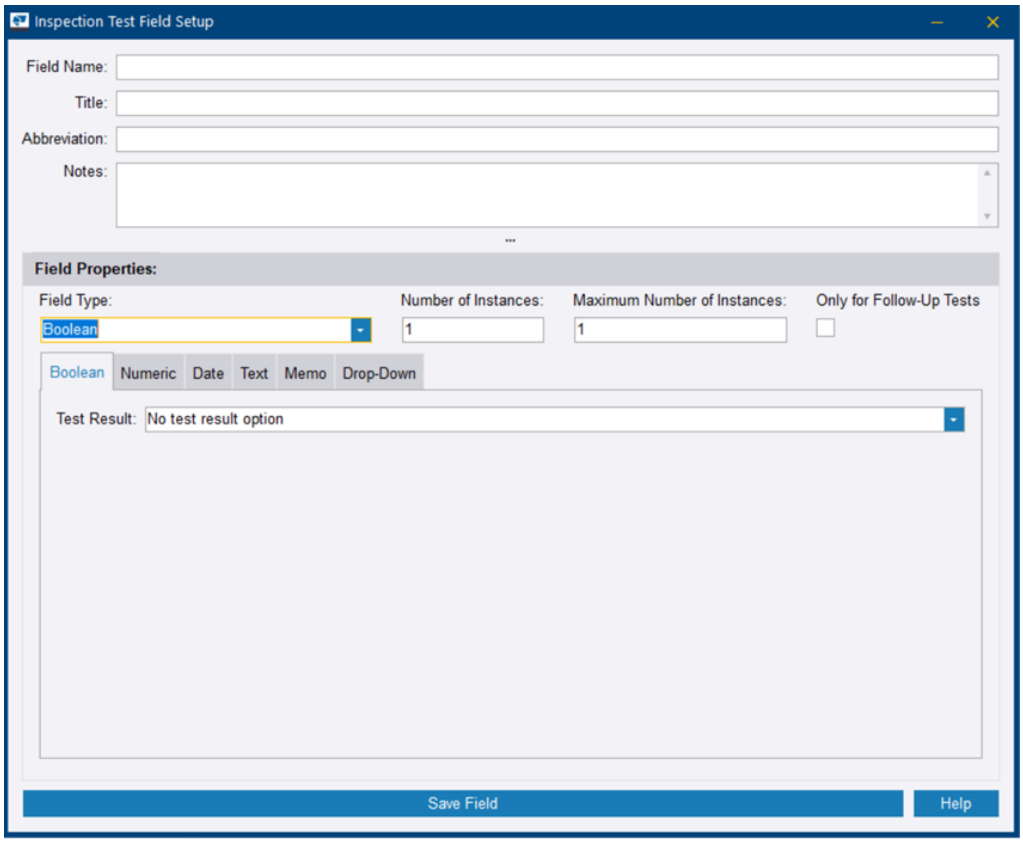
2. Do either of the following:
   - If you are creating a new test, click **New Inspection Test**.
   - If you are modifying an existing test, click **Inspection Test Properties**.

The **Inspection Test Setup** dialog box opens.



3. Do either of the following:
   - If you are creating a new test, click **New Field**.
   - If you are modifying an existing field, click **Properties**.

The **Inspection Test Field Setup** dialog box opens.



4. Define the properties.

   For details see Inspection test field properties (page 1027).

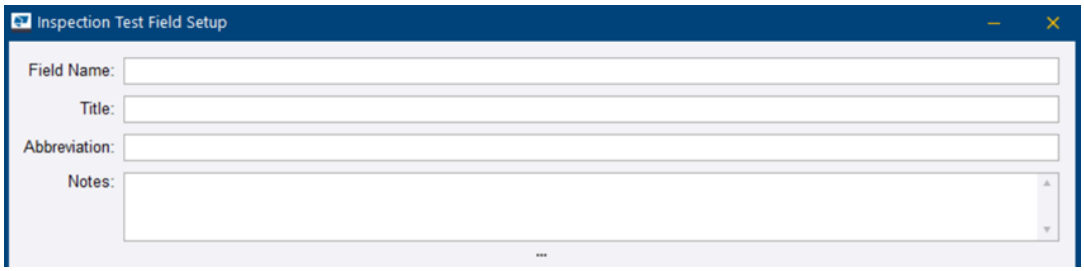
5. Click **Save Field**.

Inspection test field properties

When you are creating a new test field or modifying an existing test field, you need to adjust the properties in the **Inspection Test Field Setup** dialog box.

Top section

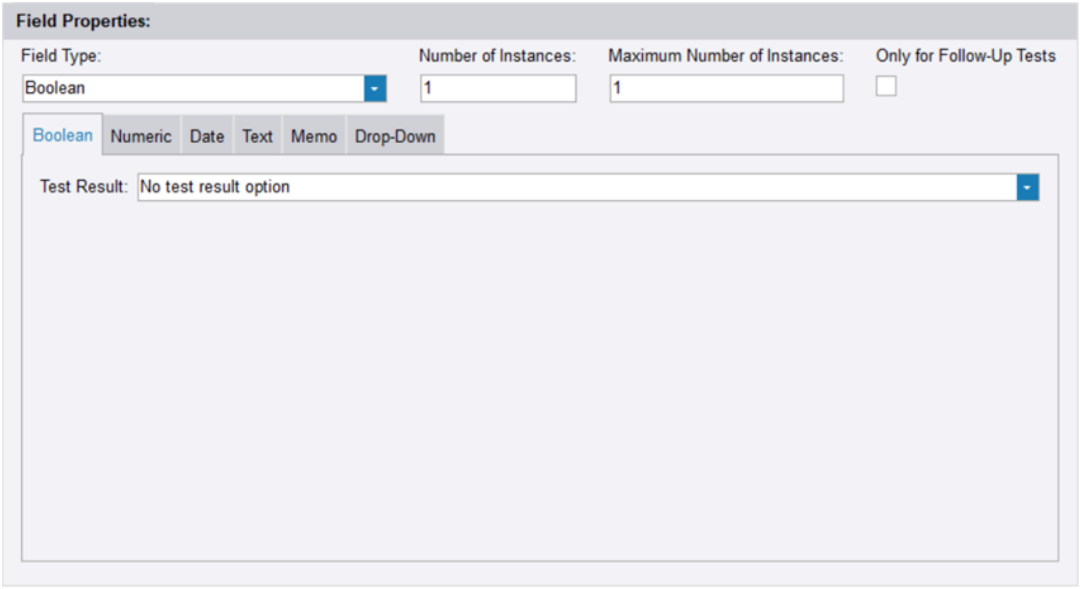
The top section has inputs to identify the field.



Property	Description
Field Name	Enter a unique name that is used in the test definition.
Title	Enter a unique title that is used as the title of the field in the **Run Test** dialog box and in **Remote Link**. When you enter the field name, the title is set to match, and you can then change it.
Abbreviation	Enter a unique abbreviation that identifies the field in a column header on a grid display. When you enter the field name, the abbreviation is set to match, and you can then change it.
Notes	Type any additional text or instructions related to the field. This text will appear in a pop-up when the user hovers the mouse cursor over the field in the **Run Test** dialog box.

Field properties

The field properties determine how the field is input and displayed.



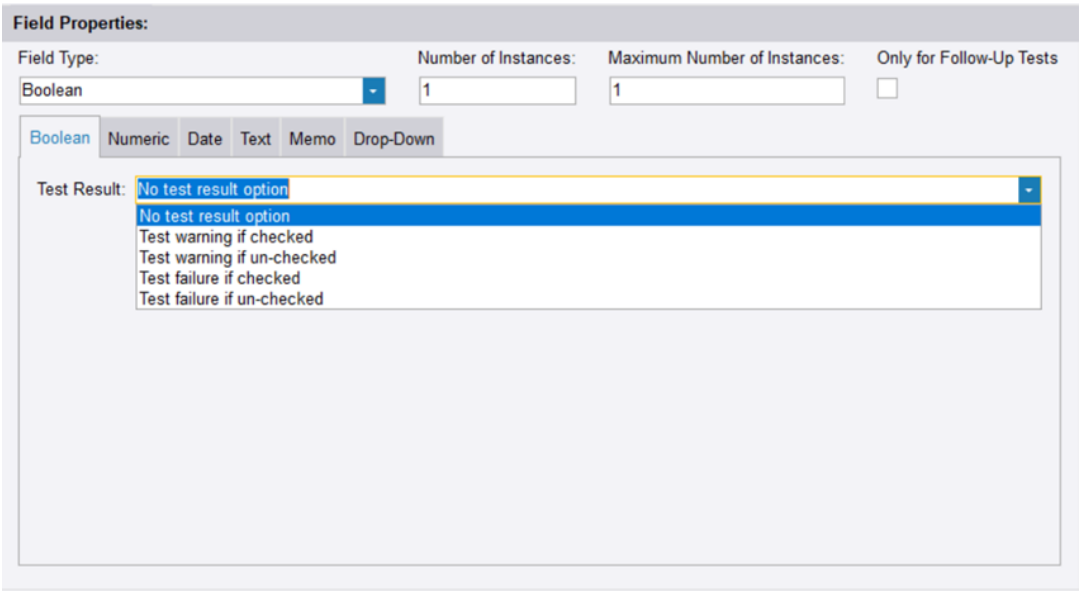
Property	Description
Field Type	The type of information to be captured by the field. Select a value from the drop-down list. The selection opens the corresponding tab with further selections.
Number of Instances	Enter the number of times the field is presented to the user when running the test.
Maximum Number of Instances	Enter the maximum number of instances of the field that can be entered when running the test. If this is greater than the **Number of Instances** value, then the user can add additional instances up to the maximum.
Only for Follow-Up Tests	When selected, this field is only available for entry when running a follow-up test record. For example, if you add a **Memo** field to the test definition with this option checked, the inspector can record in the follow-up test record the

Property	Description
	corrective action that was required to fix the problem.

Boolean

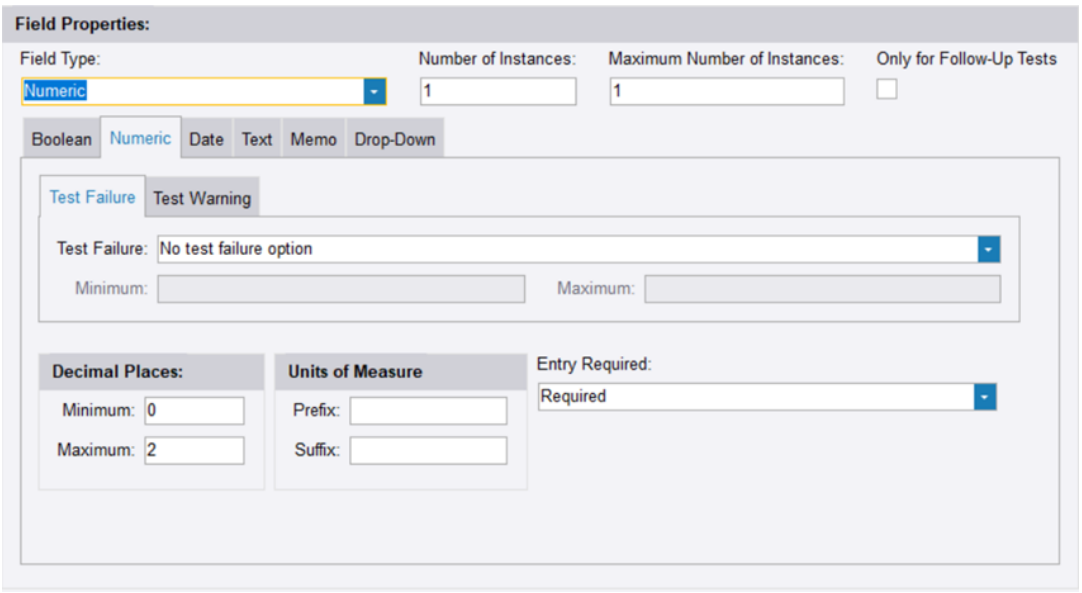
A yes/no checkbox entry.

Select if entering information in the field indicates a failure or creates a warning.



Numeric

An input that accepts a numeric entry.



Test Failure --> **No test failure option**: The field is for data collection only and does not indicate a failure condition.

Test Warning --> **No test warning option**: The field is for data collection only and does not indicate a warning condition.

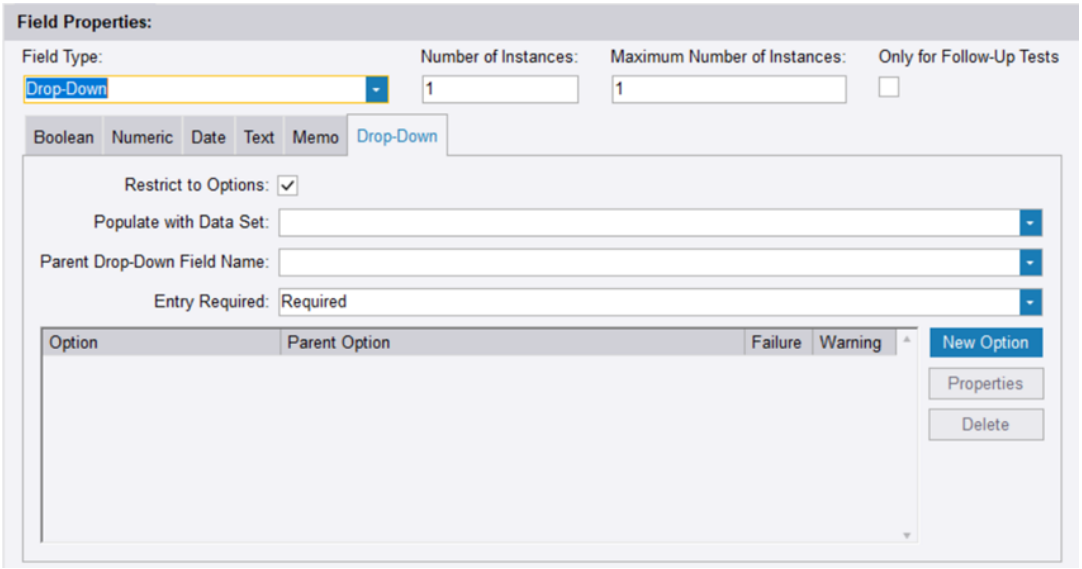
- **Minimum/Maximum**: Available only if **Test failure if in range** or **Test failure if out of range** selected for **Test Failure**. Enter the minimum and maximum values for the range.
- **Decimal Places**: The minimum and maximum number of decimal places
- **Units of Measure**: A prefix or a suffix for the units of measure
- **Entry Required**: Select if entering information in the field is mandatory.

Date, Text, and Memo

Property	Description
Date	A date entry
Text	A free-form text entry
Memo	A multiline text entry
Entry Required	Select if entering information in the field is mandatory.

Drop-Down

A drop-down entry. The available options are specified as part of the field definition.



Property	Description
Restrict to Options	Select if the information is restricted to a list of predefined options. If this option is not selected, the drop-down options are still available but the user may enter any text, even if it does not match one of those options.
Populate with Data Set	When **Tekla PowerFab Users** is selected, the rest of the option settings are disabled. When the test is run, this drop-down field is populated with the list of active users in Tekla PowerFab, as entered in administration.
Parent Drop-Down Field Name	A drop-down field can be set so that its available options depend on the option selected in another drop-down field.
Entry Required	Select if entering information in the field is mandatory.

New Option: Opens the **Inspection Test Field Setup** dialog box to add a new drop-down option. See Manage drop-down field options (page 1032).

Properties: Opens the **Inspection Test Field Setup** dialog box to view and edit the properties of the currently selected drop-down option.

Delete: Deletes the currently selected drop-down option as well as any child options.

Manage drop-down field options

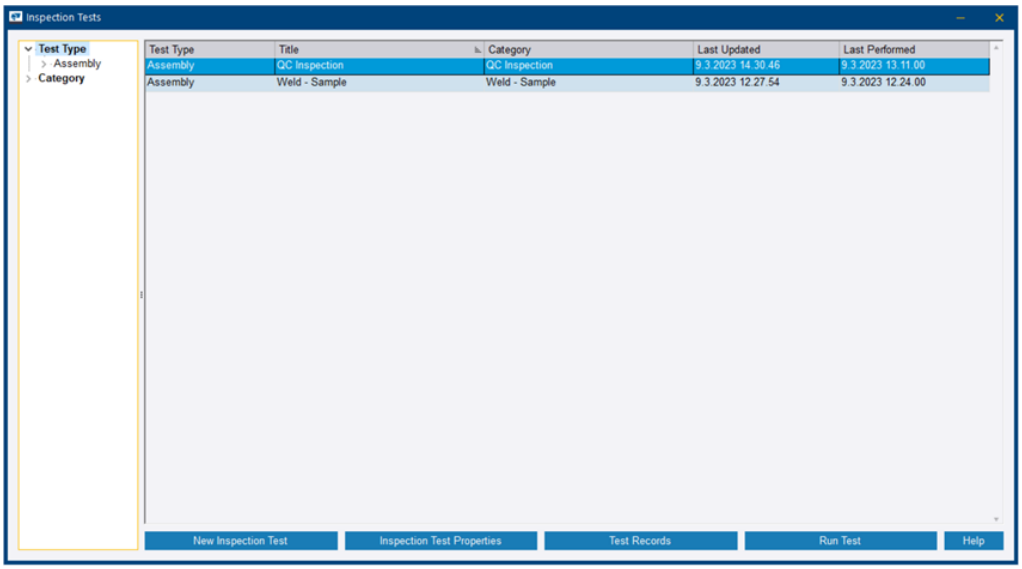
You can add, update, and delete a drop-down field option when you are creating a new inspection test field or modifying the properties of an existing one in **Maintenance**.

Access Inspection Test Field Setup

You can manage drop-down field options in the **Inspection Test Field Setup** dialog box.

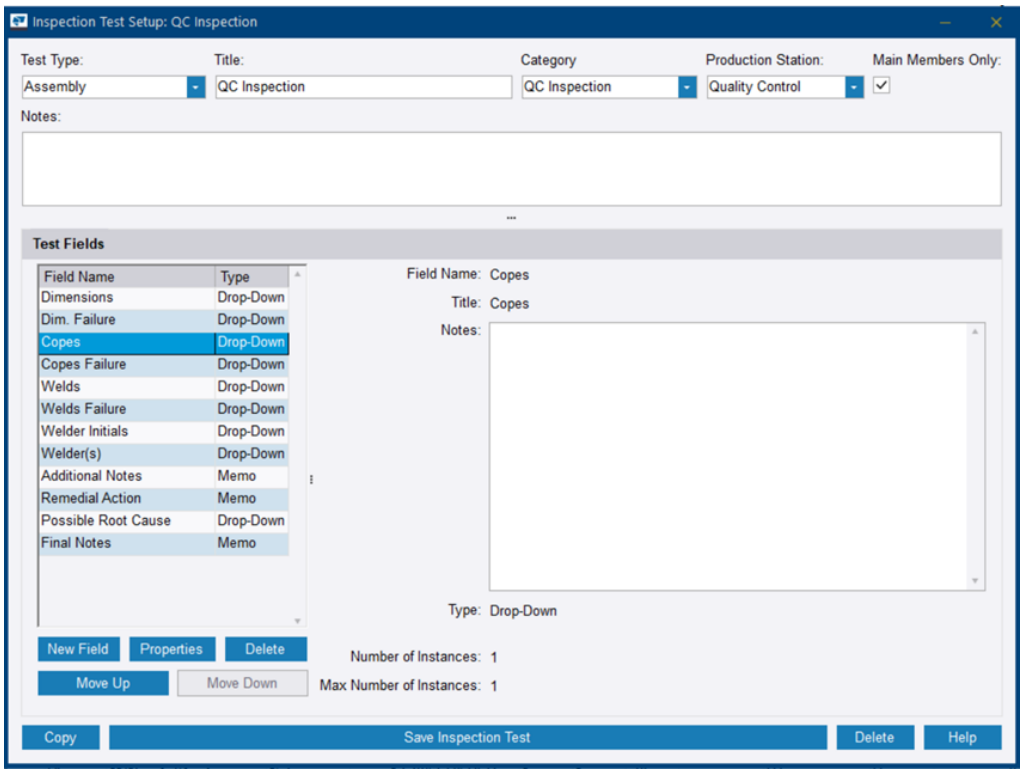
1. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

The **Inspection Tests** dialog box opens.



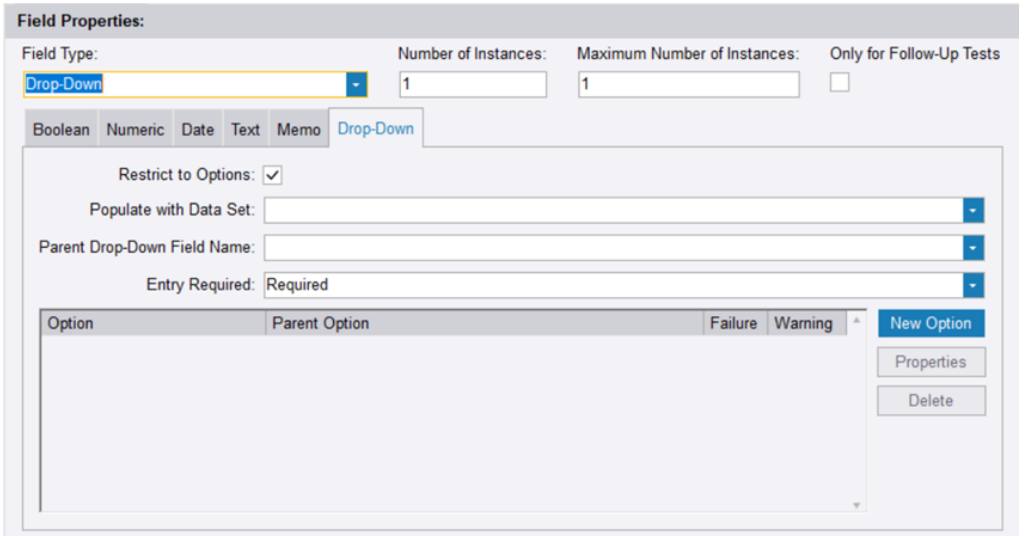
2. Do either of the following:
   - If you are creating a new test, click **New Inspection Test**.
   - If you are modifying an existing test, click **Inspection Test Properties**.

   The **Inspection Test Setup** dialog box opens.



3. Click either **New Field** or **Properties**, depending on your current task.

The **Inspection Test Field Setup** dialog box opens.

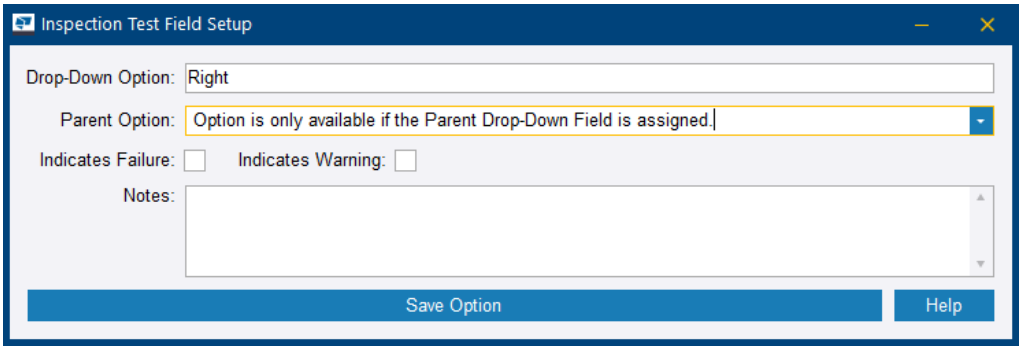


For details, see Inspection test field properties (page 1027).

Add or modify a drop-down field option

1. On the **Drop-Down** tab, do either of the following:
   - To add a new option, click **New Option**.
   - To view or modify an existing option, click **Properties**.

   The **Inspection Test Field Setup** dialog box opens.



   Drop-Down Option: The name of the option as it will appear in the drop-down field

   Parent Option: Only available if **Parent Drop-Down Field** is selected in the **Inspection Test Field Setup** dialog box

   Indicates Failure: When selected, indicates that the test results in a failure.**Indicates Warning**: When selected, indicates that the test results in a warning.**Notes**: Any additional comments or notes related to the option

2. Enter or modify the properties.

3. Click **Save Option**.

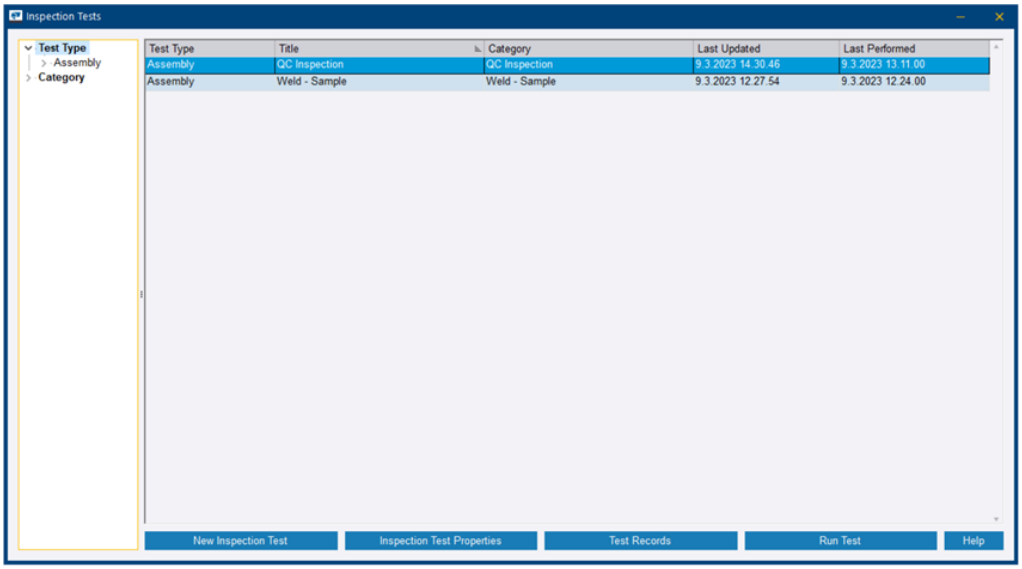
Delete a drop-down option

1. On the **Drop-Down** tab, select a drop-down option.
2. Click **Delete**.
3. To confirm the deletion, click **Yes**.

Move or delete inspection test fields

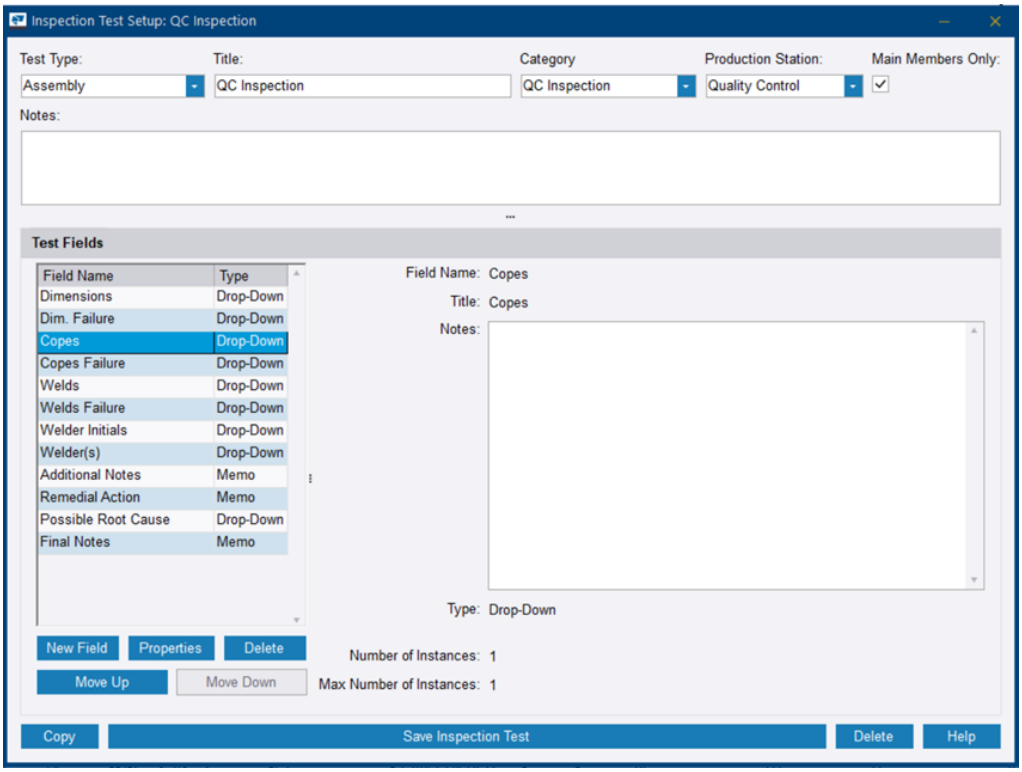
1. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.

   The **Inspection Tests** dialog box opens.



2. Click **Inspection Test Properties**

The **Inspection Test Setup** dialog box opens.



3. To change the location of a field, select the field and click **Move Up** or **Move Down**.
4. To delete a field, click **Delete** under the **Test Fields** list, and confirm the deletion when prompted.

Import and export test definitions

You can export test definitions for the selected tests to an XML file. You can also import test definitions from an XML file that has been exported using **Export the Selected Test Definitions**.

1. Go to **Maintenance** --> **Inspection Tests**.
2. Click the **Inspection Tests** ribbon tab.
3. Do either of the following:

To	Do this
Export test definitions	a. Click **Export the Selected Test Definitions**. b. Check the location and click **Save**.
Import test definitions	a. Click **Import the Selected Test Definitions**.

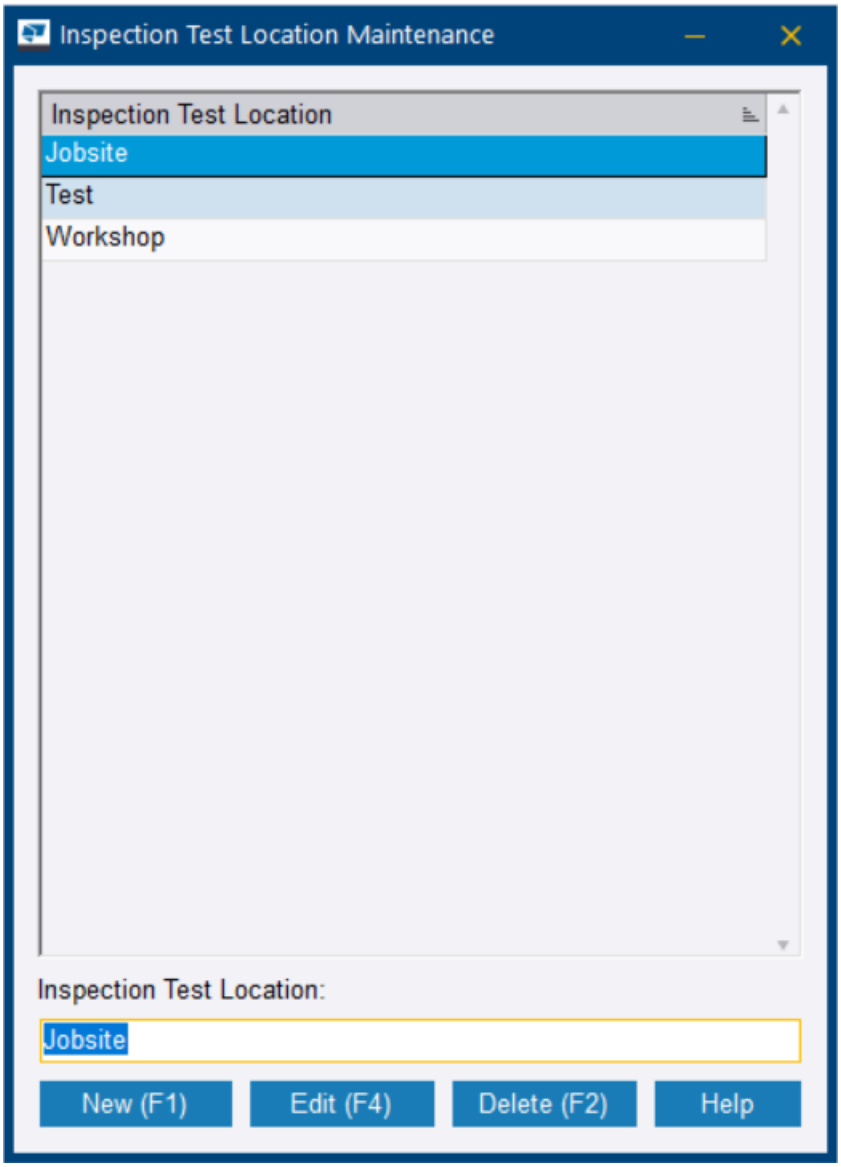
To	Do this
	b. Select the file and click **Open**. The **Enter Value** dialog box opens. c. Enter the test title.

Manage inspection test locations

An inspection test location is the physical location where a test occurs, typically a workstation or area in the shop. Before you add inspections, you must first add the inspection locations. You can add, edit, and delete the locations.

1. Go to **Maintenance** --> **Inspection** --> **Inspection Test Locations**.

The **Inspection Test Location Maintenance** dialog box opens.



2. Do any of the following:

To	Do this
Add a new location	a. Click **New**. b. Enter a description. c. Click **Add**.
Edit a location	a. Select the test location in the list. b. Modify the description. c. Click **Edit**.
Delete a location	a. Select the test location in the list.

To	Do this
	b. Click **Delete**. c. To confirm the deletion, click **Yes**.

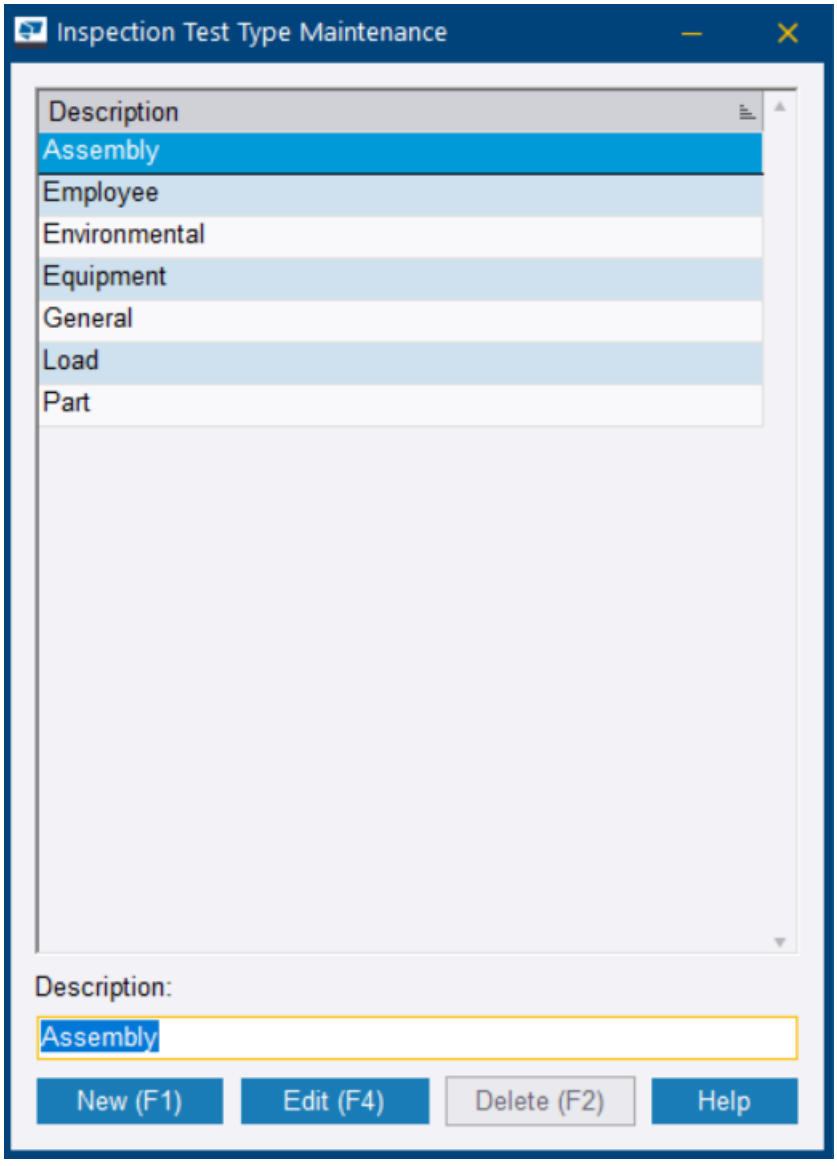
Manage inspection test types

A test type groups together a set of related tests. You can add, edit, and delete the test types.

All inspection test types except for **Assembly**, **Part**, and **Load** are considered general inspection tests.

1. Go to **Maintenance** --> **Inspection** --> **Inspection Test Types**.

   The **Inspection Test Type Maintenance** dialog box opens.



2. Do any of the following:

To	Do this
Add a new test type	a. Click **New**. b. Enter a description. c. Click **Add**.
Edit a test type	a. Select the test type in the list. b. Modify the description. c. Click **Edit**.
Delete a test type	The test types **Assembly**, **Part**, and **Load** cannot be deleted because they indicate the subject of the test. a. Select the test type in the list. b. Click **Delete**. c. To confirm the deletion, click **Yes**.

Inspection test records

You can run inspection tests and follow-up tests, or modify and view the existing inspection test records. You can also create reports that allow you to review if the inspection tests have been successful or not.

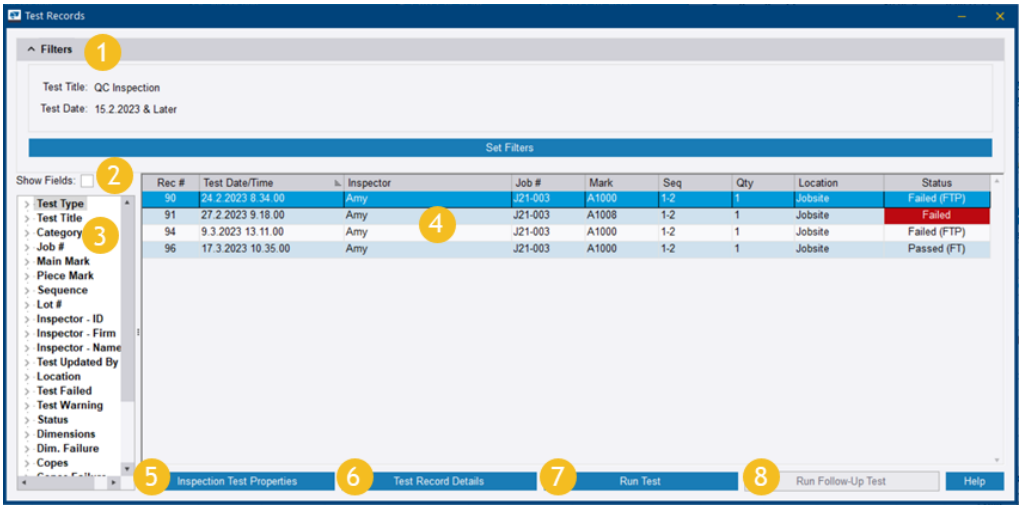
View and modify inspection test records

You can view the test records that have been entered so far.

1. To access the test records, do one of the following:
   - To view the test records for one or more jobs in **Maintenance**:
     a. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.
     b. Click **Test Records**.
     c. On the **Test Subject** tab, filter out the job or jobs you want to examine.

        For more information on the filters, see Filter inspection test records (page 1047).
     d. Click **Apply Filter**.
   - To view the test records for a specific job in the **Production Control** mobule, open a job:
     a. On the **Production Control** ribbon tab, click **Review** --> **Inspection Test Records**.

The **Test Records** dialog box opens, displaying a list of inspection test records.



(1) **Filters**: The filters that are currently applied. You can set new filters by clicking **Set Filters**. See Filter inspection test records (page 1047).

(2) **Show Fields**: When selected, shows inspection test data in the display grid

(2) **Navigation tree**: Drill-down on any property of the test, the test subject, or the test record inputs. Every field from the test definition appears in the navigation tree with the exception of memo fields.

(3) **Display grid**: The details of the test records. The test title, inspector, and job # columns do not show if the filters have been set to include only a single value.

If a test record has failed and has not yet been followed up by a successful test, the status value is highlighted in red. The field(s) that resulted in the test failure are also highlighted in red.

If a test record results in a warning, the status value is highlighted in yellow. The field(s) that resulted in the test warning are also highlighted in yellow.

(4) **Inspection Test Properties**: Opens the **Inspection Test Setup** dialog box for the currently selected test record. See Inspection test properties (page 1023).

(5) **Test Record Details**: Opens the **Inspection Test Record** dialog box for the currently selected test record

(6) **Run Test**: Opens the **New Inspection Test Record** dialog box to add a new test record

(7) **Run Follow-Up Test**: Opens the **New Inspection Test Record** dialog box to add a follow-up test record. This option is available only if the currently selected test record has failed and has not yet been followed up by a successful test record.

2. To modify an inspection test record, select it.
3. Click **Test Record Details**.
4. Modify the properties.

   For details, see Inspection test record properties (page 1044).
5. To update the properties, click **Save**.

See also

Inspection test records (page 1040)

Create inspection test records (page 1042)

Inspection test record properties (page 1044)

Create inspection test records

NOTE Before you create inspections, you must first add the inspection locations and have assigned inspectors in the address book.

For instructions, see the following:

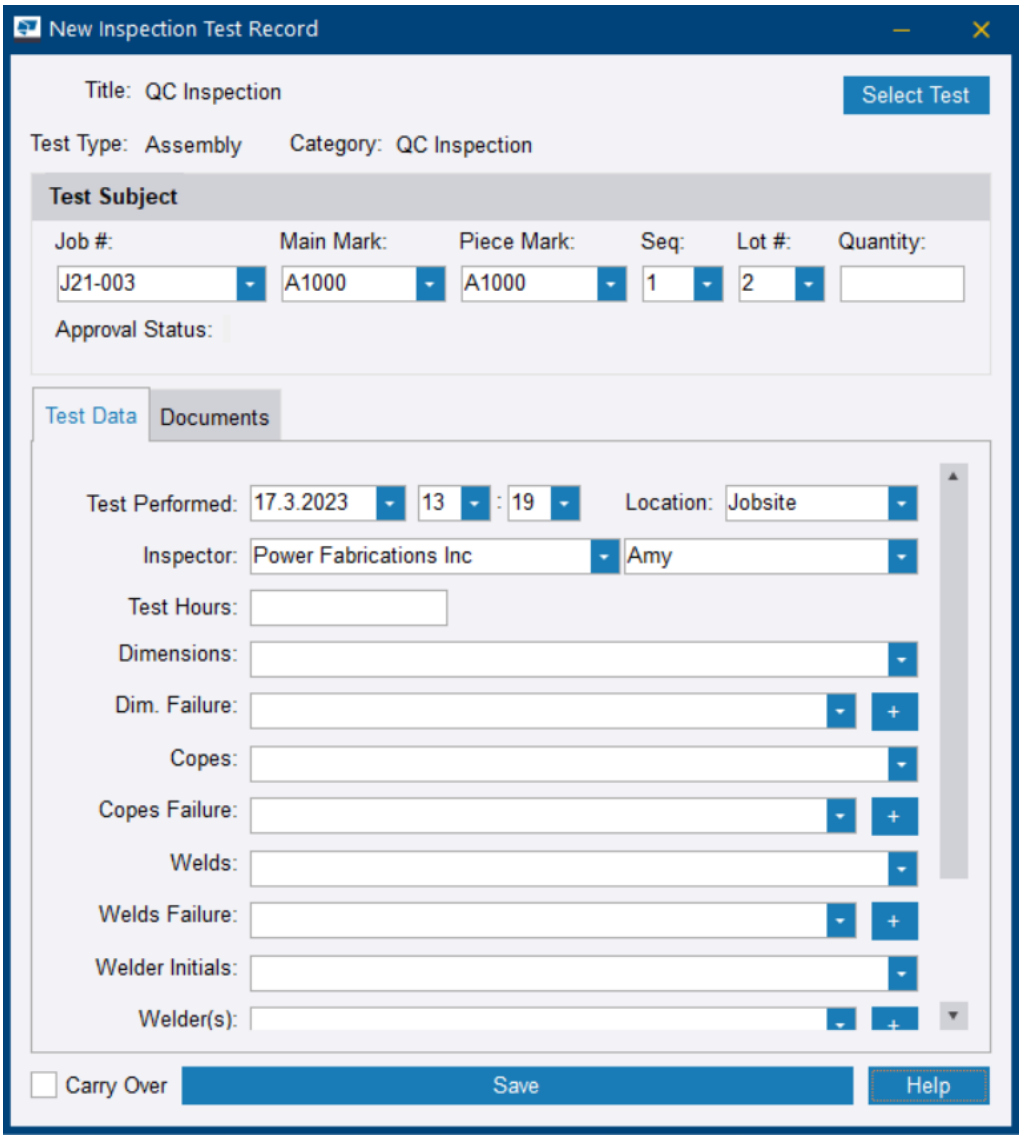
- Manage inspection test locations (page 1037)
- Add contacts to the address book (page 203)

To start creating a new inspection record for a job, do the following:

1. In the **Production Control** module, open a job.
2. On the **Production Control** ribbon tab, click **Review** --> **Inspection Test Records**.

   The **Test Records** dialog box opens.
3. Click **Run Test**.

The **New Inspection Test Record** dialog box opens.



The top section shows the test that is currently being run. Click **Select Test** to change to a different test.

4. Define the properties.

   For details, see Inspection test record properties (page 1044).

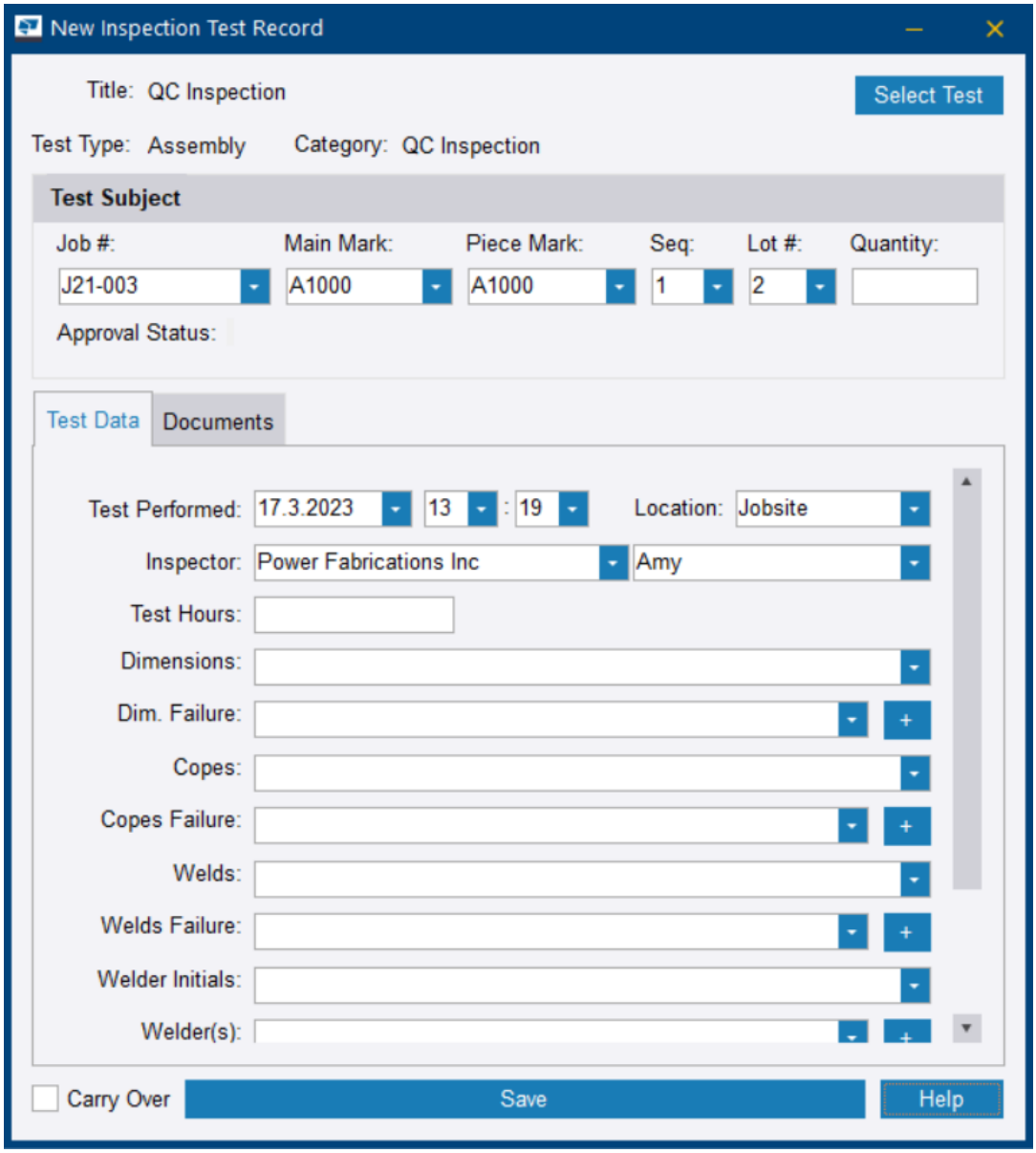
   A plus button next to a field indicates that you can add an additional instance of that field. If you enter a value in a field and it results in a test failure, the field is highlighted in red.

5. Click **Save**.

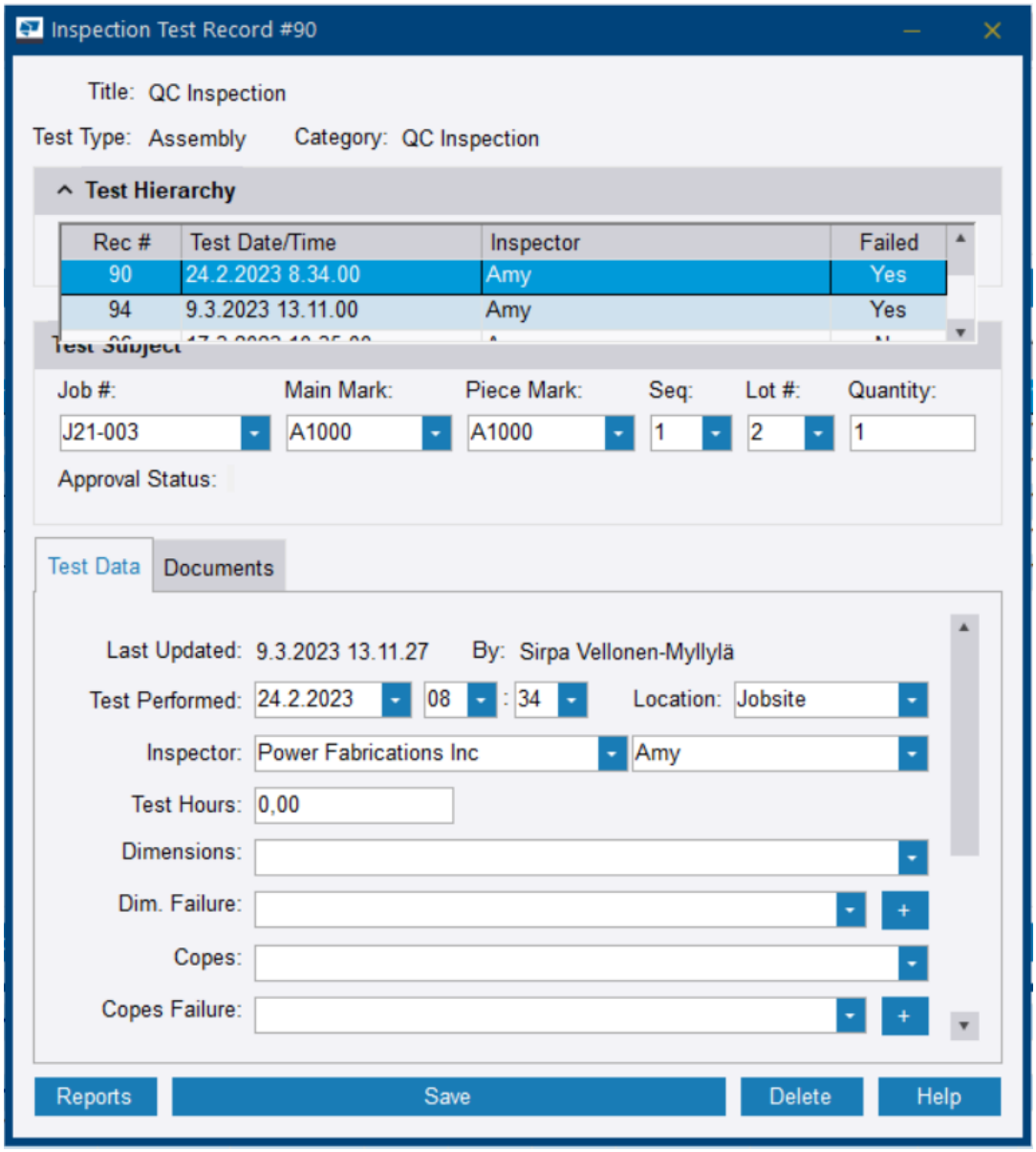
You can also create and view inspection test records in Tekla PowerFab Go. See Add job-specific inspection test records and View inspection test records in Tekla PowerFab Go User Guide.

Inspection test record properties

New test:



Follow-up test:



Property	Description
Title, **Test Type**, **Category**	The test that is currently being run
New: **Select Test**	Click to change to a different test
Modified: **Test Hierarchy**	Shows the follow-up history after a failed test. It is only visible when adding a follow-up test record or viewing a test record that either is or has a follow-up test record.

Property	Description
Test Subject	The subject of the test The test subject of a follow-up test cannot be different from the subject of the parent test record.
Test Data tab	
Test Performed	The date and time when the test was performed
Location	The location where the test occurred
Inspector	The inspector firm and name
Test Hours	The time taken to complete the inspection When the test definition specifies a production station, this time is applied to the piece tracking record.
Dimensions, etc.	The remaining inputs are displayed as defined by the test. A plus button next to a field indicates that you can add an additional instance of that field.
Documents tab:	
Add Document	Opens the **Document Index**. See Add document references (page 188).
Remove Document	Clicking this removes the association between the currently selected document and the test record. This does not delete the document, it remains tracked by the document index.
Details	Opens the **File Details** dialog box that shows the details of the document and its references in the document index
Open	Opens the file with the program associated with that file extension in Windows
New: **Carry Over**	When selected, saves the same properties for the next records that you add
Modified: **Reports**	Allows you to create, print, and export inspection reports.

Property	Description
Failed: **Run Follow-Up Test**	Opens the **Run Test** dialog box to enter a follow-up test record for the current test record.

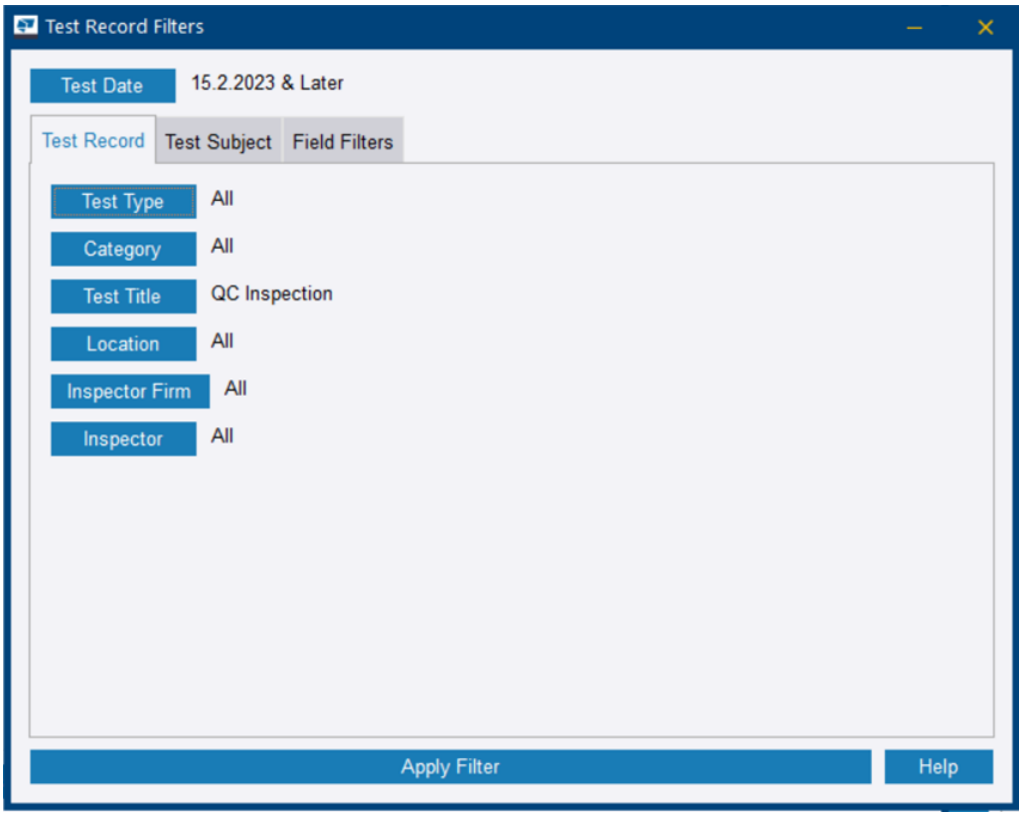
Filter inspection test records

In addition to using the navigation tree, you can filter inspection records to help you find and view what you need.

1. Do either of the following:
   - To set filters for all or multiple jobs:
     a. Go to **Maintenance** --> **Inspection** --> **Inspection Tests**.
     b. Click **Test Records**.
   - To set filters for a specific job, open a job in the **Production Control** module.
     a. Click the **Production Control** ribbon tab, and select **Review** --> **Inspection Test Records**.

        The **Test Records** dialog box opens.
     b. Click **Set Filters**.

The **Test Record Filters** dialog box opens.



2. To select the time interval for the view, click **Test Date** and select the minimum and maximum dates in the calendars.

   You can also create an expression for the date.

3. Click **OK**.
4. On the **Test Record** and **Test Subject** tabs, click the available filter buttons, and click the arrow buttons to select the values that you want to display to the **Included** list.

   The selections that appear for a filter have all the previously set other filters applied to it.

5. Click **OK**.
6. On the **Field Filters** tab, click **Add Field Filter** to select the fields.

   The **Select Fields** dialog box opens.

7. Click the arrow buttons to move the fields that you want to select to **Included**.
8. Click **OK**.

   The **Select Field Values** dialog box opens.

9. Select the desired filter.
10. Click **OK**.

11. Click **Apply Filter**.

The **Test Records** dialog box opens showing all the inspection records that match the filter criteria.

To select new values for the currently selected field filter, click **Edit Field Filter**. To remove the currently selected field filter, click **Delete Field Filter**.

Run a follow-up test

When an inspection test has failed, and the original issues have been resolved, you can perform a follow-up test. There is no limit to the number of follow-up tests that can be performed.

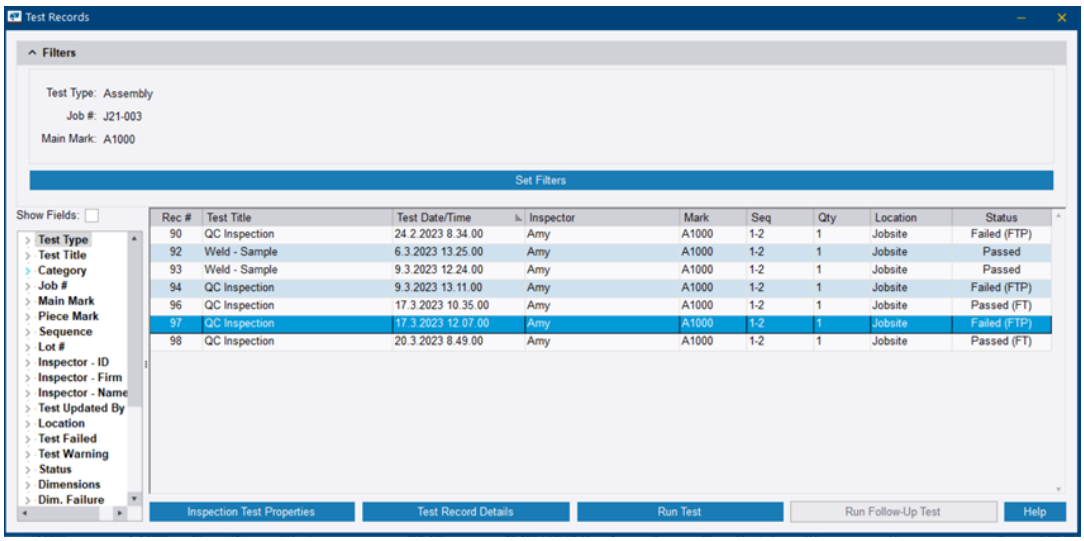
1. In the **Production Control** module, open a job.
2. On the **Production Control** ribbon tab, click **Review** --> **Inspection Test Records**.

   The **Test Records** dialog box opens.
3. Click the inspection test record for which you want to add a follow-up test.
4. Click **Run Follow-Up Test**.

   The **New Inspection Test Record** dialog box opens.
5. Modify the test properties.

   See Inspection test record properties (page 1044).
6. Click **Save**.

Once a successful follow-up test record has been added, the status of all the previous failed test records is updated to Failed (FTP) to indicate that a follow-up test has passed and that the failure is no longer outstanding.



Manage inspection test reports

You can create various reports based on inspection tests. You can check if the inspection tests have been successful and find the problems by creating reports by worker, parts, assemblies, sequence, location, test, categories and sub-categories.

1. In the **Production Control** module, open a job.
2. Do either of the following:
   - On the **Production Control** ribbon tab, click **Review** --> **Inspection Test Records**.
   - On the **Production Control** ribbon tab, click **Review** --> **Inspection Status** and then click **Inspection Test Records**.

   The **Test Records** dialog box opens.
3. On the **Test Records** ribbon tab, click **Reports** or press **Ctrl+R** on the keyboard.

   The **Report Selection** dialog box opens.
4. Select the report that you want to create.
5. Do any of the following:

To	Do this
View the report	Click **View**. The report opens in **Tekla PowerFab Report Viewer**.
Print the report	a. In the **Report Selection** dialog box, change the nubmer of the printed copies by clicking the plus (**+**) and minus (**-**) buttons. b. Click **Print**. c. Click **Yes**. The **Select Printer** dialog box opens. d. Click a printer to select it. e. Click **OK**.
Export the report	a. In the **Report Selection** dialog box, click **Export**. The **Export Options**dialog box opens. b. Click a format to select it. c. Click **Browse** to select a location. d. Modify the file name as desired.

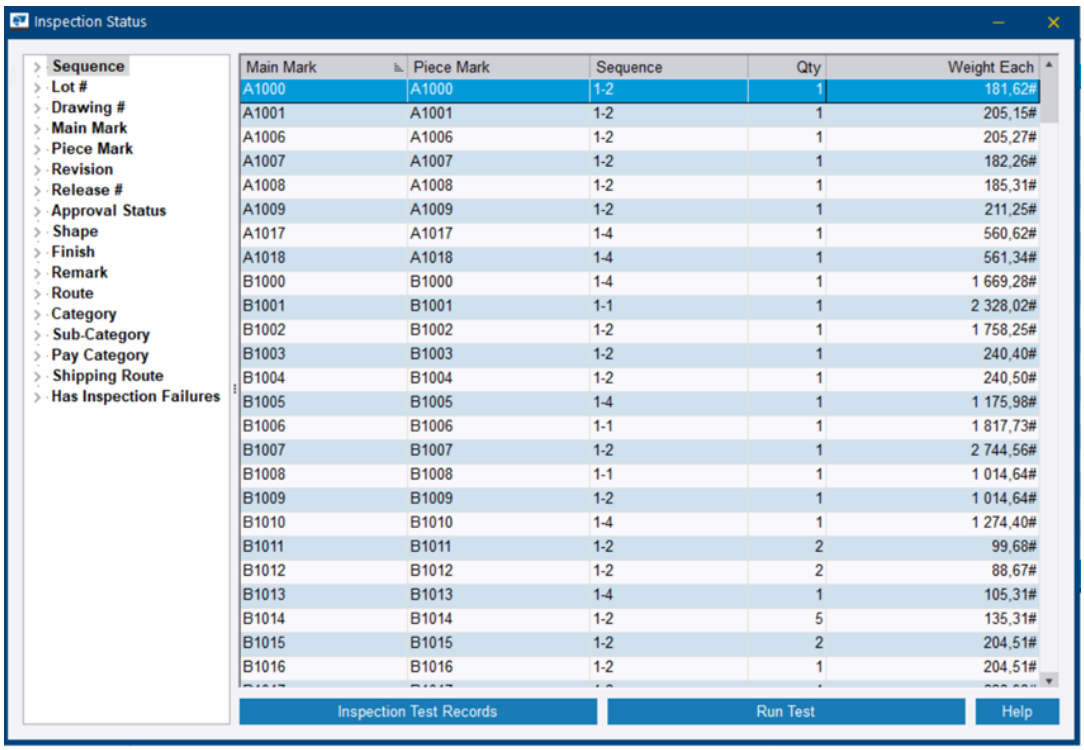
To	Do this
	e. Click **Save**. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the report, click the **Close** button (**X**) in the upper-right corner.

Inspection test statuses

You can view a summary of test records and examine the records by item in the **Inspection Status** dialog box.

The **Inspection Status** dialog box displays a list of all main members or accessories that have piece tracking enabled in the current production control job.



Use the navigation tree to filter out particular items. In addition to the part properties, **Has Inspection Failures** allows you to drill-down on the parts that have any outstanding failures that have not been cleared by a subsequent successful follow-up test.

In the grid area, there are columns for each category of inspection tests that have been run in the current job. The numbers in the cells of these columns indicate the number of tests that have been run. Follow-up tests count as one, regardless of how many times they have been run.

For main members, the **Weight Each** column includes the weight of accessories that do not have piece tracking enabled.

If an item belongs to multiple sequences or lots, it appears in the list once for each sequence/lot combination.

Items highlighted with red have critical failures for which no follow-up tests have been run.

View the inspection statuses of items

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Review** --> **Inspection Status**.

   The **Inspection Status** dialog box opens.
3. View the statuses of production control items.
4. You can also do one of the following:
   - To view all inspection test records, click **Inspection Test Records**.

     See View and modify inspection test records (page 1040).
   - To add a new inspection test record, click **Run Test**.

     See Create inspection test records (page 1042).

10.9 Use Trimble Connect with a production control job

You can view the production control job information in an IFC model using Trimble Connect. You can interact with the model in several ways: by sharing the production status of items to Trimble Connect, color-coding items in the IFC model, or selecting items in the IFC model or in the production control jobs.

We recommend that you start the production control job by importing an XML file from Tekla Structures. The XML file includes GUIDs, unique identifiers that match the identifiers in the IFC model. The necessary IFC settings for Tekla Structures plugin can be downloaded from Tekla Warehouse.

Before you can view the job information in Trimble Connect, your Tekla PowerFab administrator needs to set up the Trimble Connect integration settings. For more information, see Link Tekla PowerFab to Trimble Connect (page 235).

See also

Link a production control job to Trimble Connect (page 1053)

Color-code production control items in the IFC model (page 1055)

Select the same items in the production control job and in the IFC model (page 1056)

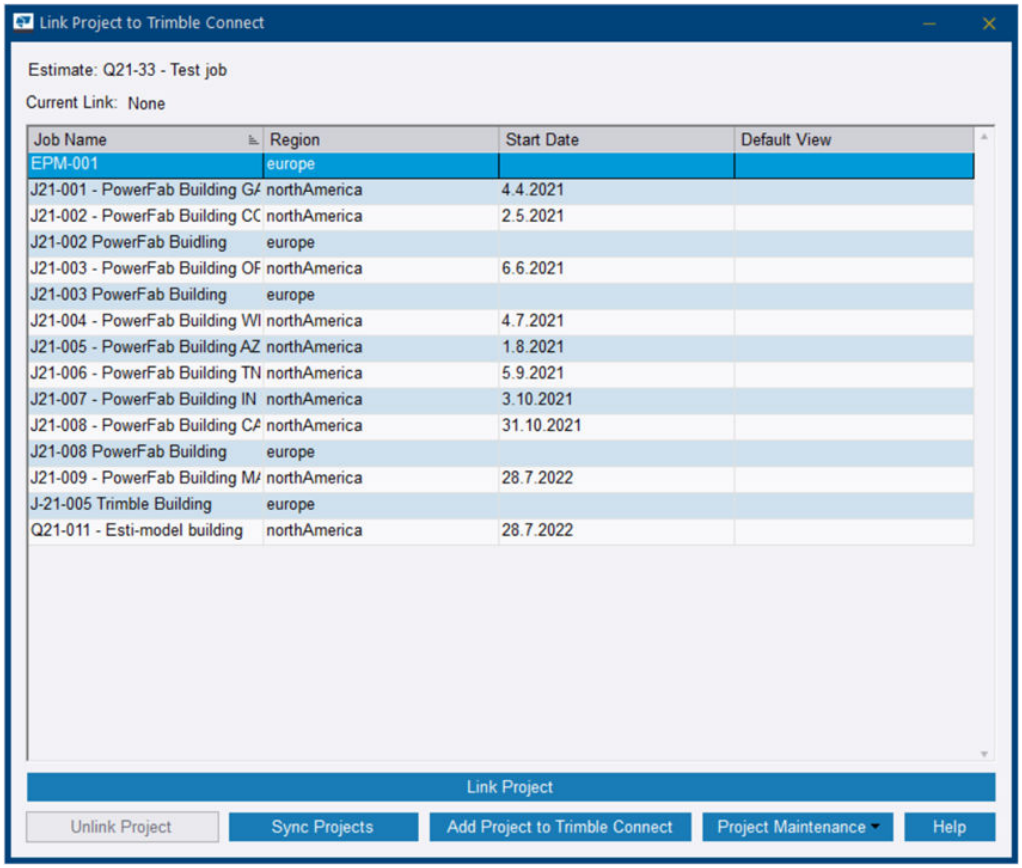
Link a production control job to Trimble Connect

Before you can view the production control job information in Trimble Connect for Windows, you need to link the job to a Trimble Connect project. You can either link the job to an existing project or create a new project.

Note that if a production control job is linked to a project management job, the Trimble Connect project is managed through the project management job. In this case, you need to link the project management job to Trimble Connect. The link is then applied to any linked production control and estimating jobs. The Trimble Connect project cannot be modified when you access it through the production control job.

1. In the **Production Control** dialog box, right-click anywhere in the display area.
2. In the context menu, click **Model Interface**.

   A message appears, telling you that the current job is not linked to a Trimble Connect project.
3. Click **OK** to close the message.



4. In the **Link Project to Trimble Connect** dialog box, do one of the following:

To	Do this
Link the job to an existing Trimble Connect project	a. To display the available Trimble Connect projects, click **Sync Projects**. b. Select the desired project, and click **Link Project**.
Create a new Trimble Connect project and link the job to it	a. Click **Add Project to Trimble Connect**. b. In the **Add Users to Project** dialog box, click the arrow buttons to move the users that participate in the project to the **Included** list. c. Click **OK**. Tekla PowerFab creates a Trimble Connect project with the same name and information as the current job. d. In the **Status** dialog box, review the creation process of the Trimble Connect project. A message appears, telling you that the project has been created successfully.

To	Do this
	e. Click **OK** to close the message. f. In Trimble Connect for Windows, press the **Back** button to exit the empty 3D view. g. In the **Explorer** side pane on the left, click the **Add File** button. h. In the **Add Files** dialog box, browse to find the IFC model. i. Select the IFC model and click **Open**. The IFC model is imported to Trimble Connect for Windows.

The production control job and Trimble Connect project are now linked.

To unlink a production control job from the Trimble Connect project:

1. In the **Select Production Control Job** dialog box, select the job that you want to unlink.
2. At the bottom of the dialog box, click **Edit**.
3. In the **Production Control Job Edit** dialog box, click **Link** on the right side of the **Trimble Connect Project** field.
4. In the **Link Project to Trimble Connect** dialog box, click **Unlink project**.
5. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.
6. In the **Production Control Job Edit** dialog box, click **Save**.

See also

Use Trimble Connect with a production control job (page 1052)

Color-code production control items in the IFC model (page 1055)

Select the same items in the production control job and in the IFC model (page 1056)

Color-code production control items in the IFC model

To color-code items in the IFC model according to their properties, use the **Colorize** command in the **Model Viewer Interface** dialog box. For example, you can color-code items according to their production status or sequence. You can also set filters to only color-code particular items in the model. By using a filter, for example, you could first filter the items by their sequence, and then color-code the items in that sequence by their production status.

1. In the **Production Control** dialog box, right-click anywhere in the display area.

2. In the context menu, click **Model Interface**.
3. If necessary, in the **Model Viewer Interface** dialog box, filter the items that you want to color-code:
   a. Click **Set Filters**.
   b. In the **Estimating Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
   c. In the **Filter** dialog box, do one of the following depending on the filter type:
      - Click the arrow buttons to move the items that you want to display in the model to the **Included** list.
      - Type the maximum and minimum values for the items that you want to display in the model.
   d. Click **OK**.

      Repeat steps b to d for all filter types that you want to set.
   e. Click **Apply Filter**.
4. Click the arrow on the right side of the **Colorize By** list and select a property in the list.
5. Click **Colorize**.

The items in the IFC model are color-coded according to the selected property.

To revert to the original colors in the IFC model, click **Reset** in the **Model Viewer Interface** dialog box.

For instructions for using Trimble Connect, see Trimble Connect User Guides.

See also

Select the same items in the production control job and in the IFC model (page 1056)

Select the same items in the production control job and in the IFC model

When you have linked a production control job to Trimble Connect, you can select an item that is selected in one of the software simultaneously in the other one. Do the following:

1. In the **Production Control** dialog box, right-click anywhere in the display area.
2. In the context menu, do one of the following:
   - To select the item that is selected in the production control job also in the IFC model, select **Select in Model**.

- To select the item that is selected in the IFC model also in the production control job, select **Select from Model**.

See also

Color-code production control items in the IFC model (page 1055)

Visualize jobs with Trimble Connect Organizer and Trimble Connect Content Browser

You can use Trimble Connect Organizer to visualize and group items on your estimating jobs and production control jobs. You can select which fields in Tekla PowerFab you want to use to categorize model objects that correspond to your Tekla PowerFab items in the related IFC model, and highlight or color-code model objects according to different criteria.

Prerequisites of using Trimble Connect Organizer:

- You need to have a Trimble Connect Business Premium license.
- Your estimating job and production control job need to be linked through the **Project Management** module.

  For more information, see Link a production control job to an estimating job and a project management job (page 922).

  Note that your estimating job and production control job do not necessarily need to be linked to the same Trimble Connect project.
- The jobs need to be linked to a Trimble Connect project.

  For more information, see Link Tekla PowerFab to Trimble Connect (page 235).

Set up item categories for Trimble Connect Organizer

You can now set up the categories that you want to use in Trimble Connect Organizer. The categories determine which criteria you can use to highlight and color-code items in the linked estimating and production control jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Integration Settings** --> **Trimble Connect Organizer**.
3. In the **Trimble Connect Organizer Tree Mappings** dialog box, create the necessary item categories:
   a. Click **New**.
   b. In the **Field Type** list, select if you want to use a field from the estimating job or the production control job.

c. In the **Tekla PowerFab Field** list, select the field that you want to use as an item category in Trimble Connect Organizer.

d. In the **Organizer Tree Name**, type a name that Trimble Connect Organizer will use for the item category.

We recommend that you use clear names to ensure that you know where the information in the category comes from. For example, if a category contains the shapes in the estimating job, you could name the category `Tekla PowerFab Estimating - Shape`.

e. Click **Add**.

For example, you can create a category for production sequences in the linked production control job. All sequences within the linked production control job will be shown under this category, and you can highlight individual sequences in the 3D model view.

Repeat steps a to e to create all necessary field mappings.

4. To close the **Trimble Connect Organizer Tree Mappings** dialog box, click the **Close** button (**X**) in the upper-right corner.

Publish job information manually to Trimble Connect Organizer

- To upload job information to Trimble Connect Organizer:

From	Do this
An estimating job	1. Open the estimating job. 2. Click the **Estimating** ribbon tab. 3. On the menu, select **Publish to Trimble Connect Organizer**.
A production control job	1. Open the production control job. 2. Click the **Production Control** ribbon tab. 3. On the menu, select **Export** --> **Publish to Trimble Connect Organizer**.

The item information is uploaded to Trimble Connect Organizer, and will be visible in the Organizer side pane in Trimble Connect for Browser.

You can also create an automated event that uploads the item information to Trimble Connect Organizer automatically as often as you want. For more information, see Automated events (page 208).

Highlight selected items in Trimble Connect Organizer

1. To open Trimble Connect for Browser:
   - Go to https://3d.connect.trimble.com/.

- Click **Trimble Connect** in the upper-right corner of Tekla PowerFab Go.

2. Double-click the Trimble Connect project that is linked to the desired estimating and production control jobs.

   The Trimble Connect project opens in the Trimble Connect 3D viewer.

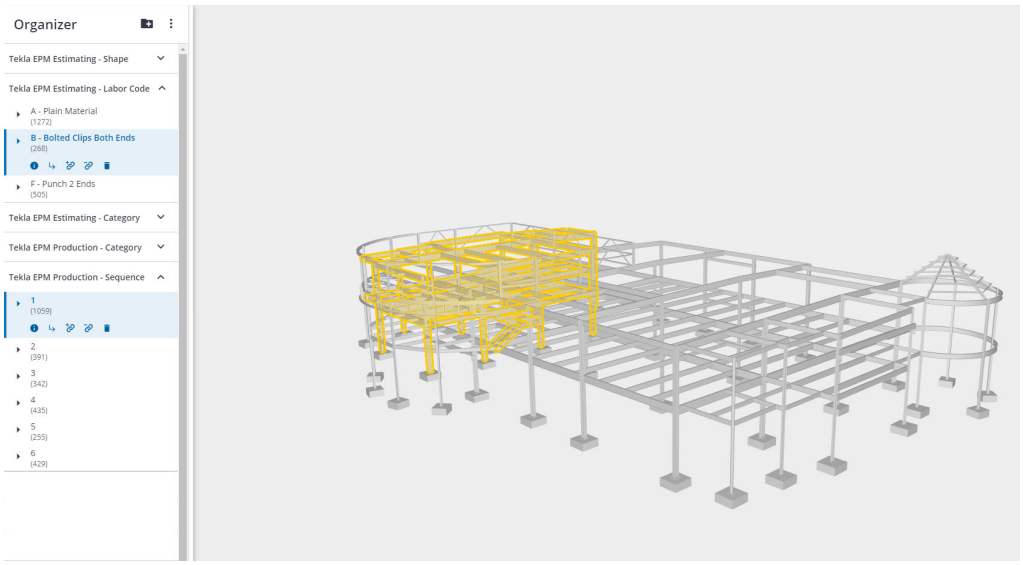
3. To open the Organizer side pane, click **Organizer** in the Trimble Connect side pane.



4. In the Organizer side pane, expand the necessary categories and select the categories whose items you want to highlight.

   To select more than one category at a time, hold down **Ctrl** when selecting categories.

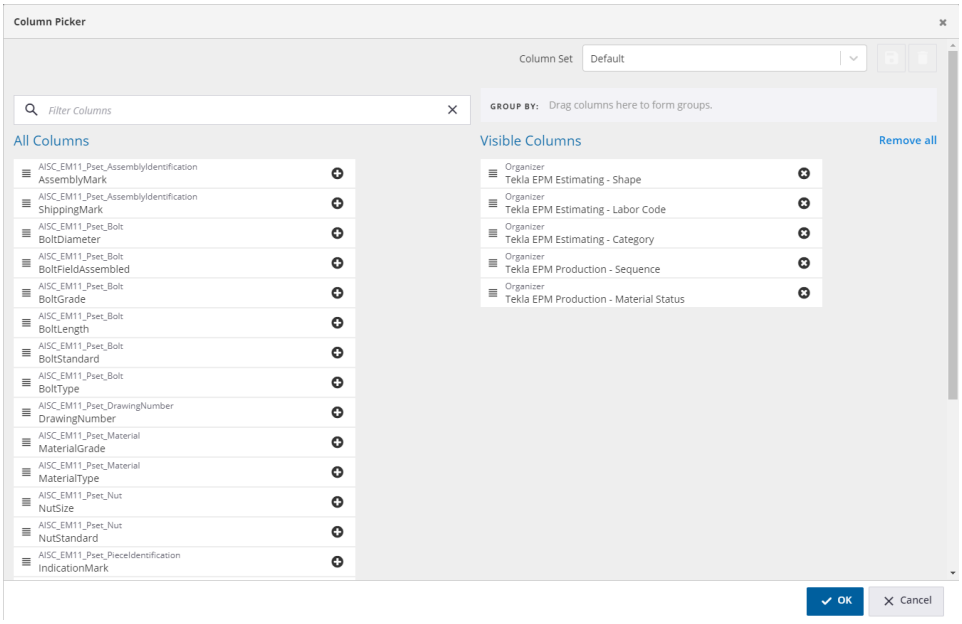
   For example, you can select the labor code **B - Bolted Clips On Both Ends** and sequence **1** to highlight and zoom to all items with labor code B that belong to the production sequence 1.



Color-code items with Trimble Connect Content Browser

1. In the Trimble Connect side pane, click **Data Table**.
2. To configure what information is shown in Content Browser:
   a. At the top of the Content Browser pane, click the **Columns** button.
   b. If necessary, remove the current columns by clicking **Remove All** on the right side of the **Visible Columns** list.
   c. Find a column that you want to show in the Content Browser pane by scrolling the **All Columns** list, or by typing a search word in the **Filter Columns** field.
   d. Select the column.
   e. Hold down the left mouse button, drag the column to the **Visible Columns** list, and release the left mouse button.

Repeat steps c to e for all columns that you want to show.



f. To save your changes, click **OK** at the bottom of **Column Picker**.

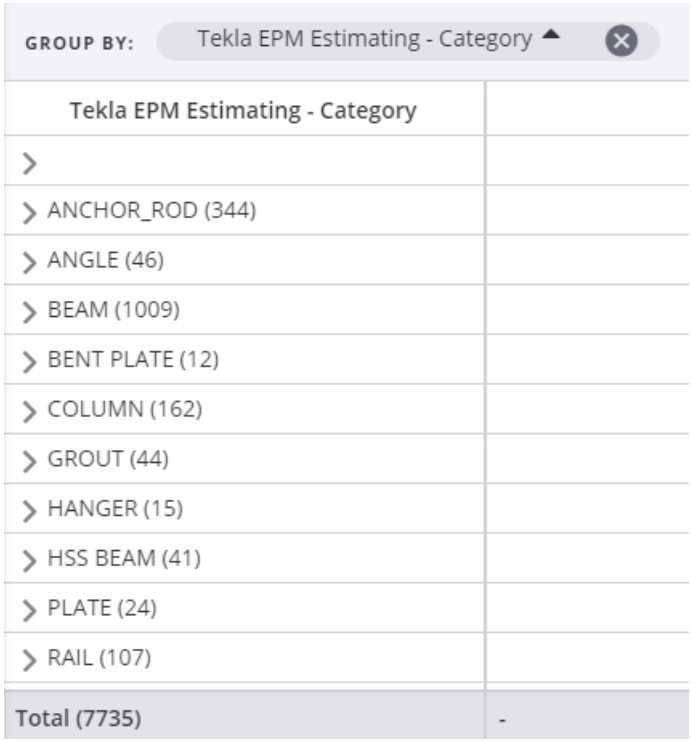
3. To set how the items are grouped in the 3D model:

   a. Select a column in Content Browser and hold down the left mouse button.

   b. Drag the column to the **Group by** box, and release the left mouse button.

      The column name appears in the **Group by** box, and the objects are sorted according to the selected criterion. By default, groups and objects are shown in alphabetical order.

      You can also drag another column to the **Group by** box. In this case, the objects are sorted to both of the selected criteria.

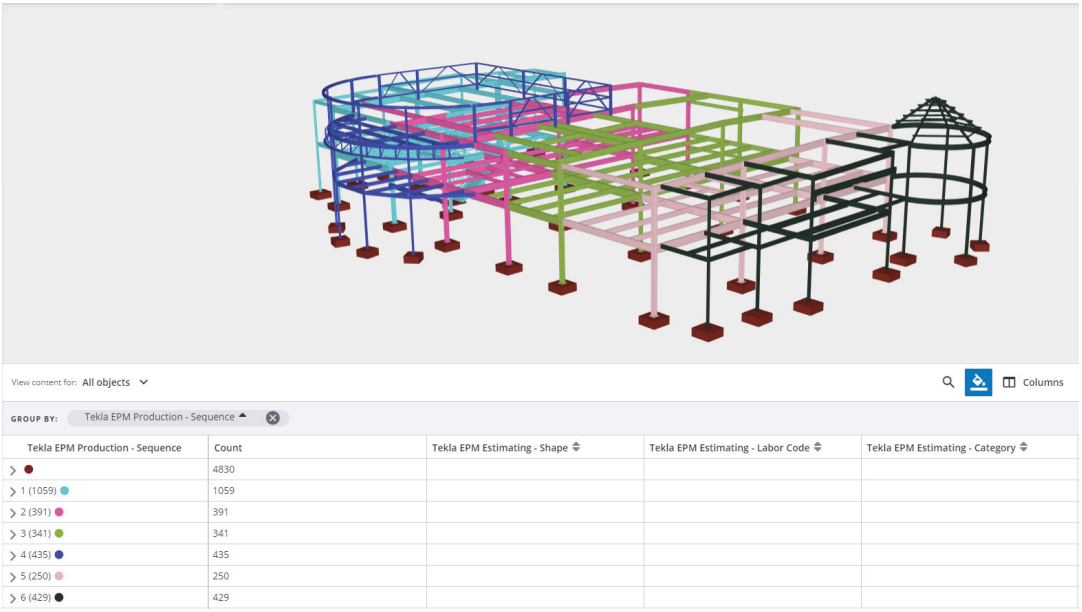


If you want to reverse the order of the objects, click the column name in the **Group by** box.

4. To color-code the items in the 3D view, at the top of Content Browser, click **Colorize**.

The objects on all rows of Content Browser are color-coded in the 3D view. The color that is used for each row is shown on the right side of the row title.

In the following image, you can see items grouped and color-coded by production sequence.



10.10 Export production control information

You can export production control information, including the production status, to multiple file formats. You can save the current production control job as a KISS or CIS/2 file, export the production status to an XML file, or push the production status to Trimble Connect.

For more information, see the following links:

Export a production control job to KISS (page 1063)

Export the production control job to a CIS/2 model (page 1064)

Export the production status to Tekla Structures or Advance Steel (page 1064)

Export the production status to SDS/2 (page 1065)

Publish the production status to Trimble Connect (page 838)

Export a production control job to KISS

You can save the current production control job as a KISS file.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Export** --> **Export to KISS** .
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.

4. If necessary, change the file name.
5. Click **Save**.

The file is saved to the selected location as a KISS file.

Export the production control job to a CIS/2 model

You can export a production control job to CIS/2 file by using the **Export to CIS/2 Model** command. Note that the **Export to CIS/2 Model** command is only available if the production control job has originally been imported from a CIS/2 file.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Export** --> **Export to CIS/2 Model** .
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

   A message appears, showing the location where the CIS/2 file was saved.

Export the production status to Tekla Structures or Advance Steel

You can export the production status of the current job as an XML file to either Tekla Structures or Advance Steel.

The menu options for Advance Steel can be found only if the import file is from that software.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. On the menu, select either of the following:
   - **Export** --> **Export Production Status to XML - Tekla Structures**
   - **Export** --> **Export Production Status to XML - Advance Steel**
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.

5. Click **Save**.

The production status is saved in the selected location as an XML file.

For more information, see also Tekla PowerFab Exchange and Tekla Structures Product Guides.

See also

Export the production status to SDS/2 (page 1065)

Import files to a production control job (page 937)

Export the production status to SDS/2

You can export the production status of the current job to SDS/2 as an XML file.

The menu options for SDS/2 can be found only if the import file is from that software.

1. In the **Production Control** dialog box, click the **Production Control** ribbon tab.
2. On the menu, select **Export** --> **Export Production Status to XML - SDS/2** .
3. In the **SDS/2 Field Map** dialog box, define SDS/2 import settings as follows:
   a. Click **New Field**.
   b. In the **SDS/2 Object** list, select the SDS/2 object type.
   c. In the **SDS/2 Category** list, select a software solution for member properties.
   d. In the **SDS/2 Field** list, select the field to which the information is exported in SDS/2.
   e. In the **Tekla PowerFab Field** list, select the Tekla PowerFab field from which the information is exported to the selected SDS/2 field.
   f. Click **New Field**.

   Repeat steps a to f to match all necessary SDS/2 and Tekla PowerFab fields to each other.

   If you want to save the SDS/2 import settings for later use, type a description for the settings in the **Description** field, and click **Save**.
4. Click **OK**.
5. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.

6. If necessary, change the file name.
7. Click **Save**.

See also

Export the production status to Tekla Structures or Advance Steel (page 1064)

10.11 Finalize a production control job

You can prevent any further changes to a production control job by using the **Finalize** command. After finalizing the production control job, you can no longer send material to purchasing.

The requisitioned items assigned to the job will be deleted, and inventory items reserved for the job will be unreserved.

NOTE Finalizing a job is irreversible and cannot be undone.

1. In the **Select Production Control Job** dialog box, select a job and click the **Production Control** ribbon tab.
2. On the menu, select **Purchasing** --> **Finalize** .
3. If you are sure that you want to finalize the job, inthe **Finalize Job** dialog box, click **Finalize**.

11 Purchasing

In the **Purchasing** module, you can create two types of jobs: requisitions and purchase orders. Requisitions list the required materials for multiple jobs, whereas purchase orders represent the individual orders that you make from vendors.

Before you start creating requisitions and purchase orders in the **Purchasing** module, remember to adjust the settings of the **Purchasing** module according to your needs.

11.1 Set up the Purchasing module

The **Purchasing** module in Tekla PowerFab consists of two parts: requisitions and purchase orders. Before starting to use **Purchasing**, we recommend that you adjust the requisition and purchase order properties to meet the needs of your company.

For more information, see the following links:

Define the requisition settings (page 1067)

Define the purchase order settings (page 1077)

Manage cost codes (page 227)

Define the requisition settings

Before you start to use the **Purchasing** module, you need to separately define the default settings and options used for requisitions and purchase orders.

For more information, see the following links:

Define company standard settings for requisitions (page 1068)

View, print, or export global requisition reports (page 1074)

Manage requisitions (page 1075)

Define company standard settings for requisitions

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Requisitions** --> **Company Standards**

   The **Company Standards** dialog box opens.
3. Modify the settings as needed.

Option	Description
Requisition # Increment	Allows you to select the default option for automatic numbering of requisitions. The options are: • **Increment from Last Requisition #**: When you create a new requisition, Tekla PowerFab uses the next available number after the latest requisition number created. • **Increment from Largest Requisition #**: Tekla PowerFab uses the next available number after the largest requisition number created. • **Don't Increment**: Automatic numbering is not used. You can modify the requisition number when you create a new requisition.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
Keep Purchasing Selection Screen Open	When selected, the **Select Requisition/Purchase Order** dialog box stays open after a requisition or purchase order has been opened. Otherwise, the dialog box closes when you open a requisition or purchase order.
Automatically set base price on manually added line items	Automatically sets a base price on manually added line items for the selected supplier.

Option	Description
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
Job # Regular Expression	Allows the use of regular expressions to create the requisition number. For more details on regular expressions, click **Regular Expression Help.**

4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

When you click **Save**, the changes you made are saved.

You can find further company standard settings by clicking the buttons.

See also

Define default input and display units for requisitions (page 1069)

Define default combining optimizations for requisitions (page 1070)

Define default suppliers for requisitions (page 1073)

Define default input and display units for requisitions

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.

2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.

3. Select the measurement system and the units of measurement on the drop-down menus.

4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Click **Save**.

6. Do either of the following:

- Click **Save**.

  The **<Module> Job Edit** dialog box closes.
- Continue to add or modify properties.

The input and display units are saved as defaults.

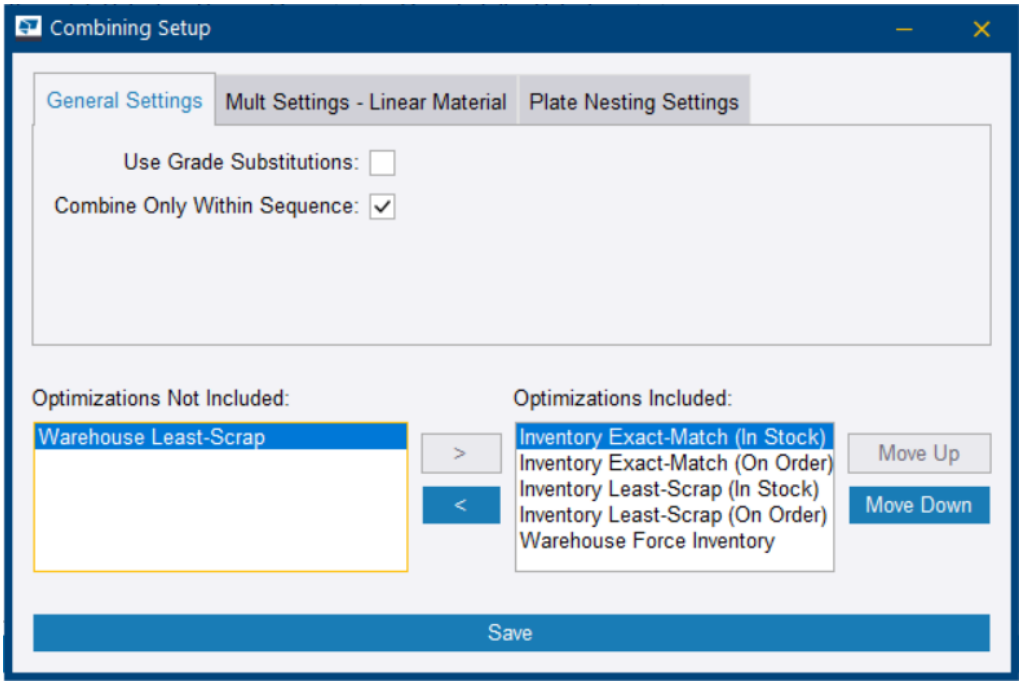
Define default combining optimizations for requisitions

You can define company-level settings for material optimization.

1. To define company-level settings, go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



3. Modify the settings on the various tabs as needed.

See also Combine materials in the Production Control module (page 996)

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified.

Option	Description
	Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Combine Only Within Sequence	Select if you want to mult and nest only materials that are in the same sequence onto the inventory items or purchasable lengths. The selection of **Combine Only Within Sequence** uses additional material for each sequence. This may be desirable in some cases, but it may also lead to excess drop amounts.
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available

Option	Description
	inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Multing Software	Select the multing software that you are using.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Plate Nesting Software	Select the software that you are using.
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define combining optimizations for a requisition (page 1097)

Troubleshoot combining issues (page 1235)

Define default suppliers for requisitions

You can define requisition-specific suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material.

1. Go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Suppliers**.

   The **Suppliers** dialog box opens.
3. Select suppliers for each material group on the drop-down lists.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.
5. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the supplier settings are updated.

View, print, or export global requisition reports

Use the **Reports** command under **Maintenance** --> **Requisitions** to create reports that include information from all or several requisitions jobs. The available reports include requests for pricing and various lists of requisitions. You can then either view or print a report, or export a report and save it in another file format.

To create requisition reports, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Requisitions** --> **Reports** .
3. To only include specific requisitions in the reports, in the **Requisition Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the requisition properties that you want to include in the reports to the **Included** list.
   - Type the maximum and minimum values for the requisition properties that you want to include in the reports.
5. Click **OK**.

   To further limit the requisitions included in the reports, repeat steps 3 to 5 for all filter types.
6. Click **Make Report**.

7. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

   To change the reports that are displayed in the **Report Selection** dialog box, click **Edit Report Types**.

According to your needs, see any of the following instructions:

View the requisition report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the requisition report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the selected report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the requisition report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

Manage requisitions

You can delete or copy existing requisitions in the **Requisition Maintenance** dialog box.

1. Click the **Maintenance** ribbon tab.

2. On the menu, select **Requisitions** --> **Requisition Maintenance** .

   The **Requisition Maintenance** dialog box opens.

3. Select the requisition that you want to modify.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.

4. At the bottom of the dialog box, click any of the available buttons.



See also

Copy a requisition (page 1076)

Delete requisitions (page 1076)

Delete requisitions

You can delete any unnecessary requisitions in **Requisition Maintenance**.

1. **Maintenance** --> **Requisitions** --> **Requisition Maintenance**

   The **Requisition Maintenance** dialog box opens.

2. Select the requisition that you want to delete.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.

3. At the bottom of the dialog box, click **Delete**.
4. To delete the requisition, click **Yes** in the **Confirm** dialog box.

The requisition is deleted permanently.

See also

Manage requisitions (page 1075)

Copy a requisition

You can copy an existing requisition to use it as the base of a new similar requisition. Copying an existing requisition makes creating the new requisition quicker, as you do not have to set all properties manually or create items one by one.

1. **Maintenance** --> **Requisitions** --> **Requisition Maintenance**

   The **Requisition Maintenance** dialog box opens.

2. Select the requisition that you want to copy.

   To select multiple jobs, hold down **Ctrl**.

   To select a range of subsequent jobs, hold down **Shift**.

3. At the bottom of the dialog box, click **Copy**. The **Enter Value** dialog box opens.
4. Type a number for the new requisition.
5. Click **OK.**
6. Define new numbers for the jobs whose items are sent to the original requisition:
   a. In the **New Job #** field, type a new number for the job.
   b. Click **Set** to save the new job number.

Tekla PowerFab creates a new requisition based on the selected requisition. You can modify the properties of the new requisition using the **Edit** functionality in the module.

Define the purchase order settings

Before you start to use the **Purchasing** module, you need to separately define the default settings and options used for requisitions and purchase orders.

For more information, see the following links:

Define company standard settings for purchase orders (page 1077)

View, print, or export global receiving reports (page 1085)

Add, modify, or delete purchase order types (page 1087)

Add, modify, and delete shipping methods for purchase orders (page 1088)

Add, modify, or delete payment terms for purchase orders (page 1090)

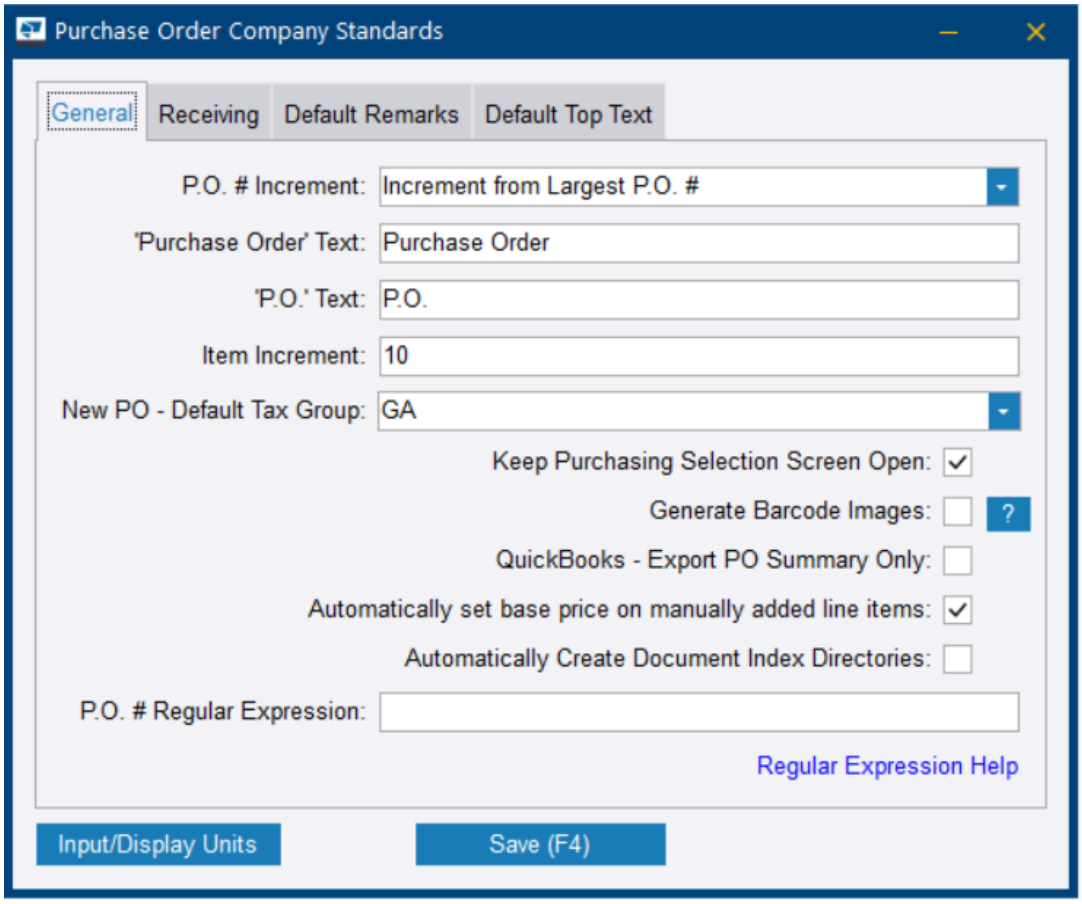
Manage top text items for purchase orders (page 1092)

Define company standard settings for purchase orders

For each module, you can define company-level settings that are the default for all new jobs.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Purchase Orders** --> **Company Standards**.
3. Modify the settings on the various tabs as needed.

Define general settings



1. On the **General** tab, modify the following properties:

Option	Description
P.O. # Increment	Allows you to select the default option for automatic numbering of purchase orders The options are: • **Increment from Last P.O. #**: When you create a new purchase order, Tekla PowerFab uses the next available number after the latest purchase order number created. • **Increment from Largest P.O. #**: Tekla PowerFab uses the next available number after the largest purchase order number created. • **Don't Increment**: Automatic numbering is not used. You can modify the purchase order number when you create a new purchase order.

Option	Description
'Purchase Order' Text	Allows you to replace the word 'Purchase order' in Tekla PowerFab with an alternative text The alternative text will be used wherever 'Purchase order' is currently used in Tekla PowerFab. Note that you need to close and re-open Tekla PowerFab to update the purchase order text. Type the desired text in the **'Purchase Order' Text** field.
'P.O.' Text	Allows you to replace the abbreviation 'P.O.' in Tekla PowerFab with an alternative text The alternative text will be used wherever 'P.O.' is currently used in Tekla PowerFab. Note that you need to close and re-open Tekla PowerFab to update the P.O. text. Type the desired text in the **'P.O.' Text** field.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
New PO - Default Tax Group	Select a tax group that is automatically applied to all new purchase orders. When saved, all new purchase orders have the default tax group automatically applied on the **Financial** tab. For information on creating tax rates and tax groups, see Manage taxes (page 229).
Keep Purchasing Selection Screen Open	When selected, the **Select Requisition/Purchase Order** dialog box stays open after a requisition or purchase order has been opened. Otherwise, the dialog box closes when you open a requisition or purchase order.
Generate Barcode Images	When selected, Tekla PowerFab generates the necessary barcode images for the **Barcode Checklist** report. Note that you only need to select **Generate Barcode Images** if you are using a customized

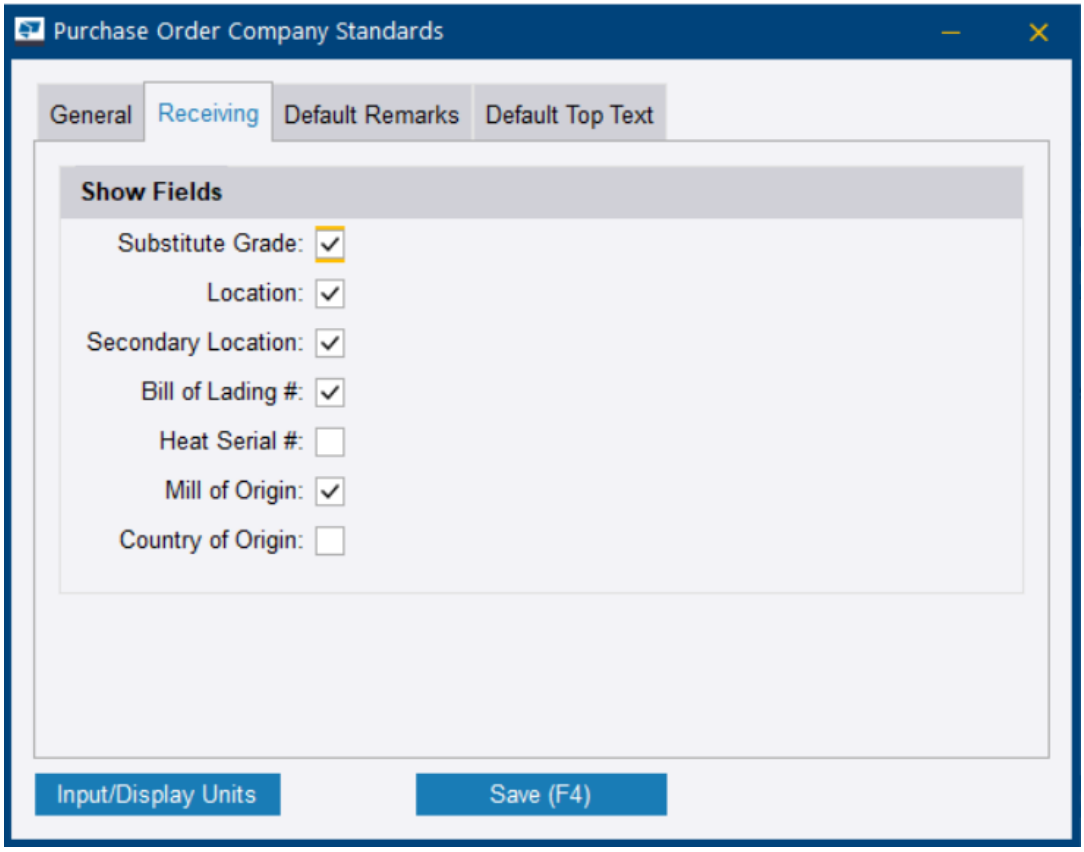
Option	Description
	version of the **Barcode Checklist** report designed with Crystal Reports. If you are using another version of the **Barcode Checklist** report, the barcodes are automatically generated as a part of the report, whether or not the **Generate Barcode Images** checkbox is selected.
QuickBooks - Export PO Summary Only	When selected, purchase order items are exported as a whole without any line item details.
Automatically set base price on manually added line items	Automatically sets a base price on manually added line items for the selected supplier
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
P.O. # Regular Expression	Allows the use of regular expressions to create the purchase order number. For more details on regular expressions, click **Regular Expression Help.**

2. Do either of the following:
   - Click **Save**.

     The dialog box closes.
   - Continue to add or modify properties.

Define receiving settings

On the **Receiving** tab, select the checkboxes next to the properties that you want to define when receiving material items.



1. On the **Receiving** tab, select the properties that you want to show in the **Receive** dialog box:

Option	Description
Substitute Grade	When selected, you can select a substitute grade for the purchase order item. When cleared, Tekla PowerFab always uses the original grade of the item instead of a substitute grade. If necessary, select the **Substitute Grade** checkbox, and click the arrow on the right side of the related field to select the substitute grade.
Location	Location of the material items.
Secondary Location	The secondary location of the material items.
Bill of Lading #	The bill of lading number or the shipment number that the material items were received on.

Option	Description
Heat Serial #	The heat serial number of the material items. Ensures that heat numbers are not duplicated.
Mill of Origin	When selected, you can select mill locations for materials, both when receiving from a purchase order and when adding to or editing inventory.
Country of Origin	The country of origin of the material items. You can modify the available countries in **Maintenance** --> **Inventory** --> **Countries of Origin**. See Define the countries of origin (page 602).

2. Do either of the following:
   - Click **Save**.

     The dialog box closes.
   - Continue to add or modify properties.

Define default remarks

On the **Default Remarks** tab, you can define the remarks added for all new purchase orders by default.

1. To define the remarks, do either of the following t
   - Type the necessary remarks in the available fields.
   - Click the arrow buttons on the right side of the available fields and select previously set remarks.

   For more information about managing remarks, see Manage purchase order remarks (page 1091).
2. Do either of the following:
   - Click **Save**.

     The dialog box closes.
   - Continue to add or modify properties.

Define default top text

On the **Default Top Text** tab, you can define the top text added to all new purchase orders by default.

1. To define default top text, do either of the following:
   - Type a name for the top text item in the **Description** field, and type any necessary information in the **Top Text** field.

- Click the arrow button on the right side of the **Description** list, and select a previously set top text item.

For more information about managing top text items, Manage top text items for purchase orders (page 1092).

2. Do either of the following:
   - Click **Save**.

     The dialog box closes.
   - Continue to add or modify properties.

Define default input and display units for Purchasing

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

---

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
3. Select the measurement system and the units of measurement on the drop-down menus.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.
5. Click **Save**.
6. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

The input and display units are saved as defaults.

See also

Define company standard settings for purchase orders (page 1077)

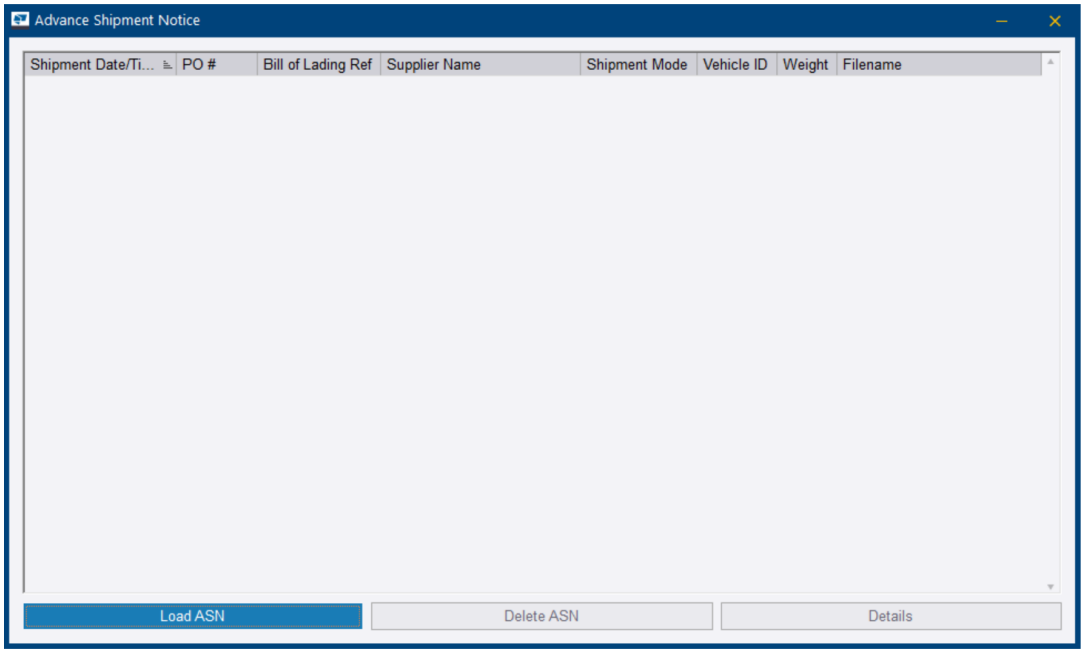
Create a purchase order (page 1135)

Import, view, or delete advance shipment notices

In the **Advance Shipment Notice** dialog box, you can import advance shipment notices from XML files to Tekla PowerFab. You can also view the shipment details of an advance shipment notice, or delete any unnecessary advance shipment notices.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Purchase Orders** --> **Advance Shipment Notices** .

The **Advance Shipment Notice** dialog box opens.



Import an advance shipment notice

1. At the bottom of the **Advance Shipment Notice** dialog box, click **Load ASN**.
2. In the **Open** dialog box, browse to find the XML file that you want to import.
3. Select the file and click **Open**.

   If the order number in the XML file does not match any existing purchase orders, the **Enter Value** dialog box opens.
4. Click the arrow on the right side of the list, and select the purchase order to which you want to import the XML file.
5. Click **OK**.
6. In the **Load Advance Shipment Notice** dialog box, view the progress of the import process.

7. When the import is completed, click **Close** at the bottom of the dialog box.

The advance shipment notice has now been imported for the selected purchase order. If necessary, you can view the details of the advance shipment notice.

View the details of an advance shipment notice

1. In the **Advance Shipment Notice** dialog box, select the advance shipment notice whose details you want to view.
2. Click **Details**.
3. View the advance shipment notice.

   Click the various tabs and buttons to show different details about the advance shipment notice.
4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Delete an advance shipment notice

Note that deleting an advance shipment notice is permanent and cannot be undone. This means that you need to re-import the XML file to view the advance shipment notice again.

1. In the **Advance Shipment Notice** dialog box, select the advance shipment notice that you want to delete.
2. Click **Delete ASN**.
3. To permanently delete the advance shipment notice, click **Yes** in the confirmation dialog box.

View, print, or export global receiving reports

You can create receiving reports that contain information from all or various purchase orders. You can then view or print the reports, or export the reports and save them in another file format. For example, you can create a purchase order summary, or a receiving list.

To create receiving reports, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Purchase Orders** --> **Receiving Reports** .
3. To only include particular purchase orders in the reports, in the **Purchase Order Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the purchase order properties that you want to include in the report to the **Included** list.

- Type the maximum and minimum values for the purchase orders that you want to include in the report.

5. Click **OK**.

   To further limit the properties of purchase orders that are included in reports, repeat steps 3 to 5 for all necessary filter types.

6. To save commonly used filters, do the following:
   a. Click **Filter Types** in the lower-left corner.
   b. Click **New**.
   c. Type a description for the filter type.
   d. Create the filter settings.

      For more information, see steps 3 to 5.

   e. Click **Add**.
   f. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

      The newly created filter type is selected in the **Filter Types** list.

   g. To apply the filter type, click **Set**.

   Note that if you save a filter type in the **Purchase Order Report Filters** dialog box, the saved filter type will also be available as a filter in the **PO #** dialog box for all purchase orders.

7. Click **Make Report**.
8. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

   Note that all available receiving reports are not displayed by default. You can customize the reports that are displayed in the **Report Selection** dialog box by clicking **Edit Report Types**.

9. If you want to include the company logo and vendor code in the report, select the **Show Company Logo** and **Show Vendor Code** checkboxes.

   When the checkboxes are cleared, the information is not included in the report.

According to your needs, see any of the following instructions:

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the selected report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

Add, modify, or delete purchase order types

In the **PO Type Maintenance** dialog box, you can create new purchase order types that meet the needs of your company. For example, recurring purchase orders can have their own purchase order type. You can also select the default purchase order type, modify existing purchase order types, and delete unnecessary purchase order types.

To access the **PO Type Maintenance** dialog box, do the following:

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Purchase Orders** --> **PO Type Maintenance** .

The **PO Type Maintenance** dialog box opens.

According to your needs, see any of the following instructions:

Create a purchase order type

1. At the bottom of the **PO Type Maintenance** dialog box, click **New**.
2. Type a description for the purchase order type.

3. Click **Add**.

Set a purchase order type as default

1. In the **PO Type Maintenance** dialog box, select the desired purchase order type.
2. Click **Set as Default**.
3. To confirm setting the selected purchase order type as the default option, click **Yes** in the confirmation dialog box.

Modify a purchase order type

1. In the **PO Type Maintenance** dialog box, select the purchase order type that you want to modify.
2. Modify the description according to your needs.
3. Click **Edit** to save the changes.

Delete a purchase order type

Note that deleting a purchase order type is permanent and cannot be undone.

1. In the **PO Type Maintenance** dialog box, select the purchase order type that you want to delete.
2. Click **Delete**.
3. To permanently delete the purchase order type, click **Yes** in the confirmation dialog box.

Add, modify, and delete shipping methods for purchase orders

In the **Shipping Method Maintenance** dialog box, you can add, modify, and delete shipping method options that are available for the purchase orders created in **Purchasing**. You can also select which shipping method you want to use as the default option.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Purchase Orders** --> **Shipping Method Maintenance** .
3. In the **Purchase Order Payment Term Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a new shipping method	a. Click **New**. b. In the **Description** field, describe the new shipping method.

To	Do this
	c. Click **Add** to save the new shipping method and add it to the list.
Set a default shipping method	a. Select the desired shipping method. b. Click **Set as Default**. c. To confirm using the selected shipping method as the default option, click **Yes** in the confirmation dialog box. The default shipping method is marked with an asterisk (*). The same shipping method will be used by default in the **Purchasing** module.
Modify a shipping method	a. Select the shipping method that you want to modify. b. Modify the description. c. Click **Edit** to save the changes.
Delete a shipping method	a. Select a shipping method in the list. b. Click **Delete**. c. To permanently delete the shipping method, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Add, modify, or delete FOB shipping destinations

In the **Purchase Order FOB Maintenance** dialog box, you can create, modify, and delete FOB (Free on Board) shipping destinations. You can also set a default FOB shipping destination. The destinations set in the **Purchase Order FOB Maintenance** dialog box are available for all purchase orders.

1. Click the **Maintenance** ribbon tab.
2. On the menu, select **Purchase Orders** --> **FOB Maintenance** .

The **Purchase Order FOB Maintenance** dialog box opens.

According to your needs, see any of the following instructions:

Create a FOB shipping destination

1. At the bottom of the **Purchase Order FOB Maintenance** dialog box, click **New**.
2. Type a description for the shipping destination.
3. Click **Add**.

Set the default FOB shipping destination

The current FOB shipping method is marked with an asterisk (*). To change the default option, do the following:

1. In the **Purchase Order FOB Maintenance** dialog box, select the desired shipping destination.
2. Click **Set as Default**.
3. To confirm setting the selected shipping destination as the default option, click **Yes** in the confirmation dialog box.

The new FOB shipping method is marked with an asterisk (*).

Modify a FOB shipping destination

1. In the **Purchase Order FOB Maintenance** dialog box, select the shipping destination that you want to modify.
2. Modify the description according to your needs.
3. Click **Edit** to save the changes.

Delete a FOB shipping destination

Note that deleting a FOB shipping destination is permanent and cannot be undone.

1. In the **Purchase Order FOB Maintenance** dialog box, select the shipping destination that you want to delete.
2. Click **Delete**.
3. To permanently delete the shipping destination, click **Yes** in the confirmation dialog box.

Add, modify, or delete payment terms for purchase orders

You can add, modify, or delete the payment term options that are available for all purchase orders created in **Purchasing**. In addition, you can set the default payment term that will be used for all future purchase orders by default.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Purchasing** --> **Payment Term Maintenance** .
3. In the **Purchase Order Payment Term Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a new payment term	a. Click **New**. b. In the **Description** field, type a description for the payment term.

To	Do this
	c. If necessary, in the **Discount** field, type a discount percentage for the payment term. d. Click **Add** to save the new payment term and add it to the list.
Set a default payment term	a. Select a payment term in the list. b. Click **Set as Default**. c. To confirm using the selected payment term as the default option, click **Yes** in the confirmation dialog box. The default payment term is marked with an asterisk (*). The same payment term will be used by default for all future purchase orders.
Modify a payment term	a. Select a payment term in the list. b. Modify the description and the discount percentage according to your needs. c. Click **Edit** to save the changes.
Delete a payment term	a. Select a payment term in the list. b. Click **Delete**. c. To permanently delete the payment term, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage purchase order remarks

You can create remarks for purchase orders in the **Purchase Order Remark Maintenance** dialog box. You can also modify existing remarks or delete any unnecessary remarks. The remarks set in the **Purchase Order Remark Maintenance** dialog box are available for all purchase orders that you create or modify.

Create a remark

1. Go to **Maintenance** --> **Purchase Orders** --> **Remark Maintenance**.

   The **Purchase Order Remark Maintenance** dialog box opens.
2. Click **New**.
3. In the **Description** field, type the remark.

   For example, `MTRs required`.
4. Click **Add**.

Modify a remark

1. Go to **Maintenance** --> **Purchase Orders** --> **Remark Maintenance**.

   The **Purchase Order Remark Maintenance** dialog box opens.
2. In the **Purchase Order Remark Maintenance** dialog box, select the remark that you want to modify.
3. In the **Description** field, modify the text.
4. Click **Edit** to save the changes.

Delete a remark

1. Go to **Maintenance** --> **Purchase Orders** --> **Remark Maintenance**.

   The **Purchase Order Remark Maintenance** dialog box opens.
2. In the **Purchase Order Remark Maintenance** dialog box, select the remark that you want to delete.
3. Click **Delete**.
4. To permanently delete the remark, click **Yes** in the confirmation dialog box.

See also

Create a purchase order (page 1135)

Manage top text items for purchase orders

Top text items are pieces of text that can be added at the top of purchase orders. In the **Purchase Order Top Text Maintenance** dialog box, you can add new top text items, or modify and delete existing top text items.

The top text items created in the **Purchase Order Top Text Maintenance** can be set as default options that are added for all next purchase orders. For more information, see Define company standard settings for purchase orders (page 1077).

Create a top text item

1. Go to **Maintenance** --> **Purchase Orders** --> **Top Text Maintenance**.

   The **Purchase Order Top Text Maintenance** dialog box opens.
2. Click **New**.
3. In the **Description** field, type a name for the top text item.
4. In the **Top Text** field, type the information to be added at the top of purchase orders.
5. Click **Add**.

Modify a top text item

1. Go to **Maintenance** --> **Purchase Orders** --> **Top Text Maintenance**.

   The **Purchase Order Top Text Maintenance** dialog box opens.
2. Select the top text item that you want to modify.
3. In the **Description** field, modify the item name.
4. In the **Top Text** field, modify the top text.
5. To save you changes, click **Edit**.

Delete a top text item

1. Go to **Maintenance** --> **Purchase Orders** --> **Top Text Maintenance**.

   The **Purchase Order Top Text Maintenance** dialog box opens.
2. Select the top text item that you want to delete.
3. Click **Delete**.

   You are prompted to confirm the deletion.
4. To permanently delete the top text item, click **Yes**.

11.2 Create and manage requisitions

The purpose of creating requisitions is having a list of the required materials for multiple jobs, so that you can optimize the use of similar materials. By creating requisitions, you can quote the required materials from vendors and attach the material items to purchase orders or existing inventory.

Requisitions also hold a copy of the production control record that is attached to the stock materials. You can manually move the records to and from stock items.

You can use and organize requisitions in different ways according to your needs. To illustrate, you can either use a single requisition for all required materials, or create separate requisitions for each phase and material type in each job.

We recommend that you plan the numbering of requisitions carefully to help you organize the requisitions in the future.

You can create and modify requisitions and material items within them on the **Requisitions** part of the **Purchasing** module.

In requisitions, you can:

- Combine all or selected material items.
- Load material items into a purchase order.
- View the purchase history or change history of the requisition.

- Update the pricing information.
- Create an export requests for pricing.
- Import pricing information for requisitions.
- Create requisition reports.

For more information, see the following links:

Create a requisition (page 1094)
Open a requisition (page 1102)
Modify a requisition (page 1104)
Manage files for a requisition (page 1105)
Add a requisition item (page 1106)
Copy a requisition item (page 1114)
Modify requisition items (page 1110)
Delete requisition items (page 1115)
View the pricing history of a requisition item (page 1115)
View all changes in a requisition (page 1117)
Load requisition items into a purchase order (page 1118)
Export a request for pricing (page 1120)
Import pricing information to a requisition (page 1123)
Update pricing information (page 1125)
Combine items in the Requisition # dialog box (page 1127)
View, print, or export requisition-specific reports (page 1130)
Delete requisitions (page 1133)
View Document Index history of changes (page 197)

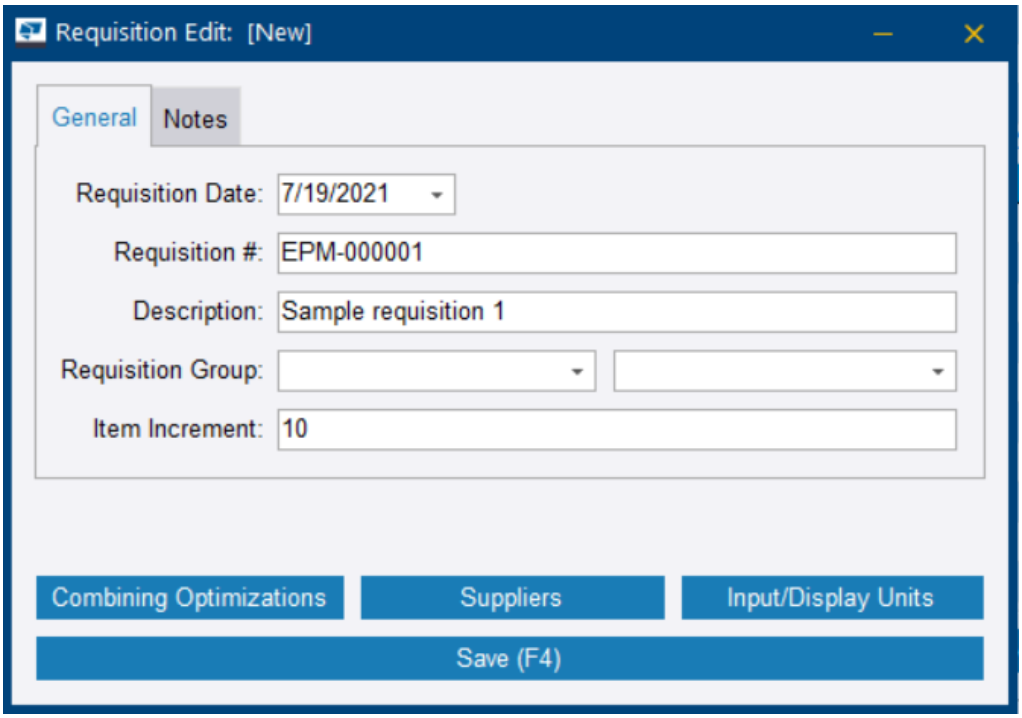
Create a requisition

To create a new requisition where you can load and store material items, you need to define a few properties.

1. Open the module.

   The **Select Requisition/Purchase Order** dialog box opens.
2. Select the **Requisitions** tab.
3. Click **Add**.

The **Requisition Edit** dialog box opens.



4. On the **General** tab, define the following properties:

   The properties marked with an asterisk (*) are mandatory information.

Option	Description
Requisition Date *	The date of the requisition. Tekla PowerFab automatically uses the current date. To change the date, do one of the following: • Type the date in the **Requisition Date** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. •
Requisition #	Do either of the following to define the requisition number: • Type the desired requisition number in the **Requisition #** field. • To use the next available number from a prefix as the requisition number, type the desired prefix, double-click the **Requisition #** field, and click **Yes** to confirm using the prefix. For example, you can use a related job number as the prefix.

Option	Description
	We recommend that you plan the numbering of requisitions carefully to help you organize the requisitions in the future. Note that the requisition number cannot be changed later. All other requisition information can be modified later.
Description	A description of the requisition.
Requisition Group	The groups where the requisition belongs to. Setting requisition groups for the requisition helps you to sort requisitions in the **Select Requisition/ Purchase Order** dialog box. To set requisition groups, do one of the following: • Type new requisition group names in the **Requisition Group** fields. • Click the arrows on the right side of the **Requisition Group** fields, and select existing requisition groups in the lists.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.

5. On the **Notes** tab, type any notes about the requisition.
6. Click **Save** to create the requisition.

The **Requisition Edit** dialog box closes. The new requisition is added to the **Select Requisition/Purchase Order** dialog box.

By clicking the buttons, you can find more settings.

NOTE Defining job-specific properties is optional. If you do not define job-specific properties, Tekla PowerFab uses the default properties defined in **Maintenance** --> **Company Standards**.

See also

Define combining optimizations for a requisition (page 1097)

Define suppliers for a requisition (page 1100)

Define input and display units for a requisition (page 1101)
Modify a requisition (page 1104)
Manage files for a requisition (page 1105)
Delete requisitions (page 1133)
Define company standard settings for requisitions (page 1068)

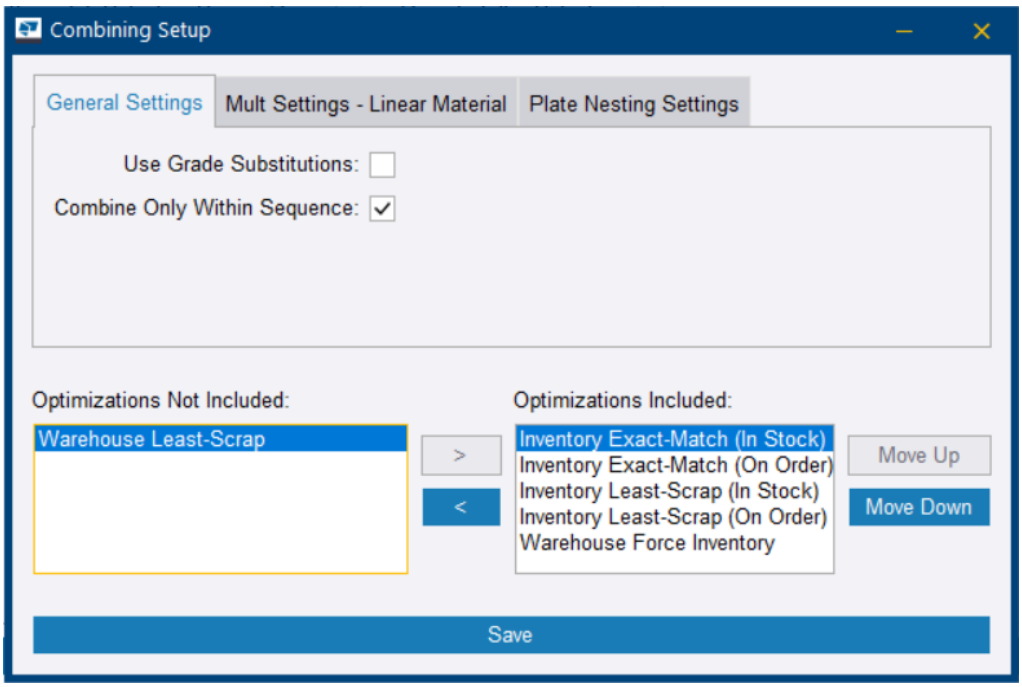
Define combining optimizations for a requisition

You can define requisition-specific settings for material optimization.

You are in the **Purchasing** module. You are either creating a new job or modifying an existing job in the **Requisition Edit** dialog box.

1. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



2. Modify the settings on the various tabs as needed.

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified.

Option	Description
	Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Combine Only Within Sequence	Select if you want to mult and nest only materials that are in the same sequence onto the inventory items or purchasable lengths. The selection of **Combine Only Within Sequence** uses additional material for each sequence. This may be desirable in some cases, but it may also lead to excess drop amounts.
Optimizations Not Included/ **Optimizations Included**	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available

Option	Description
	inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define multing settings

1. Go to the **Mult Settings - Linear Material** tab.
2. Modify the settings as needed.

Option	Description
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Allow Split T's	Select to allow split tees.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.

2. Modify the settings as needed.

Option	Description
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Apply Kerf	Select if you want to apply the material kerf settings defined in **Shape/Grade/Size Maintenance** to the combining as part of the cutting pattern.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

See also

Define default combining optimizations for requisitions (page 1070)

Troubleshoot combining issues (page 1235)

Define suppliers for a requisition

You can define supplier information for individual requisitions.

You are in the **Purchasing** module. You are either creating a new requisition of modifying an existing one.

To make suppliers available in the **Suppliers** dialog box, you must first add the suppliers in **Maintenance** --> **Pricing Maintenance**.

1. Click **Suppliers**.

   The **Suppliers** dialog box opens.
2. Select suppliers for each material group on the drop-down lists.
3. Click **OK**.

   You return to the **Requisition Edit** dialog box.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Create a requisition (page 1094)

Modify a requisition (page 1104)

Define default suppliers for requisitions (page 1073)

Define input and display units for a requisition

You can define input and display units for individual requisitions. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

You are in the **Purchasing** module. You are either create a new requisition or modifying an existing requisition in the **Requisition Edit** dialog box.

1. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
2. Select the measurement system and the units of measurement on the drop-down menus.
3. Click **OK**.

   You return to the **<Module> Job Edit** dialog box.
4. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.

- Continue to add or modify properties.

When you click **Save**, the changes you made are saved.

See also

Create a requisition (page 1094)

Modify a requisition (page 1104)

Define default input and display units for Purchasing (page 1083)

Find a requisition

You can search to find a specific requisition.

1. In the **Select Requisition/Purchase Order** dialog box, click the **Purchasing** ribbon tab.
2. Select **Find Requisition**.

   The **Enter Value** dialog box opens.
3. Select the requisition on the drop-down menu or enter the job number in the search box.
4. Click **OK**.

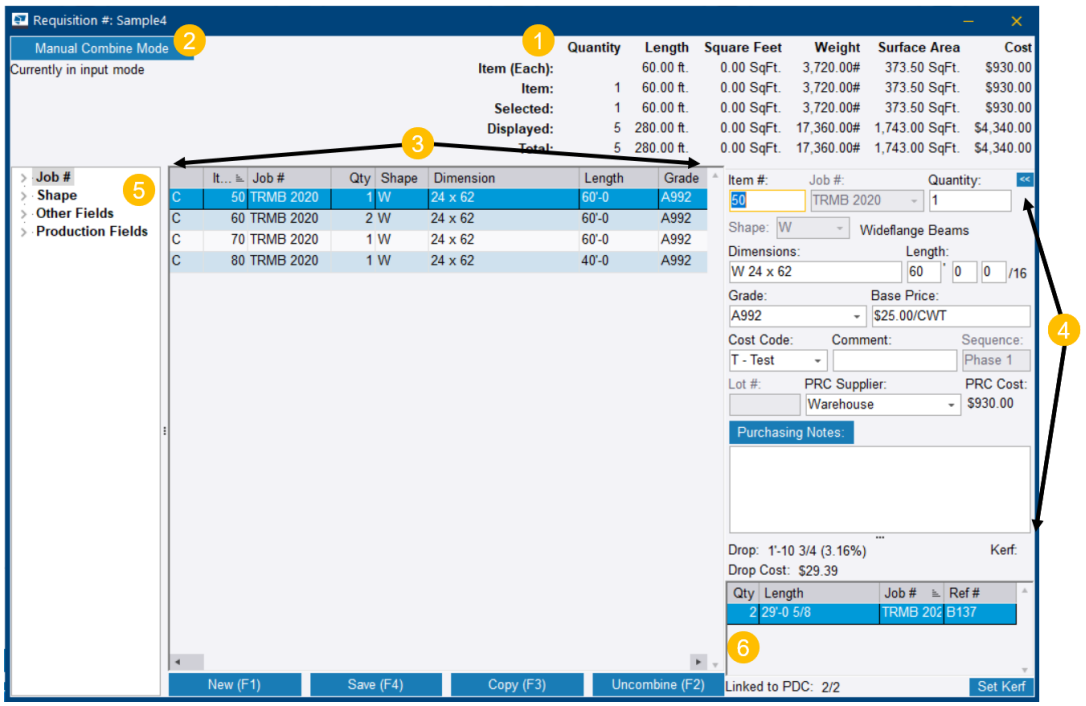
The selected requisition is highlighted. To open the requisition, double-click it or click **Open**.

Open a requisition

To view and modify the material items in a requisition, you need to open the requisition:

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Requisitions** tab.
3. Select the requisition that you want to open.
4. Do one of the following:
   - At the bottom of the dialog box, click **Open**.
   - Double-click the selected requisition.

The **Requisition #** dialog box opens. View the components of the dialog box in the following image:



(1) The summary grid: shows the number of requisition items, their length, square feet, weight, surface area, and cost for items for a single item, the selected items, the displayed items, and the entire requisition.

(2) The mode switch button: the **Requisition #** dialog box has two modes: the input mode and the manual combine mode. In the input mode, you can add material items and modify them. In the manual combine mode, you can add stock material items, and combine specific material items manually.

To change the mode, click the button in the upper-left corner.

(3) The display area: shows all material items in the requisition.

The visible columns and details can be modified in the **Edit Display Fields** dialog box.

Note that a C in the leftmost column indicates that the material items have been combined.

(4) The input area: allows you to add properties for new material items and modify properties of the existing material items.

When you select an item in the display area, its properties automatically populate the input fields.

The visible columns and details can be modified in the **Edit Input Fields** dialog box.

(5) The navigation tree: allows you to only view specific items in the requisition.

Click **+** to expand and select options in the navigation tree. When you select an option, only material items that match the selected properties are displayed in the display area.

For example, you can expand **Shape** and select **HSS** to only display hollow structural sections.

(6) Combining information grid: shows the pieces combined to the item that is selected in the display area.

Note that you can see the number of pieces linked to **Production Control** in the lower-right corner of the dialog box.

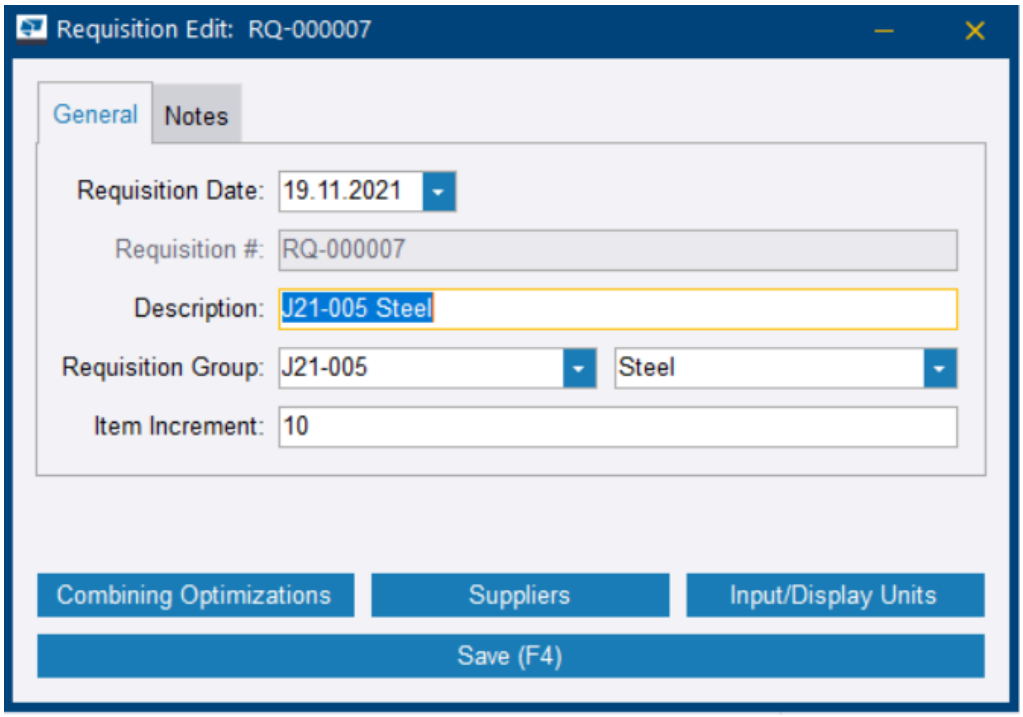
Modify a requisition

You can modify all properties of a requisition at any time, except for the requisition number.

1. Open the module.

   The **Select <Module> Job** dialog box opens.
2. Select the **Requisitions** tab.
3. Select the requisition that you want to modify.
4. Click **Edit**..

   The **Requisition Edit** dialog box opens.



5. Modify the properties in the dialog box.

   For details on the properties, see Create a requisition (page 1094).

6. Click **Save** to update the requisition.

When you click **Save**, the changes you made are saved. You can further modify the job properties by clicking the buttons.

See also

Open a requisition (page 1102)

Manage files for a requisition (page 1105)

Delete requisitions (page 1133)

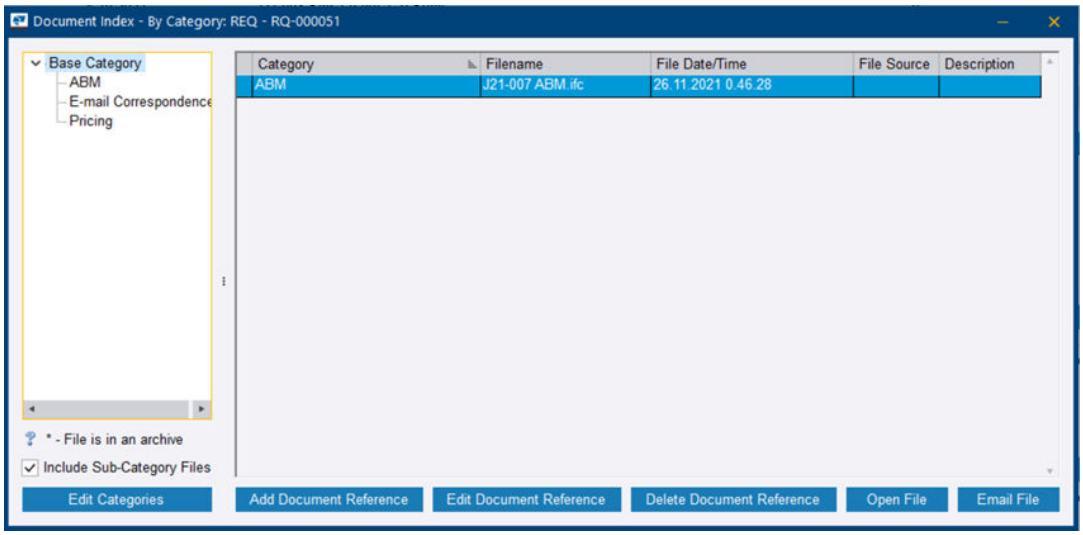
Manage files for a requisition

Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index**/**Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

See also

Document Index (page 183)

Set the standard categories for attached documents (page 184)

Add a requisition item

Most items are added to requisitions by loading the material items from combining, estimating, or production control jobs to requisitions. You can also add new items to an open requisition manually.

1. In the **Requisition #** dialog box, click **New**.
2. Define the item properties in the input fields.

NOTE The visible input fields and their order depend on the settings that you have defined in. **Maintenance** --> **Requisitions** --> **Edit Input Fields**.

The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Base Price	The base price of the material item Type in the base price. To change the base price units and to convert the current price to the selected units, right-click the **Base Price** field, and select an appropriate option in the context menu.
Category, **Sub-Category**	A keyword used for sorting items in the **Requisition #** dialog box. Categories and sub-categories can be used for filtering information in the **Requisition #** dialog box. Type the desired keywords in the **Category** and **Sub-Category** fields.
Comment	An optional comment that you can type for the item
Cost Code	A code for classifying costs to match your accounting system Select a cost code from the drop-down menu. For more information about cost codes, see Manage cost codes (page 227).
Date Promised	The date when the supplier has promised to deliver the material item Do one of the following: • Type the date in the **Date Promised** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Select the date in the calendar.
Date Required	The date when the material item is due Do one of the following: • Type the date in the **Date Required** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Select the date in the calendar.

Option	Description
Dimensions *	The material dimension, or material size, of each piece Depending on the shape, the dimension can also be mandatory information. Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: a. Click in the **Dimensions** field. b. Click **Add Size**. c. Define the dimension properties. d. Click **Save**. You can now select the dimension and use it.
Grade *	The material grade of each piece Either select the grade from the drop-down menu or type the grade indicator in the field.
Item # *	The item number You can modify the item number manually or use the item number automatically determined by Tekla PowerFab.
Job #	The number of the production control job the material item is reserved to. Type in the number.
Length	The length of each piece Default length input settings are set in **Company Standards**, but you can modify them for each job.
Lot #	The lot identification number of the material item Type the lot number in the **Lot #** field.
Mill Mark	Any extra information about the item that the mill has given you. Type in the mill mark.

Option	Description
PRC Cost, **PRC Date**, **PRC Unit Cost**	The current pricing information of the selected item from the selected supplier If no date is displayed in the **PRC Date** field, the material does not exist in the selected supplier's pricing data set. Double-click one of the fields to open the **Pricing Maintenance** dialog box and enter pricing information.
PRC Supplier	The supplier warehouse whose pricing the item uses Select the supplier from the drop-down menu.
Purchasing Notes	A longer description of the item
Quantity *	The number of pieces to be added Use the numeric keypad to add, multiply, divide, or subtract number of items.
Reference Number	A reference number that links items in inventory or purchasing to the production control job The reference number can be different depending on the case: • If an item is sent from **Production Control** to **Purchasing** or **Inventory**, Tekla PowerFab creates a copy of the record, and the item is linked to include the reference number. • If an item is sent to **Purchasing** from an advanced bill of material, the system mark number or a combination of the page number and the item number in the combining job (for example, 1-30) becomes the reference number. • If the item is sent to **Purchasing** later in the process, the reference number is the mark or piece mark number.
Sequence	The sequence number assigned to the item Type in the number.
Shape *	The material shape of each piece Either select the shape from the drop-down menu or type the shape indicator in the field (for example, HSS).

3. Click **Add**.

The new requisition item is added at the bottom of the requisition.

NOTE If you added the new item while in the manual combine mode, the item will belong to stock materials. The material items added in the manual combine mode are marked with a C in the leftmost column. For more information on the manual combine mode, see Open a requisition (page 1102).

Modify requisition items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Requisitions** --> **Edit Input Fields**.

For more information, see the following links:

Modify a single requisition item (page 1110)

Modify multiple requisition items (page 1111)

Modify the selected requisition items (page 1112)

Modify the shape, grade, dimensions, or length of multiple requisition items (page 1112)

Modify the shape, grade, dimensions, or length of the selected requisition items (page 1113)

Modify a single requisition item

You can modify the properties of requisition items one by one in the **Requisition #** dialog box.

1. In the **Requisition #** dialog box, select the material item that you want to modify.
2. On the right side of the dialog box, modify the properties of the item according to your needs.

   For example, you can change the base price of the item or assign a cost code to the item.
3. Click **Save** to update the item properties.

See also

Modify multiple requisition items (page 1111)

Modify the selected requisition items (page 1112)

Modify the shape, grade, dimensions, or length of multiple requisition items (page 1112)

Modify the shape, grade, dimensions, or length of the selected requisition items (page 1113)

Modify multiple requisition items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.
3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.
4. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.
5. Click **OK**.

   To further limit the item types that you want to modify, repeat steps 3 to 5 for all necessary filter types.
6. Click **OK**.

   The **Global Edit** dialog box opens.
7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.
8. Click **Update**.

   The **Confirm** dialog box opens.
9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

See also

Modify a single requisition item (page 1110)

Modify the selected requisition items (page 1112)

Modify the shape, grade, dimensions, or length of multiple requisition items (page 1112)

Modify the shape, grade, dimensions, or length of the selected requisition items (page 1113)

Modify the selected requisition items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **Requisition #** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Requisition** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit - Selected**.

   The **Global Edit - Selected** dialog box opens.
4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.
5. Click **Update**.

The properties of the selected items are updated.

See also

Modify a single requisition item (page 1110)

Modify multiple requisition items (page 1111)

Modify the shape, grade, dimensions, or length of multiple requisition items (page 1112)

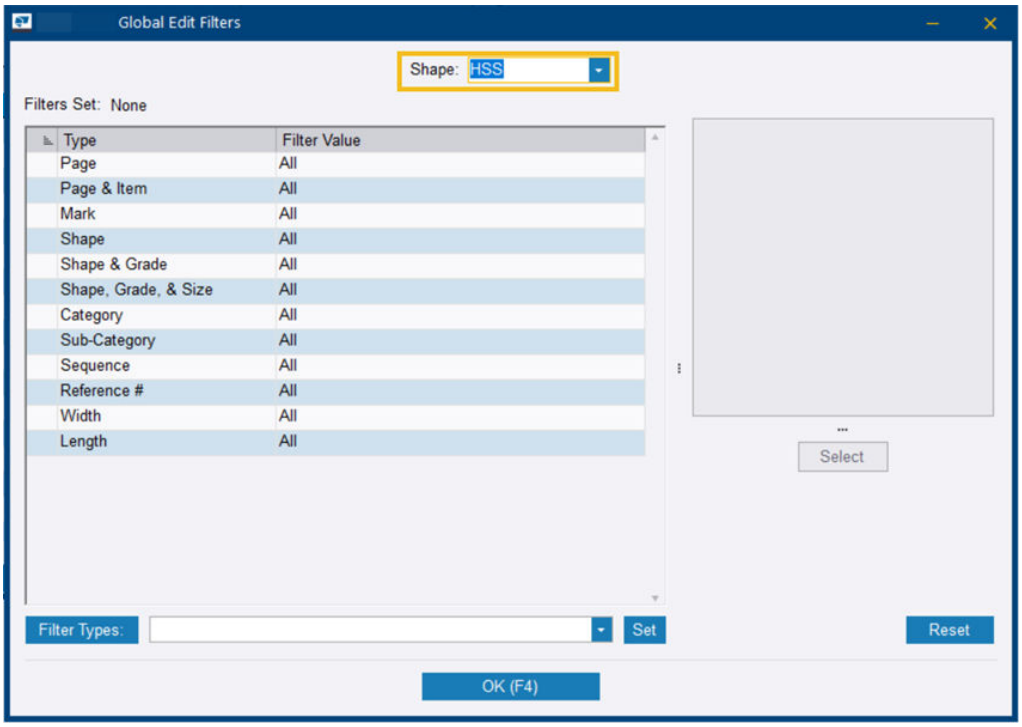
Modify the shape, grade, dimensions, or length of the selected requisition items (page 1113)

Modify the shape, grade, dimensions, or length of multiple requisition items

Use the **Global Edit By Shape** command to modify the shape, grade, dimensions, or length of all or multiple items.

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit By Shape**.

   The **Global Edit Filters** dialog box opens.
3. Select a shape on the **Shape** drop-down menu.



4. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.

5. Do one of the following depending on the filter type:

   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

Modify the shape, grade, dimensions, or length of the selected requisition items

Use the **Global Edit Selected By Shape** command to modify the shape, grade, dimensions, or length of selected items.

1. In the **Requisition #** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Requisition** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit Selected By Shape**.

   The **Global Edit - Selected** dialog box opens.
4. Select the properties that you want to update.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.
5. Click **Update**.

The changes you made to the item properties are updated.

All other reference information of the items remains unchanged.

See also

Modify a single requisition item (page 1110)

Modify multiple requisition items (page 1111)

Modify the selected requisition items (page 1112)

Modify the shape, grade, dimensions, or length of multiple requisition items (page 1112)

Copy a requisition item

You can copy a requisition item and use it as the basis of a similar item. By copying items, you can save time and avoid entering the same information multiple times in a requisition.

1. In the **Requisition #** dialog box, select the item that you want to copy.
2. At the bottom of the dialog box, click **Copy**.

   A copy of the item appears at the bottom of the requisition.
3. Adjust the properties of the new item according to your needs.
4. Click **Edit** to save the changes.

See also

Modify a single requisition item (page 1110)

Delete requisition items

You can delete any unnecessary items from the requisition. Note that deleting requisition items is permanent and cannot be undone.

You can still see the deleted items in the list of changes. For more information, see View all changes in a requisition (page 1117).

1. In the **Requisition #** dialog box, select the requisition items that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

   Note that if the requisition item that you want to delete has been combined, you first need to uncombine the item by clicking **Uncombine**. The **Delete** button appears when the item has been uncombined.

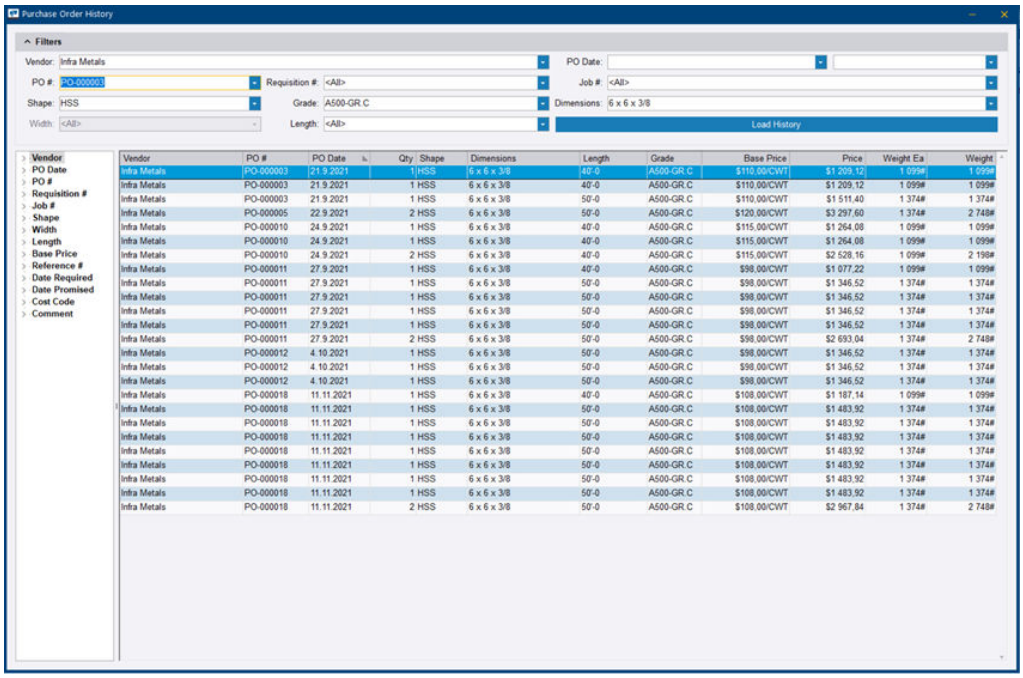
2. At the bottom of the dialog box, click **Delete**.
3. To permanently delete the requisition items, click **Yes** in the confirmation dialog box.

View the pricing history of a requisition item

Use the **Purchase History** command to view the pricing history of a material item. You can filter the purchase history by various options, such as the vendor, the requisition number, or the length.

1. In the **Requisition #** dialog box, select the material item whose pricing history you want to view.
2. Click the **Requisition** ribbon tab.
3. On the menu, select **Purchase History**.

The **Purchase Order History** dialog box opens.



The top section of the dialog box allows you to filter the pricing history information, whereas the bottom section shows the pricing history of the material item.

4. If necessary, filter the pricing history by clicking arrows on the right side of the different filter lists and selecting filtering options in the lists.
5. To update the pricing history to match the filters you set, click **Load History**.
6. If you want to save the pricing history as a Microsoft Excel worksheet, do the following:
   a. Right-click anywhere in the display area of the **Purchase Order History** dialog box.
   b. In the context menu, select **Export to Excel**.
   c. In the **Save As** dialog box, browse to the folder where you want to save the file.
   d. If necessary, change the file name.
   e. Click **Save**.

   If necessary, you can customize the layout of the **Purchase Order History** dialog box to include only the when exporting the pricing history. For more information, see Customize the layout of a dialog box (page 131).
7. To close the **Purchase Order History** dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes in a requisition (page 1117)

Update pricing information (page 1125)

View all changes in a requisition

Tekla PowerFab records every change made in the system. This is useful because you can view all changes made in the current requisition at once. You can filter the information to see changes made by a particular user, or on a particular date. You can also print the list of changes.

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user	a. Select the **User** filter type and click **Select**. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. Select the **Transaction Date** filter type and click **Select**. b. Do one of the following: • Enter the start (**Minimum**) and end (**Maximum**) dates. • Select the **Expression** checkbox for the start or end date. Then, select the base date and select how many more or less days will be taken into account. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Selection** dialog box, do one of the following:

To	Do this
View the list of changes	• Click **View**.

To	Do this
	The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View the pricing history of a requisition item (page 1115)

Load requisition items into a purchase order

To load material items from a requisition to a purchase order, use the **Load Material Into Purchase Order** and **Load Selected Material Into Purchase Order** commands.

Use the **Load Material Into Purchase Order** command to load all requisition items into a purchase order, or use the **Load Selected Material Into Purchase Order** command to select the items in a requisition that are loaded into a purchase order. When you load material items into a purchase order, the items become available in the inventory.

Load all items into a purchase order

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Load Material Into Purchase Order**.
3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   You can also create a new purchase order and load the items into it.
4. To only load specific types of items to the purchase order, in the **Purchasing Import Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the properties of the items that you want to load to the purchase order to the **Included** list.
   - Type the maximum and minimum values for the items that you want to load to the purchase order.
6. Click **OK**.

   To further limit which items are loaded to the purchase order, repeat steps 4 to 6 for all necessary filter types.
7. Click **Import**.
8. Click **OK** to close the **Import Items** dialog box.

The material items are loaded to the selected purchase order, so they are no longer visible in the **Requisition #** dialog box.

Load selected items into a purchase order

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Load Selected Material Into Purchase Order**.

3. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   You can also create a new purchase order and load the items into it.
4. In the **Enter Value** dialog box, type the quantity of pieces that you want to load to the purchase order.
5. Click **OK**.
6. Click **OK** to close the **Import Items** dialog box.

See also

Receive purchase order items (page 1156)

Export a request for pricing

A request for pricing allows you to get pricing from multiple suppliers. Use the **Export Request for Pricing** commands to save a request for pricing as an Microsoft Excel worksheet or a steelXML file and send it to suppliers. You can also attach the request for pricing to an email and send it to a supplier using Microsoft Outlook. Once you receive responses, you can import the suppliers' pricing information to Tekla PowerFab.

Save a request for pricing as a Microsoft Excel worksheet

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Export Request for Pricing** --> **Export to Excel**.
3. In the **Save As** dialog box, browse to the folder where you want to save the file.

   By default, Tekla PowerFab saves the file to the **Export** folder.
4. If necessary, change the file name.
5. Click **Save**.

To modify the request for pricing in Microsoft Excel, see Modify pricing information in Microsoft Excel (page 1122).

Email a request for pricing as a Microsoft Excel worksheet

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Export Request for Pricing** --> **Email Excel**.
3. In the **Select Contact** dialog box, select the supplier, supplier code, and contact person.

Only companies whose type is set to **Supplier** and their contacts that are saved in the **Address Book** are available.

Defining the information in the **Select Contact** dialog box is optional. You can also define the information directly in the email when it is created.

4. In the **Email** field, type the email address of the contact person.
5. Click **OK**.

   Microsoft Outlook opens. The Microsoft Excel worksheet is attached to a new email.
6. Modify the email.
7. Send the email.

Save or email a request for pricing as an steelXML file

The **Export to steelXML** command works specifically with the steelXML software. Use the **Export to steelXML** command to submit requests for pricing to suppliers, so that the suppliers can give you prices that are specific to the material information in the current requisition.

NOTE All items in the current requisition are included in the steelXML file that is exported. If you need to submit some of the items to different suppliers, you need to move those items to a different requisition.

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1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Export Request for Pricing** --> **Export to steelXML**.
3. In the **Export Pricing** dialog box, select the supplier, supplier code, contact person, and the contact person's email address.

   Only companies whose type is set to **Supplier** and their contacts that are saved in the **Address Book** are available.

   Selecting options in the **Export Pricing** dialog box is optional.
4. If you want the supplier to combine the items on their available inventory and provide the nesting results in the returned pricing, select the **Request Nested Results** checkbox.

   If you have already combined the items within the requisition or if you are ordering the items cut to length by the supplier, do not to select the **Request Nested Results** checkbox.
5. Do one of the following:

To	Do this
Save the steelXML file	a. Click **Export**.

To	Do this
	b. In the **Save As** dialog box, browse to the folder where you want to save the file. By default, Tekla PowerFab saves the file to the **Export** folder. c. If necessary, change the file name. d. Click **Save**. You can later send the steelXML file to suppliers using your email service, if necessary.
Send the steelXML file by email	a. In the **Email** field, type the email address of the contact person. b. Select the **Attach to Email** checkbox. c. Click **Export**. Microsoft Outlook opens. The steelXML file is attached to a new email. d. Modify the email. e. Send the email.

After the supplier has processed the file in steelXML and sent the file back to you, you can import the steelXML results back to Tekla PowerFab. For detailed instructions, see Import pricing information to a requisition (page 1123).

Modify pricing information in Microsoft Excel

When you have saved or received a request for pricing as a Microsoft Excel worksheet, you can modify the pricing in Microsoft Excel. After making the changes, you or your client can import the pricing information back to Tekla PowerFab.

1. In Microsoft Excel, type the prices for items in the **Base Price** column.

   To import the pricing information correctly, type the prices in the following format: `currency price/unit`. For example, `$56.99/CWT`.

   You only need to define the base prices of items. Tekla PowerFab calculates the total price during the import.
2. If necessary, type the total prices for items in the **Total Price** field.
3. Save the Microsoft Excel worksheet.

See also

Export a request for pricing (page 1120)

Import pricing information to a requisition (page 1123)

Import pricing information to a requisition

Use the **Import Requisition Pricing** commands to import the pricing information that you want to use in the current requisition from a steelXML file or a Microsoft Excel worksheet. You can also import pricing from an email attachment that is either a Microsoft Excel worksheet or a steelXML file. New pricing information can be imported multiple times.

NOTE If you want to reuse the imported pricing information later, you also need to update the pricing information to a pricing database.

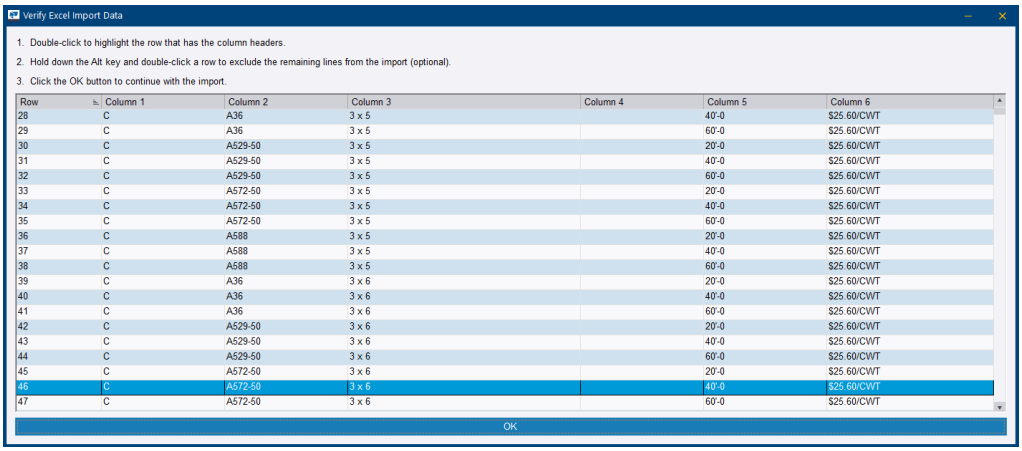
For more information, see Update pricing information (page 1125).

Import pricing information from an Excel worksheet

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Import Requisition Pricing** --> **Import Pricing From Excel File**.
3. In the **Open** dialog box, browse to find the worksheet from which you want to import the pricing information.
4. Select the worksheet, and click **Open**.

   For sample files, see Excel Spreadsheet Sample Import Files.

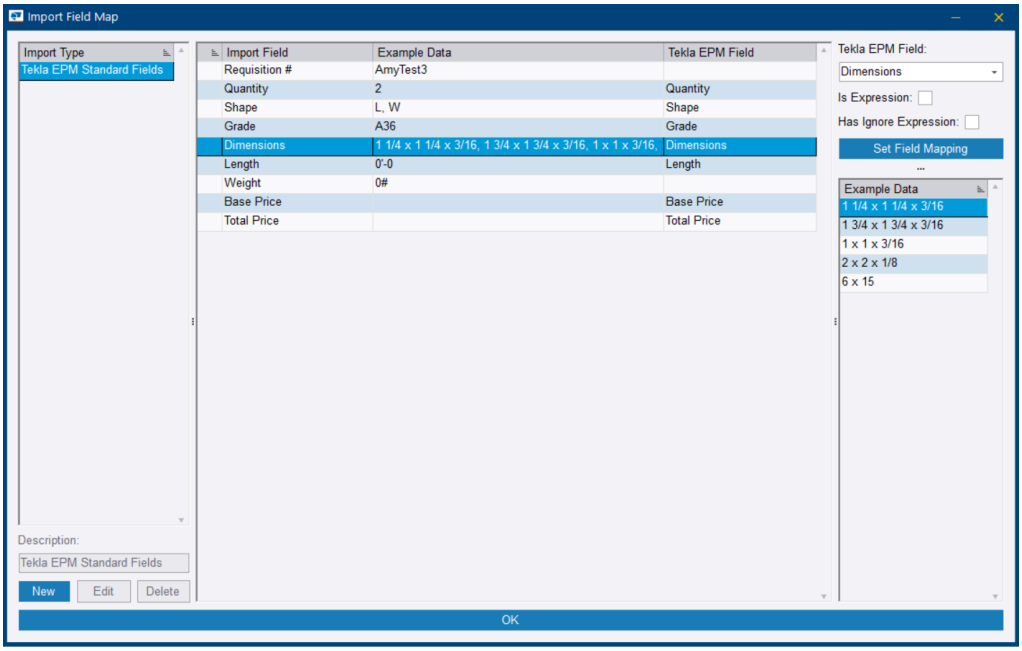
   You need to use the columns in the sample file. You can use the non-required columns for your own purposes.
5. In the **Verify Excel Import Data** dialog box, verify that the information is correct.



Row	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
28	C	A36	3 x 5		40'-0	$25.60/CWT
29	C	A36	3 x 5		60'-0	$25.60/CWT
30	C	A529-50	3 x 5		20'-0	$25.60/CWT
31	C	A529-50	3 x 5		40'-0	$25.60/CWT
32	C	A529-50	3 x 5		60'-0	$25.60/CWT
33	C	A572-50	3 x 5		20'-0	$25.60/CWT
34	C	A572-50	3 x 5		40'-0	$25.60/CWT
35	C	A572-50	3 x 5		60'-0	$25.60/CWT
36	C	A588	3 x 5		20'-0	$25.60/CWT
37	C	A588	3 x 5		40'-0	$25.60/CWT
38	C	A588	3 x 5		60'-0	$25.60/CWT
39	C	A36	3 x 6		20'-0	$25.60/CWT
40	C	A36	3 x 6		40'-0	$25.60/CWT
41	C	A36	3 x 6		60'-0	$25.60/CWT
42	C	A529-50	3 x 6		20'-0	$25.60/CWT
43	C	A529-50	3 x 6		40'-0	$25.60/CWT
44	C	A529-50	3 x 6		60'-0	$25.60/CWT
45	C	A572-50	3 x 6		20'-0	$25.60/CWT
46	C	A572-50	3 x 6		40'-0	$25.60/CWT
47	C	A572-50	3 x 6		60'-0	$25.60/CWT

   If you want to exclude information on particular rows from being imported, you can double-click the rows.
6. Click **OK**.

The **Import Field Map** dialog box opens. In the dialog box, the headings of the Excel worksheet need to be mapped to the Tekla PowerFab standard field headings.



7. If the values of an item in the **Import Field** and **Tekla PowerFab Field** columns do not match or are not correct, do the following:
   a. Select the unmatched **Import Field** value.
   b. On the right side of the dialog box, select a suitable field in the **Tekla PowerFab Field** list.
   c. Click **Set Field Mapping**.
8. When you have mapped all fields together, click **OK** to continue.
9. In the **Import** dialog box, view the status of the import process.

   To view the import process as a text file, you can click **Open Import Log**.
10. To close the **Import** dialog box, click the **Close** button (**X**) in the upper-right corner.

Import pricing information from an XML file

When you have received the steelXML results from a supplier, you can import them to Tekla PowerFab.

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Import Requisition Pricing** --> **Import Pricing From steelXML File**.
3. In the **Open** dialog box, browse to find the file from which you want to import the pricing information.

4. Select the file, and click **Open**.
5. In the **Import** dialog box, view the status of the import process.

   To view the import process as a text file, you can click **Open Import Log**.
6. To close the **Import** dialog box, click the **Close** button (**X**) in the upper-right corner.

Import pricing information from an email attachment

NOTE You can import pricing information from email attachments only if you are using Microsoft Outlook.

1. In Microsoft Outlook, select the email whose attachments you want to import.
2. In the **Import** dialog box, view the status of the import process.

   To view the import process as a text file, you can click **Open Import Log**.
3. To close the **Import** dialog box, click the **Close** button (**X**) in the upper-right corner.

Update pricing information

To update the pricing of material items in a requisition or purchase order to pricing maintenance, use the **Update Pricing Maintenance** command. This way, you can reuse the pricing that you set in the requisition or purchase order.

You can update the pricing information to either the global pricing or the estimate-specific pricing.

1. Open a requisition or purchase order.

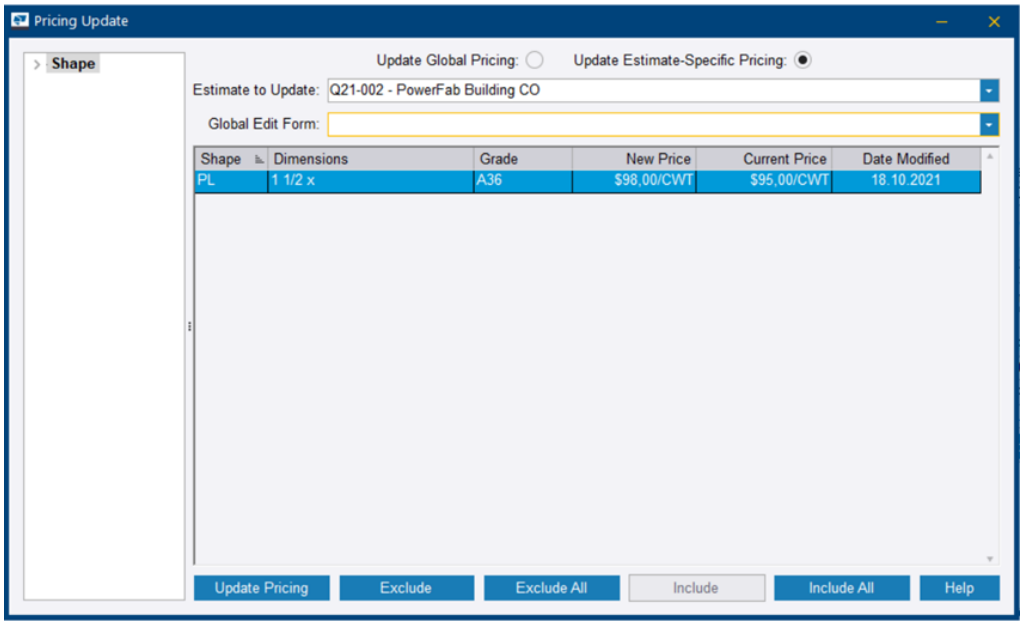
   The **Requisition #**/**PO #** dialog box opens.
2. Select the material items whose current pricing information you want to update.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the ribbon tab and select **Update Pricing Maintenance**.

   The **Pricing Update** dialog box opens.

   Note that each shape, grade, and size is only shown once. If there are multiple records selected with a given shape, grade, or size, then the pricing is used from the first one in the list.



New Price: The price from the requisition/purchase order

Current Price, **Date Modified**: The current values from the selected supplier (if updating global pricing) or job # (if updating estimate-specific pricing)

4. Do one of the following:

To	Do this
Update pricing to the global pricing	a. At the top of the dialog box, select the **Update Global Pricing** option. b. In the **Supplier to Update** drop-down list, select the supplier whose pricing information you want to update.
Update pricing to the estimate-specific pricing	a. At the top of the dialog box, select the **Update Estimate-Specific Pricing** option. b. In the **Estimate to Update** drop-down list, select the estimate whose pricing information you want to update.

5. If you want to update the pricing of all material items within a previously created global edit form, select the global edit form that you want to use in the **Global Edit Form** drop-down list.

   See Modify multiple requisition items (page 1111) and Modify multiple purchase order items (page 1151).

6. Do one of the following to exclude items from being updated to the pricing database:

   - Select an item whose pricing information you do not want to update, and click **Exclude**.

- To exclude all items, click **Exclude All**.
- To include the selected items, click **Include**.
- To include all items, click **Include All**.

Excluded items are highlighted in red.

7. Click **Update Pricing**.
8. To confirm updating the pricing information, click **Yes** in the confirmation dialog box.

The pricing information is updated to the selected location, and the **Pricing Update** dialog box closes.

If the material shape, grade, or dimension does not exist in the pricing maintenance database, it is added to the database when you update the pricing.

See also

View the pricing history of a requisition item (page 1115)

Pricing maintenance (page 278)

Create pricing forms (page 291)

Combine items in the Requisition # dialog box

You can mult and nest requisition items using the **Combine** command. Combining requisition items creates a list of materials that you can later send out for pricing.

1. On the **Requisitions** tab in the **Select Requisition/Purchase Order** dialog box, open a requisition.
2. Click the **Requisition** ribbon tab and select **Combine**.

   The **Select Combining Run** dialog box opens. When you are performing the first combining run for a combining job, the list in the dialog box is empty.
3. Click a desired combining option to select it.

   The options are:

   - **Mult**: Combines linear items, like beams and angles.
   - **Nest**: Combines items that have area, like plates or gratings.
   - **Mult & Nest**: Combines all items.

   The **Combining Run Filters** dialog box opens.

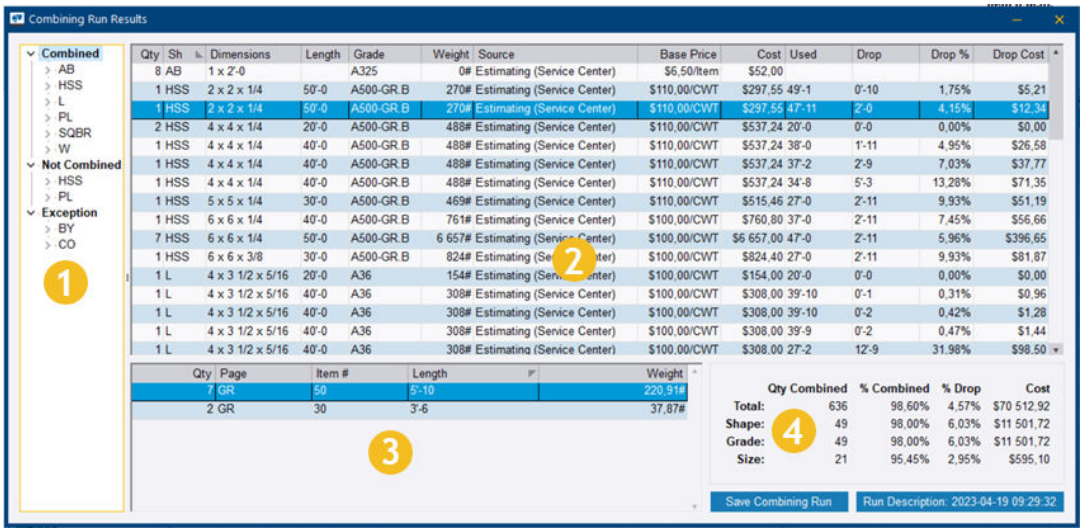
NOTE Filtering items is optional, so you can skip steps 4 to 7 if you do not want to filter out items from the combining run.

4. To only combine specific types of materials, select a filter type in the **Type** list, and click **Select**.
5. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to combine to the **Included** list.
   - Type the maximum and minimum values for the items that you want to combine.
6. Click **OK** to apply the filter.

   Repeat steps 4 to 6 for each filter type that you want to set.
7. To ensure that you are using the correct settings, click the **Optimizations**, **INV Filter**, and **Suppliers** buttons.

   You can modify the settings.
8. In the **Combining Run Filters** dialog box, click **OK**.
9. To combine the materials, click the button at the bottom of the **Combining Run Filters** dialog box, or press **F4**.

Tekla PowerFab combines the materials. After the combining process is finished, the **Combining Run Results** dialog box opens.



(1) Navigation tree: Result statuses

- **Combined**: The items have been optimized successfully
- **Not Combined**: The items that failed to be optimized
- **Exception**: Items that cannot be optimized, such as comment and buyout lines. These can generally be ignored

(2) Display area: Combining results including each bar or sheet that is required

(3) Bottom area: The items that are combined to the selected item

(4) Summary area: Combining results with waste percentage and total material costs. The material cost represents the pricing of the materials in the pricing database that was used in the combining run.

TIP You can save the combining run to view it later and compare it with another combining run. To do so, click **Save Combining Run** at the bottom of the **Combining Run Results** dialog box. No cut lists are generated when you save the combining run.

To save the combining run, click either of the following:

The material items that were combined to the existing inventory items are removed from the requisition and disappear from the **Requisition #** dialog box. The items that were combined to the supplier materials remain in the requisition until you send the items to a purchase order.

See also

Rename a combining run (page 379)

Compare combining runs (page 386)

View combining run filter settings (page 379)

Modify run-specific pricing information (page 379)

Recombine all items (page 383)

Recombine items of a shape (page 384)

Recombine items of a material grade (page 385)

Recombine a material dimension (page 385)

Update combining information and recombine all items (page 386)

Export materials for combining (page 242)

Troubleshoot combining issues (page 1235)

Manage inventory, cut lists, and nests with ProNest (page 243)

Mult and nest materials with Steel Projects PLM (page 255)

Enable ShopData Systems for plate nesting (page 258)

Combine requisition items manually

To combine the selected material lengths manually, you need to activate the manual combine mode. You can then select pieces to combine them into a specific material length, or uncombine pieces from a material length.

NOTE You can only manually combine items that have been created manually or by copying existing items in the manual combine mode.

These items are marked with a C in the leftmost column of the **Requisition #** dialog box.

---

1. In the upper-left corner of the **Requisition #** dialog box, click **Manual Combine Mode**.

   The manual combine mode is activated.

2. Select the material item to which you want to combine new items.
3. At the bottom of the dialog box, click **Add Items**.

   The **Add Item** dialog box opens. You can see all available uncombined materials that can be combined into the selected length.

   Tekla PowerFab notifies you if there are no materials available to be combined. In this case, you need to uncombine some previously combined material items by selecting the items and clicking the **Uncombine** button at the bottom of the **Requisition #** dialog box.

4. In the **Add Item** dialog box, click an uncombined item to select it.
5. If necessary, modify the quantity of inventory items that you are combining materials to.

   If the quantity is greater than 1, the materials should be multiples of that quantity in order to be displayed and selected in the **Add Item** dialog box.

6. To allow material grade substitutions, select the **Use Grade Substitutions** checkbox.
7. Click **Add**.

The selected uncombined pieces are now combined into the selected material item.

To return to input mode, click **Input Mode** in the upper-left corner of the **Requisition #** dialog box.

See also

Combine items in the Requisition # dialog box (page 1127)

View, print, or export requisition-specific reports

You can create various reports based on the current requisition. After creating a report, you can view or print the report, or export the report and save it in another file format.

To create requisition reports, do the following:

1. In the **Requisition #** dialog box, click the **Requisition** ribbon tab.
2. On the menu, select **Reports**, or press **Ctrl+R** on the keyboard.

3. To only include specific item types in the reports, in the **Requisition Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the item properties that you want to include in the reports to the **Included** list.
   - Type the maximum and minimum values for the item properties that you want to include in the reports.
5. Click **OK**.

   To further limit the requisitions included in the reports, repeat steps 3 to 5 for all filter types.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

According to your needs, see any of the following instructions:

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the selected report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

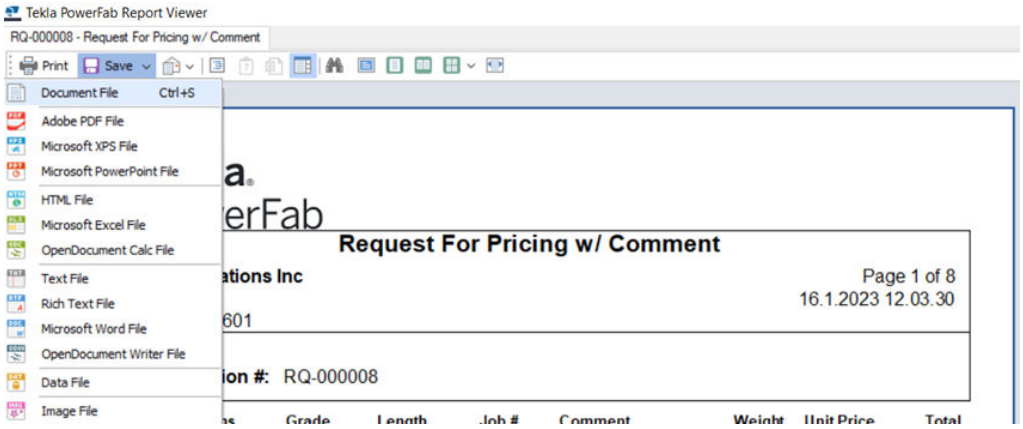
1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.

4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

Export data from the report

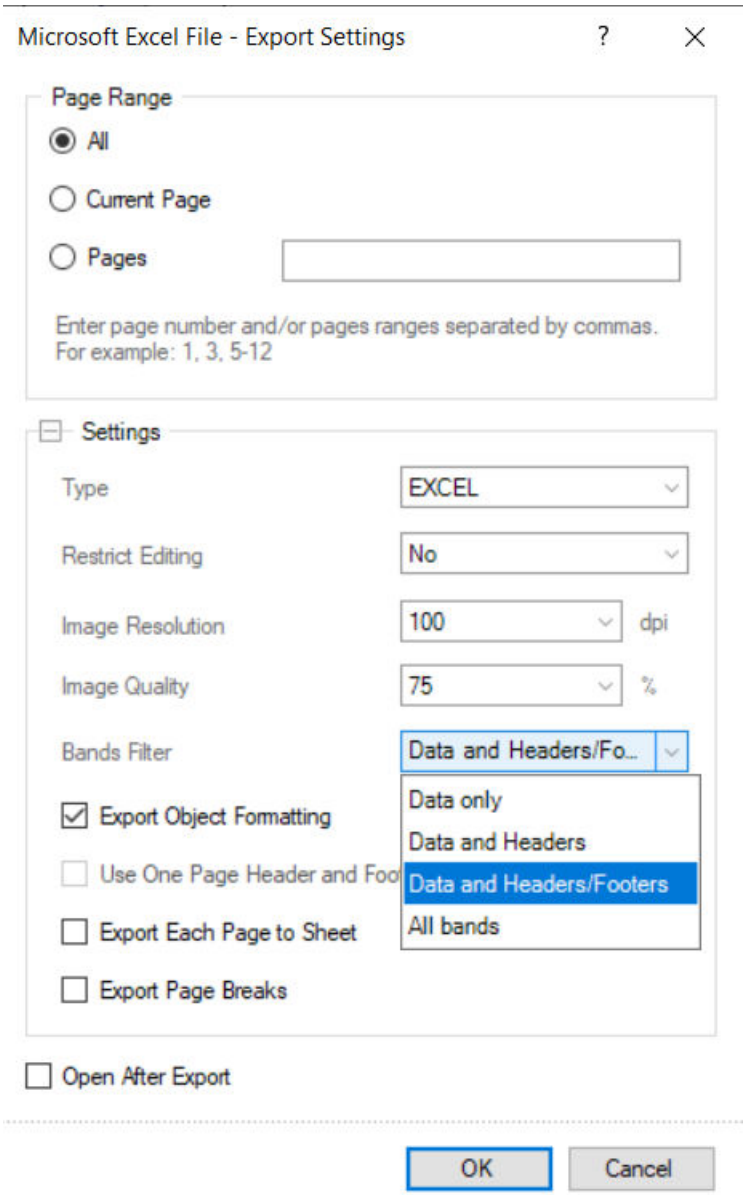
To ensure that all data is exported from a Stimulsoft report to Excel, follow the steps provided here.

1. In the report that you have open in **Tekla PowerFab Report Viewer**, click **Save**.



2. In the context menu, select **Microsoft Excel File**.

The **Microsoft Excel File - Export Settings** dialog box opens.



3. On the **Bands Filter** drop-down menu, select **Data and Headers/Footers**.
4. Click **OK**.

   You are prompted to save the data in an Excel file. You can change the file name and the location here.
5. To save the data, click **Save**.

See also

Customize reports (page 141)

Delete requisitions

You can delete unnecessary requisitions in the **Select Requisition/Purchase Order** dialog box.

NOTE When you delete a requisition, all material items in the requisition are also deleted.

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Requisitions** tab.
3. Select the requisitions that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. At the bottom of the dialog box, click **Delete**.
5. To permanently delete the requisitions, click **Yes** in the confirmation dialog box.

11.3 Create and manage purchase orders

You can create and modify purchase orders and material items within the purchase orders in the **Purchase Orders** part of the **Purchasing** module.

We recommend that you plan the numbering of purchase orders carefully to help you organize the purchase orders in the future.

You can also:

- Receive and unreceive materials.
- Filter the information displayed in the purchase order.
- Approve a purchase order, so that no further changes can be made.
- Finalize material items, so that no changes can be made to the items.
- Unfinalize items to allow making changes to them again.
- Copy material items to another purchase order.
- View the pricing history of a material item.
- View the transaction history of a purchase order.
- View the heat documents attached to material items.
- View all changes made to a purchase order.
- Create purchase order reports and receiving reports, and view, print, or export the created reports.

- Export purchase order information to a selected accounting software.

All material items on purchase orders are also visible in the inventory as items that are on order.

Create a purchase order

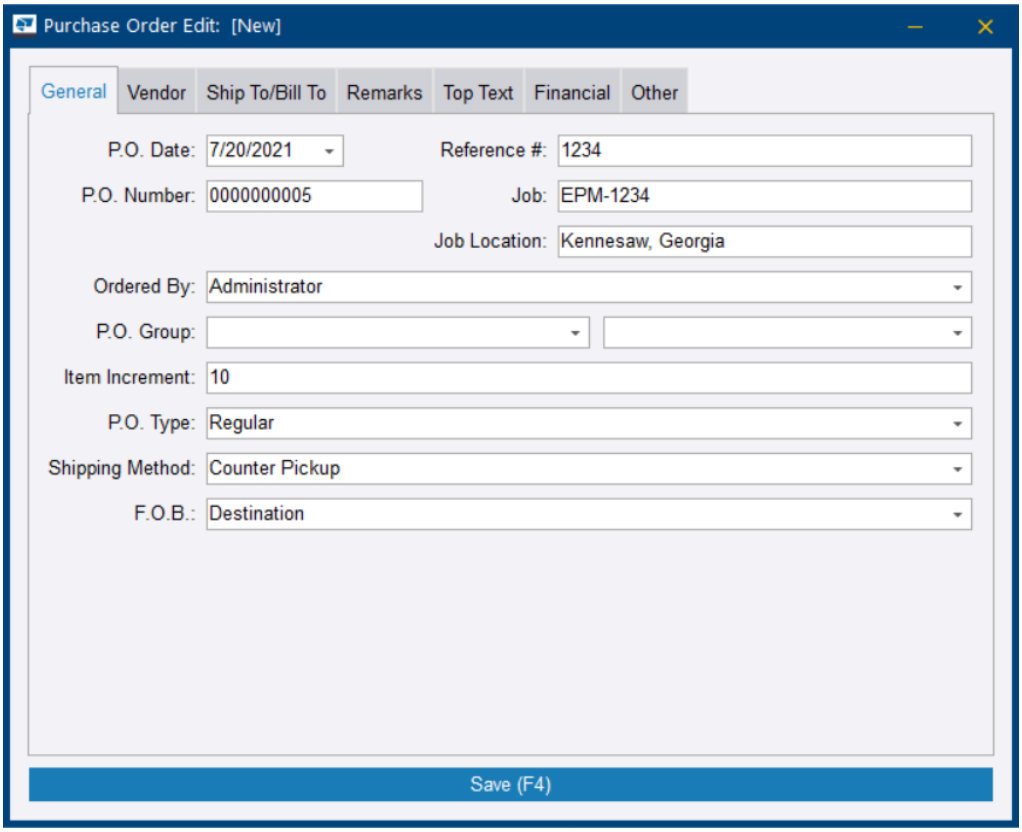
To create a new purchase order where material items can be stored, you need to define a few properties.

1. Open the module.

   The **Select Requisition/Purchase Order** dialog box opens.

2. Select the **Purchase Orders** tab.
3. Click **Add**.

   The **Purchase Order Edit** dialog box opens.



   Continue to defining the properties on the tabs.

4. Click **Save** to create the purchase order.

The **Purchase Order Edit** dialog box closes, and the new purchase order is added to the **Select Requisition/Purchase Order** dialog box.

Define general settings

1. In the **Purchase Order Edit** dialog box, select the **General** tab.
2. Modify the settings as needed.

   The properties marked with an asterisk (*) are mandatory information.

Option	Description
P.O. Date *	The date of the purchase order Tekla PowerFab automatically uses the current date. To change the date, do one of the following: • Type the date in the **P.O. Date** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Click the arrow on the right side of the **P.O. Date** field and select a date in the calendar.
Reference #	Type any reference number related to the purchase order.
P.O. Number	Type the purchase order number. We recommend that you plan the numbering of purchase orders carefully to help you organize the purchase orders in the future. Note that the purchase order number cannot be changed later. All other purchase order information can be modified later.
Job	Type any job number related to the purchase order.
Job Location	Type any job location related to the purchase order.
Ordered By	The Tekla PowerFab user in your company that created the purchase order. Select a user in the list.
P.O. Group	The groups where the purchase order belongs to Setting purchase order groups for the purchase order helps you to sort purchase orders in the **Select Requisition/Purchase Order** dialog box. To set purchase order groups, do one of the following: • Type new purchase order group names in the **P.O. Group** fields.

Option	Description
	• Click the arrows on the right side of the **P.O. Group** fields, and select existing purchase order groups in the lists.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type `1`.
P.O. Type	The type of the purchase order The available options are set in **PO Type Maintenance**. For more information, see Add, modify, or delete purchase order types (page 1087).
Shipping Method	The shipping method of the purchase order The available options are set in **Purchase Order Shipping Method Maintenance**. For more information, see Add, modify, and delete shipping methods for purchase orders (page 1088).
F.O.B.	The free on board shipping destination applied to the purchase order The available options are set in **Purchase Order FOB Maintenance**. For more information, see Add, modify, or delete FOB shipping destinations (page 1089).

3. Do either of the following:
   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define vendor settings

1. Go to the **Vendor** tab
2. Select the vendor, the address, the contact person, and the person with whom the purchase order has been confirmed.

   NOTE Only companies that are saved in the **Address Book** with the firm type **Supplier** and their contact persons can be selected.

3. If you have added additional currencies to Tekla PowerFab, select the currency and exchange rate date for the purchase order.
4. Do either of the following:
   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define client details (Ship To/Bill To)

The **Ship To/Bill To** tab is primarily used to specify the shipping address of the purchase order.

1. Add or modify the properties as needed.

   Note that only companies that are saved in **Maintenance** --> **Address Book** with the **Client** or **My Company** company types can be selected.

   You can also modify the information manually.

Option	Description
Ship To	Select the receiver in the list. The contact information is automatically added to the blank fields as defined in **Maintenance** --> **Address Book**.
Bill To	Select the billing information.

2. To define the inventory location of the purchase order items, click the arrows on the right side of the **Inventory Location** and **Secondary Location** fields.
3. Do either of the following:
   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define remarks

1. On the **Remarks** tab, do either of the following:
   - Click the arrows on the right side of the blank fields and select previously created remarks in the lists.
   - Type new remarks in the blank fields.

You can add up to four remarks. The available remark options are set in the **Purchase Order Remark Maintenance** dialog box. For more information, see Manage purchase order remarks (page 1091).

You can also set default remarks that are added for all new purchase orders in the **Purchase Order Company Standards** dialog box. For more information, see Define company standard settings for purchase orders (page 1077).

2. Do either of the following:
   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define top text

On the **Top Text** tab, you can define what information you want to add at the top of the purchase order.

1. Go to the **Top Text** tab.
2. Do either of the following:
   - Click the arrow on the right side of the **Description** field, and select a previously created top text item in the list.

     The **Top Text** field is automatically populated.
   - Type any necessary information in the **Top Text** field.

     NOTE Any text you type manually in the **Top Text** is not saved, so it cannot be reused.

   You can create top text items in the **Purchase Order Top Text Maintenance** dialog box. For more information, see Manage top text items for purchase orders (page 1092).

   You can also set default top text items that are added for all new purchase orders in the **Purchase Order Company Standards** dialog box. For more information, see Define company standard settings for purchase orders (page 1077).
3. Do either of the following:
   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define financial information

1. Go to the **Financial** tab.

2. Define the freight and adjustment costs, the payment terms, and the discount percentage used in the purchase order.

   The available payment term options are set in the **Purchase Order Payment Term Maintenance** dialog box. For more information, see Add, modify, or delete payment terms for purchase orders (page 1090).

   NOTE The adjustment costs can also be negative.

3. You can apply tax rates to the purchase order as follows:

   a. Click **Tax Rates**.

      The **Select Tax Rates** dialog box opens.

   b. Click the arrow buttons to move the tax rates that you want to apply to the purchase order to the **Included** list.

   c. Click **OK**.

   You can create any necessary tax rates and tax groups in **Maintenance** --> **Tax Rates** and **Maintenance** --> **Tax Groups**. You can also define a default tax group for new purchase orders. See Define company standard settings for purchase orders (page 1077).

4. Do either of the following:

   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

Define other properties

1. Go to the **Other** tab.
2. Add any applicable information to the blank fields.

   For example, you can add information about the maximum lift or the unload instructions.

3. To adjust the units used in the purchase order, clicking the **Input/Display Units** button and modifying the properties.

   For more information, see Define company standard settings for purchase orders (page 1077).

4. Do either of the following:

   - Continue to define properties on the other tabs
   - Click **Save**.

     The dialog box closes.

See also

Open a purchase order (page 1141)

Modify a purchase order (page 1144)

Delete purchase orders (page 1183)

Manage taxes (page 229)

Define company standard settings for purchase orders (page 1077)

Manage top text items for purchase orders (page 1092)

Manage purchase order remarks (page 1091)

Find a purchase order

You can search to find a specific purchase order.

1. In the **Select Requisition/Purchase Order** dialog box, click the **Purchasing** ribbon tab.
2. Select **Find Purchase Order**.

   The **Enter Value** dialog box opens.
3. Select the PO number on the drop-down menu or enter the number in the search box.
4. Click **OK**.

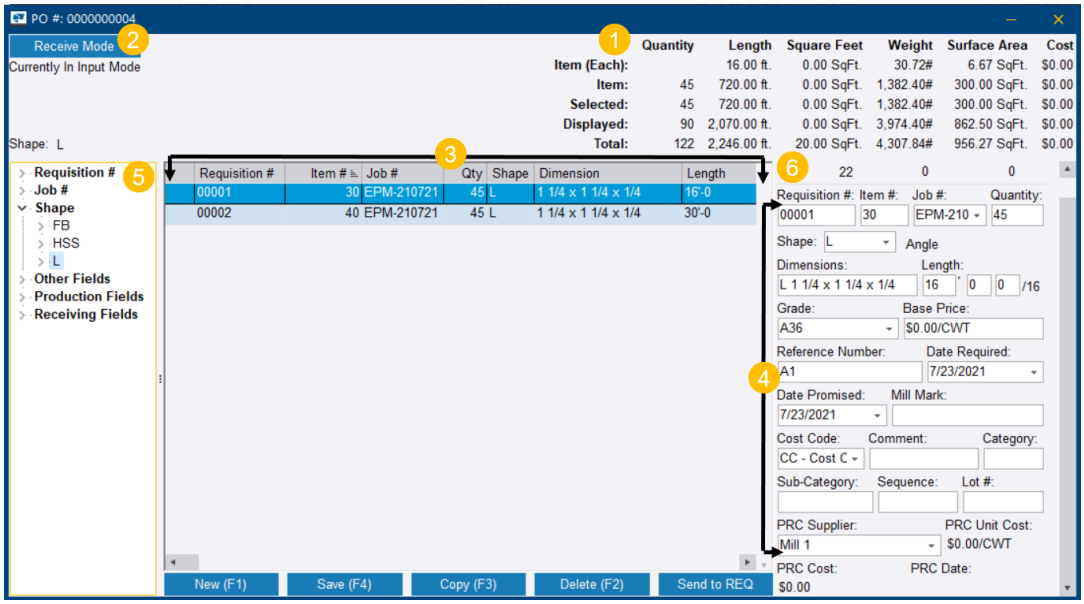
The selected purchase order is highlighted. To open the purchase order, double-click it or click **Open**.

Open a purchase order

To view and modify the material items in a purchase order, you need to open the purchase order.

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Purchase Orders** tab.
3. Select the purchase order that you want to open.
4. Do one of the following:
   - At the bottom of the dialog box, click **Open**.
   - Double-click the selected purchase order.

The **PO #** dialog box opens:



(1) The summary grid: shows the following information number of purchase order items, their length, square feet, weight, surface area, and cost for items. These properties are shown for:

- a single piece of the selected item
- the selected items
- the currently displayed items
- the entire purchase order

(2) The mode switch button: the **PO #** dialog box has two modes: the input mode and the receive mode. In the input mode, you can add new material items and modify the existing ones. In the receive mode, you can mark material items as received or rejected.

To change the mode, click the button in the upper-left corner.

(3) The display area: shows all material items in the purchase order.

The visible columns and details are set in the **Display Fields** dialog box. ou can access the **Display Fields** dialog box via **Maintenance** --> **Purchase Orders** --> **Edit Display Fields** .

You can also modify the visible columns and the dialog box layout by right-clicking in the display area and selecting **Customize grid** in the context menu.

Note that a C in the leftmost column indicates that the material items have been combined.

(4) The input area: allows you to add properties for new material items and modify properties of existing material items. You can mark material items as received, rejected, or canceled.

When you select an item in the display area, its properties automatically populate the input fields.

The visible columns and details are set in the **Input Fields** dialog box. You can access the **Input Fields** dialog box via **Maintenance** --> **Purchase Orders** --> **Edit Input Fields** .

(5) The navigation tree: allows you to only view specific items in the purchase order.

Click **+** to expand and select options in the navigation tree. When you select an option, only material items that match the selected properties are displayed in the display area.

For example, you can expand **Shape** and select **HSS** to only display hollow structural sections.

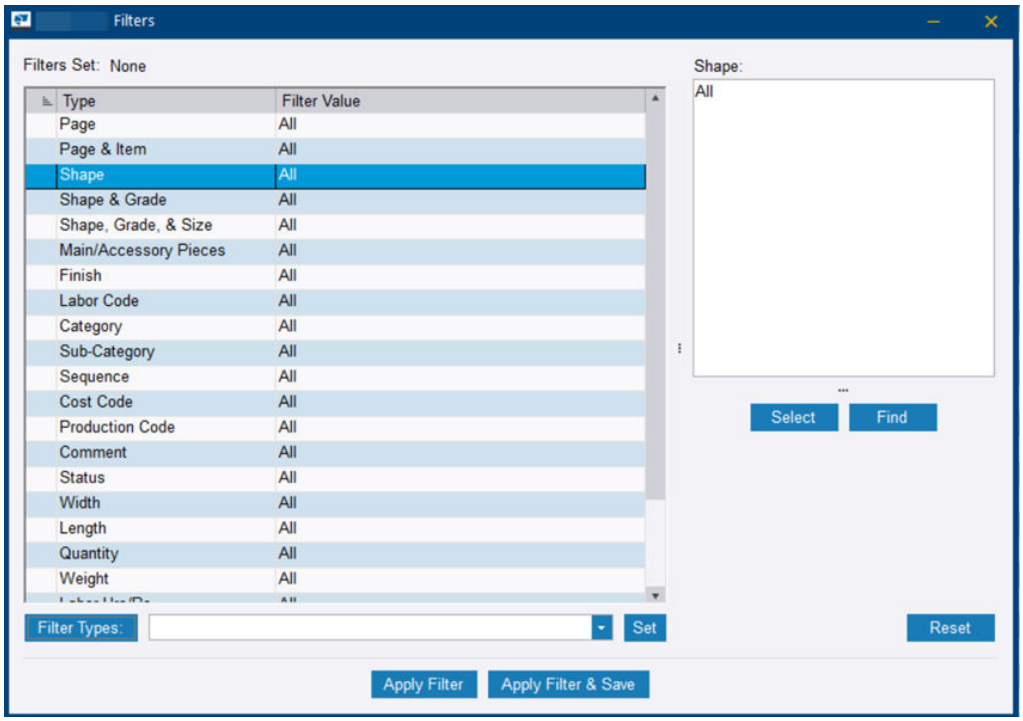
(6) Quantities received, rejected, and canceled: shows the material order information of the item selected in the display area. You can view the quantity of pieces that have been received, rejected, and canceled.

Filter information in the PO # dialog box

In addition to using the navigation tree for filtering items, you can set filters that determine which items are shown in the in the **PO #** dialog box. For example, you can create filters to only display the items that have been received. You can also save the filters for later use.

1. In the **Select Requisition/Purchase Order** dialog box, select the **Purchase Orders** tab.
2. Open a PO. The **PO #** dialog box opens.
3. Click the **Purchase Order** ribbon tab.
4. On the menu, select **Filter**.

The **<Module> Filters** dialog box opens.



5. Select a filter type in the **Type** list and click **Select**.

   Note that if you have saved a filter in the **Purchase Order Report Filters** dialog box when creating global receiving reports, the saved filter will also be available as a filter in the **PO #** dialog box for all purchase orders.

6. Click the arrow buttons to move the items that you want to display to the **Included** list.

7. Click **OK**.

   If you want to further filter the information displayed , repeat steps 3 to 5 for different items. Note that only items that match the items in the **Included** list will be available when setting more filters.

   If you want to clear all filter settings, click **Reset**.

The **<Module> Filters** dialog box closes, and the items are filtered according to the settings you made.

To display all information again, click **Clear Filters** in the upper-left corner.

To create and save commonly used filters, see Create and modify module-wide filters (page 134).

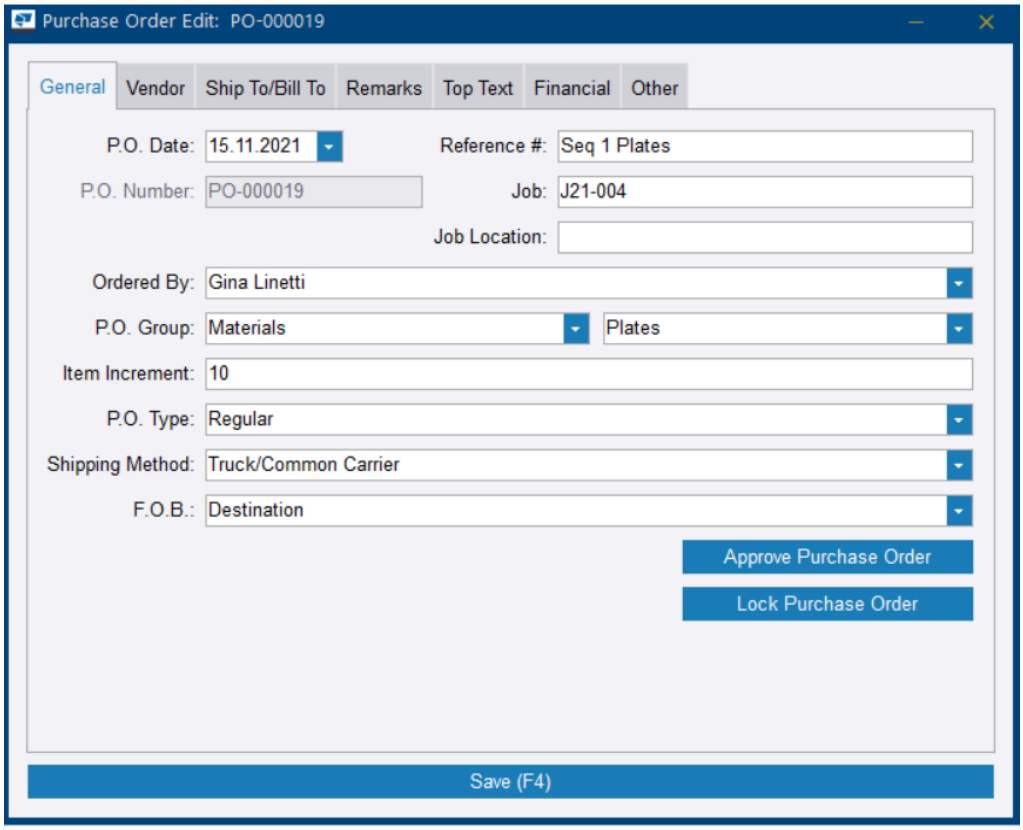
Modify a purchase order

You can modify all properties of a purchase order at any time, except for the purchase order number. You can also approve and lock a purchase order.

1. Open the module.

   The **Select <Module> Job** dialog box opens.
2. Make sure that you are on the **Purchase Orders** tab.
3. Select the purchase order that you want to modify.
4. Click **Edit**.

   The **Purchase Order Edit** dialog box opens.



5. Modify the properies as needed. For information on the properties, see Create a purchase order (page 1135).
6. Click **Save** to update the purchase order.
7. To approve and lock the purchase order, click **Approve Purchase Order**.

See also

Create a purchase order (page 1135)

Open a purchase order (page 1141)

Manage files for a purchase order (page 1145)

Delete purchase orders (page 1183)

Manage files for a purchase order

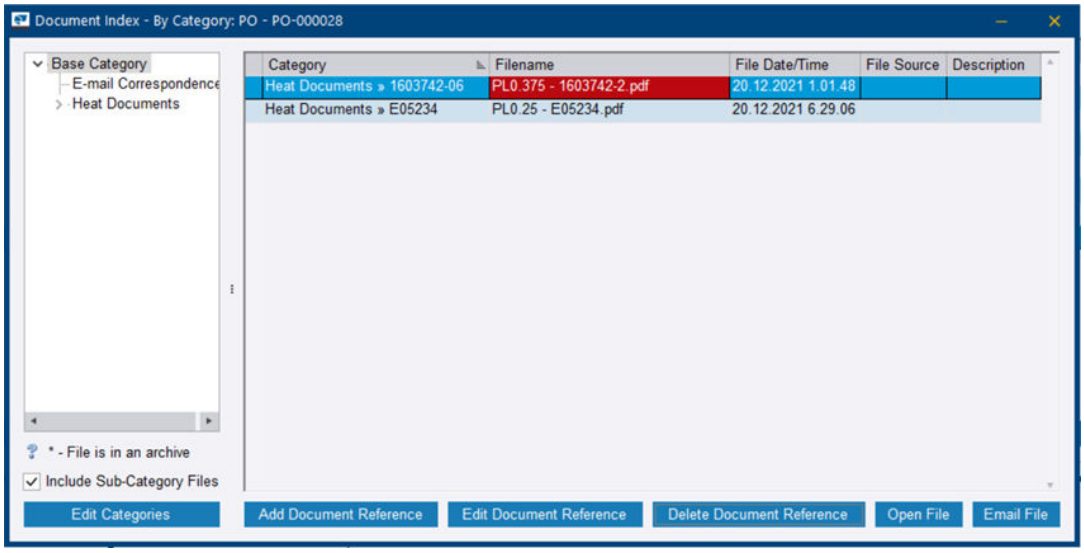
Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

NOTE You should always save heat documents in the **Heat Documents** category in **Document Index**. The **Heat Documents** category differs from other document categories in that it maintains a link to the heat document for all items that share the same supplier, purchase order number, and heat number.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

See also

Document Index (page 183)

Set the standard categories for attached documents (page 184)

Add a purchase order item

Most items are added to purchase orders by loading the material items from combining, estimating, or production control jobs to purchase orders. You can also add new items to an open purchase order manually.

NOTE All material items on purchase orders are also inventory items.

1. In the **PO #** dialog box, click **New**.
2. Define the item properties in the input fields.

   NOTE The visible input fields and their order depend on the settings that you have defined in. **Maintenance** --> **Purchase Orders** --> **Edit Input Fields**.

   The properties marked with an asterisk (*) in the following table are mandatory information.

Option	Description
Base Price	The base price of the material item Type in the base price. To change the base price units and to convert the current price to the selected units, right-click the **Base Price** field, and select an appropriate option in the context menu.
Category, **Sub-Category**	A keyword used for sorting items in the **PO #** dialog box. Categories and sub-categories can be

Option	Description
	used for filtering information in the **PO #** dialog box. The **Category** and **Sub-Category** fields are automatically populated by the linked items in **Production Control**.
Comment	An optional comment that you can type for the item
Cost Code	A code for classifying costs to match your accounting system Select a cost code from the drop-down menu. For more information about cost codes, see Manage cost codes (page 227).
Date Promised	The date when the supplier has promised to deliver the material item Do one of the following: • Type the date in the **Date Promised** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Select the date in the calendar.
Date Required	The date when the material item is due Do one of the following: • Type the date in the **Date Required** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Select the date in the calendar.
Dimensions *	The material dimension, or material size, of each piece Depending on the shape, the dimension can also be mandatory information. Click the **Dimensions** field to select an available material dimension, and double-click the desired dimension in the list. You can also use a custom material dimension. Note that the dimension is not automatically added to the material database. To use a custom dimension: a. Click in the **Dimensions** field. b. Click **Add Size**.

Option	Description
	c. Define the dimension properties. d. Click **Save**. You can now select the dimension and use it.
Grade *	The material grade of each piece Depending on the shape, the grade can also be mandatory information. Either select the grade from the drop-down menu or type the grade indicator in the field.
Item # *	The item number You can modify the item number manually or use the item number automatically determined by Tekla PowerFab.
Job #	The number of the production control job the material item is reserved to. Type in the number.
Length	The length of each piece Default length input settings are set in **Company Standards**, but you can modify them for each job.
Lot #	The lot identification number of the material item The **Lot #** field is automatically populated by the linked items in **Production Control**.
Mill Mark	The mill mark that identifies the mill that produced the steel Type in the mill mark.
PRC Cost, **PRC Date**, **PRC Unit Cost**	The current pricing information of the selected item from the selected supplier If no date is displayed in the **PRC Date** field, the material does not exist in the selected supplier's pricing data set. Double-click one of the fields to open the **Pricing Maintenance** dialog box and enter pricing information.
PRC Supplier	The supplier warehouse whose pricing the item uses Select the supplier from the drop-down menu. The **PRC Unit Cost**, **PRC Cost**, and **PRC Date** fields are updated to show details about the pricing of the selected pricing supplier.
Purchasing Notes	A longer description of the item

Option	Description
Quantity *	The number of pieces to be added Use the numeric keypad to add, multiply, divide, or subtract number of items.
Reference Number	A reference number that links items in inventory or purchasing to the production control job The reference number can be different depending on the case: • If an item is sent from **Production Control** to **Purchasing** or **Inventory**, Tekla PowerFab creates a copy of the record, and the item is linked to include the reference number. • If an item is sent to **Purchasing** from an advanced bill of material, the system mark number or a combination of the page number and the item number in the combining job (for example, 1-30) becomes the reference number. • If the item is sent to **Purchasing** later in the process, the reference number is the mark or piece mark number.
Requisition #	The number of the requisition from which the item was loaded to the purchase order, or the requisition which the item can be sent back to. Type in the number.
Sequence	The sequence number assigned to the item The field is automatically populated by the linked items in **Production Control**.
Shape *	The material shape of each piece Either select the shape from the drop-down menu or type the shape indicator in the field (for example, HSS).

3. Click **Add**.

The new material item is added at the end of the purchase order.

Modify purchase order items

You can either modify items one by one, or use the **Global Edit** commands to modify multiple items at one go.

TIP If you cannot find the property you want to modify, check if you can add it in **Maintenance** --> **Purchase Orders** --> **Edit Input Fields**.

For more information, see the following links:

Modify a single purchase order item (page 1151)

Modify multiple purchase order items (page 1151)

Modify the selected purchase order items (page 1152)

Modify the shape, grade, dimensions, or length of multiple purchase order items (page 1153)

Modify the shape, grade, dimensions, or length of the selected purchase order items (page 1155)

Modify a single purchase order item

You can modify the properties of purchase order items one by one in the **PO #** dialog box.

1. In the **PO #** dialog box, select the material item that you want to modify.
2. On the right side of the dialog box, modify the properties of the item according to your needs.

   For example, you can change the base price of the item or assign a cost code to the item.
3. Click **Save** to update the item properties.

See also

Modify multiple purchase order items (page 1151)

Modify the selected purchase order items (page 1152)

Modify the shape, grade, dimensions, or length of multiple purchase order items (page 1153)

Modify the shape, grade, dimensions, or length of the selected purchase order items (page 1155)

Modify multiple purchase order items

Use the **Global Edit** command to modify the properties of multiple items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit**.

   The **Global Edit Filters** dialog box opens.

3. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.

4. Do one of the following depending on the filter type:
   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

5. Click **OK**.

   To further limit the item types that you want to modify, repeat steps 3 to 5 for all necessary filter types.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

See also

Modify a single purchase order item (page 1151)

Modify the selected purchase order items (page 1152)

Modify the shape, grade, dimensions, or length of multiple purchase order items (page 1153)

Modify the shape, grade, dimensions, or length of the selected purchase order items (page 1155)

Modify the selected purchase order items

Use the **Global Edit - Selected** command to modify the properties of multiple selected items at one go. This way, you can save time, as you do not need to change the properties of each item individually.

1. In the **PO #** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. Click the **Purchase Order** ribbon tab.

3. On the menu, select **Global Edit** --> **Global Edit - Selected**.

   The **Global Edit - Selected** dialog box opens.

4. Select the properties that you want to update and modify as needed.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

5. Click **Update**.

The properties of the selected items are updated.

See also

Modify a single purchase order item (page 1151)

Modify multiple purchase order items (page 1151)

Modify the shape, grade, dimensions, or length of multiple purchase order items (page 1153)

Modify the shape, grade, dimensions, or length of the selected purchase order items (page 1155)

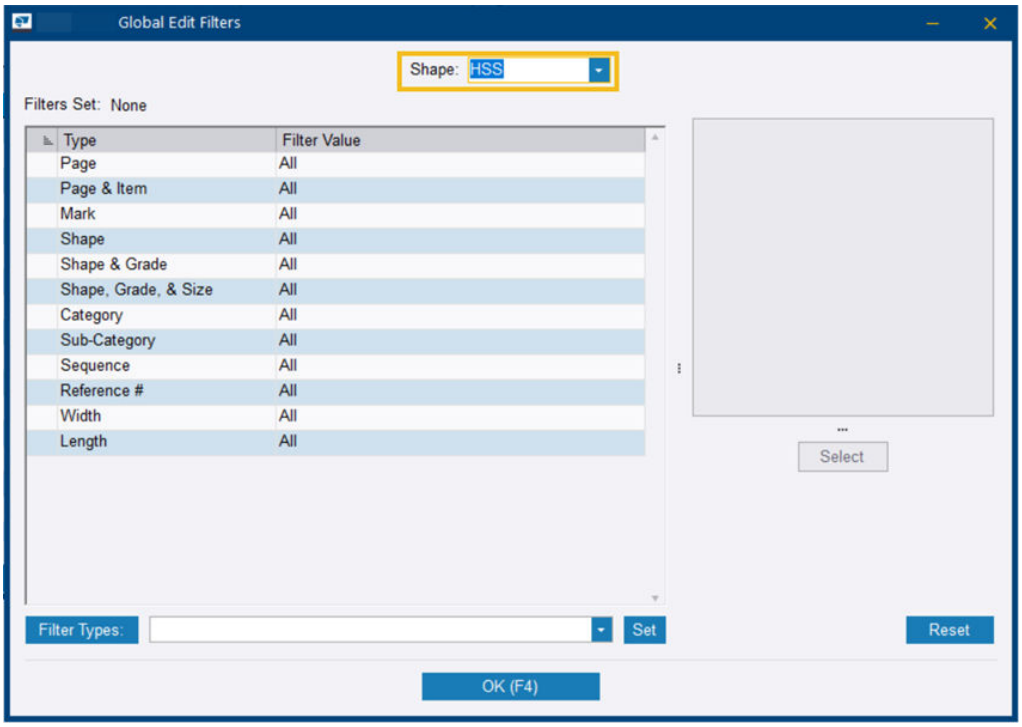
Modify the shape, grade, dimensions, or length of multiple purchase order items

Use the **Global Edit By Shape** command to modify the shape, grade, dimensions, or length of all or multiple items.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Global Edit** --> **Global Edit By Shape**.

   The **Global Edit Filters** dialog box opens.

3. Select a shape on the **Shape** drop-down menu.



4. To modify only specific types of items, select a filter type in the **Type** list, and click **Select**.

   The **Filter** dialog box opens.

5. Do one of the following depending on the filter type:

   - Click the arrow buttons to move the items that you want to modify to the **Included** list.
   - Type the maximum and minimum values for the items that you want to modify.

6. Click **OK**.

   The **Global Edit** dialog box opens.

7. Select the properties that you want to update.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.

8. Click **Update**.

   The **Confirm** dialog box opens.

9. To confirm changing the properties of multiple items, click **Yes**.

The changes you made to the item properties are updated.

See also

Modify a single purchase order item (page 1151)

Modify multiple purchase order items (page 1151)

Modify the selected purchase order items (page 1152)

Modify the shape, grade, dimensions, or length of the selected purchase order items (page 1155)

Modify the shape, grade, dimensions, or length of the selected purchase order items

Use the **Global Edit Selected By Shape** command to modify the shape, grade, dimensions, or length of selected items.

1. In the **PO #** dialog box, select the items that you want to modify.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Purchase Order** ribbon tab.
3. On the menu, select **Global Edit** --> **Global Edit Selected By Shape**.

   The **Global Edit - Selected** dialog box opens.
4. Select the properties that you want to update.

   You can also use **Un-check All** and **Check Changed Fields** to quickly clear or select checkboxes.
5. Click **Update**.

The changes you made to the item properties are updated.

All other reference information of the items remains unchanged.

See also

Modify a single purchase order item (page 1151)

Modify multiple purchase order items (page 1151)

Modify the selected purchase order items (page 1152)

Modify the shape, grade, dimensions, or length of multiple purchase order items (page 1153)

Copy a purchase order item

You can copy a purchase order item and use it as the basis of a similar item. By copying items, you can save time and avoid entering the same information multiple times in a purchase order.

1. In the **PO #** dialog box, select the item that you want to copy.
2. At the bottom of the dialog box, click **Copy**.

   A copy of the item appears at the bottom of the purchase order.

3. Adjust the properties of the new item according to your needs.
4. Click **Edit** to save the changes.

Copy material items to another purchase order

Use the **Copy Selected to Another Purchase Order** command to copy a group of material items from one purchase order to another. When material items are copied, the original items still remain in the current purchase order.

1. In the **PO #** dialog box, select the items that you want to copy.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Purchase Order** ribbon tab.
3. On the menu, select **Copy Selected to Another Purchase Order**.
4. In the **Select Purchase Order** dialog box, select the purchase order to which you want to copy the items.

   You can also create a new purchase order and copy the items to the new purchase order. For more information, see Create a purchase order (page 1135).
5. Click **OK**.

The material items are copied to the selected purchase order.

See also

Copy a purchase order item (page 1155)

Receive purchase order items

You should mark all delivered purchase order items as received in the **PO #** dialog box.

You can receive material items with or without attaching heat documents or mill certifications to the items.

Use the **Receive** command to select the items that you want to receive and attach heat documents to the items, or the **Receive Displayed** command to receive all items currently displayed in the **PO #** dialog box without attaching heat documents.

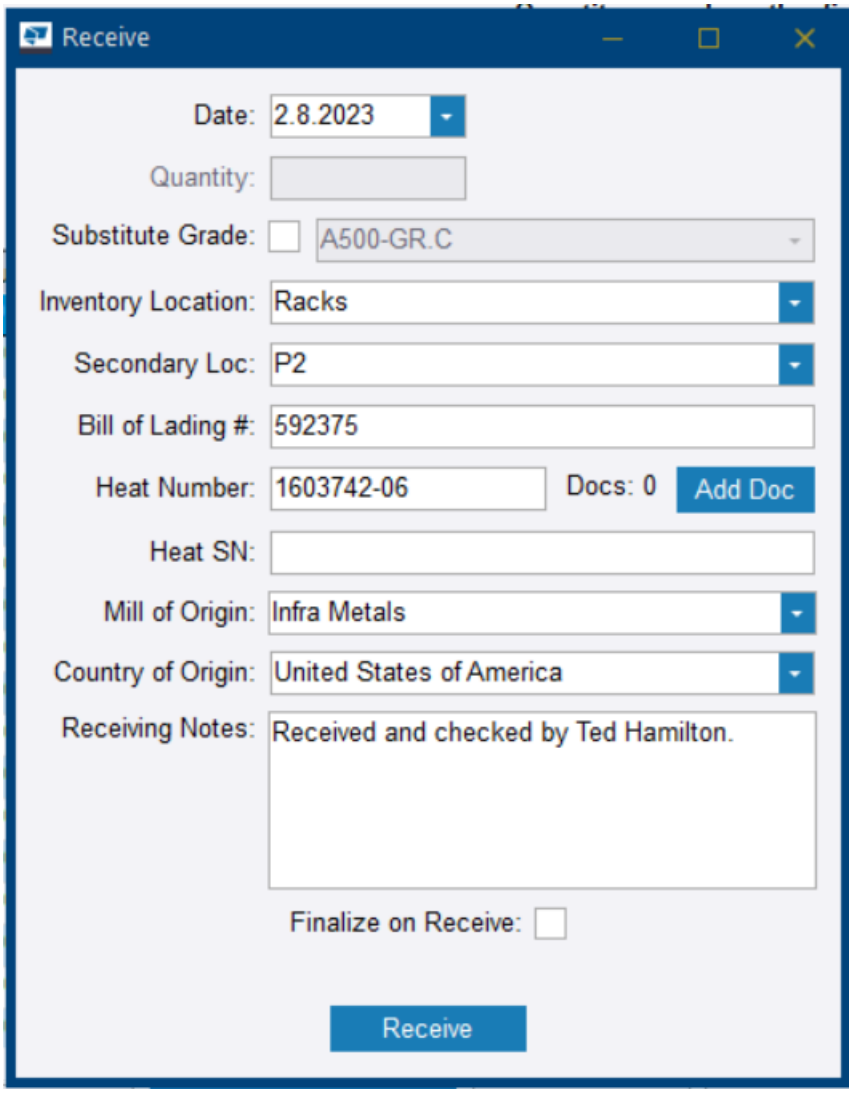
Receive specific items

1. In the upper-left corner of the **PO #** dialog box, ensure that you are in the receive mode.

   If not, click the **Receive Mode** button to activate the receive mode.

2. Select the items that you want to receive.
3. At the bottom of the dialog box, click **Receive**.

   The **Receive** dialog box opens.



NOTE The fields available in the **Receive** dialog box depend on the settings on the **Receiving** tab in **Maintenance** --> **Purchase Orders** --> **Company Standards**.

4. Define the properties of the received items.

Option	Description
Date	The date when the items were received. Tekla PowerFab automatically uses the current date. To change the date, do one of the following: • Type the date in the **Date** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Click the arrow on the right side of the **Date** field and select a date in the calendar.
Quantity	The quantity of the pieces that are received. If multiple items are received at once, the **Quantity** field is unavailable and all pieces of the items are received at once. Type the quantity of the pieces in the **Quantity** field.
Substitute Grade	When selected, you can select a substitute grade for the purchase order item. When cleared, Tekla PowerFab always uses the original grade of the item instead of a substitute grade. If necessary, select the **Substitute Grade** checkbox, and click the arrow on the right side of the related field to select the substitute grade.
Inventory Location	The inventory location of the material items. Click the arrow on the right side of the **Location** field and select a location in the list, or type a new location in the **Location** field.
Secondary Loc	The secondary inventory location of the material items. Click the arrow on the right side of the **Secondary Loc** field and select a location in the list, or type a new secondary location in the **Secondary Loc** field. For example, you can use secondary locations to represent different inventory sites.
Bill of Lading #	The bill of lading number or the shipment number that the material items were received on. Type the number in the **B/L #** field.

Option	Description
Heat Number	The heat number of the material items. Type the heat number in the **Heat #** field. Note that you need to type a heat number for a material item before attaching documents to it in **Document Index**.
Heat SN	Ensures that heat numbers are not duplicated. However, duplications are extremely rare, so using the **Heat SN** field is optional.
Mill of Origin	When selected, you can select mill locations for materials, both when receiving from a purchase order and when adding to or editing inventory. To select a supplier as a mill, you need to define this in the **Address Book**. See Manage the address book (page 199) and Modify company or contact properties (page 204).
Country of Origin	The country of origin of the material items. You can modify the available countries in **Maintenance** --> **Inventory** --> **Countries of Origin**. See Define the countries of origin (page 602).
Receiving Notes	Additional comments to communicate anything relevant related to receiving purchase order items to the rest of the team.
Finalize on Receive	When selected, the received material items are finalized when you receive them. This means that you cannot make further changes to the items. If material items are received but not finalized, the item quantity changes to zero to update the inventory records.

5. To attach heat documents to the items, see *Attach heat documents when receiving items* below.
6. In the **Receive** dialog box, click **Receive**.

The selected items are marked as received.

The inventory record is updated to display the mill of origin in the **Mill of Origin** column on the**Inventory** grid.

Attach heat documents when receiving items

You can attach heat documents to the items in the **Receive** dialog box.

1. On the right side of the **Heat Number** dialog box, click **Add Doc**.
2. Do either of the following:

- In the **Document Index - Add Document Reference** dialog box, click **Add File**.
- Drag and drop the heat document to the **Document Index - Add Document Reference** dialog box.

  If you drag and drop the heat document to the **Document Index - Add Document Reference** dialog box, skip steps 3 and 4.

3. In the **Open** dialog box, browse to find the document that you want to add, and select the document.
4. Click **Open**. If you want to add more documents with the same settings, click **Add Additional File** and browse for and select the additional files. Then click **Open**.
5. In the **Add File** dialog box, select the company and contact that provided you with the document in the **File Source** lists.
6. According to your needs, do one of the following:
   - To compress multiple documents into one archive, select the **Compress Files into a Single Archive** option.
   - To leave the documents you added uncompressed, select the **Leave Files Uncompressed** option.
7. According to your needs, do one of the following:
   - To move the original document to the selected folder, select the **Move File** option.
   - To copy the document to the selected folder but leave the original untouched, select the **Copy File (Leave Original)** option.
8. Type a description for the documents you added.
9. Click **Add File**.
10. Type a description for the entire document reference.

    This description applies to all documents, emails, and email attachments that you add.
11. Click **Add Document Reference**.
12. To close the **Document Index - Add Document Reference** dialog box, click the **Close** button (**X**) in the upper-right corner.

The received items have the selected heat documents attached to them.

Receive all displayed items without attaching heat documents

Note that any applied filters affect which items are displayed in the **PO #** dialog box. For more information, see Filter information in the PO # dialog box (page 1143).

1. In the upper-left corner of the **PO #** dialog box, ensure that you are in the receive mode.

   If not, click the **Receive Mode** button to activate the receive mode.

2. At the bottom of the dialog box, click **Receive Displayed**.
3. In the **Receive** dialog box, define the properties of the received items.

NOTE The fields available in the **Receive** dialog box depend on the settings on the **Receiving** tab in **Maintenance** --> **Purchase Orders** --> **Company Standards**.

Option	Description
Date	The date when the items were received. Tekla PowerFab automatically uses the current date. To change the date, do one of the following: • Type the date in the **Date** field. The acceptable formats are YYYY/MM/DD, YY/MM/DD, MM/DD/YYYY, and MM/DD/YY. • Click the arrow on the right side of the **Date** field and select a date in the calendar.
Quantity	The quantity of the pieces that are received. If multiple items are received at once, the **Quantity** field is unavailable and all pieces of the items are received at once. Type the quantity of the pieces in the **Quantity** field.
Substitute Grade	When selected, you can select a substitute grade for the purchase order item. When cleared, Tekla PowerFab always uses the original grade of the item instead of a substitute grade. If necessary, select the **Substitute Grade** checkbox, and click the arrow on the right side of the related field to select the substitute grade.
Inventory Location	The inventory location of the material items. Click the arrow on the right side of the **Location** field and select a location in the list, or type a new location in the **Location** field.

Option	Description
Secondary Loc	The secondary inventory location of the material items. Click the arrow on the right side of the **Secondary Loc** field and select a location in the list, or type a new secondary location in the **Secondary Loc** field. For example, you can use secondary locations to represent different inventory sites.
Bill of Lading #	The bill of lading number or the shipment number that the material items were received on.
Heat Number	The heat number of the material items. Type the heat number in the **Heat #** field. Note that you need to type a heat number for a material item before attaching documents to it in **Document Index**.
Heat SN	A property that ensures that heat numbers are not duplicated. However, duplications are extremely rare, so using the **Heat SN** field is optional. If necessary, type a value in the **Heat SN** field.
Country of Origin	The country of origin of the material items. You can modify the available countries in **Maintenance** --> **Inventory** --> **Countries of Origin**. See Define the countries of origin (page 602).
Finalize on Receive	When selected, the received material items are finalized when you receive them. This means that you cannot make further changes to the items. If material items are received but not finalized, the item quantity changes to zero to update the inventory records.

4. Click **Receive**.

All items that are currently displayed in the **PO #** dialog box are marked as received.

See also

Load requisition items into a purchase order (page 1118)

View, print, or export purchase orders and purchase order reports (page 1174)

Unreceive purchase order items

You can revert items back to the outstanding state if you have accidentally marked them as received or have entered wrong information for them.

NOTE
- Only items that have been marked as received can be unreceived. You can unreceive only one item at a time.
- To unreceive an item, the item must be unfinalized, and the linked inventory item must match exactly the selected purchase order item.

1. In the main window, click **Purchasing** to open the module.

   The **Select Requisition/Purchase Order** dialog box opens.
2. Select the PO you want to change and double-click to open it.

   The **PO #** dialog box opens.
3. Go to the **Purchase Orders** tab.
4. Click **Switch to Receive Mode** in the top left corner.
5. Select the purchase order item that you want to unreceive.
6. In the **Purchase Order** ribbon tab, select and click **Un-Receive**.
7. In the **Un-Receive** dialog box, type the quantity of items that you want to unreceive.
8. Click **Un-Receive**.

   You return to the **PO #** dialog box.

The **Quantity received** and **Outstanding** values have changed.

See also

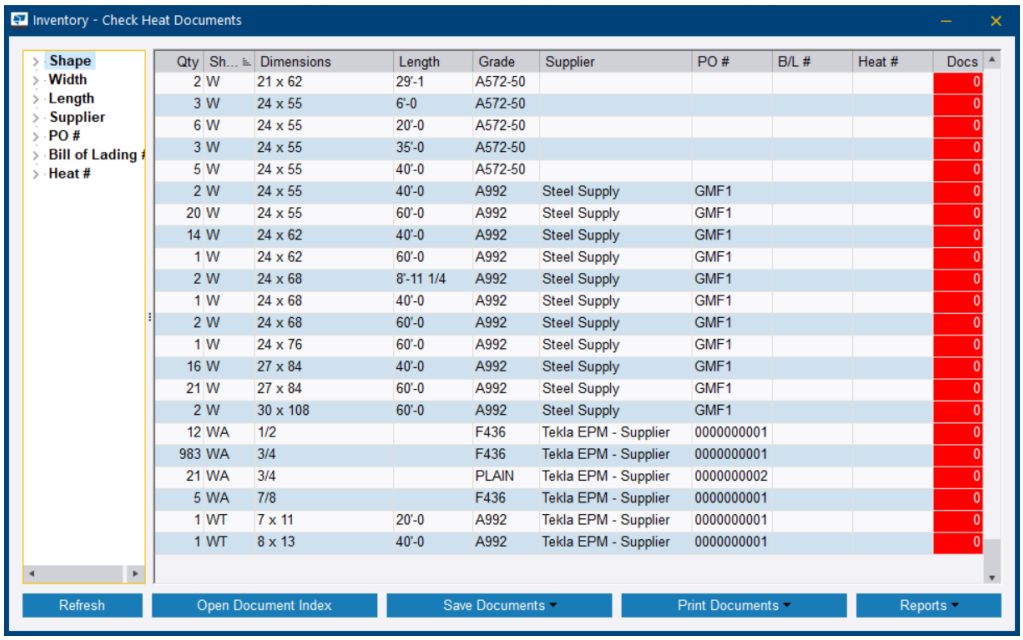
Receive purchase order items (page 1156)

View heat documents attached to purchase order items

Use the **Check Heat Documents** command to view the heat documents attached to the purchase order items. You can also save or print the available heat documents, or create reports on the items that have or do not have heat documents attached to them.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Check Heat Documents**.

The **Check Heat Documents** dialog box opens.



Note that if the purchase order items do not have heat documents attached to them, the **Docs** column is highlighted with red.

3. In the **Check Heat Documents** dialog box, do any of the following:

To	Do this
Update heat document information	• Click **Refresh**. Any new or modified information is updated.
Add, modify, and delete heat documents in **Document Index**	a. Click **Open Document Index**. **Document Index** opens. For more information, see Manage files for inventory (page 608).
Save heat documents	a. Do one of the following: • To only save particular heat documents, click the item whose documents you want to save, and click **Save Documents** --> **Save Documents - Selected**. • To save all available heat documents, click **Save Documents** --> **Save Documents - All**. b. In the **Browse For Folder** dialog box, browse to an empty folder where you want to save the heat document information. c. Click **OK**. A report of the heat documents opens.

To	Do this
Print heat documents	a. Do one of the following: • To only print particular heat documents, click the items whose documents you want to print, and click **Print Documents** --> **Print Documents - Selected**. • To print all available heat documents, click **Print Documents** --> **Print Documents - All**. b. In the **Select Printer** dialog box, click a printer to select it. c. Click **OK**. All or the selected heat documents are printed.
Create reports	a. Do one of the following: • To create a report only containing particular items, click the items to select them, and click **Reports** --> **Reports - Selected**. • To create a report containing all items, click **Reports** --> **Reports - All**. b. In the **Report Selection** dialog box, click the report that you want to create. c. Do one of the following: • To view the report, click **View**. • To print the report, change the number of copies by clicking the **+** and **-** buttons, and click **Print**. • To export the report, click **Export**, modify the export format, file name, and location, and click **Export** again.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

Manage files for a purchase order (page 1145)

Send purchase order items to a requisition

Use the **Send to REQ** command to send purchase order items back to requisitions. Note that only items that have not yet been received can be sent

back to a requisition. The items need to have the correct requisition numbers defined in their **Requisition #** fields, so that Tekla PowerFab knows which requisition it should be returned to.

1. In the **PO #** dialog box, select the material items that you want to send back to a requisition.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.

2. At the bottom of the dialog box, click **Send to REQ**.
3. To confirm returning the items to the requisition, click **Yes** in the confirmation dialog box.

The selected items are returned to the requisition. These items are no longer displayed in the **PO #** dialog box.

See also

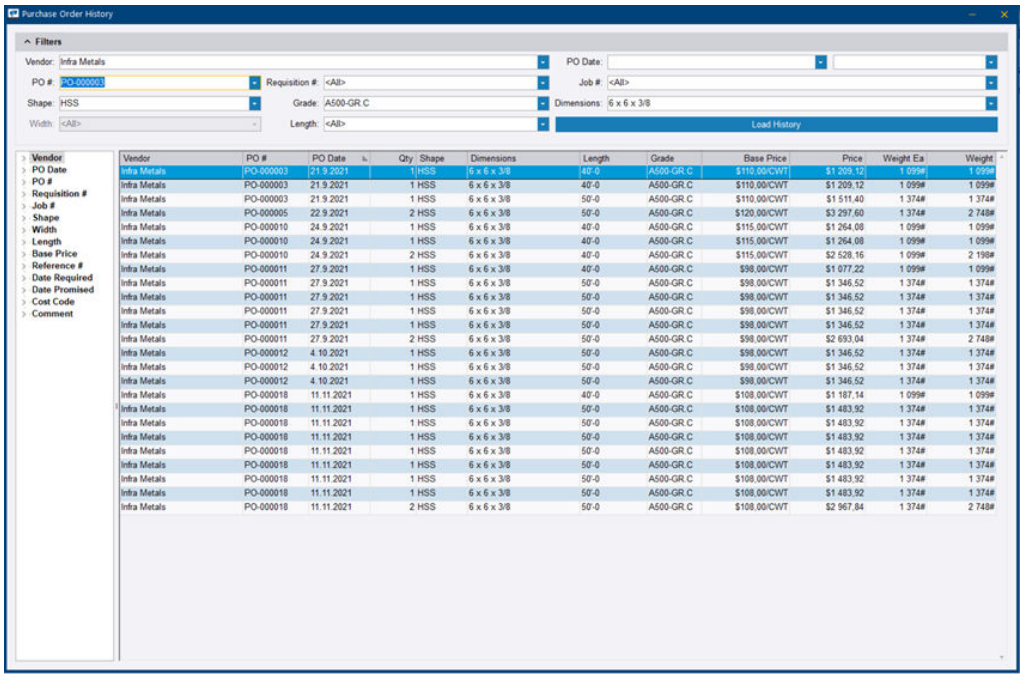
Load requisition items into a purchase order (page 1118)

View the pricing history of a material item

Use the **Purchase History** command to view the pricing history of a material item. You can filter the purchase history by various options, such as the vendor, the requisition number, or the length.

1. In the **PO #** dialog box, select the item whose pricing history you want to view.
2. Click the **Purchase Order** ribbon tab.
3. On the menu, select **Purchase History**.

The **Purchase Order History** dialog box opens.



The top section of the dialog box allows you to filter the pricing history information, whereas the bottom section shows the pricing history of the material item.

4. If necessary, filter the pricing history by clicking arrows on the right side of the different filter lists and selecting filtering options in the lists.
5. To update the pricing history to match the filters you set, click **Load History**.
6. If you want to save the pricing history as a Microsoft Excel worksheet, do the following:
   a. Right-click anywhere in the display area of the **Purchase Order History** dialog box.
   b. In the context menu, select **Export to Excel**.
   c. In the **Save As** dialog box, browse to the folder where you want to save the file.
   d. If necessary, change the file name.
   e. Click **Save**.

   If necessary, you can customize the layout of the **Purchase Order History** dialog box to include only the when exporting the pricing history. For more information, see Customize the layout of a dialog box (page 131).
7. To close the **Purchase Order History** dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

View all changes in a purchase order (page 1170)

Finalize purchase order items

Use the **Finalize Selected Items** and **Finalize Displayed Items** commands to finalize purchase order items, so that no further changes can be made to the items. The **Finalize Selected Items** command finalizes the material items that are currently selected in the **PO #** dialog box. The **Finalize Displayed Items** finalizes the material items that are currently filtered to be shown in the **PO #** dialog box.

If material items are received but not finalized, the item quantity changes to zero to update the inventory records. When the purchase order items are finalized, the link between the purchase order and the inventory is irreversibly broken. Even if the items are later unfinalized, they are no longer linked to the inventory.

Finalize the selected purchase order items

1. In the **PO #** dialog box, select the items that you want to finalize.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. Click the **Purchase Order** ribbon tab.
3. On the menu, select **Finalize Selected Items**.
4. To confirm finalizing the items, click **Yes** in the confirmation dialog box.

The selected items are finalized.

Note that the letter `F` appears in the leftmost column of the **PO #** dialog box to indicate that the items are finalized.

If you need to make changes to finalized material items, you can unfinalize the items. For more information Unfinalize purchase order items (page 1169).

Finalize all displayed purchase order items

To change which items are displayed in the **PO #** dialog box, see Filter information in the PO # dialog box (page 1143).

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Finalize Displayed Items**.
3. To confirm finalizing the items, click **Yes** in the confirmation dialog box.

The displayed items are finalized.

Note that the letter `F` appears in the leftmost column of the **PO #** dialog box to indicate that the items are finalized.

If you need to make changes to finalized material items, you can unfinalize the items. For more information Unfinalize purchase order items (page 1169).

Unfinalize purchase order items

Use the **Un-Finalize** command to cancel finalizing purchase order items, so that you can make any necessary changes to the items.

Note that when purchase order items are finalized, the link between the purchase order and the inventory is irreversibly broken. Even if you unfinalize the items, they are no longer linked to the inventory.

1. In the upper-left corner of the **PO #** dialog box, ensure that you are in the receive mode.

   If not, click the **Receive Mode** button to activate the receive mode.
2. Select the items that you want to unfinalize.
3. On the **File** menu, select **Un-Finalize**.
4. To confirm unfinalizing the items, click **Yes** in the confirmation dialog box.

The selected items are unfinalized.

Note that the letter `F` has disappeared from the leftmost column of each item in the **PO #** dialog box.

You can now make changes to the items according to your needs.

See also

Finalize purchase order items (page 1168)

Delete purchase order items

You can delete unnecessary purchase order items at any point. Note that deleting items from a purchase is permanent and cannot be undone.

You can still see the deleted items in the list of changes and in the transaction history. For more information, see View all changes in a purchase order (page 1170) and View the transaction history of a purchase order (page 1171).

1. In the **PO #** dialog box, select the items that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
2. At the bottom of the dialog box, click **Delete**.

3. To permanently delete the items, click **Yes** in the confirmation dialog box.

The items are deleted from the purchase order.

View all changes in a purchase order

Tekla PowerFab records every change made in the system. This is useful because you can view all changes made in the current purchase order at once. You can filter the information to see changes made by a particular user, or on a particular date. You can also print the list of changes.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **List Of Changes**.
3. In the **List Of Changes Report Filters** dialog box, do any of the following:

To	Do this
Filter changes by user	a. Select the **User** filter type and click **Select**. b. Click the arrow buttons to move the users whose changes you want to view to the **Included** list. c. Click **OK**.
Filter changes by date	a. Select the **Transaction Date** filter type and click **Select**. b. Do one of the following: • Enter the start (**Minimum**) and end (**Maximum**) dates. • Select the **Expression** checkbox for the start or end date. Then, select the base date and select how many more or less days will be taken into account. c. Click **OK**.

4. Click **Make Report**.
5. In the **Report Selection** dialog box, do one of the following:

To	Do this
View the list of changes	• Click **View**.

To	Do this
	The report opens in **Tekla PowerFab Report Viewer**. You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.
Print the list of changes	a. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the list of changes	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

See also

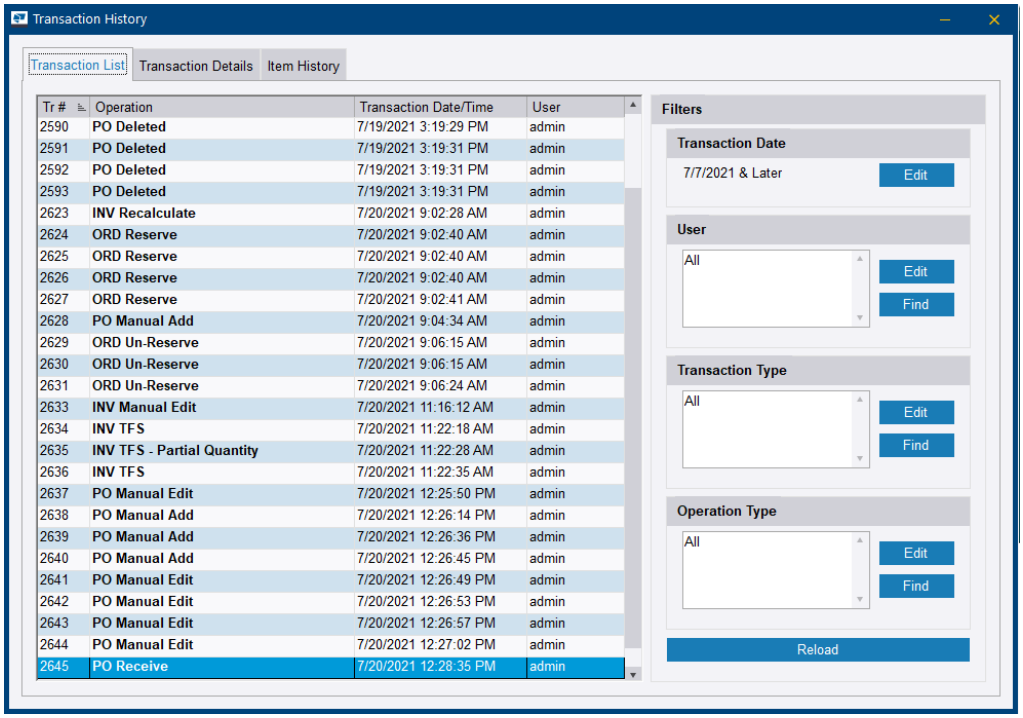
View the pricing history of a material item (page 1166)

View the transaction history of a purchase order

Use the **Transaction History** dialog box to view all transactions in a purchase order. You can also view further transaction details and item history, and view or print different transaction history reports.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Transaction History**.

   The **Transaction History** dialog box opens on the **Transaction List** tab.



3. To filter the displayed transactions, use the fields in the **Estimating Filters** section of the dialog box:

   a. Click **Edit** next to a filtering option.

      The available filtering criteria are the transaction date, the name of the user that made the transaction, the transaction type, and the operation type.

   b. Do one of the following:

      - For transaction date, enter the start and end dates to define a range within which the transactions have taken place.
      - For user, transaction type, and operation type, use the arrow buttons to move the desired items to the **Included** list.

   c. Click **OK**.

      To view all transactions again, click **Reload**.

4. To view more information about a transaction, do the following:

a. Click to select the transaction on the **Transaction List** tab.

b. Click the **Transaction Details** tab to view the details of the selected transaction.

c. Click the **Item History** tab to view the item history of the selected transaction.

Find a transaction by transaction number

1. On the **Transaction List** tab, click **Find Transaction #**.
2. Enter the transaction number in the field.
3. Click **OK**.

The transaction with the selected transaction number is selected on the **Transaction List** tab.

Create transaction history reports

1. Click the **Transaction History** ribbon tab.
2. On the menu, select **Reports**.
3. To only include specific items in the transaction history report, select a filter type in the **Type** list, and click **Select**.
4. Do one of the following:
   - For dates, select the start and end dates in the calendar to define a range within which the transactions have taken place.

     You can also select the **Expression** checkbox to create expressions that allow you to set the base date and the number of days before or after that date.
   - For other filter types, use the arrow buttons to move the desired items to the **Included** list.
5. Click **OK**.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, select the report that you want to view or print.
8. Do any of the following:

To	Do this
View the report	• In the **Report Selection** dialog box, click **View**.
Print the report	a. In the **Report Selection** dialog box, change the number of the

To	Do this
	printed copies by clicking the **+** and **-** buttons. b. If necessary, click **Select Printer**, select which device you want to use for printing, and click **OK**. You can also select **Default Printer** to always use the default printer with this report, or **No Printer** to reset the current printer. c. Click **Print**. d. Click **Yes**.
Export the report	a. Click **Export**. b. In the **Export Format** list, select an export format. c. Click **Browse**. d. Browse to the location where you want to save the exported file, and click **Save**. e. Modify the file name as needed. f. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox. g. To open the file after exporting it, select the **Open Exported Document** checkbox. h. Click **Export**.

View, print, or export purchase orders and purchase order reports

You can view, print, or the export purchase order, or to create reports based on the current purchase order by using the **Reports** command. For example, you can create a list of the items on the purchase order or a material receiving checklist. You can then view or print the reports, or export the reports to save them in another file format.

To create purchase order reports, do the following:

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.

2. On the menu, select **Reports**.
3. In the **Report Selection** dialog box, select the report that you want to view, print, or export.

   To customize the reports that are displayed in the **Report Selection** dialog box, click the **Edit Report Types**.
4. If you want to include the company logo and vendor code in the report, select the **Show Company Logo** and **Show Vendor Code** checkboxes.

   When the checkboxes are cleared, the information is not included in the report.

According to your needs, see any of the following instructions:

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the selected report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.

7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

View, print, or export job-specific receiving reports

You can create receiving reports that contain information from the current purchase order by using the **Receiving Reports** command. You can then view or print the reports, or export the reports and save them in another file format. For example, you can create a purchase order summary, a barcode checklist, or a receiving list.

To create receiving reports, do the following:

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Receiving Reports**.
3. To only include particular purchase orders in the reports, in the **Purchase Order Report Filters** dialog box, select a filter type in the **Type** list, and click **Select**.
4. In the **Filter** dialog box, do one of the following depending on the filter type:
   - Click the arrow buttons to move the purchase order properties that you want to include in the report to the **Included** list.
   - Type the maximum and minimum values for the purchase orders that you want to include in the report.
5. Click **OK**.

   To further limit which properties the purchase orders in the reports should match, repeat steps 3 to 5 for all necessary filter types.
6. Click **Make Report**.
7. In the **Report Selection** dialog box, select the report that you want to view, print, or export.
8. If you want to include the company logo and vendor code in the report, select the **Show Company Logo** and **Show Vendor Code** checkboxes.

   When the checkboxes are cleared, the information is not included in the report.

According to your needs, see any of the following instructions:

View the report

- In the **Report Selection** dialog box, click **View**.

The report opens in **Tekla PowerFab Report Viewer**.

You can use the **Email Excel** and **Email PDF** buttons at the top of the **Tekla PowerFab Report Viewer** window to email the report via Microsoft Outlook.

Print the report

1. In the **Report Selection** dialog box, change the number of the printed copies by clicking the **+** and **-** buttons.
2. Click **Print**.
3. To confirm printing the selected report, click **Yes** in the confirmation dialog box.
4. In the **Select Printer** dialog box, click a printer to select it.
5. Click **OK**.

Export the report

1. In the **Report Selection** dialog box, click **Export**.
2. In the **Export Format** list, select an export format.
3. Click **Browse**.
4. Modify the file name as needed.
5. Browse to the location where you want to save the exported file, and click **Save**.
6. To attach the exported file to a Microsoft Outlook email and send it to a recipient, select the **Attach to Email** checkbox.
7. To open the file after exporting it, select the **Open Exported Document** checkbox.
8. In the **Report Selection** dialog box, click **Export**.

Export purchase orders

You can export the items on your purchase orders to Trimble Viewpoint, Timberline, or Sage 300 CRE accounting solutions. This way, you can avoid entering PO information in multiple software

Export the selected purchase orders to Trimble Viewpoint

You can export purchase orders to both Trimble Viewpoint Vista and Trimble Viewpoint Spectrum.

Before you export the purchase order, ensure that:

- The company code of the vendor in the Tekla PowerFab **Address Book** matches the vendor in Trimble Viewpoint
- The job number of the Tekla PowerFab purchase order matches the job number in Trimble Viewpoint
- The **Cost Code** field in Tekla PowerFab purchase orders is mapped to the phase in Trimble Viewpoint purchase orders.

1. Do any of the following:
   a. At the top of the Tekla PowerFab window, click the **Purchasing** button.
   b. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**. Then, click **Export** on the **Purchase Orders** tab.
2. In the **Select Requisition/Purchase Order** dialog box, select the purchase orders that you want to export.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Purchasing** ribbon tab.
4. On the menu, select **Export Purchase Orders** --> **Trimble Viewpoint - Selected**.
5. Click **Yes** to confirm exporting the selected purchase orders.
6. If you have selected the **Prompt on export** checkboxes for any properties in the **Trimble Viewpoint Integration** dialog box, ensure that the values are correct, and click **OK**.
7. In the **Save As** dialog box, browse to the folder where you want to save the exported purchase orders.

   By default, Tekla PowerFab saves the purchase orders in the `Export` folder.
8. If necessary, change the file name.
9. Click **Save**.

The exported purchase orders are saved as a `.txt` file in the folder that you selected.

You can then import the `.txt` file to any Trimble Viewpoint solution according to your needs.

Export purchase orders with receiving transactions to Viewpoint

You can export purchase orders to both Trimble Viewpoint Vista and Trimble Viewpoint Spectrum.

Before you export the purchase order, ensure that:

- The company code of the vendor in the Tekla PowerFab **Address Book** matches the vendor in Trimble Viewpoint
- The job number of the Tekla PowerFab purchase order matches the job number in Trimble Viewpoint
- The **Cost Code** field in Tekla PowerFab purchase orders is mapped to the phase in Trimble Viewpoint purchase orders.

1. Do any of the following:
   a. At the top of the Tekla PowerFab window, click the **Purchasing** button.
   b. On the **Maintenance** menu, select **Integrations** --> **Trimble Viewpoint**. Then, click **Export** on the **Receiving** tab.
2. In the **Select Requisition/Purchase Order** dialog box, select the purchase orders that you want to export.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Purchasing** ribbon tab.
4. On the menu, select **Export Purchase Orders** --> **Trimble Viewpoint - Receiving**.
5. In the **Save As** dialog box, browse to the folder where you want to save the exported purchase orders.

   By default, Tekla PowerFab saves the purchase orders in the **Export** folder.
6. If necessary, change the file name.
7. Click **Save**.

The exported purchase orders are saved as a `.csv` file in the folder that you selected.

NOTE To avoid errors, do not open an exported `.csv` file with Microsoft Excel. If you do so, the formatting of information changes, and the `.csv` file will fail to import to Trimble Viewpoint products.

Export purchase orders to Timberline or Sage 300 CRE

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. If you only want to export particular purchase orders, select them in the **Select Requisition/Purchase Order** dialog box.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
3. Click the **Purchasing** ribbon tab.

4. On the menu, select **Export Purchase Orders** --> **Timberline / Sage 300 CRE** .
5. In the **Export Purchase Orders to Timberline** dialog box, define how you want to import the items:

Option	Description
Export Received Items Only	When selected, only items that have been received in the inventory are exported. When cleared, all items are exported. You can define the range of dates between which the exported items have been received. To do so, enter the dates in the **Date Received Minimum** and **Maximum** fields.
Export Selected Purchase Orders Only	When selected, only items in the purchase orders that are selected in the **Select Requisition/ Purchase Order** dialog box are exported. When cleared, items in all purchase orders are exported.
Date Received Minimum	The earliest receiving date of the items that are exported. Note that this option is only available if the **Export Received Items Only** checkbox is selected.
Maximum	The latest receiving date of the items that are exported. Note that this option is only available if the **Export Received Items Only** checkbox is selected.
Re-Export	When selected, any purchase orders that have been previously exported are ignored in the export. This ensures that the same purchase orders are not exported multiple times.
Date Format	Allows you to select the date forma of the exported file.
Job # Export Option	Defines how the job number is shown in the exported file. You can select to: • Leave the job number unchanged and use the original job number. • Replace any digits after the first 4 digits with zeros. • Use both the job number and the existing sequence numbers.
Replace Job # if Cost Code Matches	When selected, the job number is replaced by a piece of text that you define, if the job number

Option	Description
	matches the cost code defined in the **Cost Code** list. When cleared, the job number is never replaced by any text when the job is exported.
Cost Code	The cost code that the job number needs to match to be replaced. The replacement text is defined in the **Job # Replacement** field.
Job # Replacement	The text with which you to replace the job number.
Sort Lines	Allows you to select how items are sorted in the exported file. The options are: • **Item Details**: the items are sorted by their properties. This is the default option. • **Item # Only**: the items are sorted by item number.
Split Lines based on	Allows you to select how items are split on different lines in the exported file. The options are: • **Item Details Only**: Items with similar properties are considered the same item, and therefore, the items are placed on the same line. • **Item Details and Comments**: Items that have different information in the **Comment** field are considered different items, and therefore, the items are split on different lines.
Include Grade in Description	When selected, the material grade is included in the material description.
Export Filename	The location where the exported file is saved and the name of the exported file. To modify the export location and the file name: a. Click the **...** button on the right side of the **Export Filename** field. b. In the **Open** dialog box, browse to the folder where you want to save the file. c. If necessary, change the file name. d. Click **Open**.

6. Click **Export Purchase Orders**.

The exported text file is saved in the folder that you selected.

Export CNC files and drawings

When you send requisitions or purchase orders to a supplier, you can export CNC files and associated drawings as part of the package. This is especially useful for cut-to-size orders that are fully processed by the suppliers. For example, many fabricators fully subcontract the processing of their detailed material, such as connection plates and angles. Providing the CNC files and associated drawings with the purchase order eliminates a manual step for these fabricators.

1. In an open requisition or purchase order, select the items whose attached CNC files you want to export, or use the navigation tree to filter the items, so that only the items whose attached CNC files you want to export are shown.
2. Depending on where you are, do any of the following:
   - In an open purchase order, click the **Purchase Order** ribbon tab.
   - In an open requisition, click the **Requisition** ribbon tab.
3. On the menu, do one of the following:

To	Do this
Export CNC files attached to selected items	• Select **Export Files** --> **Export CNC Files - Selected**.
Export CNC files attached to items currently shown in the display area	• Select **Export Files** --> **Export CNC Files - Displayed**.
Export drawings attached to selected items	• Select **Export Files** --> **Export Drawings - Selected**.
Export drawings attached to items currently shown in the display area	• Select **Export Files** --> **Export Drawings - Displayed**.
Export CNC files and drawings attached to selected items	• Select **Export Files** --> **Export CNC and Drawings - Selected**.
Export CNC files and drawings attached to items currently shown in the display area	• Select **Export Files** --> **Export CNC and Drawings - Displayed**.

4. Save the file on your computer.

   The default export folder is set in the **Default Directories** dialog box.

Approve a purchase order

Approving a purchase order allows you to lock the purchase order, so that no further changes can be made. If necessary, the order can still be unlocked to allow making changes again.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the menu, select **Approve Purchase Order**.

3. To confirm approving and locking the purchase order, click **Yes** in the confirmation dialog box.

The text at the top of the **PO #** dialog box now shows that the purchase order has been approved and locked, and the name of the user who approved and locked the purchase order.

Note that purchase orders are also locked if you export them.

See alsoSee also

Unlock a purchase order (page 1183)

Finalize purchase order items (page 1168)

Unfinalize purchase order items (page 1169)

Unlock a purchase order

Use the **Revoke Purchase Order Approval** command to unlock the purchase order to allow making changes to the purchase order.

1. In the **PO #** dialog box, click the **Purchase Order** ribbon tab.
2. On the **File** menu, select **Revoke Purchase Order Approval**.
3. To confirm revoking the purchase order approval, click **Yes** in the first confirmation dialog box.
4. To unlock the purchase order, click **Yes** in the second confirmation dialog box.

The purchase order is now unlocked. Users with access to the purchase order can make any necessary changes to the purchase order.

See also

Approve a purchase order (page 1182)

Finalize purchase order items (page 1168)

Unfinalize purchase order items (page 1169)

Delete purchase orders

You can delete old and unnecessary purchase orders at any time. What happens to the material items within the purchase order depends on their receiving status.

Before deleting a purchase order, note that:

- Any material items in the purchase order that have not been received are deleted when the purchase order is deleted.
- Any received material items in the purchase order remain in the inventory, but are no longer linked to the deleted purchase order. These items behave

like finalized items. For more information, see Finalize purchase order items (page 1168).

You can still see the deleted items , even though the purchase order is deleted.

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Purchase Orders** tab.
3. Select the purchase orders that you want to delete.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
4. Click **Delete**.
5. To permanently delete the purchase orders, click **Yes** in the confirmation dialog box.

The selected purchase orders are deleted.

11.4 Create and manage splice packages

You can create splice packages on the **Requisitions** part of the **Purchasing** module. Splicing can be very useful if you need to build longer beams and columns out of shorter purchasable lengths. Splicing enables you to take existing materials from the inventory and combine them with purchasable items to make a running length that suits your needs. The same applies to companies doing miscellaneous projects where you might choose to prefabricate longer sections of, for example, hand railing to minimize field welding.

Splice packages can be a great option also when the detailer implies a splice but does not specify it in the drawing.

When you create splice packages, any available length will be considered as available to be combined into by parts from the same job, just as an expected drop of an inventory item. For example, if you have a splice package that has 10 meters of unused length and you perform a combining run from the same job as the other parts in that splice package, all parts with that same shape, grade, or dimension can be nested into that available 10 meters.

For more information, see the following links:

Check if splicing is needed (page 1185)

Create a splice package (page 1185)

View and modify splice packages (page 1189)

Heat certificate traceability (page 1192)

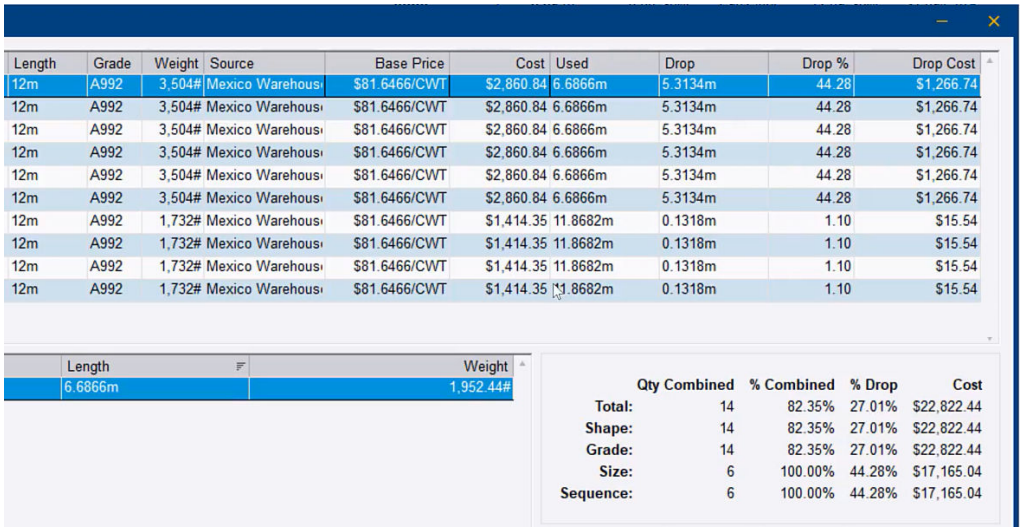
Set the kerf (page 1192)

Check if splicing is needed

Use the **Combine** command to check if splicing is needed for a particular requisition.

1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Requisitions** tab.
3. Select the requisition for which you want to create the splice package.
4. Click **Open**.
5. In the **Requisition** dialog box, create a combining run (page 1127).
6. Open the combining run.

   The **Combining Run Results** dialog box opens. There are drops that are going to be costly and therefore, splicing is recommended.



Length	Grade	Weight	Source	Base Price	Cost	Used	Drop	Drop %	Drop Cost
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	3,504#	Mexico Warehous	$81.6466/CWT	$2,860.84	6.6866m	5.3134m	44.28	$1,266.74
12m	A992	1,732#	Mexico Warehous	$81.6466/CWT	$1,414.35	11.8682m	0.1318m	1.10	$15.54
12m	A992	1,732#	Mexico Warehous	$81.6466/CWT	$1,414.35	11.8682m	0.1318m	1.10	$15.54
12m	A992	1,732#	Mexico Warehous	$81.6466/CWT	$1,414.35	11.8682m	0.1318m	1.10	$15.54
12m	A992	1,732#	Mexico Warehous	$81.6466/CWT	$1,414.35	11.8682m	0.1318m	1.10	$15.54

Length	Weight
6.6866m	1,952.44#

	Qty Combined	% Combined	% Drop	Cost
Total:	14	82.35%	27.01%	$22,822.44
Shape:	14	82.35%	27.01%	$22,822.44
Grade:	14	82.35%	27.01%	$22,822.44
Size:	6	100.00%	44.28%	$17,165.04
Sequence:	6	100.00%	44.28%	$17,165.04

See also

Create and manage splice packages (page 1184)

Create a splice package (page 1185)

View and modify splice packages (page 1189)

Heat certificate traceability (page 1192)

Set the kerf (page 1192)

Create a splice package

You can create splice packages either in the inventory or in requisitions.

To create splice packages in the inventory, see View and modify splice packages (page 1189).

To create splice packages in requisitions, do the following:

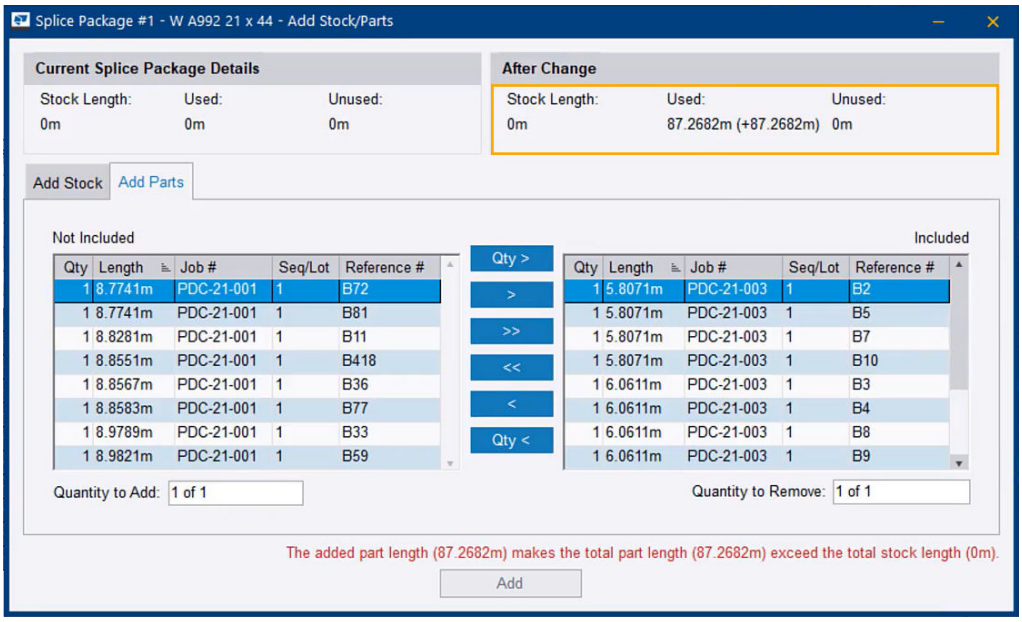
1. At the top of the Tekla PowerFab window, click the **Purchasing** button.
2. In the **Select Requisition/Purchase Order** dialog box, ensure that you are on the **Requisitions** tab.
3. Select a requisition and click **Open**.
4. In the **Requisition** dialog box, select the parts that you want to add to the splice package.

   You can only select parts that are currently not included in any other splice package.

   To select multiple items, hold down **Ctrl**.

   To select a range of subsequent items, hold down **Shift**.
5. Right-click and select **Create new Splice Package from Selected**.

   The **Splice Package - Add Stock/Parts** dialog box opens showing a pre-populated list of parts that you selected in the previous step. At the top of the dialog box, you can see the total length that you need to compensate for.



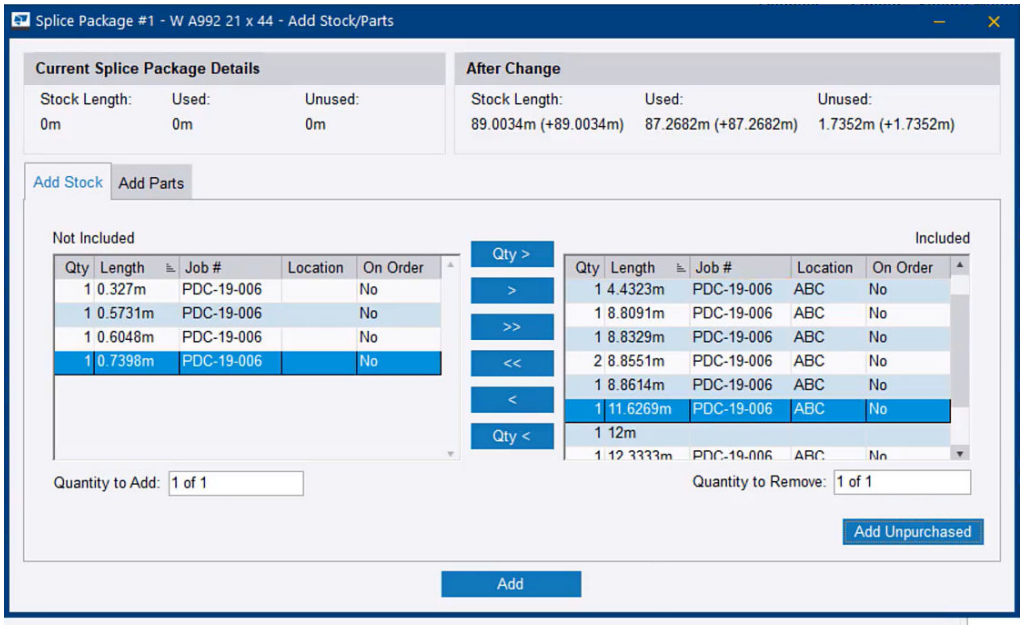
6. Add the required inventory pieces.
   a. Go to the **Add Stock** tab to see the existing inventory pieces that you have to add.

      There may also be some drops available from your previous jobs.
   b. To add a drop from another job, move it to the **Included** list.

c. If the available inventory cannot satisfy the required length, click **Add Unpurchased**.

d. In the **Add Unpurchased Stock Length** dialog box, enter the lengths that you need to purchase and then click **Add**.

e. When you have added all the lengths that you need, click the **Add** button at the bottom of the **Splice Package - Add Stock/Parts** dialog box.



7. When Tekla PowerFab asks what you want to do with the unpurchased stock, click **Purchase Order**.

8. In the **Select Purchase Order** dialog box, select a purchase order and click **OK**.

   Alternatively, you can click **Add** to create a new purchase order. After opening the purchase order, the **Splice Package** dialog box opens. At the top of the dialog box, you can check the details of the finalized splice package, including the shape, grade, dimension, and total length. You can also see what percentage of the splice package you are currently utilizing.

9. In the **PO #** dialog box, mark the purchase order items as received.

   See Receive purchase order items (page 1156)

10. In the **Splice Package** dialog box, select an inventory item and click **TFS**.

    The **Splice Package - TFS** dialog box opens. Here you can see the stock lengths that you are using, the parts to be cut, and the drops. If you have additional drops available, you can set a location to define where you want the drop to go.

    a. On the **Stock to TFS** tab, move the stock records that are to be utilized to the **Included** list.

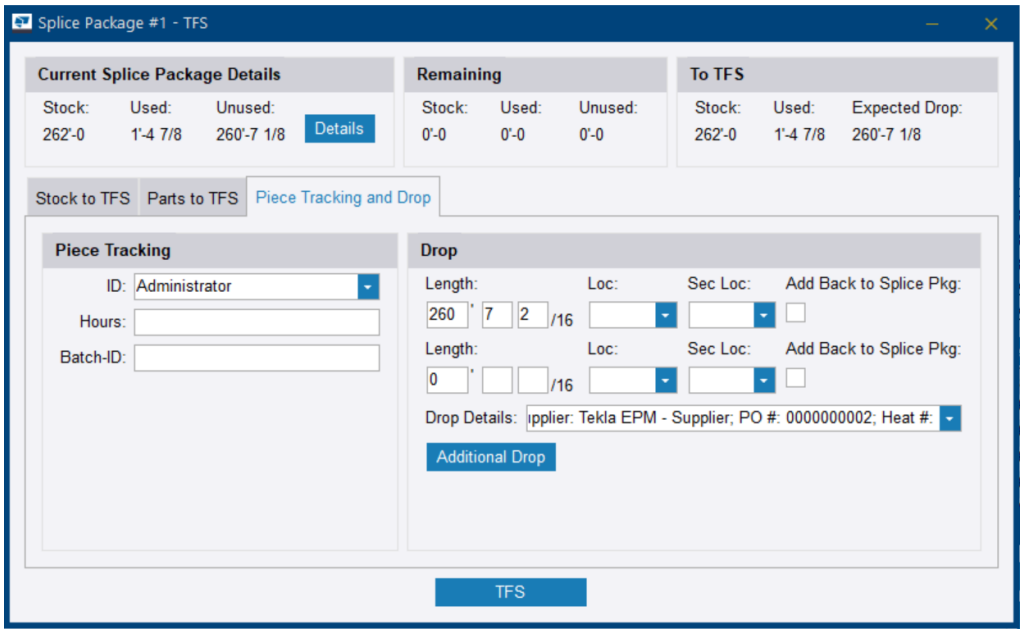
b. On the **Parts to TFS** tab, move the parts that are to be cut from that stock to the **Included** list.

c. On the **Drop** tab, enter the drop location.

   The drop length will populate with the amount calculated from the total included stock and part length. If some stock or parts are not included, they will remain in this splice package to be processed at another time.

d. If you want the drop to remain reserved for this splice package, go to the **Drop** tab and select the **Add Back to Splice Pkg** checkbox.

11. If multiple stock records are used with different heat cert details, go to the **Drop** tab and define the supplier, purchase order number, and heat number to assign to the drop in the **Drop Details** list.



Now you can add the splice package to a cut list in the **Production Control** module, just like any other inventory nesting. On the cut list screen, the splice package will appear with the total stock length. When a splice package is selected, the **Cut** button opens the **Splice Package - TFS** dialog box, instead of the regular cut list processing dialog box.

See also

Create and manage splice packages (page 1184)

Check if splicing is needed (page 1185)

View and modify splice packages (page 1189)

Heat certificate traceability (page 1192)

Set the kerf (page 1192)

View and modify splice packages

To view and manage existing splice packages, click the **Maintenance**ribbon tab and select **Inventory > Splice Packages**.

Do any of the following:

To	Do this
Add a new splice package	1. Click **Add**. 2. Enter the required details and click **Add**.
Add items to a splice package	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Click **Add**. 4. Go to the **Add Stock** tab to see a list of existing inventory pieces that you have. There may also be some drops available from your previous jobs. 5. To add a drop from another job, select the drop from the **Not Included** list and click the arrow buttons to move it to the **Included** list. 6. If the available inventory cannot satisfy the required length, click **Add Unpurchased**. 7. Enter the lengths that you still need to purchase and then click **Add**. 8. When you have added all the lengths that you need, click the **Add** button at the bottom of the **Splice Package - Add Stock/ Parts** dialog box.
Remove items from a splice package	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Select the item that you want to remove from the splice package.

To	Do this
	4. Click **Remove**. 5. Enter the quantity that you want to remove. 6. Click **OK**.
Replace an item with a substitute of the same length	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Select the item that you want to replace. 4. Click **Swap Inventory**. 5. Select the item that you want to use. 6. Click **Swap**.
Send unpurchased lengths immediately into a requisition or purchase order	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Select the item that you want to send. 4. Click **Send** and select one of the following: • **To Requisition** • **To Purchase order** 5. Select the requisition or purchase order, and then click **OK**. 6. Enter the quantity that you want to send and then click **OK**.
Add parts to the nesting	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Click **Add Parts**. 4. Add the required inventory pieces. 5. Click the **Add** button at the bottom of the dialog box. OR 1. Go to the **Requisition #** dialog box.

To	Do this
	2. Select the parts that you want to add. 3. Right-click and select **Add Selected to Splice Package**.
Remove parts from the nesting	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Select the parts that you want to remove from the nesting. 4. Click **Remove Parts**. 5. Click **Yes** to confirm.
Merge splice packages	1. Select the splice packages that you want to merge. 2. Click **Merge**. 3. Click **Yes** to confirm.
Merge inventory items	1. Select the splice package that you want to modify. 2. Click **Details**. 3. Select the inventory items that you want to merge. 4. Click **Join to Result Length.** The inventory items are merged into one long item.
Split a package in two	1. Select the stock and parts to be split and move them to the **Included** list. 2. Click **Split**.
Delete a splice package	1. Select the splice package that you want to remove. 2. Click **Delete**.

See also

Create and manage splice packages (page 1184)

Check if splicing is needed (page 1185)

Create a splice package (page 1185)

Heat certificate traceability (page 1192)

Set the kerf (page 1192)

Heat certificate traceability

When parts are taken from stock from a splice package, and the stock used has different **Supplier**, **PO#**, and **Heat#** values, the parts are considered as having come from all of them. The records added to the inventory history will have a comma-separated list of values in those fields for reporting purposes. The price is set to the average cost of the stock.

When getting the heat certificates for parts from the **TFS Details** dialog box in **Production Control**, parts are duplicated in the list with each of the **Supplier**, **PO#**, and **Heat#** values used in the splice package. These rows are highlighted in yellow.

When selected, a **Joined from inventory transaction #** button is available in the bottom right corner. Click this button to open the **Inventory Transaction History** dialog box selected on that transaction number. This is the transaction that joined the stock lengths together into the long length, either with the **Join to Result Length** command or as part of the TFS operation.

See also

Create and manage splice packages (page 1184)

Check if splicing is needed (page 1185)

Create a splice package (page 1185)

View and modify splice packages (page 1189)

Set the kerf (page 1192)

Set the kerf

When you create splice packages, the kerf is set to the default for that dimension.

To change the kerf setting, do as follows:

1. Click the **Maintenance** ribbon tab and select **Inventory > Splice Packages**.
2. Select the splice package that you want to modify.
3. Click **Details**.
4. Click the **Splice Package Details** ribbon tab.
5. On the menu, select **Set Kerf**.
6. In the **Set Kerf** dialog box, edit the kerf.
7. To confirm the change, click **OK**.

See also

Create and manage splice packages (page 1184)
Check if splicing is needed (page 1185)
Create a splice package (page 1185)
View and modify splice packages (page 1189)
Heat certificate traceability (page 1192)

12 Order Entry

Use the **Order Entry** module to directly sell material from your inventory. In **Order Entry**, you can create and manage customer orders, quotes, invoices, payments, credits, deliveries, and returns.

NOTE Before you start working in the **Order Entry** module, remember to set up the module (page 1195).

The basic workflow in the **Order Entry** module is as follows:

1. Do one of the following:
   - Create a quote or a quick quote for the customer, and once it gets accepted, convert it into an order.
   - Create an order.
2. Add details for the order.
3. Combine and allocate the material items in the order.
4. If necessary, add charges or order-specific credit for the customer.
5. Add invoices and deliveries.
6. If necessary, add returns.

See also

Set up the Order Entry module (page 1195)

Open the Order Entry module (page 1213)

Filter the order entry information (page 1215)

Create a quote or an order (page 1217)

Modify a quote or an order (page 1227)

Convert a quote into an order (page 1228)

Convert an order back into a quote (page 1228)

Delete a quote (page 1229)

Add an invoice (page 1229)

Add a payment (page 1231)
Add a credit (page 1231)
Add a delivery (page 1232)
Add a return (page 1233)
Create order or quote reports (page 1233)

12.1 Set up the Order Entry module

In **Order Entry Maintenance**, you can create and modify the settings used when working in the **Order Entry** module. For example, you can modify the company standard settings, invoice categories, shipping methods, and payment terms.

Remember to also set up the necessary tax rates and tax groups before you start working in the **Order Entry** module.

Define company standard settings for Order Entry

For each module, you can define company-level settings that are the default for all new jobs.

To access the **Company Standards** dialog box, do the following:

1. Click the **Maintenance** ribbon tab..
2. On the menu, select **Order Entry** --> **Company Standards** .
3. Modify the settings on the various tabs as needed.
4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

   You can find further company standard settings by clicking the buttons.

Define general order entry settings

1. On the **General** tab, modify the following properties:

Option	Description
New Customer - Default Tax Group	The default tax group applied for new order entry taxable items. The tax group can be changed job by job.

Option	Description
Restrict to Inventory Location	When selected, Tekla PowerFab limits the available stock material selection to a specific inventory location. Select the desired inventory location in the list on the right side of the field. Inventory locations can be set and reset in the **Inventory** module.
Allow Delivery of Un-Invoiced Material	When selected, Tekla PowerFab allows delivering materials before invoicing. **Note**: You need to select the **Allow Delivery of Un-Invoiced Material** option to view and use delivery tickets before invoicing.
Allow Invoicing of Material Not Delivered	When selected, Tekla PowerFab allows creating invoices for materials before they are delivered.
Keep Order Selection Screen Open	When selected, the order selection dialog box stays open after a job has been selected.
Automatically Create Document Index Directories	When selected, the **Document Index** directories defined in **Maintenance** --> **Document Index** --> **Standard Categories** are created automatically under the base document index directory when a job is created. See Set the standard categories for attached documents (page 184).
Selection Screen - Default number of days to view	The number of days for which orders remain in the **Order Selection** dialog box. This setting allows you to filter out older orders. To always display all orders, type 0.
Order # Increment	The default option for automatic order numbering. New orders are numbered according to the selected option. However, you can modify the order number according to your needs each time you create a new order.
Item Increment	Sets the autoincrement for item numbers. The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job. For example, if items should be numbered as 10, 20, 30, ..., set the input increment to 10. If the autoincrement of item numbers is not necessary, type 1.
Quote # Regular Expression and	Optional expressions used for pattern matching. For more details on regular expressions, click **Regular Expression Help.**

Option	Description
Order # Regular Expression	
New Material - Default Price	The default material cost applied to new quotes and orders. The options are: • **No Default**: no default price is set. • **Replacement Cost**: the price defined in **Pricing Maintenance** is used. • **Inventory Average**: the inventory average price is used. • **Inventory High**: the highest inventory price is used.
Order - Automatically Allocate Inventory	When selected, Tekla PowerFab automatically uses material items in the inventory for quotes and orders.

2. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define price level settings

1. Open the **Price Levels** tab.
2. In the **Number of Price Levels** field, type the number of levels of pricing that you want to use.
3. In the **Default Price Group** list, select the price group to be used by default for new orders.
4. In the **Default Price Level** list, select the price level to be used by default for new orders.

   For more information on defining the pricing groups and pricing levels used in **Order Entry**, see Manage price groups (page 1207).
5. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Set credit limit settings

1. Open the **Credit Limit** tab.
2. In the **New Customer - Default Credit Limit** field, type the default credit limit for new customers. If you do not want to set a credit limit, type 0.
3. Select how Tekla PowerFab reacts when a customer has exceeded their credit limit.

The options are:

- **Allow without warning**: Tekla PowerFab allows creating new orders without warning
- **Allow with warning**: Tekla PowerFab allows creating new orders, but a pop-up warning is displayed
- **Allow with credit limit override**: Tekla PowerFab allows new orders when you override the customer's credit limit
- **Don't allow**: Tekla PowerFab does not allow any new orders for customers that have exceeded their credit limit

4. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define backdating settings

If you want to mark payments and other order entry activities as created on a previous date, you can allow back-dating for the activities.

1. Open the **Back-Dating** tab.
2. Click to select the checkboxes for each option for which you want to allow back-dating order activity.

   If you do not want to allow backdating, do not select any checkboxes.

3. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define QuickBooks sale tax codes

If you have connected the QuickBooks accounting software with Tekla PowerFab, you can define the sales tax codes that are used when exporting invoices from Tekla PowerFab to QuickBooks.

Note that you need to have exactly the same tax codes in both software.

1. Open the **QuickBooks** tab.
2. Type in the sales tax codes used for taxable and non-taxable items.
3. Click **Save**.

   Saving the settings closes the **Company Standards** dialog box.

Define default input and display units for Order Entry

You can define standard input and display units for the company. You can select either metric or imperial units and the units of measurement for a piece.

NOTE The actual length of the item is not affected by the selection of the input type, only the displayed length.

1. Go to **Maintenance** --> **<Module>** --> **Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Input/Display Units**. Click **Input/Display Units**.

   The **Input/Display Units** dialog box opens.
3. Select the measurement system and the units of measurement on the drop-down menus.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

   You return to the **<Module> Job Edit** dialog box.
5. Click **Save**.

The input and display units are saved as defaults.

See also

Define company standard settings for Order Entry (page 1195)

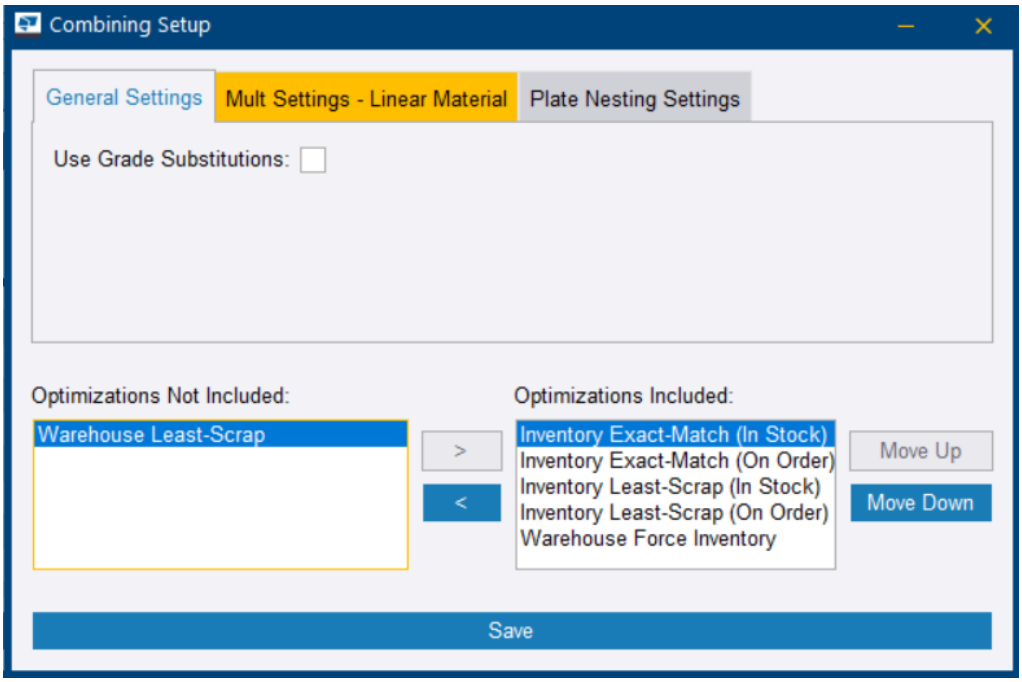
Define default combining optimizations for Order Entry

You can define company-level settings for material optimization.

Text here

1. To define company-level settings, go to **Maintenance** --> **<Module> Company Standards**.
2. Click **Combining Optimizations**.

   The **Combining Setup** dialog box opens.



3. Modify the settings on the various tabs as needed.

Define the general settings

1. Go to the **General Settings** tab.
2. Modify the settings as needed.

Option	Description
Use Grade Substitutions	Select to check for material in inventory that has an alternative grade to the one specified. Only grades of an equal or higher rating will be used as set in **Maintenance** --> **Shapes/Grades/Sizes** --> **Shape/Grade/Size Maintenance** dialog box. If the grade substitutions are not set, the material grades in the combining run and in the supplier pricing data set or the inventory need to match each other exactly.
Optimizations Not Included/ Optimizations Included	Allows you to select the optimization options that you want to use by moving them to the **Optimizations Included** list using the arrow buttons.

Option	Description
Inventory Exact-Match (In Stock)	Use this option for inventory items in stock that are an exact match without the use of kerf or clamp allowance.
Inventory Exact-Match (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that are an exact match without the use of kerf or clamp allowance.
Inventory Least-Scrap (On Order)	Use this option for inventory items that are on purchase orders and have not yet been received and that will provide the least amount of scrap.
Inventory Least-Scrap (In Stock)	Use this option for inventory items in stock that will provide the least amount of scrap.
Warehouse Least-Scrap	Use this option to give preference to warehouse items that will provide the least amount of scrap. Warehouse items will only be used when they provide less scrap than the available inventory items or no inventory exists.
Warehouse Force Inventory	Use this option to force the use of inventory items if available regardless of the amount of scrap, no matter where it is located in the **Optimizations Included** list. This option is the opposite of **Warehouse Least-Scrap**. Note that you can only include **Warehouse Least-Scrap** or **Warehouse Force Inventory**, not both.

3. Modify the order of the optimizations by using the **Move Up** and **Move Down** buttons.

   The order is important when you are performing a combining run.

4. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

Define plate nesting settings

1. Go to the **Plate Nesting Settings** tab.
2. Modify the settings as needed.

Option	Description
Shear Cut Optimization	Select a suitable shear cut option. The selected option determines the plate allowance to be used with the combining: • **None**: Use when cutting plate on a burn table. • **Shear Cut - First Cut Along Length** or **Shear Cut - First Cut Along Width**: Use to alert Tekla PowerFab that the nesting needs to allow for that type of cut first. Then, the nesting will allow for all subsequent cuts to be made with that condition.
Rotate Plates for Best Fit	Select if the material grain direction is unimportant and you want Tekla PowerFab to create the best possible optimization of a plate.

3. Do either of the following:
   - Click **Save**.

     The **Combining Setup** dialog box closes.
   - Continue to add or modify properties.

When you click **Save**, the Combining optimizations settings are saved.

Define default suppliers for Order Entry

You can define default suppliers, or pricing data sets, for angles, beams, plates, rods, tubes, and other material. This way, you can use material pricing from the selected supplier pricing data sets for each material group.

1. Go to **Maintenance** --> **<Module> Company Standards**.

   The **<Module> Company Standards** dialog box opens.
2. Click **Suppliers**.

   The **Suppliers** dialog box opens.
3. Select suppliers for each material group on the drop-down lists.
4. Click **OK**.

   You return to the **<Module> Company Standards** dialog box.

5. Do either of the following:
   - Click **Save**.

     The **<Module> Job Edit** dialog box closes.
   - Continue to add or modify properties.

See also

Define company standard settings for Order Entry (page 1195)

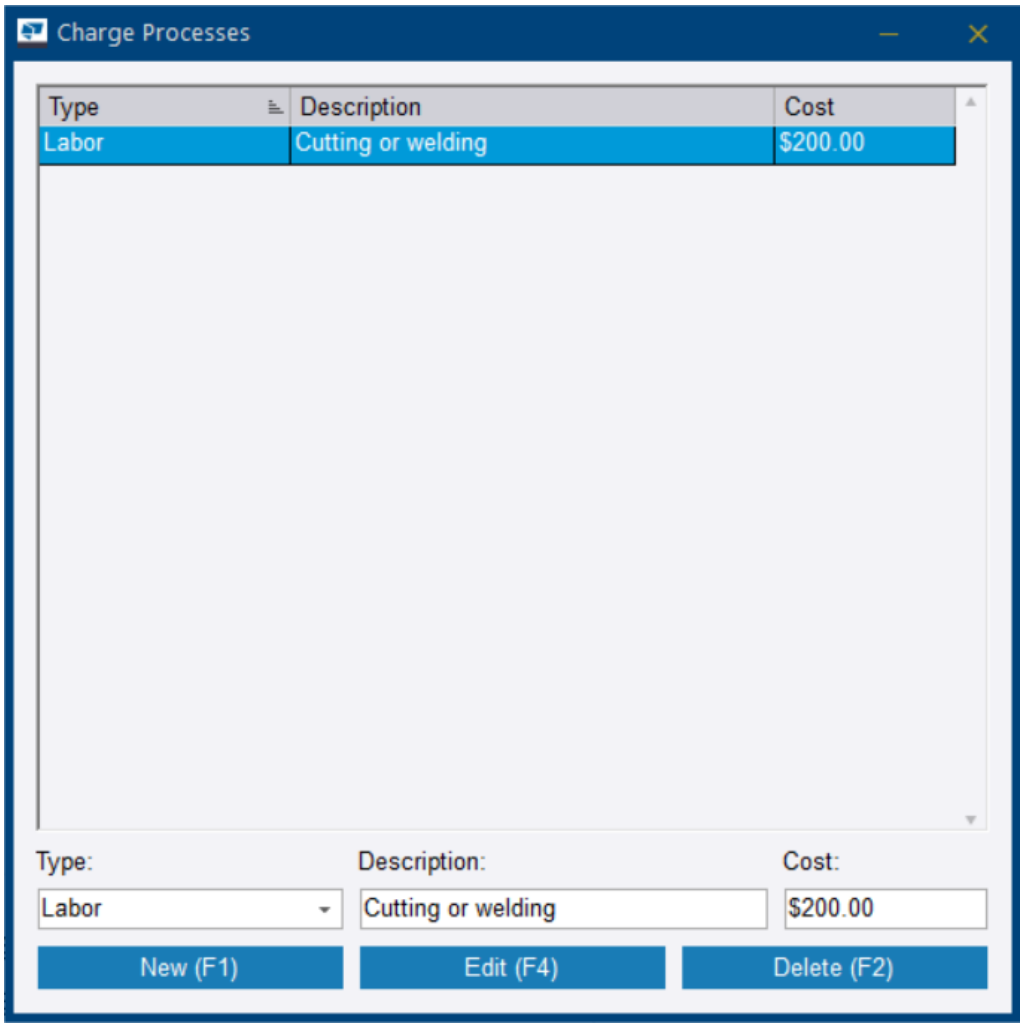
Manage charge processes

While working in **Order Entry**, you should use different charge processes depending on whether you are charging the customer for material, labor, or both. The charge processes, standard charges, and applicable costs are defined in **Charge Process Maintenance**.

NOTE While working on quotes and orders in the **Order Entry** module, you can only change the price per item, not the type or description. This means that you can enter the base costs in the **Charge Processes** dialog box and change them according to your needs.

---

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Charge Process Maintenance**.



3. In the **Charge Processes** dialog box, do any of the following:

To	Do this
Add a new charge process	a. Click **New**. b. In the **Type** list, select a suitable option. The options are **Material**, **Labor**, and **Miscellaneous**. Use the **Miscellaneous** option when the charge applies to both material and labor. c. In the **Description** field, type a description for the charge process. For example, if the **Type** is **Labor**, the description can be `Cutting` or `Welding`. The description will appear in the **Process** column in **Order Entry**. d. In the **Cost** field, type the price per item.

To	Do this
	e. Click **Add** to save the new charge process and add it to the list.
Modify a charge process	a. Select a charge process in the list. b. Modify the type, description, and cost according to your needs. c. Click **Edit** to save the changes.
Delete a charge process	a. Select a charge process in the list. b. Click **Delete**. c. To permanently delete the charge process, click **Yes**in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage invoice categories

You can create a list of standard invoice categories used for customer orders in the **Invoice Category Maintenance** dialog box. The categories that you define are available when creating invoices in the **Order Entry** module.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Invoice Category Maintenance**.
3. In the **Invoice Categories** dialog box, do any of the following according to your needs:

To	Do this
Add a new invoice category	a. Click **New**. b. In the **Category** field, type a name for the invoice category. c. In the **Description** field, type a description for the invoice category. d. Click **Add** to save the new invoice category and add it to the list.
Modify an invoice category	a. Select the invoice category that you want to modify. b. Modify the name and description of the invoice category. c. Click **Save** to save the changes.
Delete an invoice category	a. Select the invoice category that you want to delete.

To	Do this
	b. Click **Delete**. c. To permanently delete the invoice category, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage order and quote categories

You can create a list of standard categories for orders and quotes in the **Order Category Maintenance** dialog box. For example, you can create separate order categories for walk-in customers and regular customers. The categories that you define are available in the **Order** dialog box for both quotes and orders.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Order Category Maintenance**.
3. In the **Order Categories** dialog box, do any of the following according to your needs:

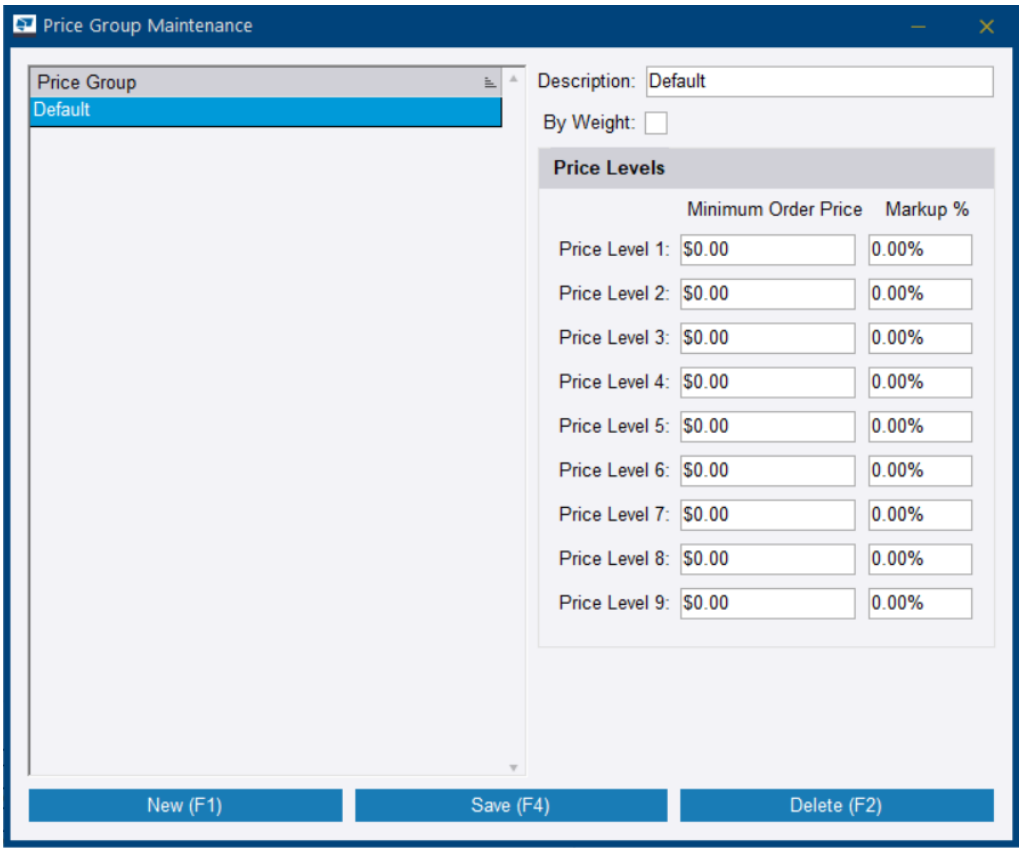
To	Do this
Add a category	a. Click **New**. b. In the **Category** field, type a name for the category. c. In the **Description** field, type a description for the category. d. Click **Add** to save the new category and add it to the list.
Modify an order category	a. Select the order category that you want to modify.Modify the name and description of the selected order category. b. Click **Save** to save the changes.
Delete a category	a. Select the category that you want to delete the list. b. Click **Delete**. c. To permanently delete the category, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage price groups

You can add, modify, and delete price groups that are available in the **Order Entry** module. You can also define different price levels within price groups. Price levels determine the level of markup that your company gets from each order. Note that you can use any price level with any price group.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Price Group Maintenance**.



3. In the **Price Group Maintenance** dialog box, do any of the following according your needs:

To	Do this
Add a price group	a. Click **New**. b. In the **Description** field, type a description for the price group. c. To add price levels to the price group, type the desired minimum order prices and markup percentages in the available fields. The minimum order prices and markups are used for recovering costs and small orders. As

To	Do this
	orders get larger, the amortization of costs may set off the need for larger markups and allow smaller minimum order prices. d. Click **Add** to save the price group and add it to the list.
Modify a price group	a. Select the price group that you want to modify. b. Modify the description and price levels according to your needs. c. Click **Save** to save the changes.
Delete a price group	a. Select the price group that you want to delete. b. Click **Delete**. c. To permanently delete the price group, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage delete payment methods

You can add, modify, and delete payment method options available for new payments in the **Order Entry** module. You can also select which payment method you want to use as the default option used for new orders.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Payment Method Maintenance**.
3. In the **Payment Method Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a new payment method	a. Click **New**. b. In the **Description** field, type a description for the payment method. For example, `Cash`. c. Click **Add**. The new payment method is saved and added to the list.
Set a payment method as default	a. Select the payment method that you want to set as the default option. b. Click **Set as Default**.

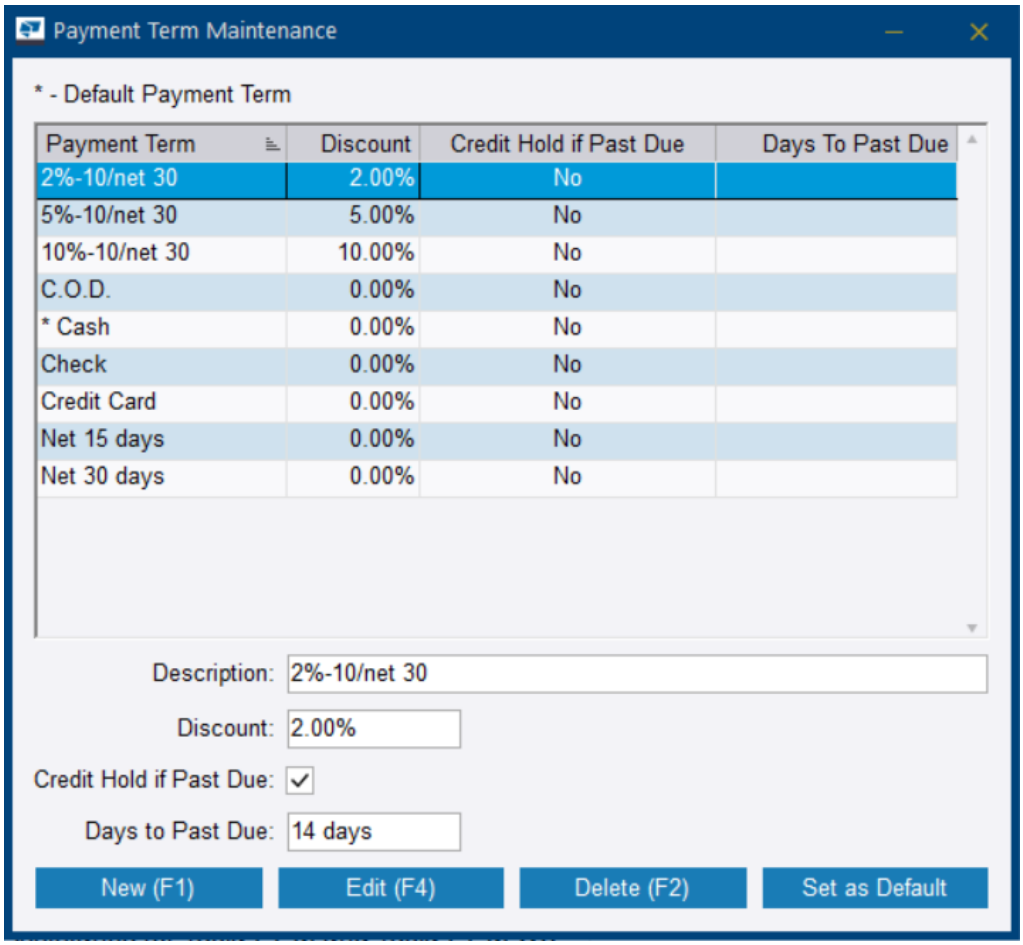
To	Do this
	c. To confirm using the selected payment method as the default option, click **Yes**. The default payment method is marked with an asterisk (*). This payment method will be used by default for new orders.
Modify a payment method	a. Select the payment method that you want to modify. b. Modify the description of the payment method. c. Click **Edit** to save the changes.
Delete a payment method	a. Select the payment method that you want to delete. b. Click **Delete**. c. To permanently delete payment method, click **Yes**.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage payment terms for customer orders

You can add, modify, or delete the payment term options that are available for all customer orders created in **Order Entry**. In addition, you can set the default payment term that will be used for new customer orders.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Payment Term Maintenance**.



3. In the **Payment Term Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a new payment term	a. Click **New**. b. In the **Description** field, type a description for the payment term. c. If necessary, in the **Discount** field, type a discount percentage for the payment term. d. If you want to freeze a customer's credit when an invoice is past the due date, select the **Credit Hold if Past Due** checkbox. e. In the **Days to Past Due** field, type the number of days that an invoice can be past due date before the customer's credit is frozen. f. Click **Add** to save the new payment term and add it to the list.

To	Do this
Set a default payment term	a. Select the payment term that you want to set as the default option. b. Click **Set as Default**. c. To confirm using the selected payment term as the default option, click **Yes** in the confirmation dialog box. The default payment term is marked with an asterisk (*). This payment term will be used by default for new customer orders.
Modify a payment term	a. Select the payment term that you want to modify. b. Modify the payment term properties according to your needs. c. Click **Edit** to save the changes.
Delete a payment term	a. Select the payment term that you want to delete. b. Click **Delete**. c. To permanently delete the payment term, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Manage shipping methods for customer orders

In the **Shipping Method Maintenance** dialog box, you can add, modify, and delete shipping method options that are available for the customer orders created in **Order Entry**. You can also select which shipping method you want to use as the default option.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Shipping Method Maintenance** .
3. In the **Shipping Method Maintenance** dialog box, do any of the following according to your needs:

To	Do this
Add a shipping method	a. Click **New**. b. In the **Description** field, type a description for the new shipping method. c. Click **Add** to save the new shipping method and add it to the list.

To	Do this
Set a default shipping method	a. Select a shipping method in the list. b. Click **Set as Default**. c. To confirm using the selected shipping method as the default option, click **Yes** in the confirmation dialog box. The default shipping method is marked with an asterisk (*). This shipping method is used by default in the **Order Entry** module.
Modify a shipping method	a. Select a shipping method in the list. b. Modify the information in the **Description** field. c. Click **Edit** to save the changes.
Delete a shipping method	a. Select a shipping method in the list. b. Click **Delete**. c. To permanently delete the shipping method, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Mange delete territory options

In **Territory Maintenance**, you can add, modify, and delete territory options that are available for defining order information.

1. Click the **Maintenance** ribbon tab.
2. In the menu, select **Order Entry** --> **Territory Maintenance**.
3. In the **Territories** dialog box, do any of the following according to your needs:

To	Do this
Create a new territory	a. Click **New**. b. In the **Territory** field, type a name for the territory. c. In the **Description** field, type a description for the territory.Click **Add** to save the new territory and add it to the list.
Modify a territory	a. Select the territory that you want to modify. b. Modify the name and description of the territory according to your needs.

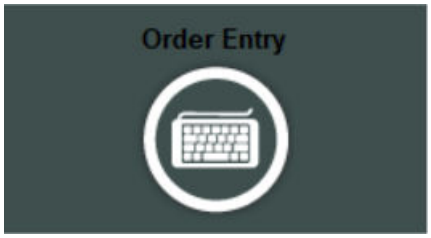
To	Do this
	c. Click **Save** to save the changes.
Delete a territory	a. Select the territory that you want to delete. b. Click **Delete**. c. To permanently delete the territory, click **Yes** in the confirmation dialog box.

4. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

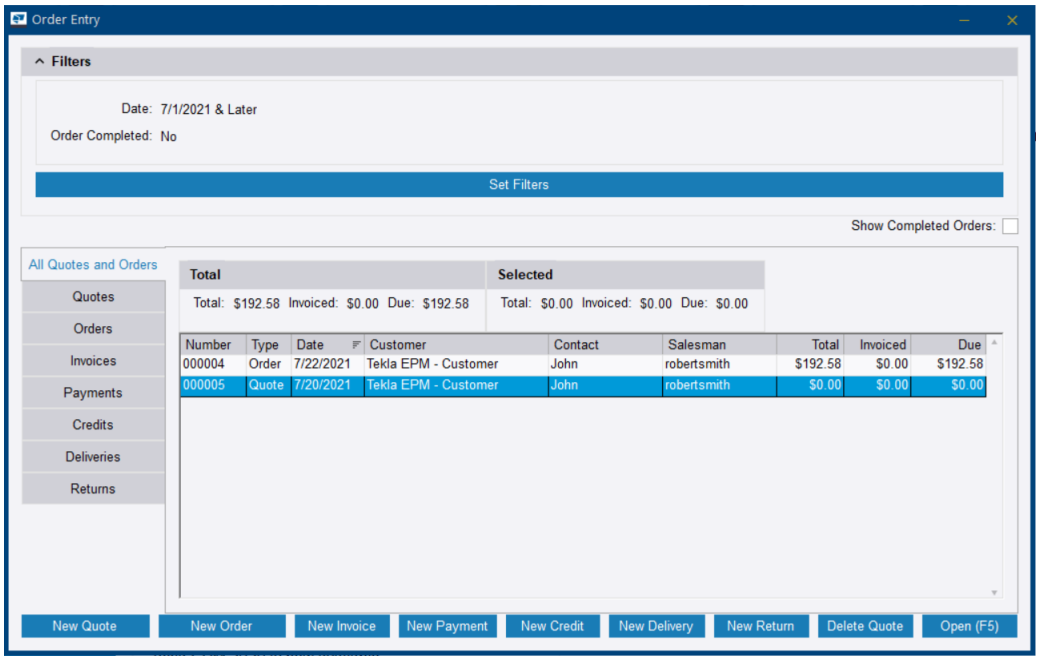
12.2 Open the Order Entry module

To create, modify, and delete orders, quotes, invoices, payments, credits, deliveries, and returns, open the **Order Entry** module.

- At the top of the Tekla PowerFab window, click the **Order Entry** icon.



The **Order Entry** dialog box opens. You can view the existing quotes, orders, invoices, payments, credits, deliveries, and returns.



By default, the orders and quotes are visible for 30 days after their creation. However, you can change this setting, see Define company standard settings for Order Entry (page 1195). You can also use filters to view older quotes and orders, see Filter the order entry information (page 1215).

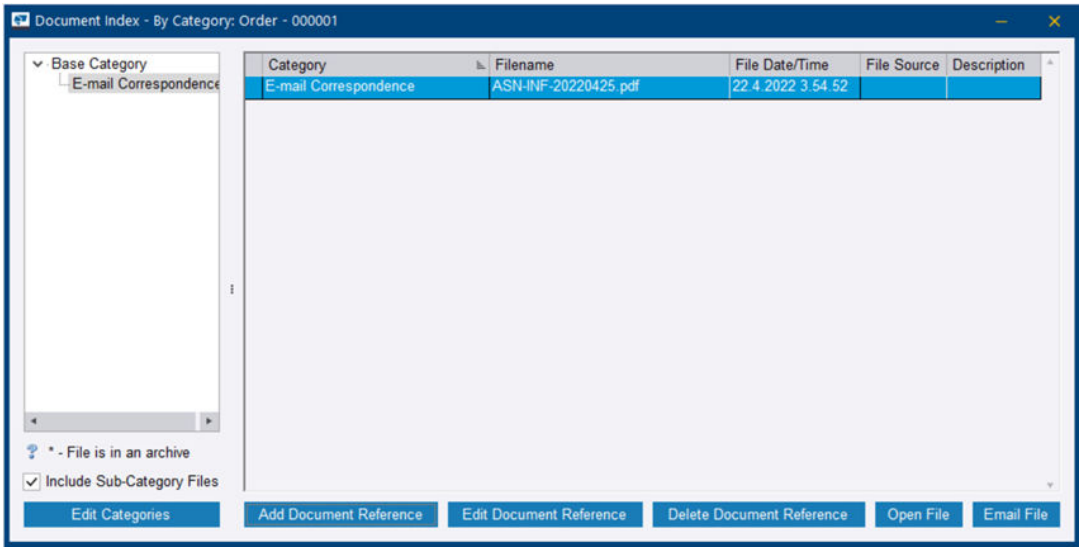
Manage files for Order Entry

Document Index is a place for storing files to be shared among other users. In **Document Index**, you can store various kinds of documents for reference, and modify, delete, open, and email these files.

- To access **Document Index**, do one of the following:
  - In **Combining**, **Estimating**, **Project Management**, **Production Control**, and **Purchasing**, click **Document Index/Doc Ind** or press **F8**.
  - In **Inventory**, go to the **Inventory** ribbon tab and select **Document Index**.
  - In **Order Entry**, go to the **Order Entry** ribbon tab and select **Document Index**.

  For **Combining**, **Project Management**, and **Production Control**, you are asked to select if you want to open the **Document Index** dialog box related to linked jobs.

  The **Document Index - By Category** dialog box opens, displaying the documents referenced from the selected category. If a filename is highligted in red, it indicates that the file cannot be found.



Include Sub-Category Files: When selected, displays the files in any subcategories

Edit Categories: Customize the category organization. You can set a **Document Index** base category, add, rename, and delete categories.

Add Document Reference: Add a reference to a document from the currently selected category

Edit Document Reference: View or edit the reference details

Delete Document Reference: Delete the selected document references. This does not delete the file from the document index, it only removes the reference to that document. If you want to remove a file from the document index you must do it from the **Document Index - By Directory** dialog box. See Delete a file from Document Index (page 195).

Open File: Opens the selected file

Email File: Allows you to send the file by email

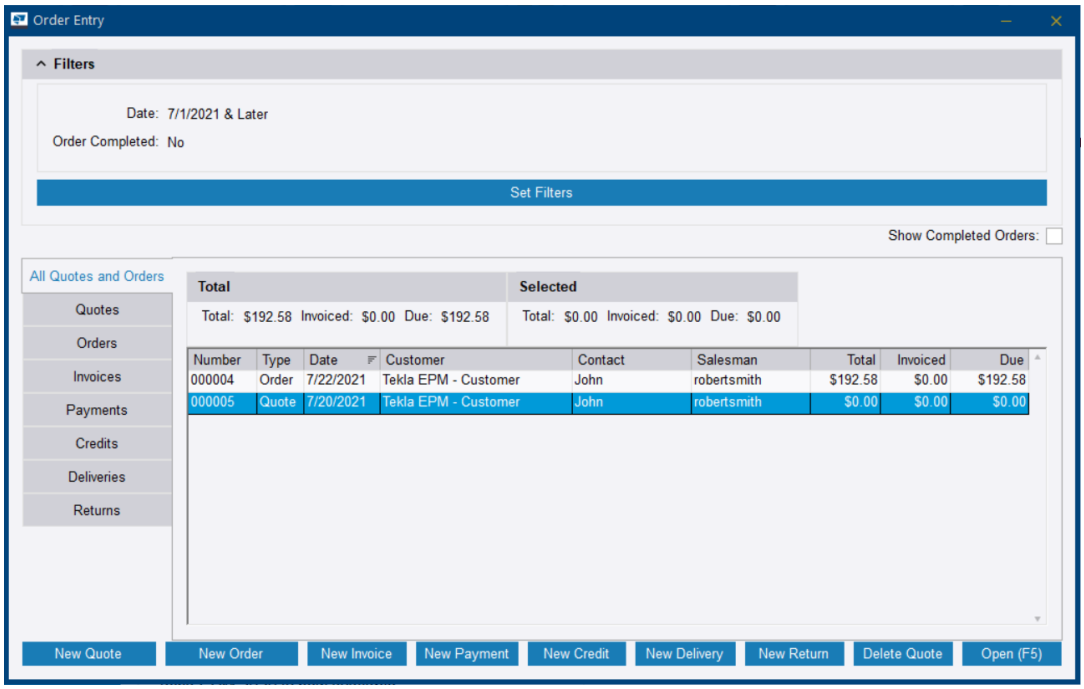
See also

Document Index (page 183)

Set the standard categories for attached documents (page 184)

12.3 Filter the order entry information

You can select which orders and quotes you want to see in the **Order Entry** dialog box. For example, you may want to view older orders that are hidden in the initial view of the **Order Entry** dialog box.



1. At the top of the **Order Entry** dialog box, click the arrow button on the left side of **Filters**.

   The **Filters** section expands.

   If you want to see all orders created in the **Order Entry** module including the completed orders, select the **Show Completed Orders** checkbox on the right side of the **Order Entry** dialog box.

2. To apply a new filter, click **Set Filters**.

   The **Order Filters** dialog box opens.

3. Depending on what you want to filter out, click one of the available filter buttons.

4. Click the arrow buttons to move the items that you want to display to the **Included** list.

5. Click **OK**.

6. Click **Apply Filter**.

The orders and quotes displayed in the **Order Entry** dialog box are updated to match the filters you set.

To clear the applied filters, close and re-open the **Order Entry** dialog box.

12.4 Manage quotes and orders

You can create and manage both quotes and order in the **Order Entry** module. The difference between quotes and orders is that you can add

invoices to orders, and send the materials on the orders to purchase orders. Quotes are simply estimates that a customer can accept or reject, so they cannot be invoiced.

See also

Create a quote or an order (page 1217)

Modify a quote or an order (page 1227)

Convert a quote into an order (page 1228)

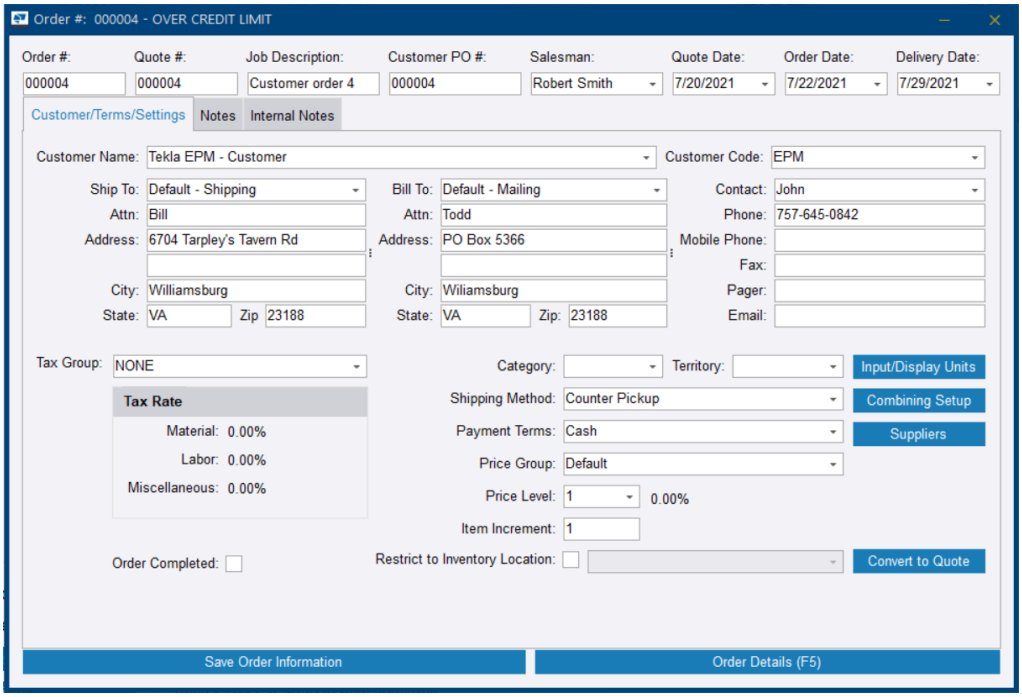
Convert an order back into a quote (page 1228)

Delete a quote (page 1229)

Create a quote or an order

Quotes and orders are created in the exact same way. Orders can be invoiced and their materials can be sent to purchase orders, whereas quotes are simply price estimates that the customer can accept or decline. Alternatively, you can also create quotes in the **Inventory** module.

1. At the bottom of the **Order Entry** dialog box, click **New Quote** or **New Order**.



2. If necessary, modify the quote or order number at the top of the **Order Information** dialog box.
3. Enter a job description and the eventual customer purchase order number.

4. In the **Salesman** list, select the salesman.

   All users listed in the **Administration** dialog box are available in the **Salesman** list.

5. Select the quote or order date and the delivery date.
6. In the **Customer Name** list on the **Customer/Terms/Settings** tab, select a company.

   All companies in the address book whose firm type is **Customer** are available in the list. When you select the company, the default shipping and billing addresses and the customer code are automatically added to the dialog box. If necessary, you can select an alternative shipping or billing address in the appropriate lists.

7. In the **Contact** list, select a contact person associated with the customer company.

   TIP You can also add a contact person into the address book in the current dialog box. Type a new name in the **Contact** field and click the **Add** button that has appeared on the right side of the field. Then, enter the contact information for the new contact person.

   ---

8. Select the tax group, order category, territory, shipping method, payment terms, price group, and price level in the appropriate lists.
9. In the **Item Increment** field, type a value used for numbering materials in the quote or order.

   The default autoincrement of 10 allows items to be added in the list as needed, without having to renumber the other items in the job.

10. To limit the available stock material selection to a certain inventory location, select the **Restrict to Inventory Location** checkbox, and select the inventory location in the list.
11. Go to the **Notes** tab to add notes regarding the quote or order.

    The notes will appear in quote and order reports.

12. Go to the **Internal Notes** tab to add private notes regarding the quote or order.
13. At the bottom of the dialog box, click **Save Quote Information** or **Save Order Information**.

The quote or order is created and added to the **Order Entry** dialog box. You can modify all properties later, if necessary.

The **Details** dialog box opens. You can add quote or order details regarding, for example, materials, charges, and discounts.

You can also find and modify further properties by clicking the buttons on the right.

See also

Add quote or order details (page 1219)

Create a quick quote (page 1226)

Copy quote or order information (page 1226)

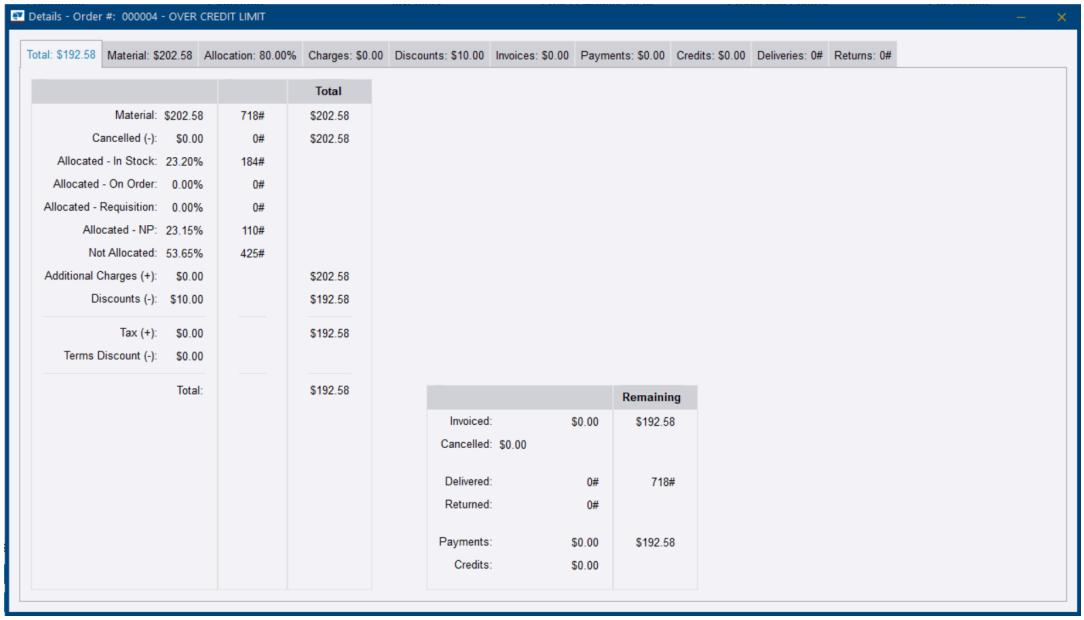
Add quote or order details

Once you have created a quote or an order, you need to add details for it. This includes adding materials to be delivered to the customer, creating additional charges, and adding the necessary discounts. For orders, you can also add invoices, payments, credit, deliveries, and returns.

To access the **Details** dialog box, do one of the following:

- In the **Quote** dialog box, click **Quote Details**.
- In the **Order** dialog box, click **Order Details**.

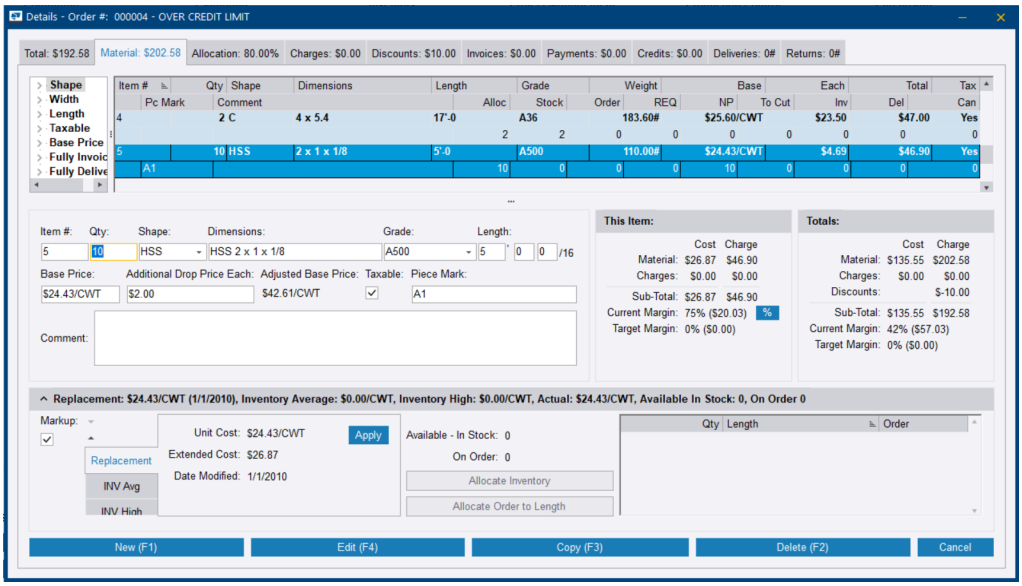
The **Details** dialog box opens on the **Total** tab, where all quote or order details and job activity are shown.



Add and combine materials

Note that even though you can allocate the material items on a quote, the material items on the quote are actually combined only when you convert the quote into an order. When a quote is converted into an order, the the allocated material items of the quote are automatically reflected to the order.

1. Open the **Material** tab.



2. To add materials to the list, click **New**.
3. Define the properties of the new material according to your needs:
   a. Enter the item number, quantity, length, base price, and additional drop price per item.
   b. In the **Shape**, **Dimensions** and **Grade** lists, select the desired options.
   c. If the item is taxable, select the **Taxable** checkbox.
   d. If necessary, type a piece mark for the material.

      Adding piece marks can be useful if drawings are available.
   e. If necessary, enter any comments regarding the part you are adding.

      The comments will be visible in both the material list and reports.
   f. To apply markup for the available costs, select the **Markup** checkbox.

      Note that you do not need to select the **Markup** checkbox is you want to use the replacement cost as markup.
   g. Select the desired pricing option, and click **Apply**.
   h. To confirm the markup, click **Yes** in the confirmation dialog box.
4. Click **Add**.

   Repeat steps 2 to 4 to add all necessary materials.

   Note that as you add materials to the order or quote, the **Material** tab is updated to show the total cost of the material.
5. To allocate the items, do any of the following:

To	Do this
Automatically combine the material items and move them to allocation	a. Click the **Order Entry** ribbon tab. b. On the menu, select **Quick Combine**. When you select **Quick Combine**, the combining is performed according to the combining optimizations set for **Order Entry**. If you want to manually modify the combining setup, select **Combine** instead. When Tekla PowerFab has finished the combining process, the **Combining Run Results** dialog box opens. c. Review the combining results to make sure that they are satisfactory, and click **Save Combining Run**. d. To close the **Combining Run Results** dialog box, click the **Close** button (**X**) in the upper-right corner.
Allocate a material item from the inventory	Material items can be allocated from the inventory if there is an exact match for the items in stock. If there is no exact match for the material item in the inventory, you need to send the item to a purchase order. For more information, see Send materials to a purchase order (page 1225). a. Select the desired material item. b. In the list in the lower-right corner of the dialog box, select an inventory item that matches the selected material item. c. Click **Allocate Inventory**. d. To confirm allocating the material item from the inventory, click **Yes** in the confirmation dialog box.
Allocate a material item as an order to length item	a. Select the desired material item. b. At the bottom of the dialog box, click **Allocate Order to Length**. c. To confirm allocating material item as an order to length item, click **Yes** in the confirmation dialog box.

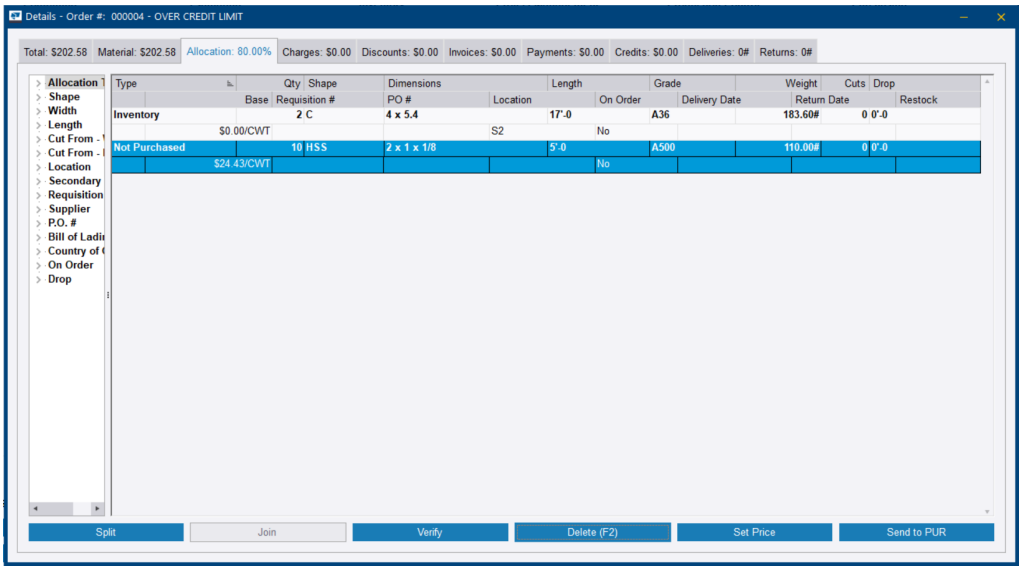
As you combine or allocate materials, the **Allocation** tab is updated to show the percentage of materials that has been allocated.

6. To set the additional drop price per piece, select the item and click the **Set** button in the **This Item** section of the dialog box.

7. To manually set the markup for the current margin, click the **%** button and select an option in the context menu.

Modify the properties of allocated materials

1. Open the **Allocation** tab.



   The allocated material items and the restock lengths are displayed.

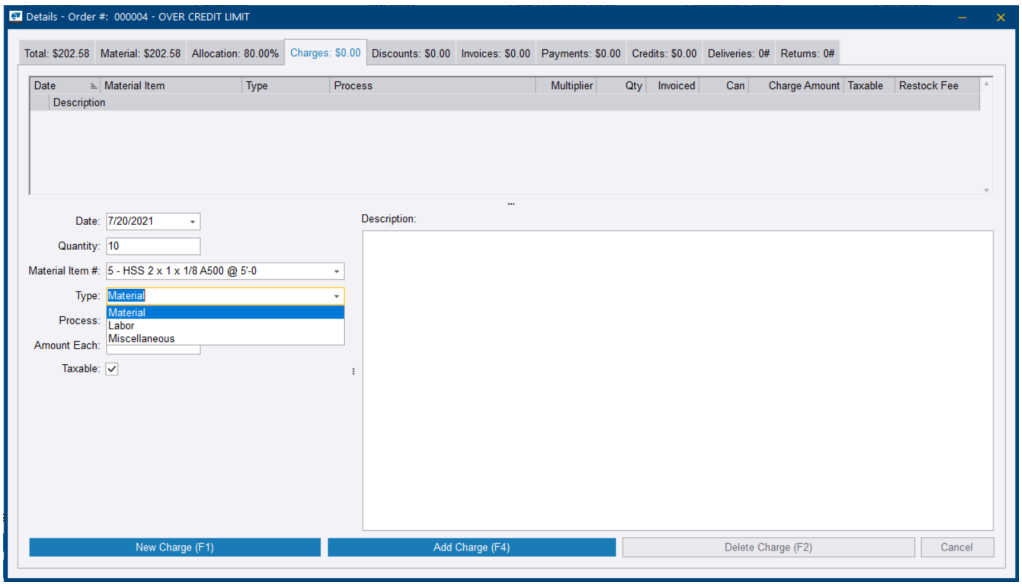
2. Do any of the following according to your needs:

To	Do this
Split an allocated material record	Use the **Split** command to separate a certain quantity of pieces from an allocation record, so that you can handle it differently from other material. For example, you can set a different price for the separated quantity. a. Select the material record that you want to split. b. Click **Split**. c. In the **Enter Value** dialog box, type the quantity that you want to separate. d. Click **OK**. The split quantity is added to the list of allocated material records.
Join allocated material records	The **Join** command is used to re-join a split allocation record. Note that if you have made changes to one of the split records, you cannot join the records back together unless you change the properties back.

To	Do this
	a. Select the material items that you want to join. To select multiple items, hold down **Ctrl**. To select a range of subsequent items, hold down **Shift**. b. Click **Join**. The split material records are joined back together.
Ensure that the allocated materials are available in the inventory	Click **Verify**.
Delete an allocated material record to re-combine them	a. Select the material record that you want to delete. b. Click **Delete**. c. To confirm deleting the materials from the **Allocation** tab, click **Yes** in the confirmation dialog box. You can now re-combine the items on the **Material** tab.
Set price for an allocated material record	a. Select the material record whose price you want to modify. b. Click **Set Price**. c. In the **Enter Value** dialog box, define a new price for the material item. d. Click **OK**.
Send an allocated material record to purchasing	See Send material items to purchasing (page 1225).

Add charges

1. Open the **Charges** tab.



2. At the bottom of the dialog box, click **New Charge**.
3. Select a date for the new charge.
4. Enter the quantity of charges.
5. If necessary, select the material item to which the new charge is applied.

   Note that selecting the material item is optional. You can cancel any charges for which you have not selected a material item.
6. Select the type of charge and the charge process.

   The available charge processes are defined in **Charge Process Maintenance**. For more information, see Create charge processes (page 1203).
7. Enter the amount of money per charge.

   The amount will be multiplied by the quantity of charges.
8. If necessary, click to select the **Taxable** checkbox.
9. Click **Add Charge**.

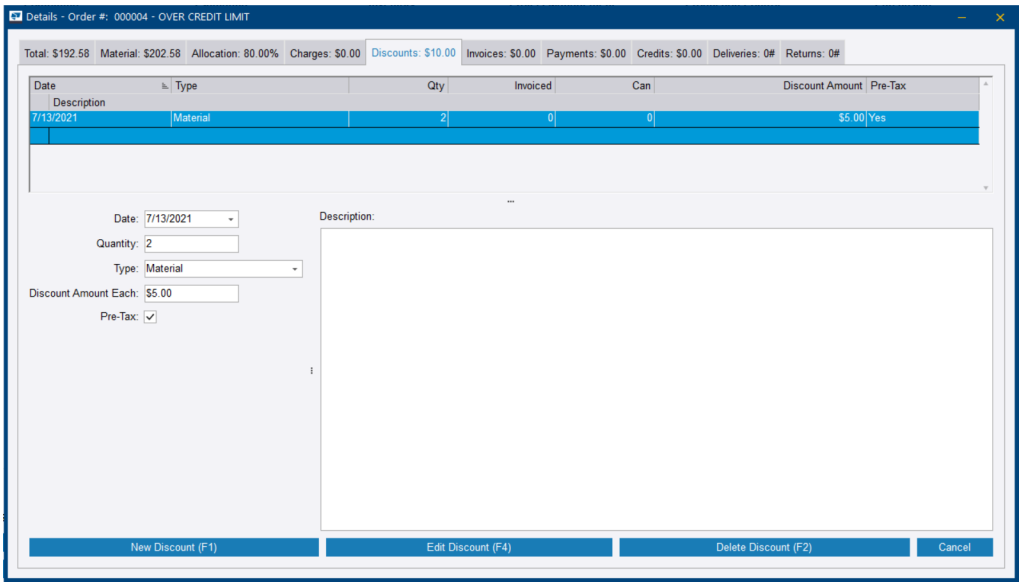
   The charge is added for the material item and will be visible in the total sum of the quote or order.

NOTE To modify or delete the existing charges, click to select the charge and click either **Edit Charge** or **Delete Charge**.

Add discounts

If necessary, you can create discounts for an individual quote or order.

1. Open the **Discounts** tab.



2. At the bottom of the dialog box, click **New Discount**.
3. Select a date for the new discount.
4. Enter the quantity of discounts.
5. Select the charge type to which the discount is applied.

   The options are **Material**, **Labor**, and **Miscellaneous**.
6. Enter the amount of money per discount.

   The amount will be multiplied by the quantity of discounts.
7. If the discounts will be considered before the deduction of taxes, select the **Pre-Tax** checkbox.
8. Click **Add Discount**.

   The discount is added for the charge type and will be visible in the total sum of the quote or order.

Send material items to purchasing

Use the **Send to PUR** command to send material items on customer orders to the **Purchasing** module. If you want to create invoices for materials that are not allocated in the inventory, send the materials to a purchase order. If you need to request quotes for materials, you should send the materials to a requisition.

Note that materials that are on a quote cannot be sent to a purchase order.

1. Open the order and click **Order Details**.
2. In the **Details** dialog box, open the **Allocation** tab.

3. Select the material item that you want to send to purchasing.

   Note that only material items whose type is **Not Purchased** can be sent to purchasing.

4. At the bottom right corner of the dialog box, click **Send to PUR**.

   A dialog box opens, asking if you want to send the material to a requisition or a purchase order.

5. Select either **Requisitions** or **Purchase Orders**.
6. Double-click the purchase order or requisition to which you want to send the material.

The materials are sent to the selected requisition or purchase order.

You can view and modify the requisition or purchase order in the **Purchasing** module. If you have create an invoice for the materials in the **Order Entry** module.

See also

Add quote or order details (page 1219)

Add an invoice (page 1229)

Copy quote or order information

Once you have existing quotes and orders in the **Order Entry** dialog box, you can use them as the basis of new quotes and orders. You can then further modify the quote or order details according to the customer's needs. This can be useful when a customer makes an order that is similar to a previous one.

1. In the **Order Entry** dialog box, select the quote or order that you want to use as the basis of the new quote or order.
2. Click the **Order Entry** ribbon tab.
3. On the menu, select **Copy Quote/Order**.
4. To confirm copying information from the selected quote or order, click **Yes** in the confirmation dialog box.
5. Adjust the quote or order information and details according to your needs.
6. At the bottom of the dialog box, click **Save Quote Information** or **Save Order Information**.

See also

Create a quote or an order (page 1217)

Add quote or order details (page 1219)

Create a quick quote

Quick quotes allow you to quickly enter line items for a quote or an order. You can then either save the line items to an existing quote or order, or create a new quote or order containing the line items.

You can also create quick quotes in the **Inventory** module by clicking the **Inventory** ribbon tab and selecting **Order Entry** --> **Quick Quote** .

1. In the **Order Entry** dialog box, click the **Order Entry** ribbon tab.
2. On the menu, select **Quick Quote**.
3. In the **Quick Quote** dialog box, select the customer and contact.
4. Determine the quantity of items, the shape, dimensions, grade, length, and the base price.

   Once you have selected the shape, grade, and dimension, you can select the item from existing inventory items.
5. If the item is taxable, select the **Taxable** checkbox.
6. To apply markup to the item you created, select the **Markup** checkbox.
7. Do one of the following:
   - To save the item to an existing quote or order, click **Save to Quote/ Order**, and double-click the desired quote or order.
   - To create a new quote or order, click **Save to New Quote** or **Save to New Order**, and enter the quote or order information and details.

See also

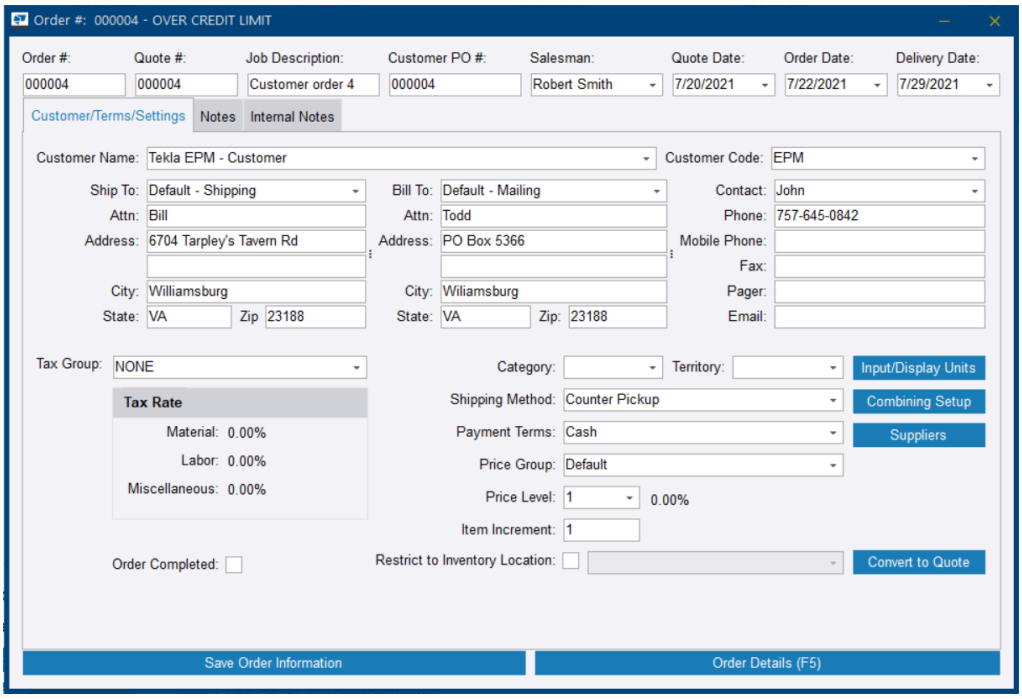
Add quote or order details (page 1219)

Create a quote or an order (page 1217)

Modify a quote or an order

You can modify all order and quote properties afterwards. For example, you may need to change the customer information, the quote or job number, the tax group and rate used, and the input and display units used.

1. In the **Order Entry** dialog box, select the order or quote and click **Open**.



2. Modify the customer information, tax groups, notes, and other information according to your needs.
3. To save the changes, click **Save Quote Information** or **Save Order Information**.

Convert a quote into an order

Converting quotes into orders is necessary in order to send materials to purchase orders, add invoices for them, and add credit payments.

1. In the **Order Entry** dialog box, select the quote and click **Open**.
2. In the lower-right corner of the **Quote** dialog box, click **Convert to Order**.
3. To confirm converting the quote into an order, click **Yes** in the confirmation dialog box.

The quote is converted into an order, and it will no longer appear in the list of quotes. Note that the dialog box name changes into **Order**.

See also

Convert an order back into a quote (page 1228)

Modify a quote or an order (page 1227)

Convert an order back into a quote

In Tekla PowerFab, you cannot delete orders. However, you can convert an order back into a quote and delete the quote. To convert the order into a quote, do the following:

1. In the **Order Entry** dialog box, click to select the order and click **Open**.
2. In the lower-right corner of the **Order** dialog box, click **Convert to Quote**.
3. To confirm converting the order back into a quote, click **Yes** in the confirmation dialog box.

The order is converted back into a quote, and it will no longer appear in the list of orders. Note that the name of the dialog box changes into **Quote**.

See also

Modify a quote or an order (page 1227)

Delete a quote

You can delete rejected and unnecessary quotes from the **Order Entry** dialog box.

NOTE Orders cannot be deleted. To delete an order, you first need to convert the order into a quote. For more information, see Convert an order back into a quote (page 1228).

---

1. In the **Order Entry** dialog box, select a quote.
2. At the bottom of the dialog box, click **Delete Quote**.
3. To permanently delete the selected quote, click **Yes** in the confirmation dialog box.

12.5 Add an invoice

After you have created a customer order and allocated the material items on the order, you can create invoices for the order. Tekla PowerFab then allows you to view the created invoice as a report, print it, and send it to the customer.

1. Do one of the following:
   - At the bottom of the **Order Entry** dialog box, click **New Invoice**, and double-click the order for which you want to add the invoice.
   - In the **Details** dialog box, go to the **Invoices** tab, and click **New Invoice**.

2. In the **New Invoice** dialog box, select the invoice date and invoice category.

   The available invoice categories are created in the **Invoice Categories** dialog box that you can access via **Maintenance** --> **Order Entry** --> **Invoice Category Maintenance** .

3. On the **Material** tab, select whether you want to invoice all material or the material that is in stock.

   TIP If you want to invoice only a certain quantity of materials, type the quantity in the **Invoice Qty** field.

4. On the **Charges** and **Discounts** tabs, select which charges and discounts are applied to the current invoice.
5. If necessary, type notes for the invoice.

   The notes will be visible in the invoice.

6. Click **Add Invoice**.

   If you typed a value in the **Deliver Qty** field, Tekla PowerFab asks you to confirm the delivery and materials.

7. In the confirmation dialog box, click **Yes**.
8. In the **Report Selection** dialog box, double-click **Invoice** to view the invoice that you just created.

After creating the invoice, you can send it to the customer via Microsoft Outlook email. To do so, click **Email Excel** or **Email PDF** in the upper-right corner of the **Tekla PowerFab Report Viewer**.

You can also export the invoice to an external accounting software, if necessary. For more information, see Export invoices to accounting software (page 1230).

Export invoices to accounting software

If you have connected an accounting software with Tekla PowerFab, you can export any invoices created in the **Order Entry** module to the accounting software. By exporting the invoices to your accounting software, you can make sure that all invoices are found in the same location. Invoices can be exported to either QuickBooks, Timberline, or Peachtree.

1. On the left side of the **Order Entry** dialog box, click **Invoices**. The **Order Entry** dialog box only shows the existing invoices.
2. If you only want to export certain invoices, select them in the **Order Entry** dialog box.
3. Click the **Order Entry** ribbon tab.

4. On the menu, select **Export**, and select a suitable export option. You can export either all invoices visible in the **Order Entry** dialog box or the invoices that you have selected.
5. If you are exporting the invoices to Timberline or Peachtree, enter the necessary details. For example, you may need to define the job name or the date format.
6. Click **Export**.

The invoices are exported to the selected accounting software.

12.6 Add a payment

Once you receive a payment from a customer, remember to add the payment for their order in the **Order Entry** module. When you record the payments to Tekla PowerFab, it is easier for all Tekla PowerFab users to stay up to date on customer orders.

1. Do one of the following:
   - In the **Order Entry** dialog box, click **New PaymentNew Payment**, and double-click the order for which you want to add the payment.
   - In the **Details** dialog box, go to the **Payments** tab, and click **New Payment**.
2. Select the payment date and payment method.
3. Enter the amount paid by the customer.

   You can see the remaining amounts to be invoiced and paid on the right side of the dialog box.
4. If necessary, add notes for the payment.

   The notes will be visible in the **Payment Details** report.
5. Click **Add Payment**.

The **Report Selection** dialog box opens. If you want to view the payment information, double-click **Payment Details**.

See also

Add an invoice (page 1229)

12.7 Add a credit

If necessary, you can add an additional credit for the customer regarding a specific customer order. Order-specific credits can be added regardless of the customer's credit limit.

1. Do one of the following:
   - In the **Order Entry** dialog box, click **New Credit**, and double-click the order for which you want to add the credit.
   - In the **Details** dialog box, go to the **Credits** tab, and click **New Credit**.
2. Select the credit date and credit method.
3. Enter the amount of credit that you want to add for the customer.
4. If necessary, add notes on the credit.
5. Click **Add Credit**.

   Depending on the credit limit of the customer and the payments that are due, confirmation dialogs may open.
6. If necessary, confirm that you want to add the current credit.

The credit is added for the customer, and the **Report Selection** dialog box opens.

If you want to view the credit information, double-click **Payment Details** and review the payment detail report.

12.8 Add a delivery

You can create deliveries for both quotes and orders. In order to create a delivery, you need to determine the delivery date, quantity to deliver, shipping method, and receiver.

1. At the bottom of the **Order Entry** dialog box, click **New Delivery**.
   - In the **Order Entry** dialog box, click **New Delivery**, and double-click the order for which you want to add the delivery.
   - In the **Details** dialog box, go to the **Deliveries** tab, and click **New Delivery**.
2. In the **Delivery Date** list, select a date.
3. Do one of the following:
   - To deliver a certain quantity of material, in **Qty to Deliver**, type the quantity.
   - To deliver all material in stock, click **Deliver All - In Stock**.
4. Select a shipping method for the delivery.
5. In the **Received By** field, type the name of the receiver.
6. If necessary, add delivery notes.
7. At the bottom of the dialog box, click **Add Delivery**.

8. To continue, click **Yes** in the confirmation dialog box.

   The **Report** dialog box opens, and the delivery information is added to the selected quote or order.

9. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

12.9 Add a return

If the customer returns some or all of the delivered materials in a customer order, we recommend that you add a return. By recording the return in Tekla PowerFab, you can ensure that the stock information is up to date and that other Tekla PowerFab users are also aware of the return.

1. Do one of the following:
   - At the bottom of the **Order Entry** dialog box, click **New Return**, and double-click the order for which you want to add a return.
   - In the **Details** dialog box, go to the **Returns** tab, and click **New Return**.
2. Select the return date.
3. Enter the quantity of material to return and the restock and replace information.
4. In the **Returned By** field, type the name of the returner.
5. If necessary, add notes about the return.
6. At the bottom of the dialog box, click **Add Return**.
7. In the **Report Selection** dialog box, do one of the following:
   - View or print the return report.
   - To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

The new return is added for the selected quote or order.

12.10 Create order or quote reports

You can create an order and quote report, view it, and email or print it for the customer.

NOTE The **Report Selection** dialog box automatically shows only the reports for the section of **Order Entry** dialog box in which you are working. To

see a list of all reports, click **Edit Report Types** and move all reports to the **Included** list.

1. In the **Order Entry** dialog box, select a quote or an order.
2. Click the **Order Entry** ribbon tab.
3. On the menu, select **Reports**.
4. In the **Report Selection** dialog box, select a report.
5. According to your needs, do any of the following:

To	Do this
View the report	• At the bottom of the dialog box, click **View**. The report opens in the **Tekla PowerFab Report Viewer**. You can print, export, and email reports also in the **Tekla PowerFab Report Viewer** dialog box.
Print the report	a. Use the **+** and **-** signs to modify the print quantity. b. If necessary, modify the printer options on the right side of the dialog box. c. At the bottom of the dialog box, click **Print**. d. Select the printer that you want to use. e. Click **OK**.
Export the report	a. At the bottom of the dialog box, click **Export**. The **Export Options** dialog box opens. b. Select the export file format in the list. c. To change the pre-defined file location and name, click **Browse**, make the changes, and click **Save**. d. To email the exported file to a customer or other person via Microsoft Outlook, select the **Attach to Email** checkbox. e. To open the exported file after the export, select the **Open Exported Document** checkbox. f. Click **Export**.

6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

13 Troubleshooting

Here you can find best practices and solutions to your problems

See also

Troubleshoot combining issues (page 1235)

13.1 Troubleshoot combining issues

If you have problems with combining, start with these troubleshooting tips.

Basically, if material does not to combine, the reason is that there is no matching material available in the sources allowed in the optimizations. For example, if we do not include warehouse at all, then only the inventory is available. If we do not include the inventory, then only the suppliers are available.

The available material must be the same shape, dimension, and grade. The grade depends on any substitutions that have been set in **Maintenance** --> **Shapes/Grades/Sizes**. The length, and for plates the width, of the available material must accommodate the item length, trim cut, kerf, and clamp allowance. You can select to have the clamp allowance to be included in the items if there is an item that is longer than the clamp allowance.

See also

Add grade substitutions (page 324)

Combine materials in the Combining module (page 377)

Combine materials in the Estimating module (page 584)

Combine materials in the Production Control module (page 996)

Combine items in the Requisition # dialog box (page 1127)

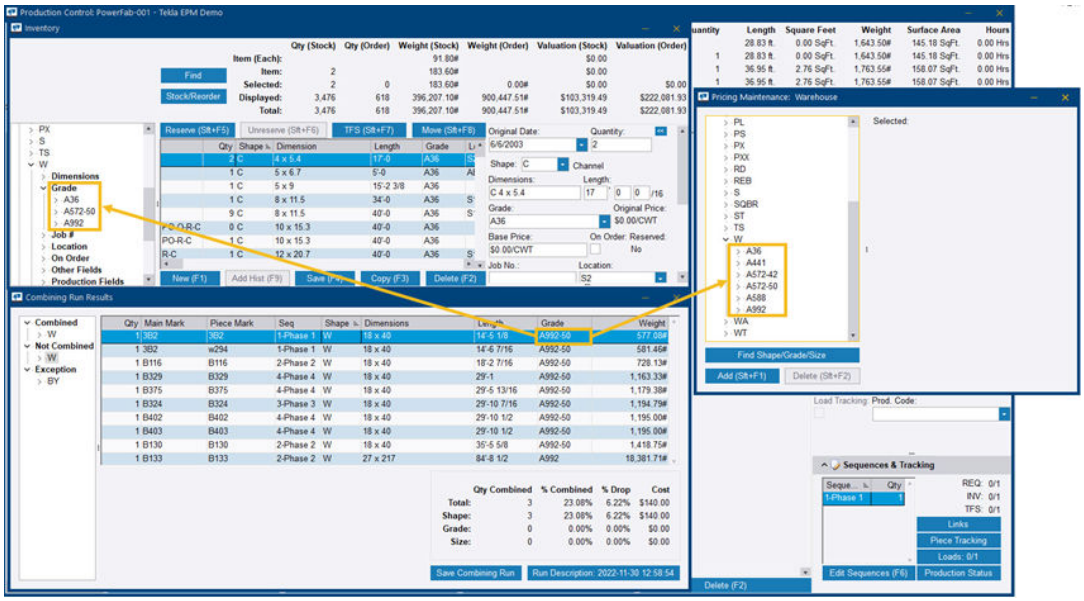
The grade of the item does not match

Possible cause: During the import of items into **Production Control**, you may have allowed grades that are not in your system.

- **Possible solution**: Create standard acceptable grades that users and your detailers are aware of.

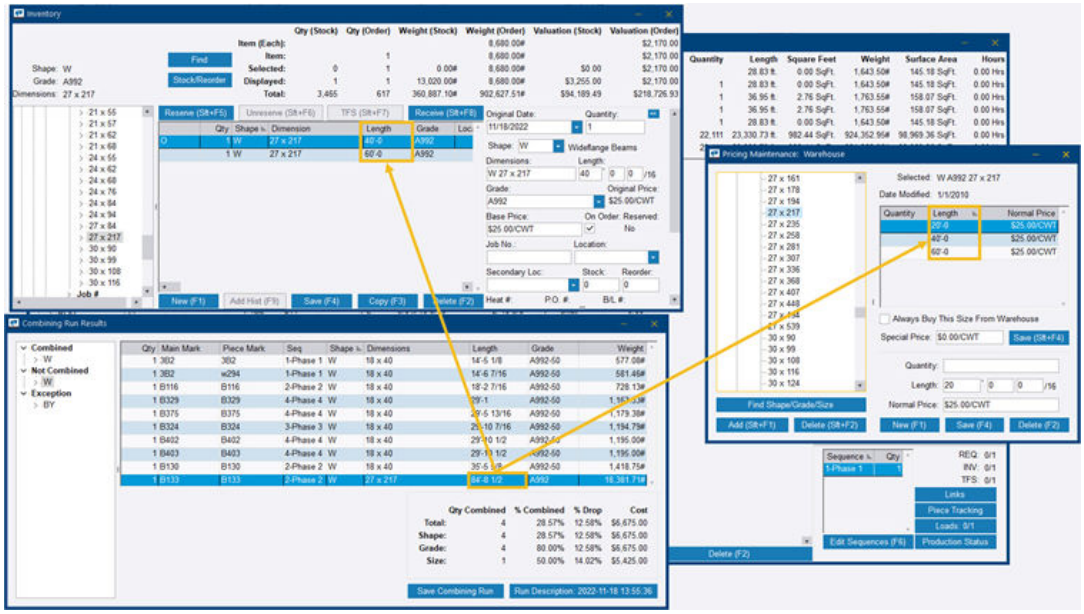
Possible cause: The grade is right but it has not been set up in the pricing maintenance.

- **Possible solution**: Evaluate the grade and check if it needs to be changed to match your standard or added to a supplier in pricing maintenance. See Pricing maintenance (page 278).



The item is longer than any available material

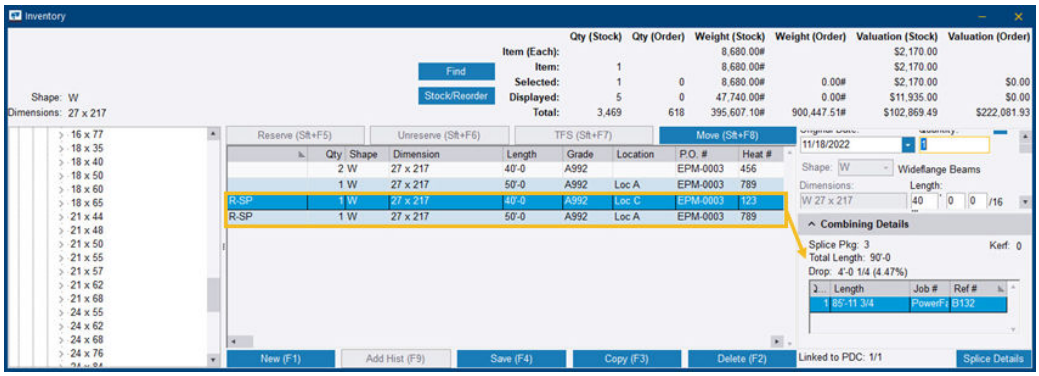
Possible cause: Detailing the job called for a piece longer than the available material. The length of the item is greater than what you have in **Pricing Maintenance** or **Inventory**.



- **Possible solution**

  If there is an option to splice existing material, you can create a splice package whose total length becomes available material.

  If the items are in inventory you may select them or add unpurchased items and choose to put them on a requisition or purchase order. See Create a splice package (page 1185).



Items do not combine to inventory

You may see inventory material that is there but items will not combine to it.

Possible cause: The item in inventory already has material combined onto it.

These may be reserved for the job and have records linked to them from previous runs either from the combining job or the PDC job that are no longer the right length even though the actual inventory length would accommodate the current length required.

- **Possible solution**:

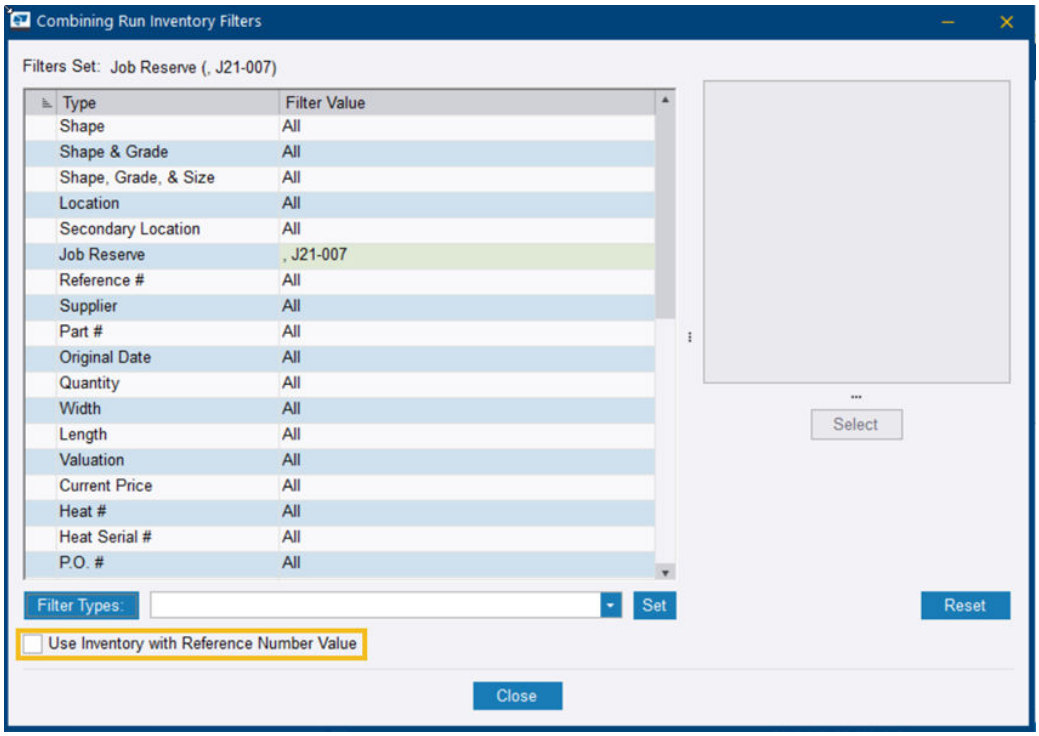
  Uncombine the unlinked material.

  You are prompted to send the item back to a requisition.

  If the record that is being removed is no longer correct, select no. This deletes the incorrect record. See Combine inventory items manually (page 628).

Possible cause: The inventory material itself has a reference number assigned.

- **Possible solution**: To use this material, check the **Use Inventory with Reference Number Value** checkbox in the **Combining Run Inventory Filters** dialog box.



Possible cause: The inventory is reserved for a job not included in the inventory filter.

- **Possible solution**:

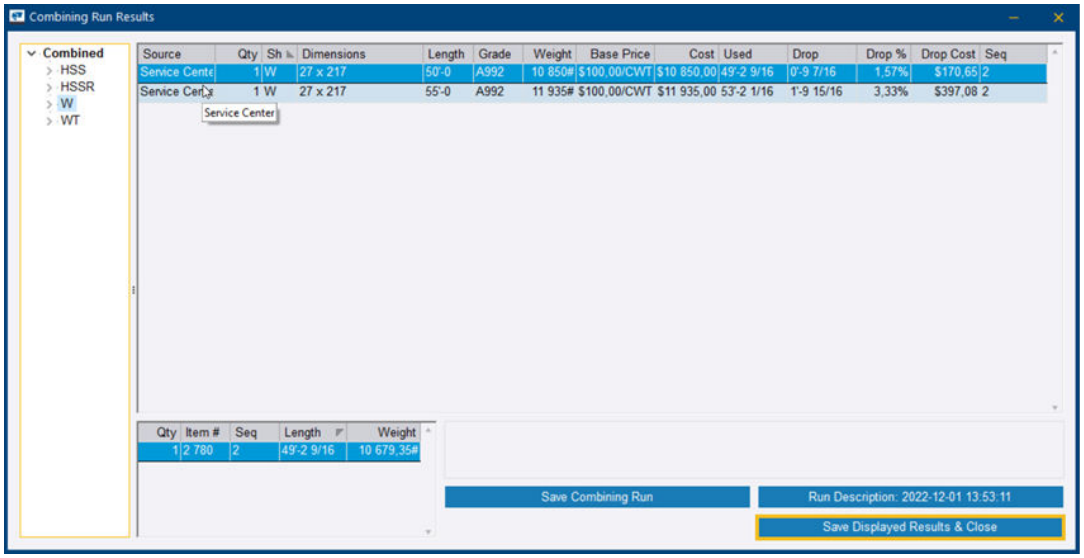
  Make sure that the available material is either unreserved or reserved for the current job.

If the material is reserved for another job, you must include that job reservation in the combining run inventory filter or unreserve the material.

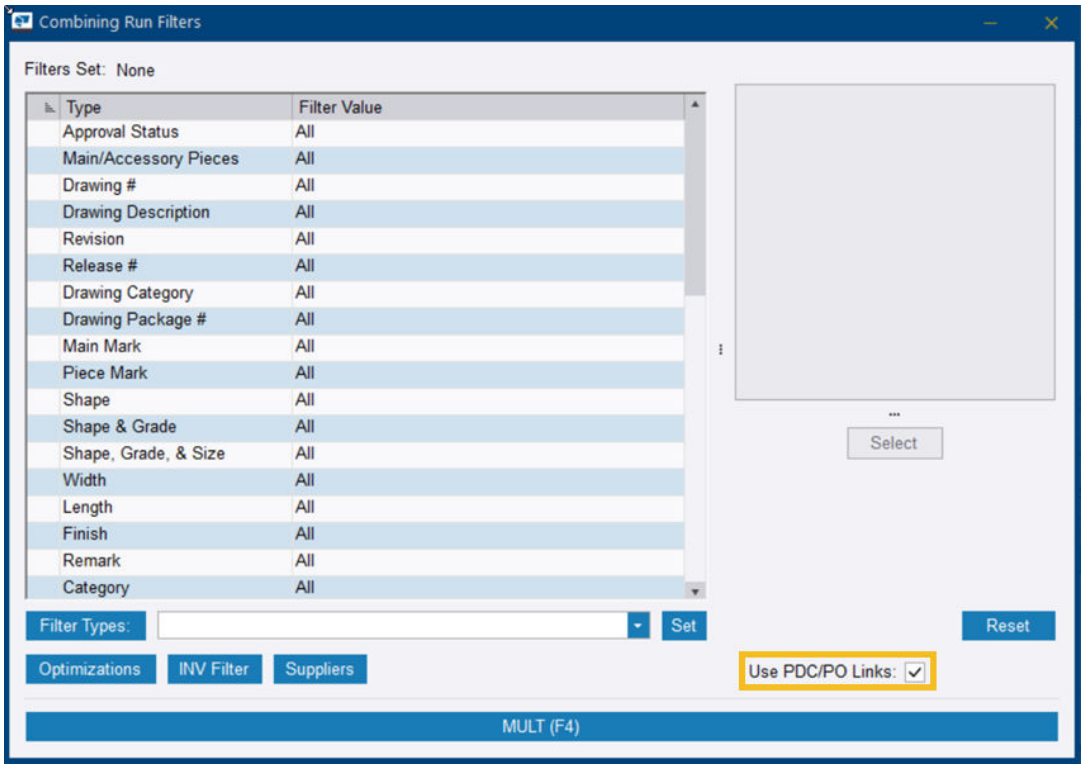
If there are combining details for another job, then unreserving it is not an option.

"Save Displayed Results & Close" is not available

Possible cause: The **Save Displayed Results & Close** button is not available.



- **Possible solution**: To save the results of a combining run, select **Use PDC/PO Links** in the **Combining Run Filters** window. See Combine materials in the Production Control module (page 996).



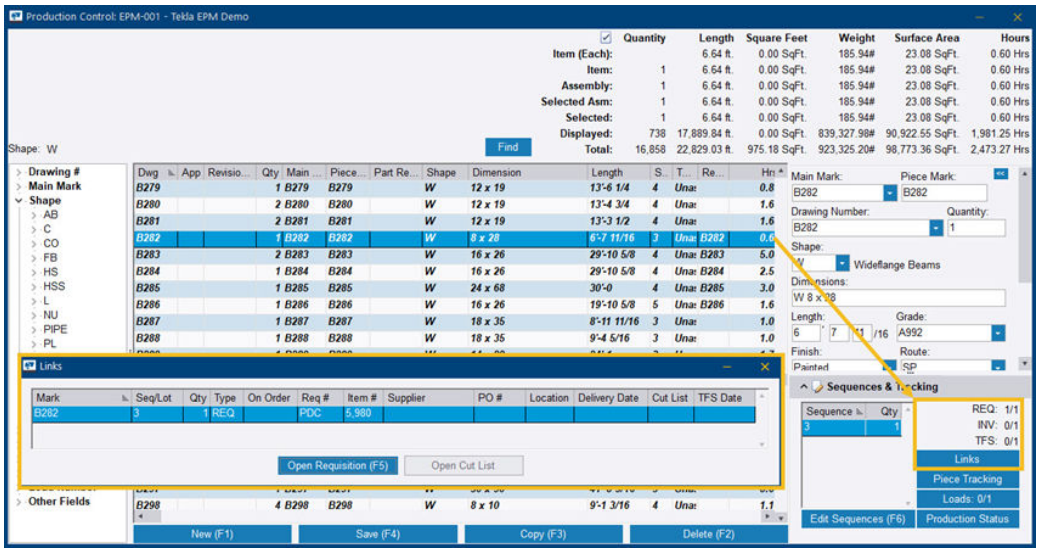
The combining dialog box opens to a blank window

Possible cause: All the items selected have previously been linked to a purchasing record. This may be in inventory or on a requisition.

- **Possible solution**:

  Find the items in inventory or in the requisitions.

  The easiest way to do this is to use the **Links** button when the production item is selected in the display grid. See View material links (page 955).



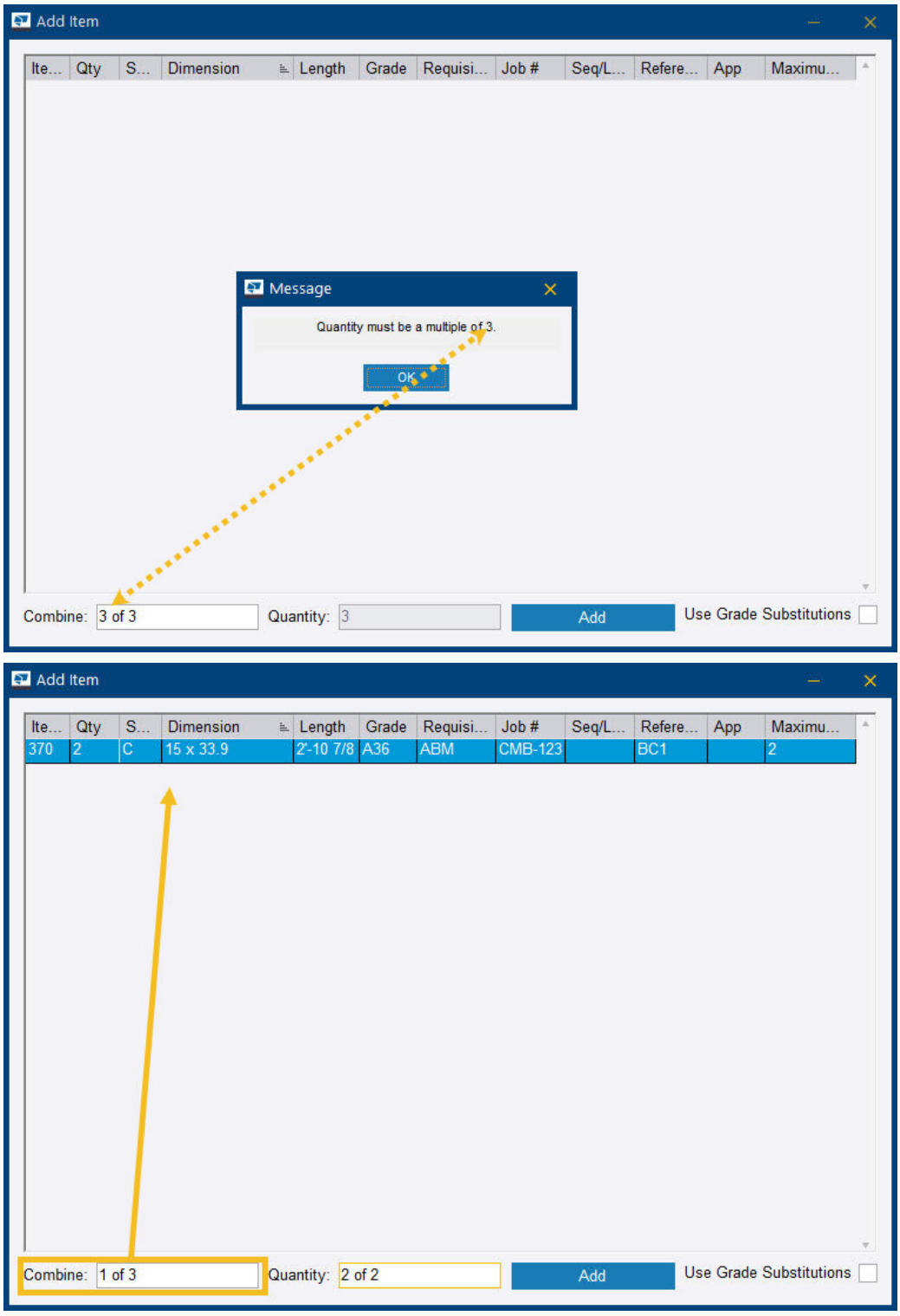
Inventory “Manual Combine Mode” does not display material in requisitions when “Add Item” is selected in the "Add Item" dialog box

Possible cause: The available material is not the same shape, dimension, grade, or grade substitute. The material simply does not match.

- **Possible solution**: Change the material to match, select the appropriate inventory material, or add a grade substitution.

Possible cause: The quantity of the items in the requisition does not have a multiple of the selected inventory quantity. In this case, you get a prompt informing you that the quantity must be a multiple of the inventory quantity.

- **Possible solution**: Select the **Combine** quantity to match or select 1 to see all available requisition items.



NOTE Requisition is the same for **Manual Combine Mode** as for inventory except that the option to change the combine quantity must be done on the combined requisition line item.

13.2 Troubleshoot 401 Unauthorized error

The **401 Unauthorized** error indicates that the setup process for a user is incomplete. It is likely that the user is not in your organization in the Tekla Online Admin Tool or does not have the appropriate licenses assigned to them there. This error can occur when logging into Tekla PowerFab desktop application or Tekla PowerFab Go.

The main steps for setting up a new user are the following:

1. Create the Trimble Identity, see Create your Trimble Identity for Tekla products.
2. Accept invitation to the organization, see Manage user accounts for Tekla products.
3. Assign licensing, see Manage Tekla Structures subscriptions.
4. Set up user in Tekla PowerFab, see Manage Tekla PowerFab users (page 69).

The first and second steps can be done when the organization's administrator invites the user through the Tekla Online Admin Tool, which sends an email with links to the user. Usually the **401 Unauthorized** error occurs when users set up their Trimble Identity but do not accept the invitation to the organization.

See also the following articles for further information:

- Solve problems with your Trimble Identity
- Tekla Online Admin Tool

13.3 Troubleshoot Tekla PowerFab Go

For information on troubleshooting Tekla PowerFab Go, see Troubleshoot Tekla PowerFab Remote Server Service (Go and Automated Events) in Tekla PowerFab Go User Guide.

13.4 Troubleshoot TFS (External Nesting Result is not available)

Sometimes, when you take an item from stock with the **TFS** command, you get an error saying "External Nesting Result is not available". This occurs when the cut list that was imported from ProNest to Tekla PowerFab could not be completed during the import.

This can happen in the following cases:

- The ProNest job was sent to CNC with the initial nesting, but the material items in Tekla PowerFab needed to be ordered. This means that the inventory did not exist in Tekla PowerFab when ProNest marked this item as cut.
- The ProNest job was sent to CNC multiple times.
- The cut list was imported to Tekla PowerFab before the material that was being cut had been received in the Tekla PowerFab inventory.
- Something in the nest changed in Tekla PowerFab, invalidating the nest. For example, this can happen if the reserved inventory was used for something else.

To fix the error, try the following:

1. Ensure that all inventory needed for the nest is in stock and received in the Tekla PowerFab inventory.
2. In ProNest, resend the job to CNC.
3. Import the cut list to Tekla PowerFab again.

If you continue to face the same error after this, contact support.

See also

Contact support (page 1249)

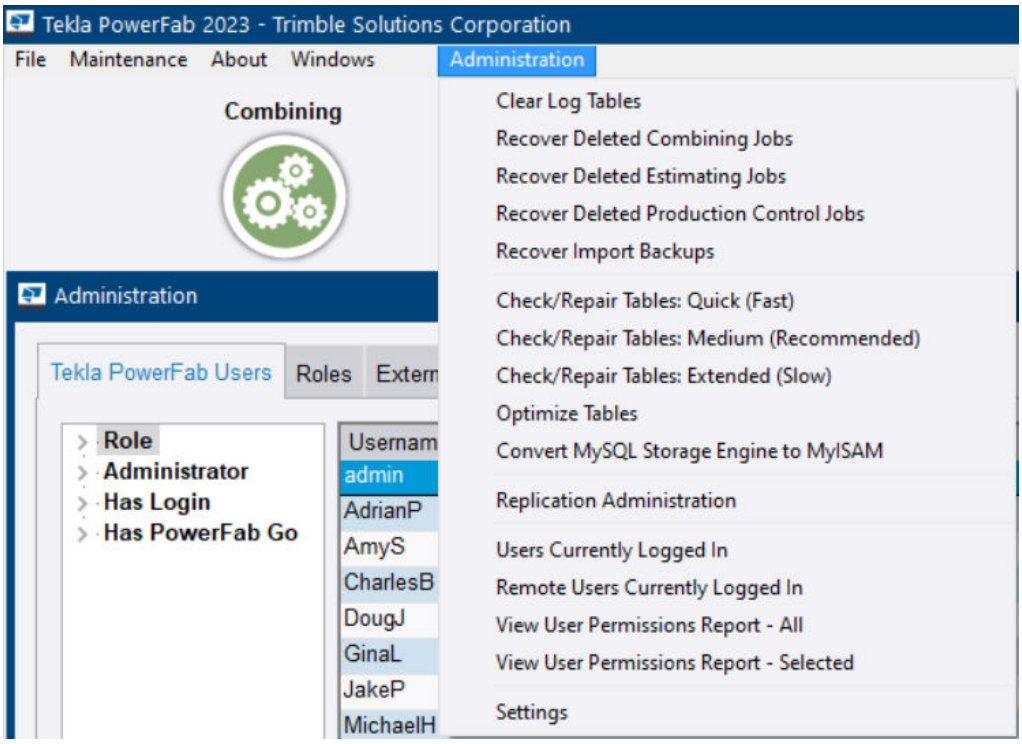
13.5 Repair program errors

Administrators can use the **Check/Repair Tables** commands on the server computer to find and repair errors in Tekla PowerFab. When one of these commands is executed, the program information is checked against the MySQL database and any corrupt files are repaired.

NOTE To repair errors, you must execute the **Check/Repair Tables** commands on the server computer. On other workstations, the **Check/Repair Tables** commands can help you find corrupted files, but the files cannot be repaired.

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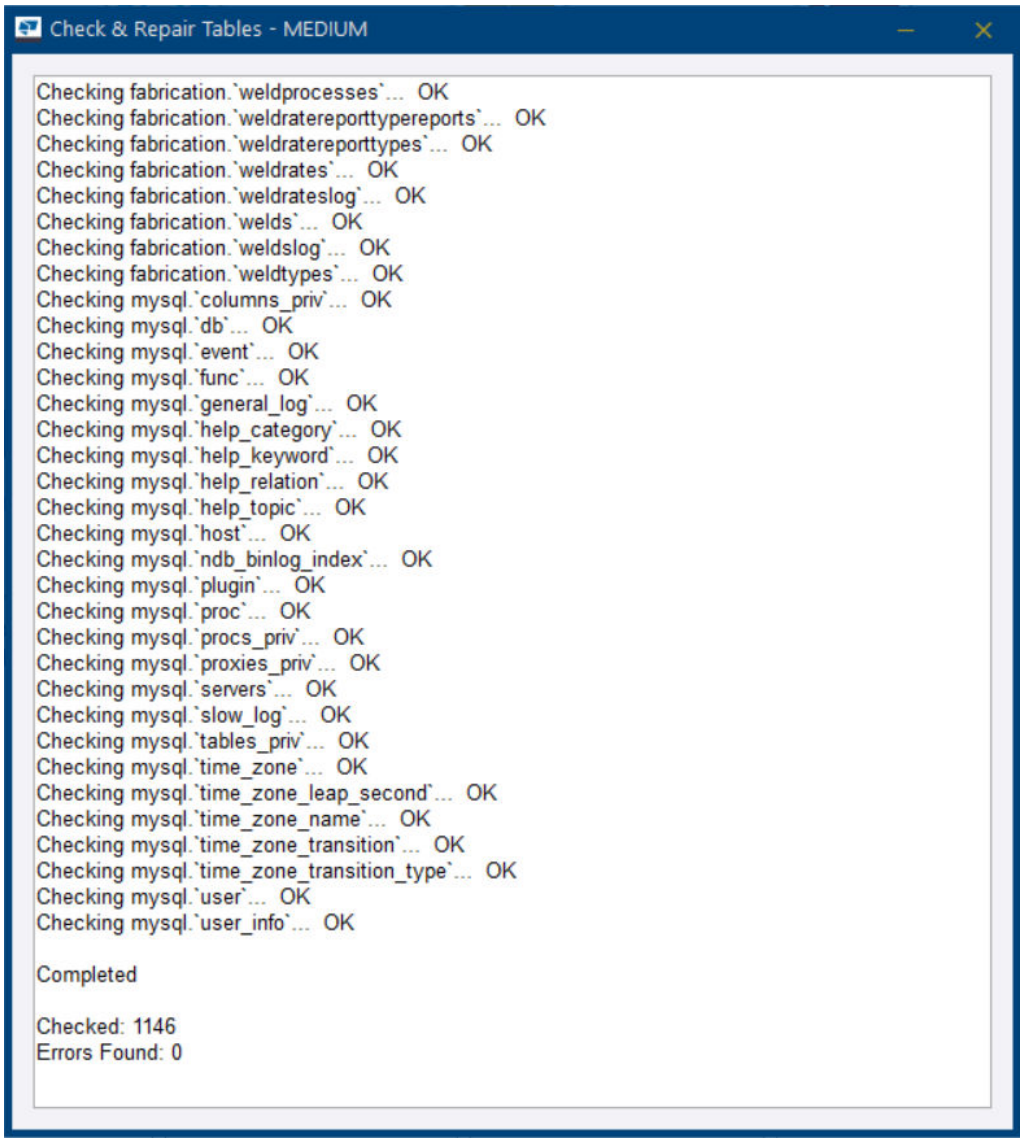
1. Click the **File** ribbon tab in the upper-left corner of the Tekla PowerFab window.
2. On the **File** menu, select **Administration**.
3. Click the **Administration** ribbon tab.



4. On the menu, select one of the following commands:
   - **Check/Repair Tables: Quick (Fast)**
   - **Check/Repair Tables: Medium (Recommended)**
   - **Check/Repair Tables: Extended (Slow)**

   The **Check/Repair Tables** dialog box opens, and the check and repair process starts.

   The more information is saved into Tekla PowerFab, the longer the check and repair process takes.
5. In the **Check/Repair Tables** dialog box, review the result of the check and repair process.



6. To close the dialog box, click the **Close** button (**X**) in the upper-right corner.

Repair program errors from command prompt

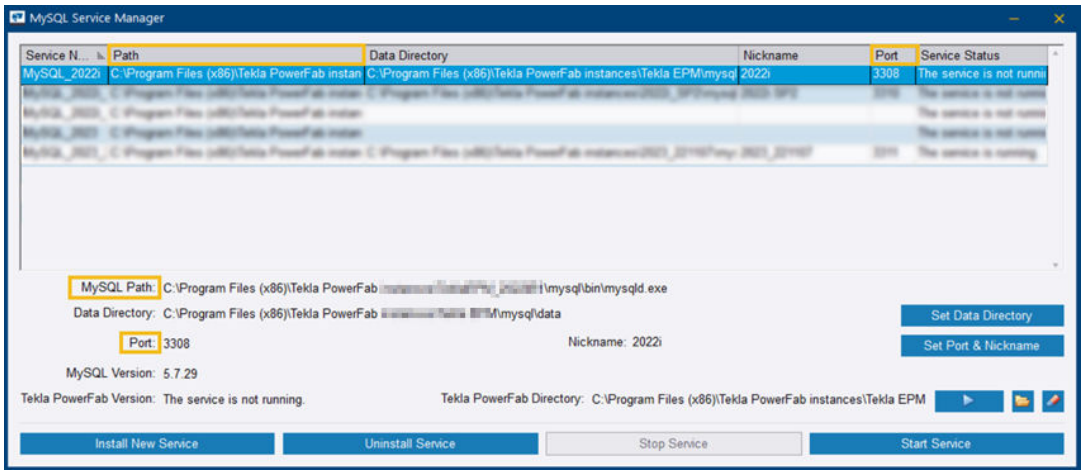
Occasionally, program errors need to repaired from outside of Tekla PowerFab. Administrators can use the command prompt on the server computer to find and repair errors in Tekla PowerFab.

When the commands presented here are executed, the program information is checked against the MySQL database, and any corrupt files are repaired.

NOTE To repair errors, the administrator must execute the commands on the server computer. The commands do not work on other workstations.

Prerequisites

Before performing the repair steps, you need to have the following information available:



- The directory that MySQL is installed to. By default this is installed at `C:\mysql\`.

  The installation may have been directed to a different location. You can check this in the **Path** column and **MySQL Path** row in MySQL Service Manager.

- The port number for the the database you want to check.

  By default the Tekla PowerFab database runs on port 3306, but it can be changed. You can check this in the **Port** column and **Port** row in MySQL Service Manager.

- The admin password for the Tekla PowerFab database.

By default, MySQL Service Manager is installed at `C:\Program Files (x86)\Tekla\Tekla PowerFab\MySQL.Service.Manager.exe`. The installation may have been directed to a different location.

The admin password should have been changed by someone at your organization. Tekla/Trimble does not have a way to discover this password. To reset the admin password, contact your local support.

Repair the database from command prompt

1. Open a **Command Prompt** instance.
2. To change the directory to the MySQL `bin` directory, type

   `cd [path]`

   Replace `[path]` with the path to the MySQL `bin` directory.
3. In the MySQL `bin` directory, run the following command:

```
mysqlcheck -u admin -p --auto-repair --check --all-databases --port=[port]
```

Replace `[port]` with the port that the MySQL database is running on.

NOTE You can exclude `--port=` if you are using the default port 3306.

4. When you are prompted to `Enter Password:`, type in the admin password and press **Enter**. The `mysqlcheck` command runs the Check/Repair on the database.

When the `mysqlcheck` command has completed, you can either type `exit` and press **Enter** to close the command prompt session, or just close the window.

Example: MySQL is in the default location and the database is on the default port (3306)

1. Open a **Command Prompt** instance.
2. To change the directory to the MySQL `bin` directory, type

   ```
   cd C:\mysql\bin
   ```

3. In the MySQL `bin` directory, run the following command:

```
mysqlcheck -u admin -p --auto-repair --check --all-databases
```

4. When you are prompted to `Enter Password:`, type in the admin password and press **Enter**.

When the `mysqlcheck` command has completed, you can either type `exit` and press **Enter** to close the command prompt session, or just close the window.

Example: MySQL is in the default location and the database is on port 3220

1. Open a **Command Prompt** instance.
2. To change the directory to the MySQL `bin` directory, type

   ```
   cd C:\mysql\bin
   ```

3. In the MySQL `bin` directory, run the following command:

```
mysqlcheck -u admin -p --auto-repair --check --all-databases --port=3220
```

4. When you are prompted to `Enter Password:`, type in the admin password and press **Enter**.

When the `mysqlcheck` command has completed, you can either type `exit` and press **Enter** to close the command prompt session, or just close the window.

Example: MySQL is on another drive or location and the database is on port 3220

1. Open a **Command Prompt** instance.
2. To change the directory to the MySQL `bin` directory, type

   `cd D:\mysql_5_7_29\bin`
3. In the MySQL `bin` directory, run the following command:

```
mysqlcheck -u admin -p --auto-repair --check --all-databases --port=3220
```

4. When you are prompted to `Enter Password:`, type in the admin password and press **Enter**.

When the `mysqlcheck` command has completed, you can either type `exit` and press **Enter** to close the command prompt session, or just close the window.

13.6 Enable licensing logging

ATC debug logging may be required when you are contacting support in certain cases. This log may be needed from the server installation and one or multiple client installations. The support representative should inform you all the locations to enable it.

1. Go into the computer's **Default Directories** for the logs.

   Typically the location is `C:\Users\Public\Documents\Tekla\Tekla EPM\Log`.
2. Create a file named `atc-debug-log-enabled.txt`.

   Once the program or service starts, Tekla PowerFab applications (desktop, Tekla PowerFab Remote Server, etc.) begin writing information to the `atc-debug.log` file.

If you do not see data in the file after opening Tekla PowerFab, check the `atc-debug-log-enabled.txt` filename.

Especially when file extensions of known types are hidden in the Windows Explorer settings, the filename is accidentally created as `atc-debug-log-enabled.txt.txt`. This does not work.

See also

Default directories (page 53)

13.7 Contact support

You can contact support directly from Tekla PowerFab using the support tool. You can launch the tool directly from an error dialog or from the **About** dialog box.

In the tool, you can describe the issue, and attach error logs, and database backups.

If there is a crashing error, the tool automatically launches the ticket-creation dialog box.

Create a support ticket

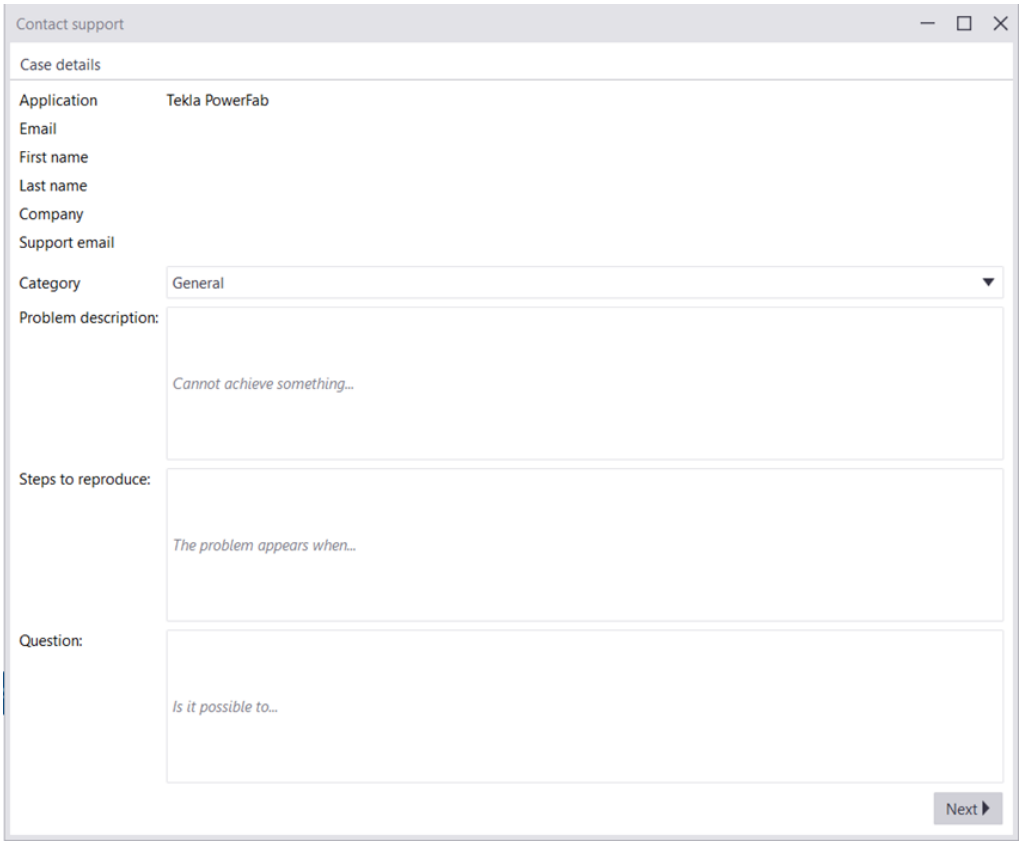
This step-by-step procedure instructs you how to contact support using the **About** dialog box. You can also contact support directly from an error dialog.

1. Click the **About** ribbon tab.

   The **About** dialog box opens.

2. Click **Create Support Ticket**.

   The **Contact support** dialog box opens.



3. Type the details of your issue or questions and click **Next >**.

   In the description, include the version of the program, if it is on the server or client, and if the issue is occurring on multiple machines.

4. Select the attached information and click **Next >**.
5. Check the **Case summary**.
6. If you are satisfied with your ticket, click **Create case**.

   Otherwise, click **Back**, and modify your ticket as desired.

14 Revision history for Tekla PowerFab

Date	Description
September 13, 2023	**Install Tekla PowerFab** New content: • Recommended directory structure (page 51) • Download Tekla PowerFab (page 52) Updated content: • System requirements for Tekla PowerFab and Tekla PowerFab Go (page 49) **Manage** New content: • Manage Tekla PowerFab remote work (page 87) **Start using** Updated content: • Stimulsoft report group headers and footers (page 164): Added information on modifying properties. **Maintenance** This is a new section that was formed by combining content from Manage Tekla Tekla PowerFab and the old Configure and use Tekla PowerFab. The new section now contains content related to the non-module-specific functionalities in the **Maintenance** ribbon tab, including the new **Cost Maintenance** section. New content: • Delete a file from Document Index (page 195)

Date	Description
	• Find a document in Document Index (page 195) • Rename a file or directory (page 198) • Manage cost types (page 225) • Integrate Tekla PowerFab to SigmaNest (page 269) • Mult and nest materials with ATek Steel Solutions (page 270) • Mult, nest, or cut materials with SICAM (page 258) • Enable ShopData Systems for plate nesting (page 258) • Cut materials with Peddinghaus Raptor (page 274) • Export a pricing list (page 299) • Dimension properties (page 328) • Add, modify, and delete shapes (page 304): Modify multiple shapes • Apply cost codes and cost types to a material type (page 339) Updated content: • Manage cost codes (page 227): New location under **Cost Maintenance**. Previously, this functionality and content was in Purchasing (Create, modify, or delete cost codes). • Manage taxes (page 229): New location under **Cost Maintenance**. • Manage currencies (page 232): New location under **Cost Maintenance**. • Job status maintenance (page 276): Improved estimate job status • Add, modify, and delete shapes (page 304): Estimating cost structure **Estimating** New content: • Set labor archive date (page 411) • Parametric assembly properties (page 426) • Modify multiple burn details (page 478) • Modify multiple drill details (page 481) • Modify multiple punch details (page 484)

Date	Description
	• Modify multiple weld details (page 488) • Assign and view default cost codes and cost types (page 495) • Estimate summary (page 535) • Create a dedicated estimating pricing file (page 540) • Job-specific pricing maintenance (page 542) • Assign a cost code and cost type to an estimate item (page 543) • Assign a cost code and cost type to multiple estimate items (page 544) • Estimating item properties (page 549) • Accessory properties (page 415) • Modify the pricing of an estimating item manually (page 567) Updated content: • Manage accessories (page 412): Estimating cost structure • Create estimate extras (page 457): Estimating cost structure • Manage standard clips (page 474): Estimating cost structure • Create and modify labor rates (page 490): Estimating cost structure • Create an estimating job (page 509): Job Status, Labor Archive Date, Client tab • Add an estimating item (page 548): Estimating cost structure **Inventory** New content: • Import ProNest inventory to Tekla PowerFab (page 650) Updated content: • View the location of barcoded materials (page 635) **Project Management** Updated content:

Date	Description
	• Manage default check list items for project management jobs (page 671): Updated to reflect the current user interface • Set drawings on hold (page 717): Added setting multiple drawings on hold **Production Control** New content: • Define shipping routes for a production control job (page 924) • Load properties (page 1001) Updated content: • Define default pay categories for Production Control (page 861) and Define pay categories for a production control job (page 923): Added **Cost Code** and **Cost Type** • Import files to a production control job (page 937): Added Required columns for production control Excel imports • Manage changes to a production control job (page 938): View changes in Trimble Connect • Inspections (page 1019): A new section containing content related to inspections. Information added. **Purchasing** Updated content: • Define company standard settings for purchase orders (page 1077): Default tax group • Create a purchase order (page 1135): Default tax group • Receive purchase order items (page 1156): The **Receive** dialog box updated with **Receiving Notes**. Removed content: • Create, modify, or delete cost codes: This content was moved to **Maintenance**, the heading was changed into Manage cost codes, and the content updated. **Order Entry** New content: • Manage files for Order Entry (page 1214) **Troubleshooting**

Date	Description
	New content: • Enable ATC debug logging (page 1249)

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