Construsoft Library Tools 2020

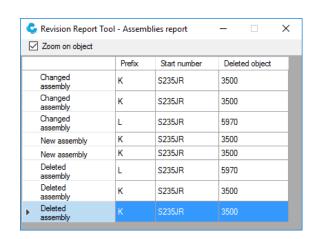
Non Segment

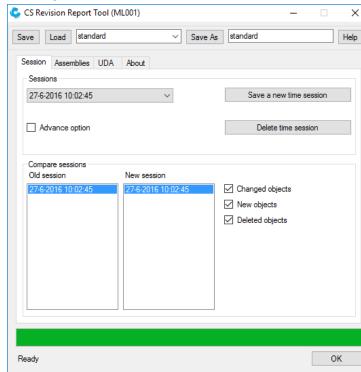




ML001 – Revision Tool

- Compair model with different saved versions.
- Shows added, modified en deleted objects.
- > Save one or multiple sessions and compare with each other.





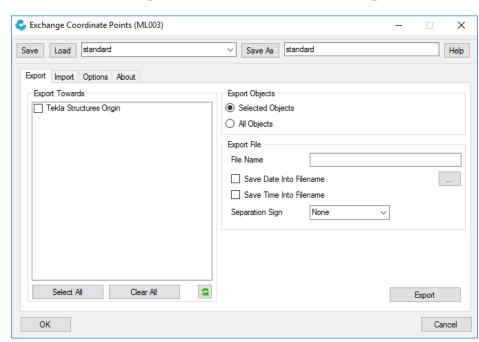




ML003 – Exchange Coordinate Points

- Import and export coordinates of points from various origins.
- > Custom component for defining an additional origin.





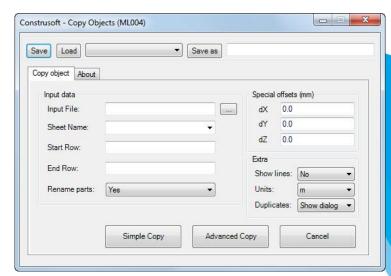




ML004 – Copy Objects

- Copy the object (s) and read thereby the to copy X, Y and Z-value from an Excel file.
- > To use the ML004 tool the reference Interop.Excel should be added to the advanced options.

	SYSTEM	XS_MACRO_ENABLE_TIM	FALSE
Eigenschappen modelleren	MODEL(SYSTEM)	XS_MACRO_REFERENCES	Akit5; Tekla. Structures. Model; Interop. Excel; Tekla. Structures. Drawing; Macro Selector;
	MODEL	XS MAXIMUM NUMBER	400







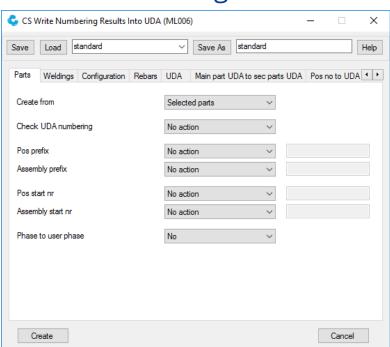
Write down the current numbering to the user defined attributes.

> After modifications you can see what the original number

of a part was in the UDA's.

> Phase in the prefix

Write part prefix number into UDA







ML007 – Tekla Structures Version into UDA

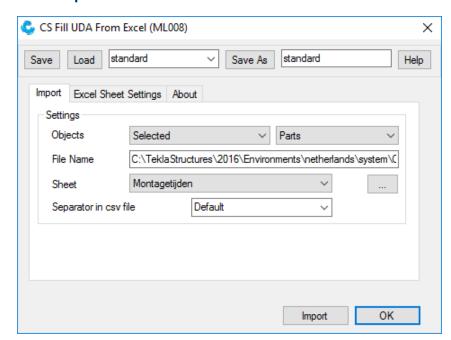
> Writes the Tekla version in the project properties of the model. This info (version number) can be used in stamps and / or lists.

ENZIJ ANDERS VERMELD				
SEN TENZIJ ANDERS VERMELD				
Tekla Structures 19.1				
Project:				
project nummer				
Tekening:	Formaat:			
A [L.1]	A3			





- > This tools fills the UserDefinedAttributes of the model according to conditions defined in an Excel file.
- Practical application: Cost, Assembly Times, Item Numbers, planed - raw scrapes etc..

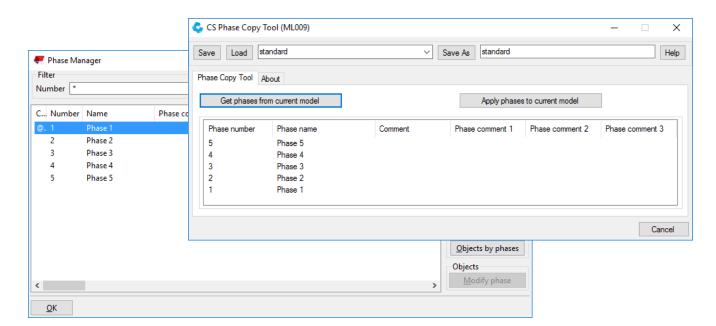






ML009 – Phase Copy Tool

- > Tool to copy phases from one model to another
- > Phases are written in an XML file. This file can be loaded into a different model and the phases can be written in that model.







ML013 –Sequence Tool (1/3)

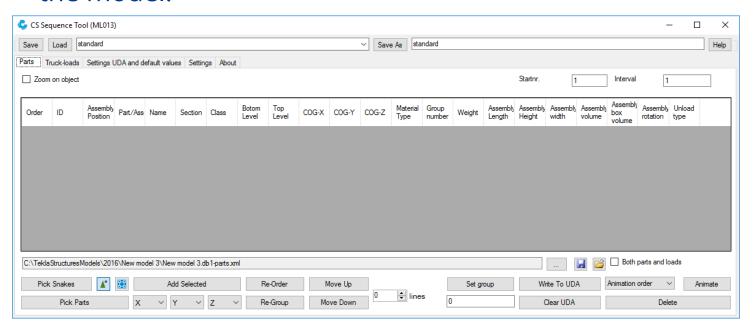
- Add sequence numbers in the model to any UDA.
- > simply change the order or add parts in a later state.
- > Define startnumber and intermediate step.
- Replaces the macro's CS_AutoSequencer en CS_AssemblySequencer
- > Application: Foundation piles, Assembly sequence
- > Snake...







Add items, rearrange the numbers and write the UDA's to the model.

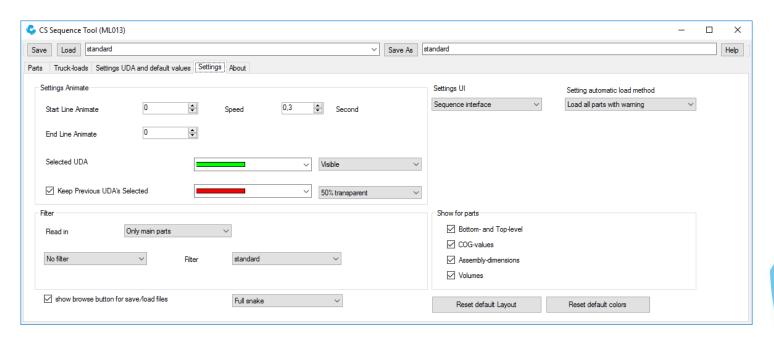






ML013 – Sequence Tool (3/3)

Information can be written by assembly or part.







- Exchange of information between two separate models.
- For example, in one model is detailing modified and in the other model numbers are changed. A xml export is made (with the tool CS_UDA_Sequencer), this export is read and compared with the parts in the other model.

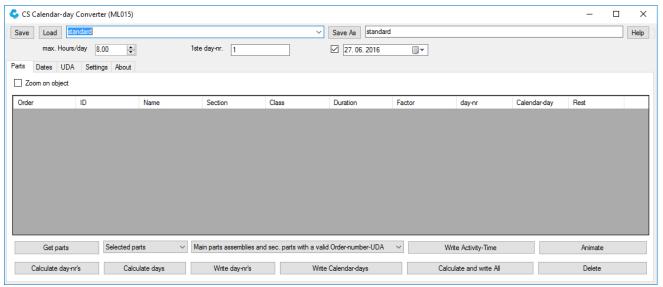






ML015 – Calender Day Convertor

- Determining and writing day numbers and data in user defined attributes for the assembly planning..
- On the basis of the mounting order and time the total mounting days and time are determined. Those values are written back to the userdefinedattributes of the parts.







ML018 – Part-UDA Into Drawing-list

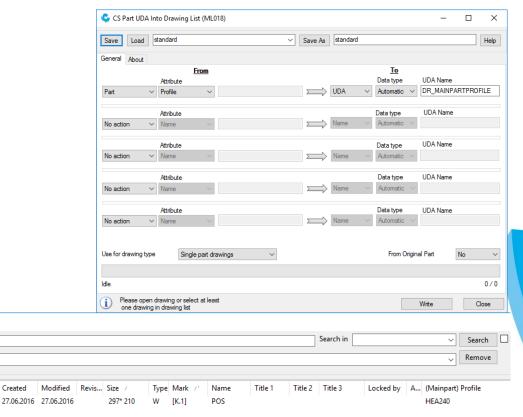
> Adds in an additional column in the drawings list the profile information or a user

defined attribute.

Drawing List Enter search criteria:

or select drawing set

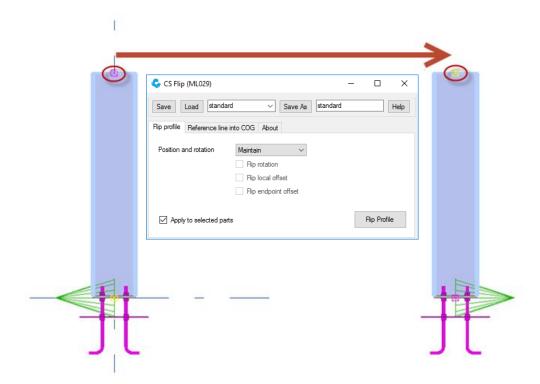
r Up to... Changes





ML029 – Flip Tool

> Changed the system points of a profile.

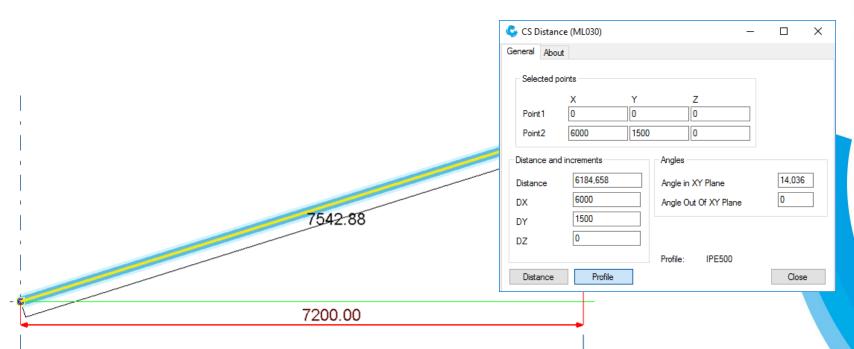






ML030 – Distance Tool

Collects the X, Y and Z coordinates of a profile or distance which is determined by 2 points.





ML033 – Matrix Exchange

Exports to Matrix software.

```
<?xml version="1.0" encoding="UTF-8"?>
                   - <FabWindowXML>
                       - <Header>
                            <Software>Tekla Structures</Software>
                            <Creator> Construsoft</Creator>
                            <Version>2013</Version>
                            <LevelOfDevelopment>200</LevelOfDevelopment>
                          - <Manufacturer>
CS Matrix Kozijn
                               <ManufacturerName>default</ManufacturerName>
                               <ManufacturerWebsite>default</ManufacturerWebsite>
                                                                                                                                                       Help
                            </Manufacturer>
                         </Header>
                       - < Project>
 Export Import Win
                            <ClientNumber>default</ClientNumber>
                            <ProjectNumber>project nummer</ProjectNumber>
                            <ProjectName>Construsoft bv</ProjectName>
                            <Level LevelName="V0" LevelElevation="0"/>
  Window parts
                          - <Mark MarkName="W3(?)">
                              - <MarkDefinition>
                                 - <Frame FrameName="default">
  Outer frame
                                     - <FrameType FrameType="67x114" IsEdgeFrame="true" FrameDepth="114" FrameWidth="67" DepthOffset="0">
                                        - <FrameInstance>
  Inner frame
                                             <ID>16848</ID>
                                             <StartPoint XStart="0" YStart="0" ZStart="0" ExtensionStart="0" IsCutStart="false"/>
                                             <EndPoint XEnd="2000" YEnd="0" ZEnd="0" ExtensionEnd="0" IsCutEnd="false"/>
  Latch
                                          </FrameInstance>
                                       </FrameType>
                                                                                                                                               ickness
                                       <FrameType FrameType="0x0" IsEdgeFrame="false" FrameDepth="0" FrameWidth="0" DepthOffset="0"/>
  Window
                                   </Frame>
                                 - <Panel PanelName="default">
  Door
                                     - <PanelType DepthOffset="47" PanelType="Window" IsEdgePanel="false">
                                        - <PanelInstance>
  Panel
                                             <ID>15019</ID>
                                             <PanelPoint_1 X="67" Y="67" Z="0"/>
                                             <PanelPoint 2 X="966.5" Y="67" Z="0"/>
                                             <PanelPoint_3 X="966.5" Y="966.5" Z="0"/>
                                             <PanelPoint_4 X="67" Y="966.5" Z="0"/>

    <ModelProperties>
```

<PanelSwing PanelSwing_A="BI val"/>

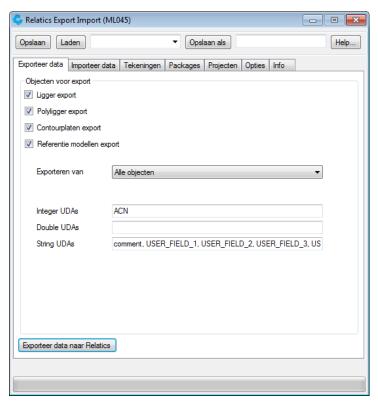
</ModelProperties> </PanelInstance>

D





> Export parts, assemblies (ID's, UDA's, Profiles, etc.) and drawings from Tekla to Relatics databases and vica versa.

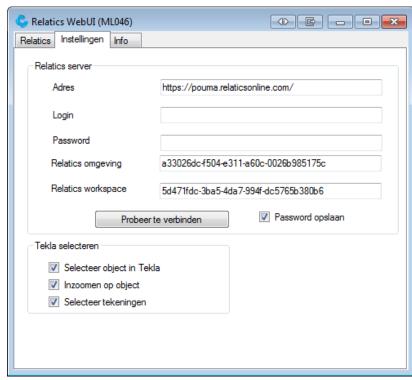






ML046 - Relatics UI

> Select the part in the Relatics database and it will be highlighted in Tekla.

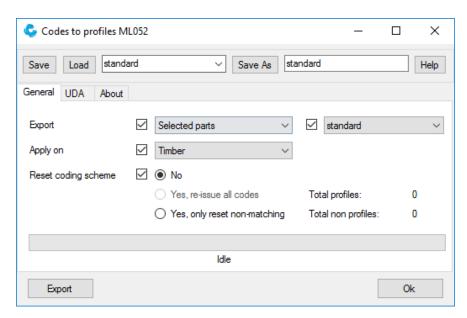






ML052 – Codes in profiles

Writes profile Section (shadow) into UDA's. Prefix is remembered and used later by comparing (new) parts.

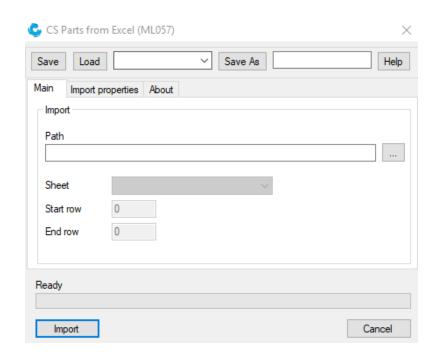






ML057 – Parts From Excel

> Import parts from Excel to Tekla Structures.

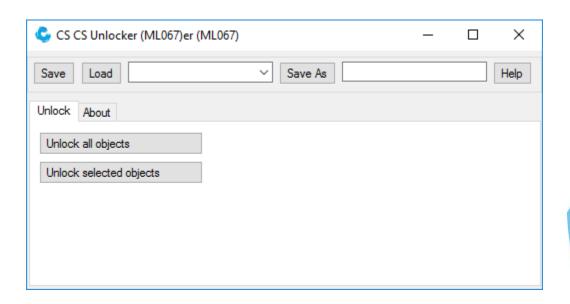






ML067 - CS Unlocker

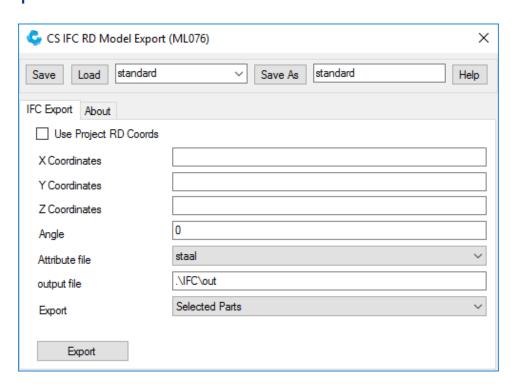
Unlock all or selected objects in the model. Including points, construction lines etc.







> This tool export the IFC with different coordinates then the current workplane in Tekla.

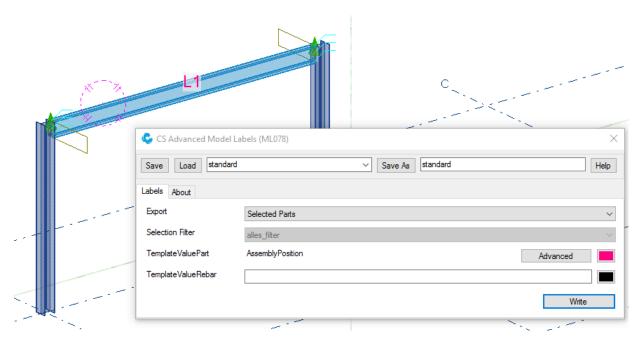






ML078 – CS Advanced Model Labels

> This tool creates labels in the model made by different kind of selections.

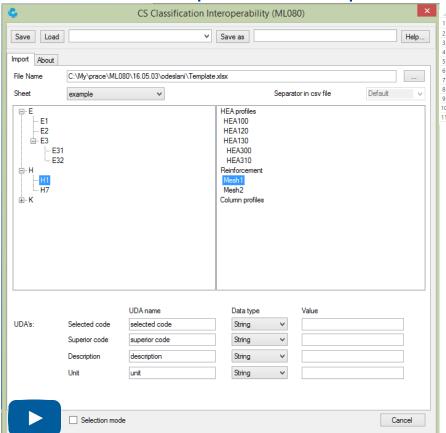


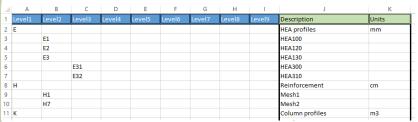




ML080 – CS Classification Interoperability

> This tool improve interoperability TEKLA and TCQ2000



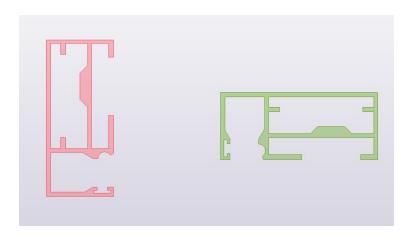


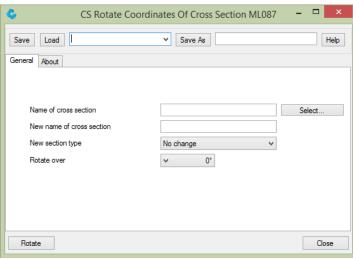




ML087 - CS Rotate Coordinates Of Cross Section

This tool can rotate fixed user-defined profile in profile catalog.

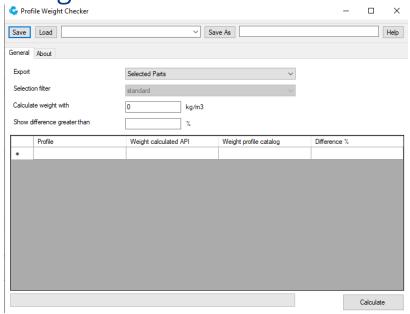








Easily export all or selected parts and calculate their weight.







> A cube to easily rotate around a point or view.





CS_GoToAssist

> Starts GoToAssist within Tekla.



CS_Modify_Selected_Connections

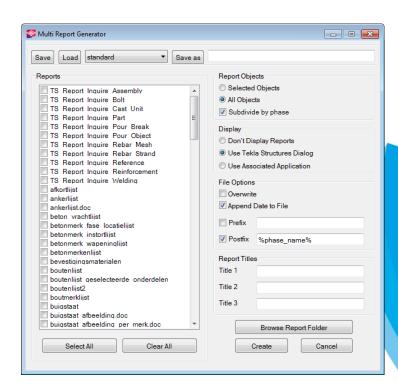
> Select component and modify them by running this macro.





CS_Multi_Report_Generator M122

- > Create multiple reports by phase.
- > It is possible to wright the phase name into the file name.





CS_ReOpen_Model

> Save the model and reopen it in 1 action.





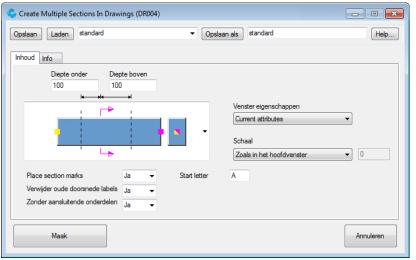
- > Saves the most imported databases to the model folder:
 - Profdb.bin
 - Assdb.bin
 - Screwdb.bin
 - Matdb.bin

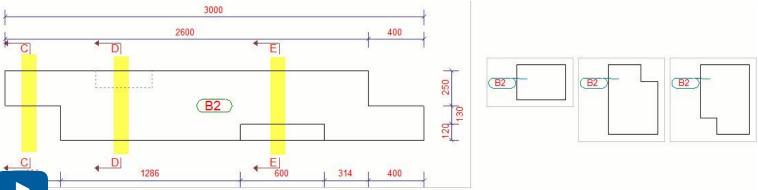




DR004 - Create Multiple Sections on Drawings

Create section views on selected points.



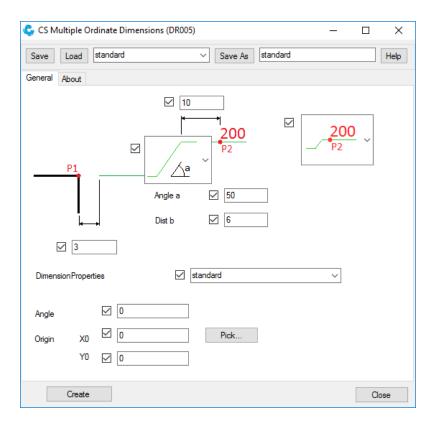






DR005 - Multiple Ordinate Dimensions

> Create dimensions for objects from an alternative source.



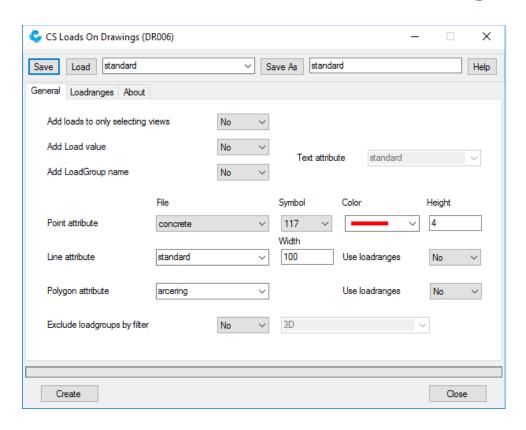




DR006 - Loads on Drawing

> The loads placed in the model are shown on drawing with

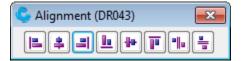
this tool.







> Aligns labels and tekst in the drawing. Select multiple labels, choose a option and then a point in the drawing.

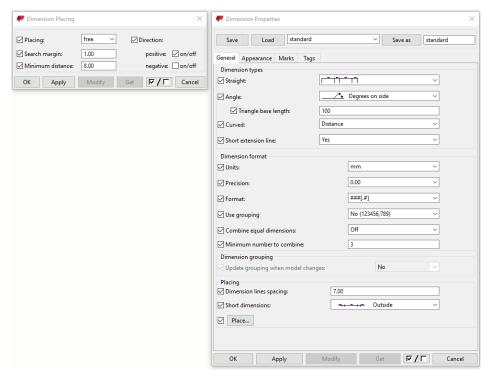






CS_Dim_Free

- > Sets the place of the dimline on free.
- > Select dim line(s) and execute the macro.

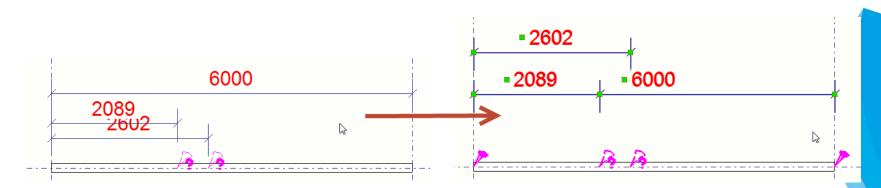






CS_Dim_Free_And_Replace

- > Sets the place of the dimline on free and replaces the dimline(s).
- > Select dim line(s) and execute the macro.

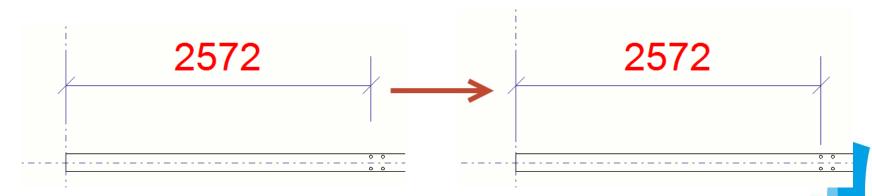






CS_Exaggerate_Dimlines

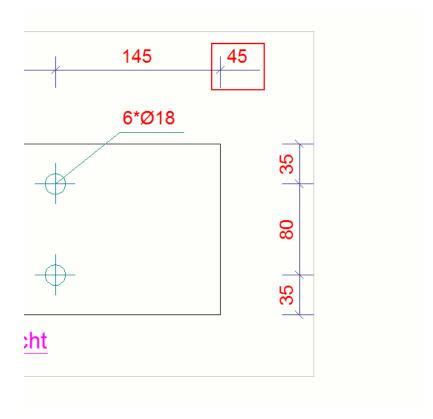
> Sets long extension lines for the selected dimline(s).





CS_Place_Dim_Tags

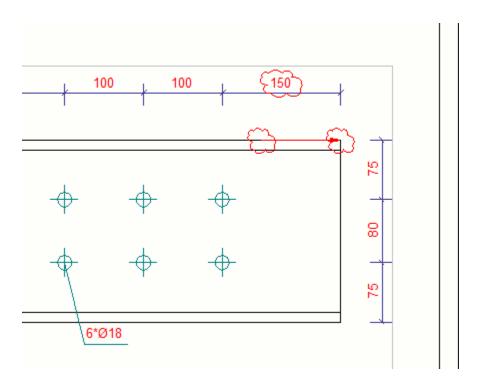
> Places tags add the dimlines.







> Remove all types of change clouds at once.

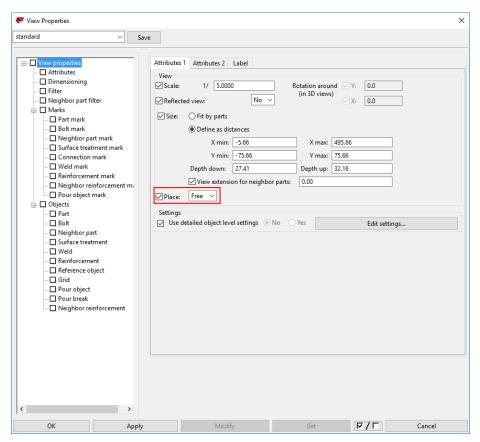






CS_View_Free

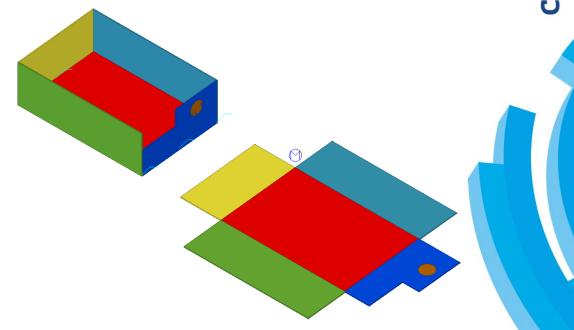
> Sets the place of the selected view on free.





Unfolded Surface (m021)

- > Fold surfaces in the model
- > Select a part, activate the plugin and then select a position in the model were the part has to be unfolded.

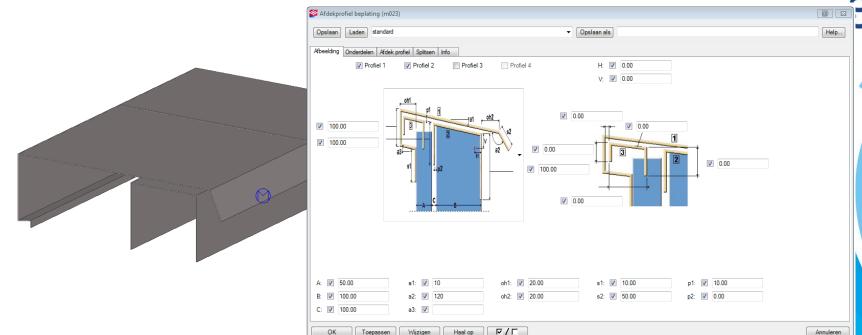






Border cladding profiles (m023)

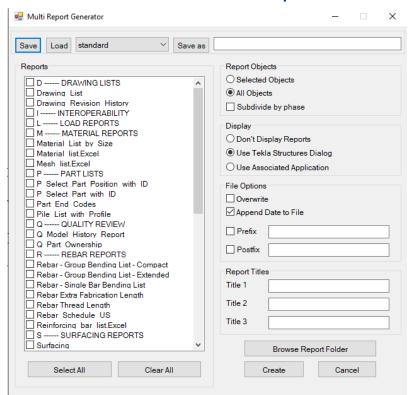
- Cover profile made of plates were a unfolded drawing can be made of.
- Placement by 2 points.





Multi Report Generator (m122)

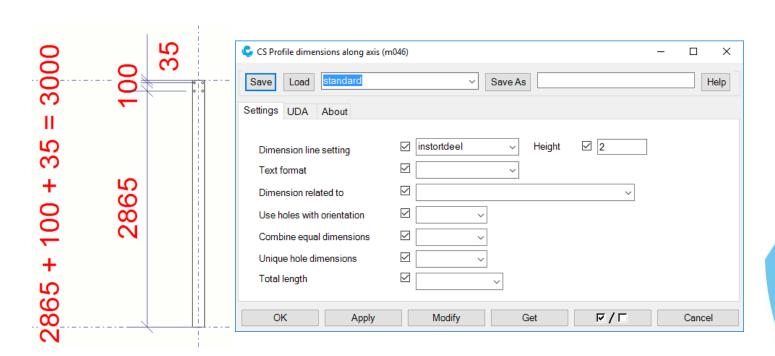
Creates selected reports.







> Select profile and position for the dimension.





Custom Properties

- > CUSTOM.CS_ASSEMBLY_PREFIX_AND_ACN "Gets textual sum of assembly prefix and ACN"
- > CUSTOM.B1P1 "Gets beams First top bevel angle at the parts begin"
- CUSTOM.B1P2 "Gets beams First top bevel angle at the parts end"
- > CUSTOM.B1P3 "Gets beams Second top bevel angle at the parts begin"
- CUSTOM.B1P4 "Gets beams Second top bevel angle at the parts end"
- > CUSTOM.B2P1 "Gets beams First bottom bevel angle at the parts begin"
- CUSTOM.B2P2 "Gets beams First bottom bevel angle at the parts end"
- > CUSTOM.B2P3 "Gets beams Second bottom bevel angle at the parts begin"
- > CUSTOM.B2P4 "Gets beams Second bottom bevel angle at the parts end"
- CUSTOM.BOTB1 "Gets beams start bottom left notch length"
- CUSTOM.BOTB2 "Gets beams end bottom left notch length"
- CUSTOM.BOTB3 "Gets beams start bottom right notch length"
- CUSTOM.BOTB4 "Gets beams end bottom right notch length"
- CUSTOM.BOTH1 "Gets beams start bottom left notch width"
- CUSTOM.BOTH2 "Gets beams end bottom left notch width"
- CUSTOM.BOTH3 "Gets beams start bottom right notch width"
- CUSTOM.BOTH4 "Gets beams end bottom right notch width"





Custom Properties

- > CUSTOM.CS_BRICK_TYPE "Gets brick type based on length and CS_BrickTypes.txt which should be placed at Environments\common\system\
- > CUSTOM.CPORIENTATION "Gets contour plate orientation"
- CUSTOM.CS_ASSEMBLY_PREFIX_AND_ACN "Gets textual sum of assembly prefix and ACN"
- CUSTOM.CS_LEVEL "Gets sum of ASSEMBLY.BOTTOM_LEVEL_GLOBAL_UNFORMATTED and PROIECT.USERDEFINED.LEVEL TAKEN AT"
- > CUSTOM.CUTBACK "Gets the cutback value from the boolean made by custom component CUTBACK"
- CUSTOM.CUTBACKSIDE "Gets the cutback side from the boolean made by custom component CUTBACK"
- CUSTOM.ISCUSTOMBRICK "Determine whenever brick is standard size or not"
- CUSTOM.IP_ANGLE "Gets the in-plane angle of the system line in degrees"
- CUSTOM.IP_ANGLE_RAD "Gets the in-plane angle of the system line in radians"
- CUSTOM.OOP_ANGLE "Gets the out-of-plane angle of the system line in degrees"
- CUSTOM.OOP_ANGLE_RAD "Gets the out-of-plane angle of the system line in radians"
- CUSTOM.PART_COG_X_IN_ASSEMBLY "X-coordinate of cog with respect to assembly coordinate system"
- > CUSTOM.PART_COG_Y_IN_ASSEMBLY "Y-coordinate of cog with respect to assembly coordinate system"
- CUSTOM.PART_COG_Z_IN_ASSEMBLY "Z-coordinate of cog with respect to assembly coordinate system"
- CUSTOM.PART_GROSS_COG_X_IN_ASSEMBLY "X-coordinate of gross cog with respect to assembly coordinate system"





- CUSTOM.PART_GROSS_COG_Y_IN_ASSEMBLY "Y-coordinate of gross cog with respect to assembly coordinate system"
- CUSTOM.PART_GROSS_COG_Z_IN_ASSEMBLY "Z-coordinate of gross cog with respect to assembly coordinate system"
- > CUSTOM.PART HAS HOLES "Determine whenever beam has drills or bolts"
- CUSTOM.PART IS CONVEX "Determine whenever beam has convex cuts"
- > CUSTOM.PART_IS_PROFILED "Determine whenever beam has been profiled"
- CUSTOM.PART_ROTATION_CW_IN_ASSEMBLY "Clock wise rotation of part with respect to assembly coordinate system"
- > CUSTOM.PART_ROTATION_IN_ASSEMBLY "Rotation of part with respect to assembly coordinate system"
- CUSTOM.S1P1 "Gets beams First top saw angle at the parts begin"
- > CUSTOM.S1P2 "Gets beams First top saw angle at the parts end"
- CUSTOM.S1P3 "Gets beams Second top saw angle at the parts begin"
- CUSTOM.S1P4 "Gets beams Second top saw angle at the parts end"
- CUSTOM.S2P1 "Gets beams First bottom saw angle at the parts begin"
- CUSTOM.S2P2 "Gets beams First bottom saw angle at the parts end"
- CUSTOM.S2P3 "Gets beams Second bottom saw angle at the parts begin"





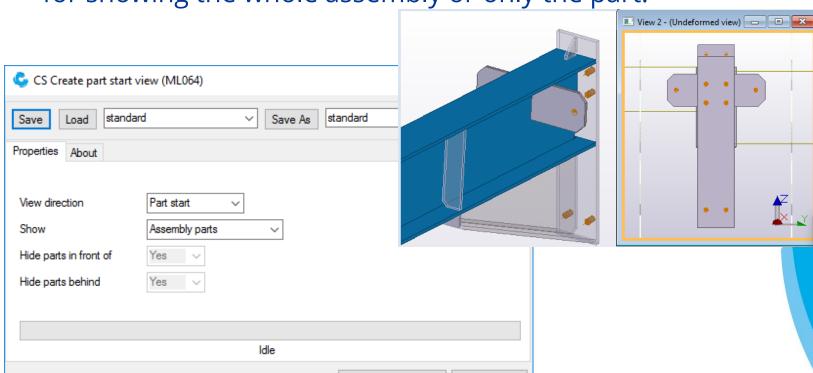
- CUSTOM.S2P4 "Gets beams Second bottom saw angle at the parts end"
- CUSTOM.TOPB1 "Gets beams start top left notch length"
- CUSTOM.TOPB2 "Gets beams end top left notch length"
- CUSTOM.TOPB3 "Gets beams start top right notch length"
- CUSTOM.TOPB4 "Gets beams end top right notch length"
- CUSTOM.TOPH1 "Gets beams start top left notch width"
- CUSTOM.TOPH2 "Gets beams end top left notch width"
- CUSTOM.TOPH3 "Gets beams start top right notch width"
- CUSTOM.TOPH4 "Gets beams end top right notch width"
- CUSTOM.YL1 "Gets beams start left cut width"
- CUSTOM.YL2 "Gets beams end left cut width"
- CUSTOM.YL3 "Gets beams start right cut width"
- PART = CUSTOM.YL4 "Gets beams end right cut width"





ML064 - Create Part Start view

Create model views from part start or end. Extra options for showing the whole assembly or only the part.



Pick part

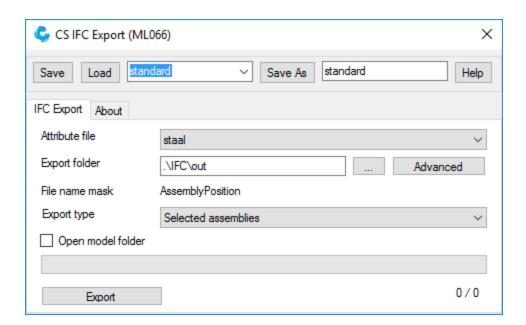
Cancel





ML066 – CS IFC Export

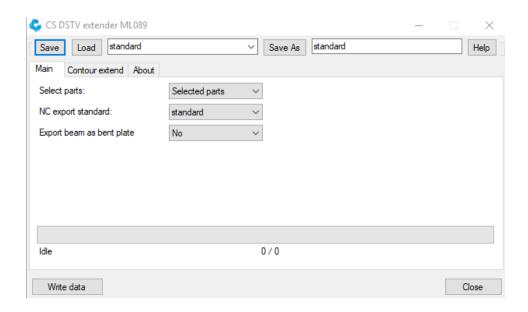
> Select the assemblies in the model. An IFC file is created for everey assembly or part that is selected. The IFC can be used for import to welding robots.





ML089 – DSTV Extender

> DSTV Extender plugin – NC Export.





ML112 - Reporting

- Create reporting of parts with cover page
- > You can also create drawings to parts
- > Expor to PDF



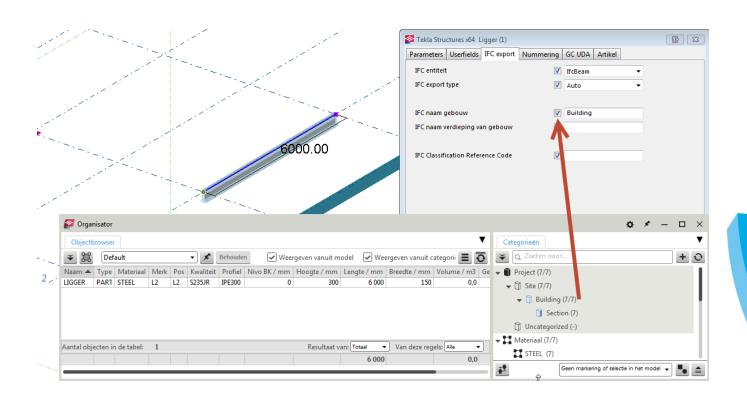
CS Reporting (ML112 TS2017)





CS_Fill_IFC_ExportProps_With_Organiser_Values

> IFC will be filled from the organisator.





Set coord system for plate (m115)

> Set coordination system for plates.





Creates a frame around rebars mesh by picking it.



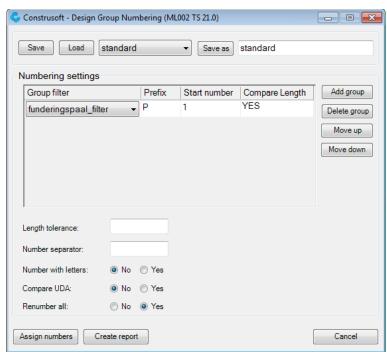






ML002 – Design Group Numbering

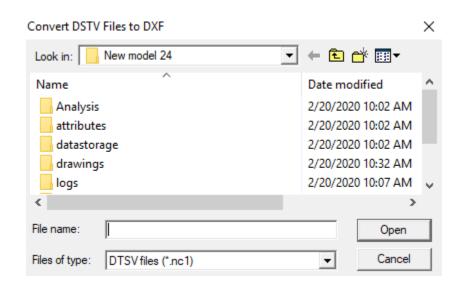
- Number functionality for customers with engineering module.
- Compares profile, length and number of UDA's







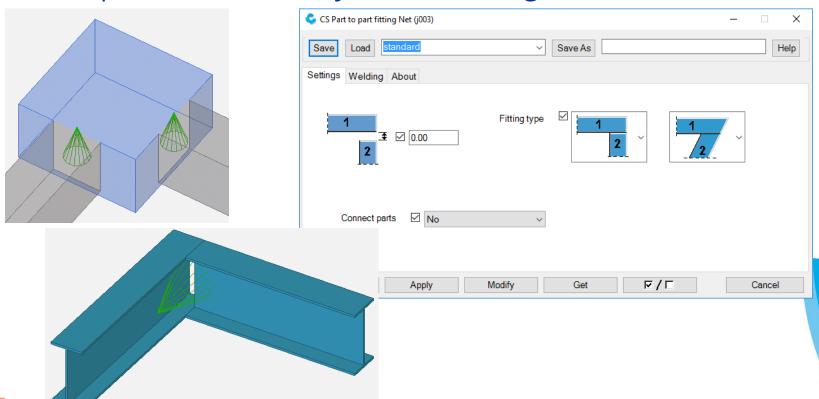
> Convert DSTV files to DXF as seen in picture.







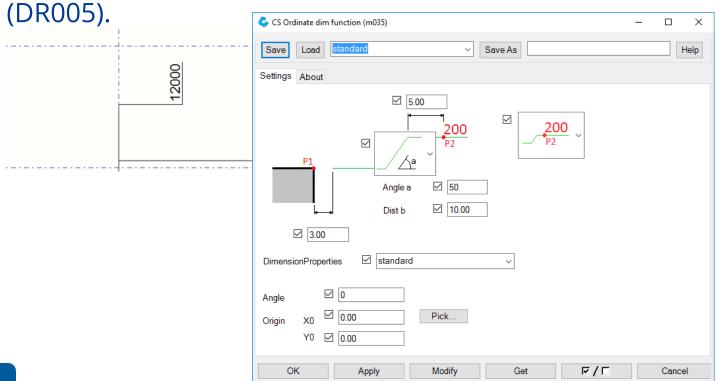
> Fit parts in various ways, can be changed afterwards.





Ordinate dim function (m035)

Create dimensions for objects from an alternative source. Is used in macro CS Multiple Ordinate Dimensions

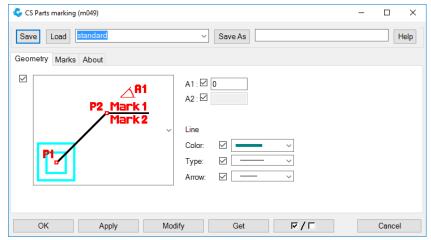






Combined Part Marks (m049)

Add in Topviews a single mark with double information about part above floor and below floor.



COLUMN 300*300

COLUMN 350*350





Create line rectangle (m111)

> Creates a line or rectangle as a mark.

