TEKLA BASECAMP

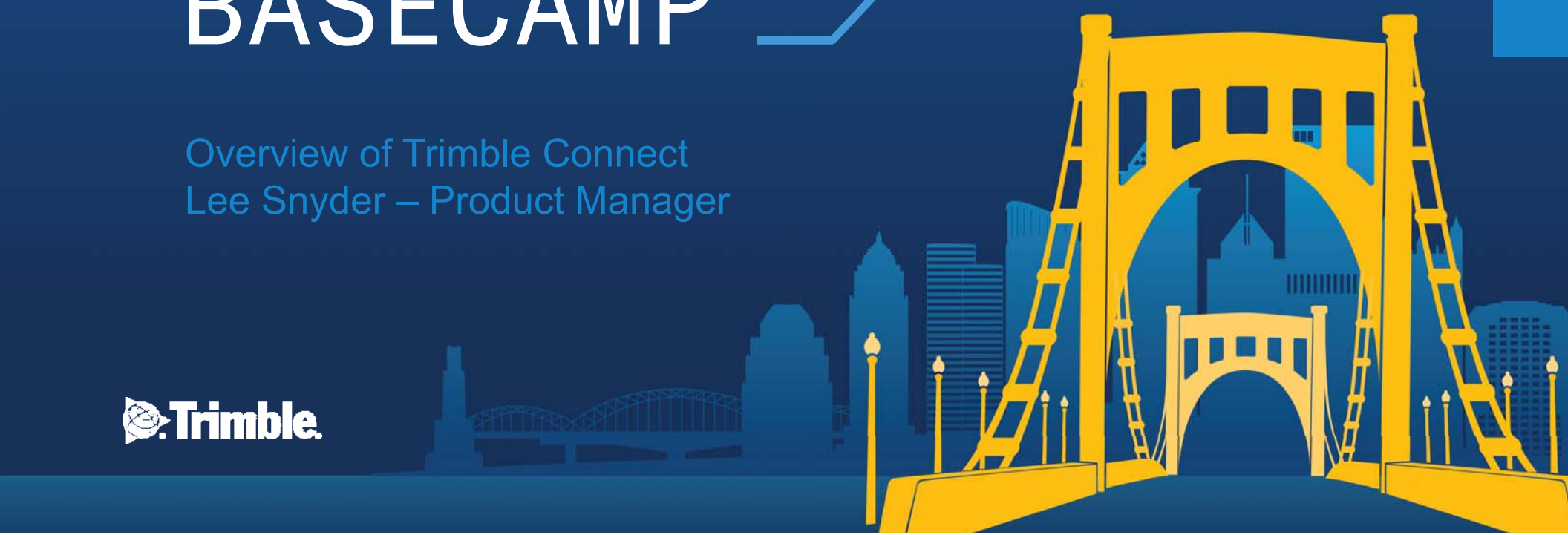
AUG.27-29

2019

Overview of Trimble Connect

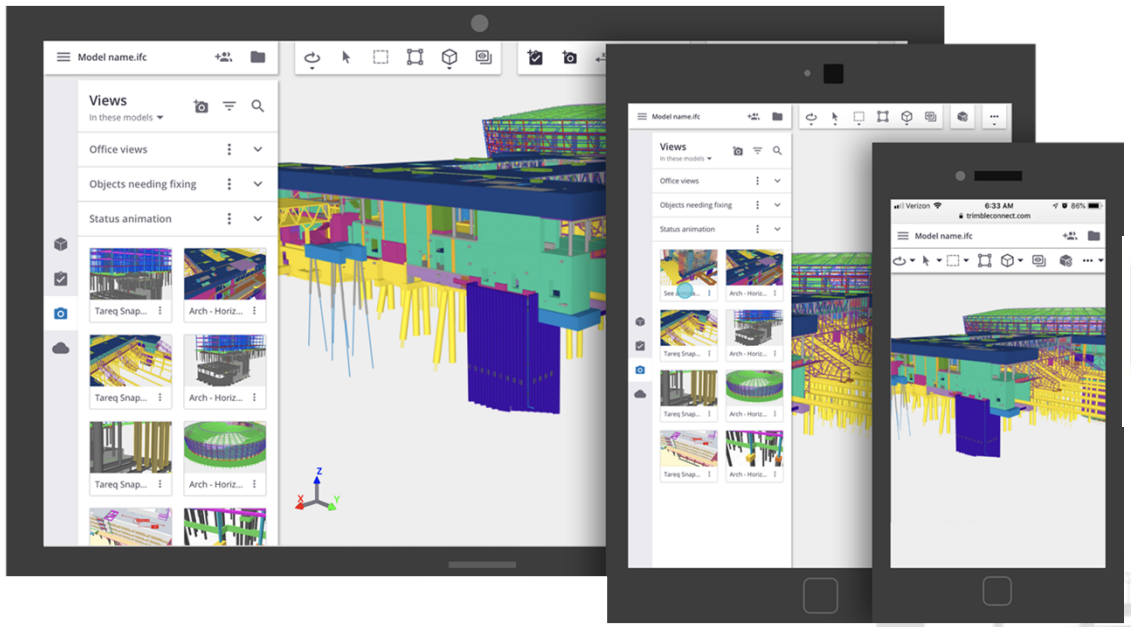
Lee Snyder – Product Manager

Trimble.



Trimble Connect Transforms Decision Making

- Trimble Connect is an open collaboration tool that connects the right people to the right data at the right time.



2019

Trimble Connect Applications

Desktop Mobile Hololens V.R. Browser Sync

Trimble Cloud

2019

TEKLA BASECAMP

Productive Combination of Client Apps

Web Browser Application

- Project creation and administration
- 2D & 3D viewing

Windows Application

- Highest 3D graphics performance for the largest models
- Workflow integration with sequencing for Hololens

Mobile Application

- Optimized UI for small-screen, touch-screen operation
- Empowering field users for productivity

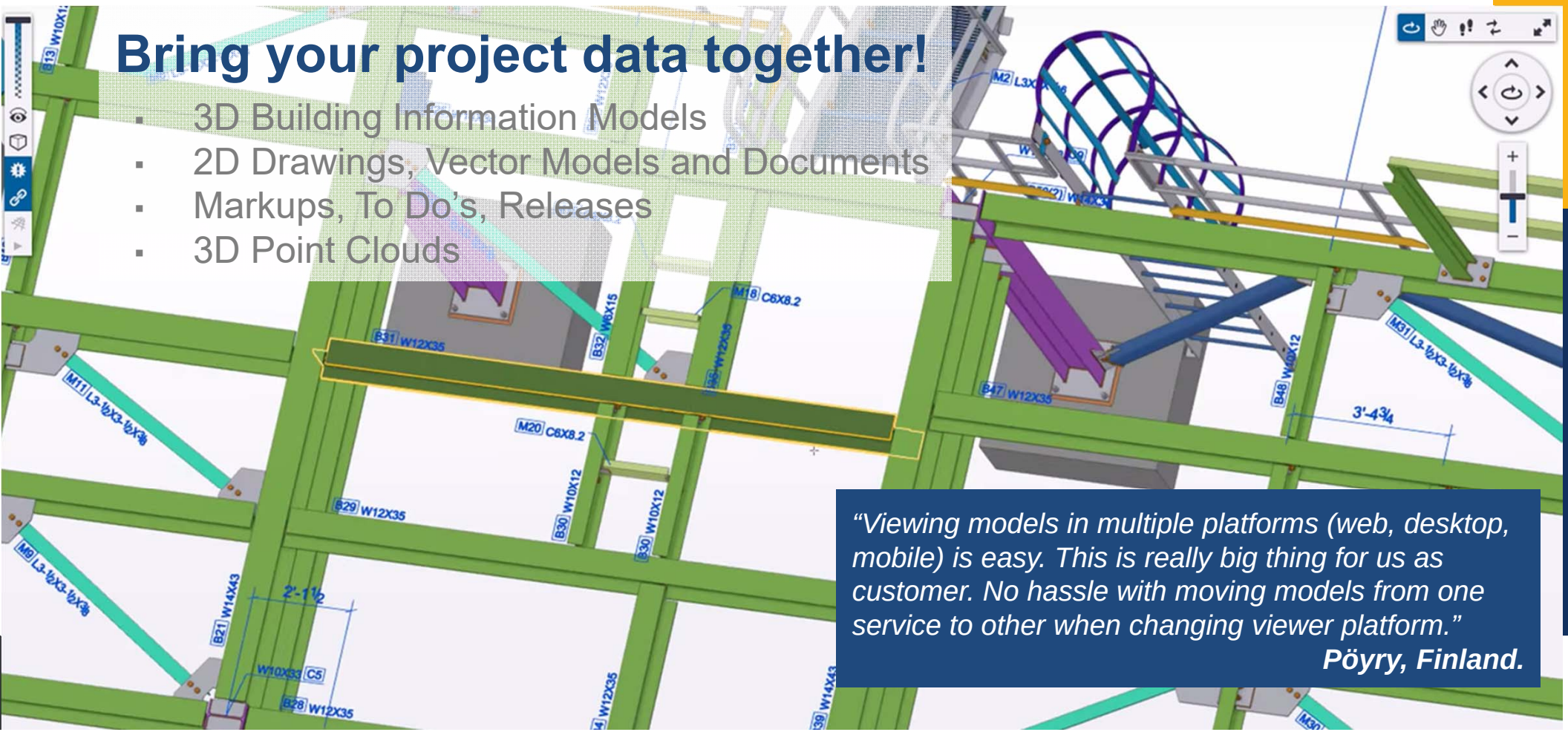
Sync Application

- Automated project synchronization

Powered by Trimble **Cloud**

2019

Powerful Synthesis of 2D & 3D Data



2019

MAIN FEATURES

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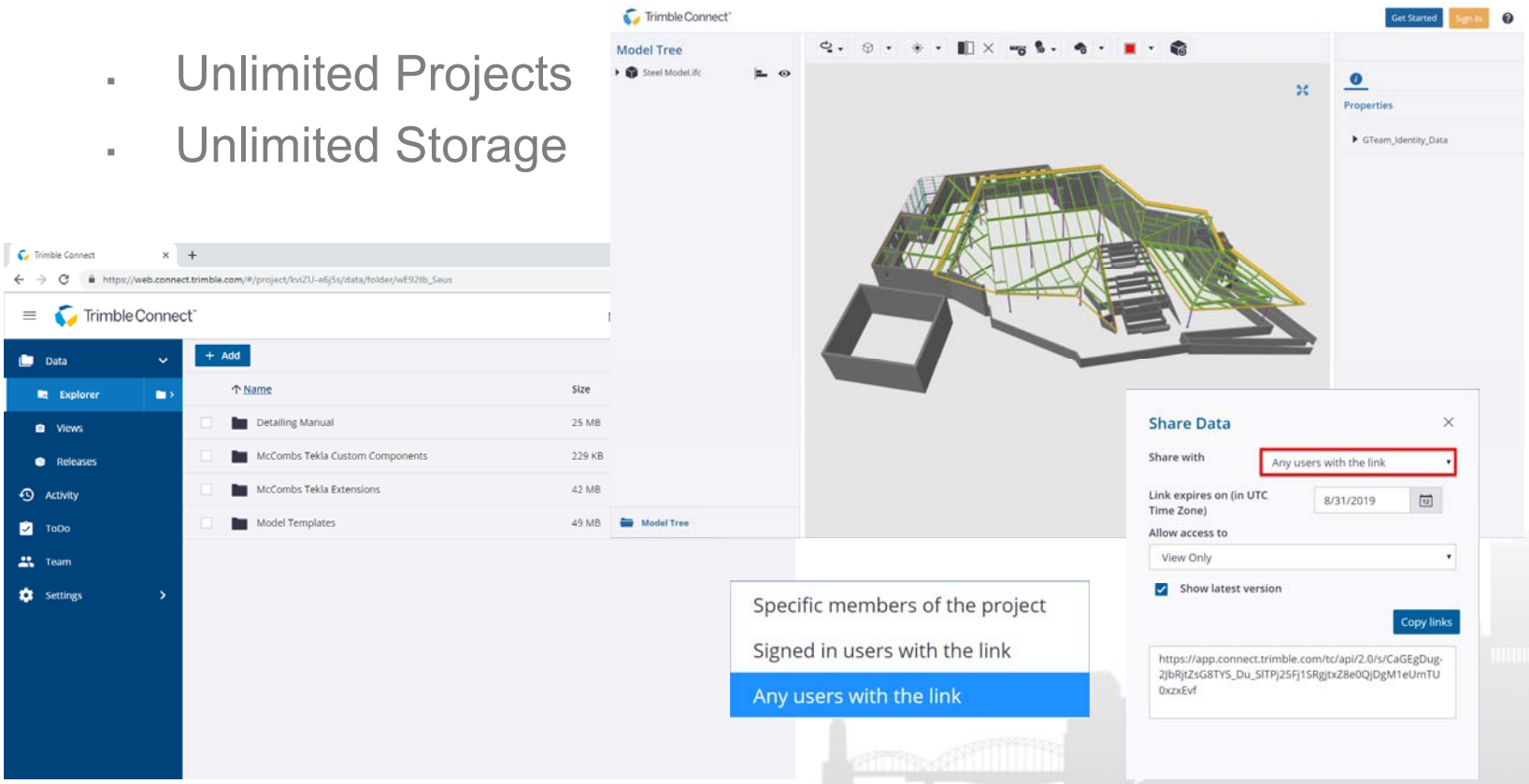
File Storage and Sharing

- Unlimited Projects
- Unlimited Storage



Projects, Data, Folders

File Versioning

Permissions

Upload & Download

Invite Users - Internal & External

Teams / Groups

Comments

2D Viewer

3D Viewer

Clashsets

ToDos

Views

Annotations

Associated Data

Activity Feed

Email Notifications

Project Settings

Releases

Offline Capable

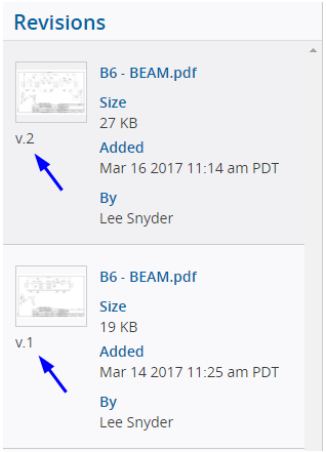
Analytics

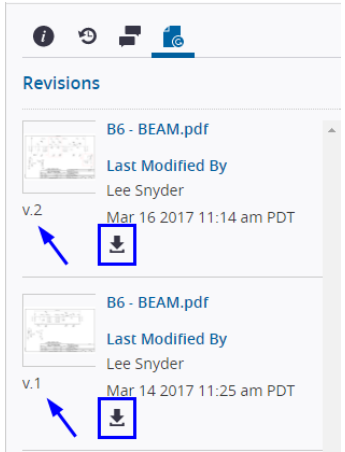
Tags

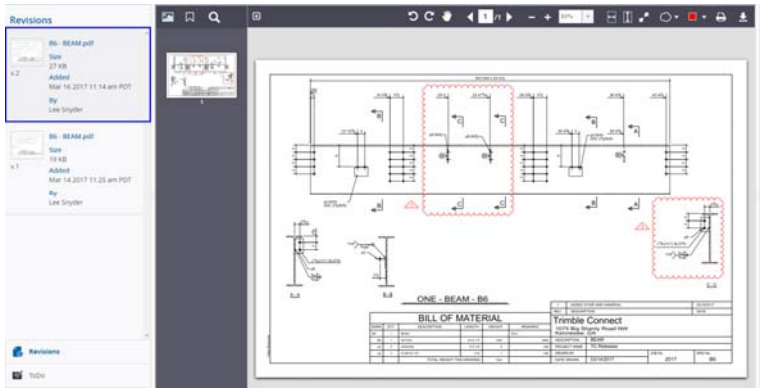
2019

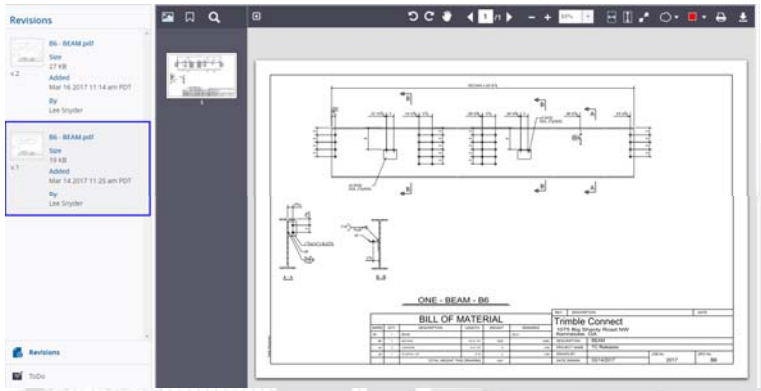
Document Management

- Stores versions of all files (2d/3d/etc.)
- Includes time stamp
- Can download any version









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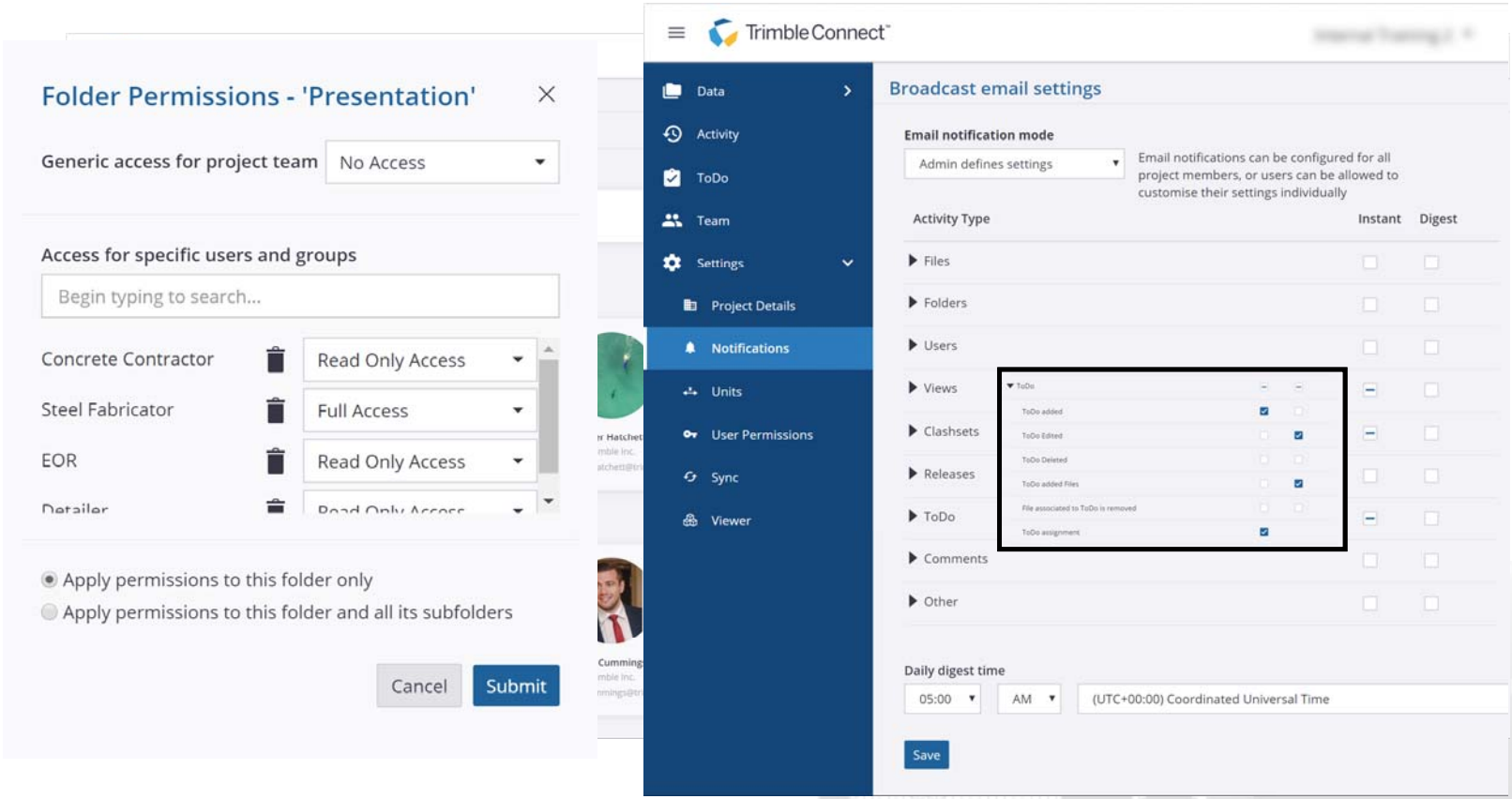
TEKLA BASECAMP

Teams, Permissions & Notifications



- Projects, Data, Folders
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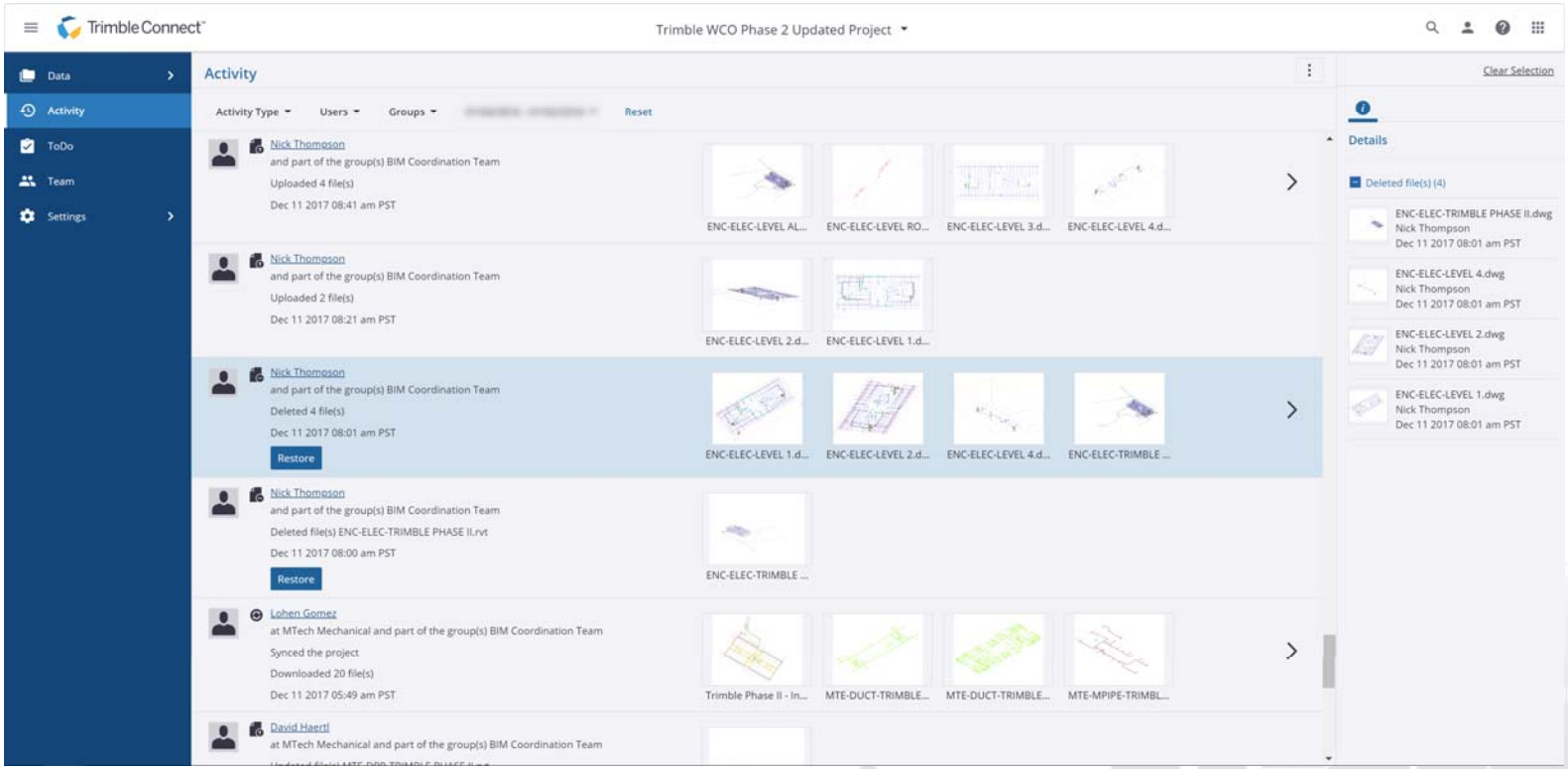
2019

User Activity Tracking



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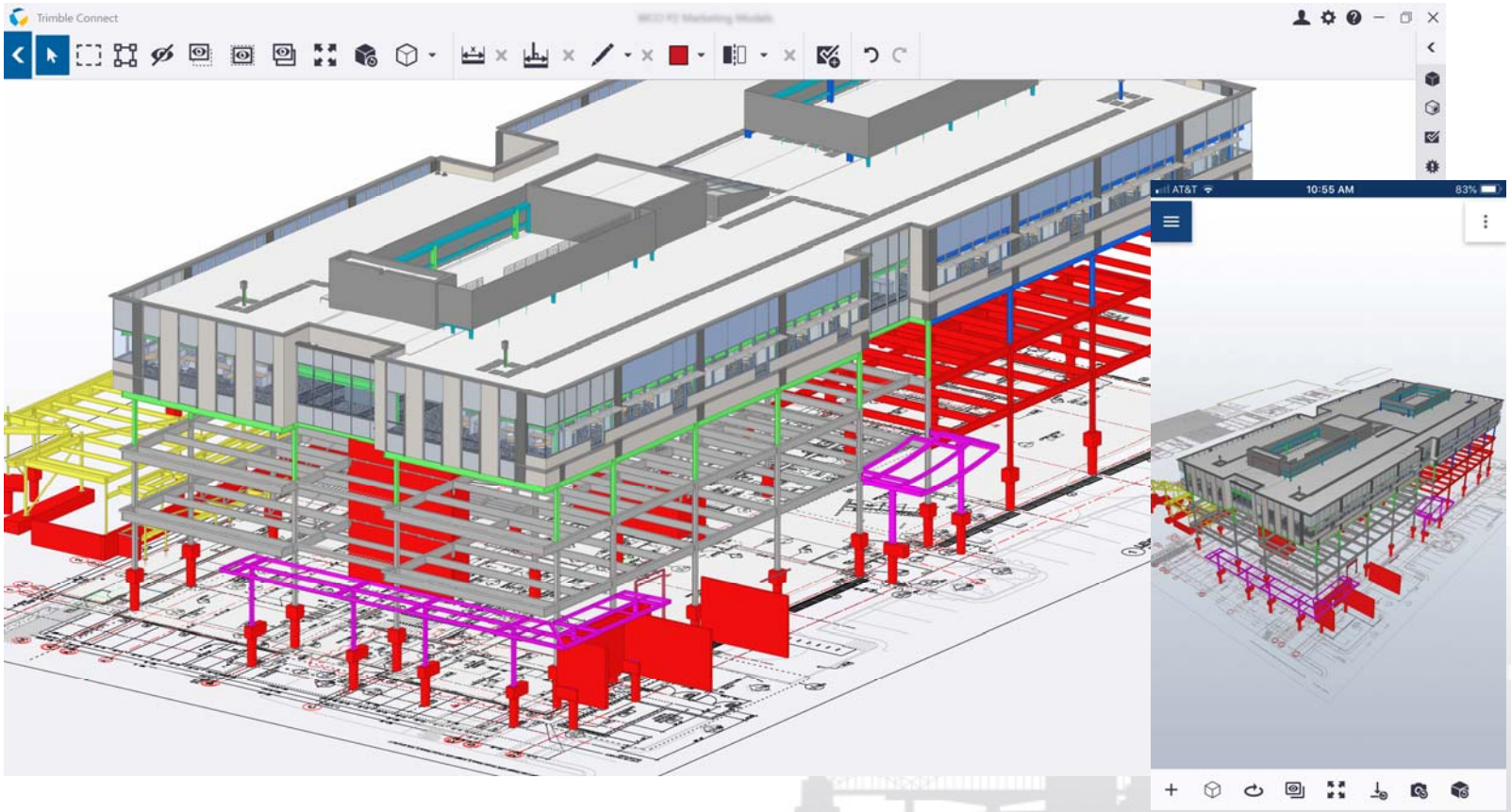
BIM Viewing



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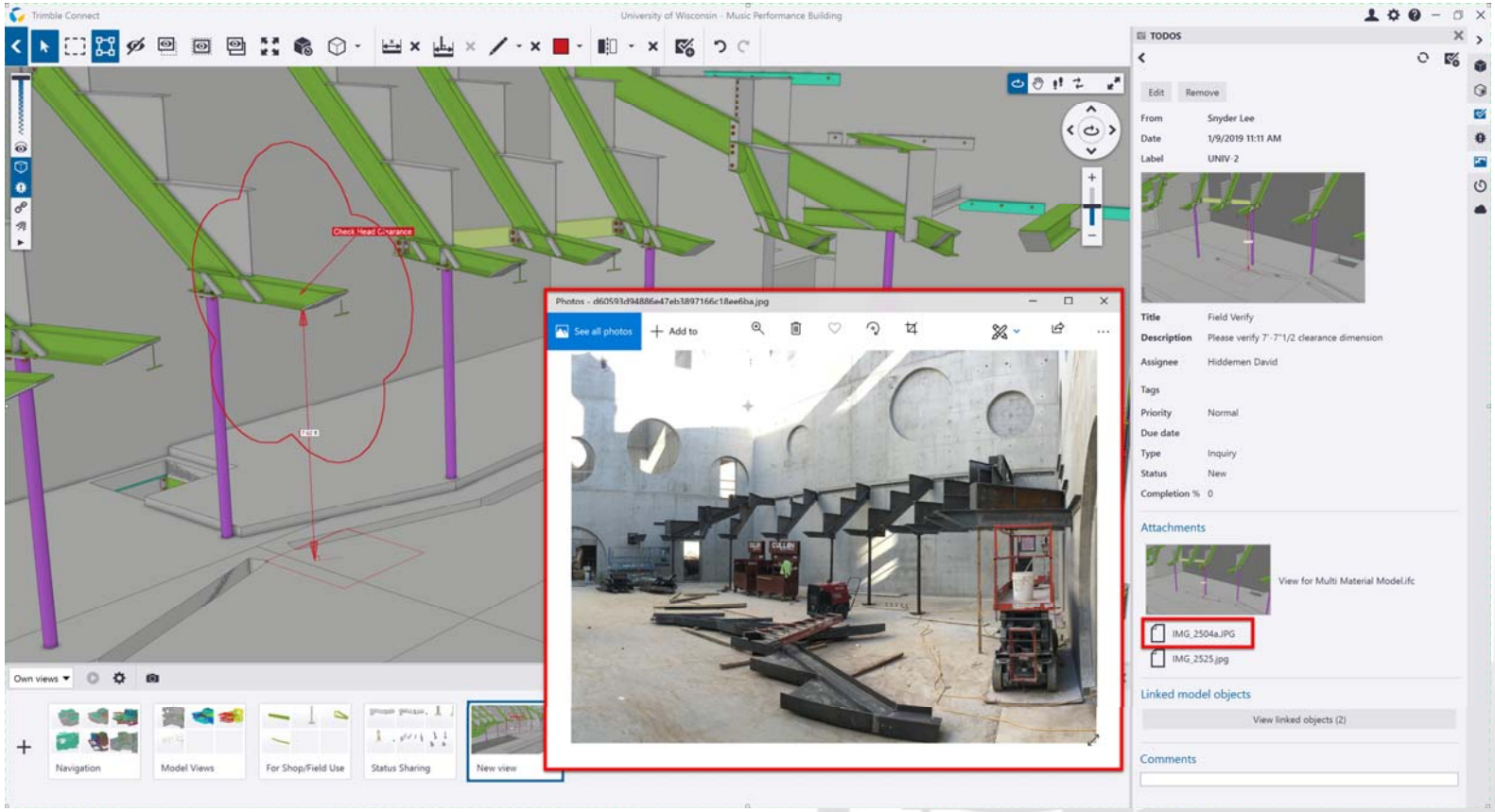
Views, ToDo's & Annotations



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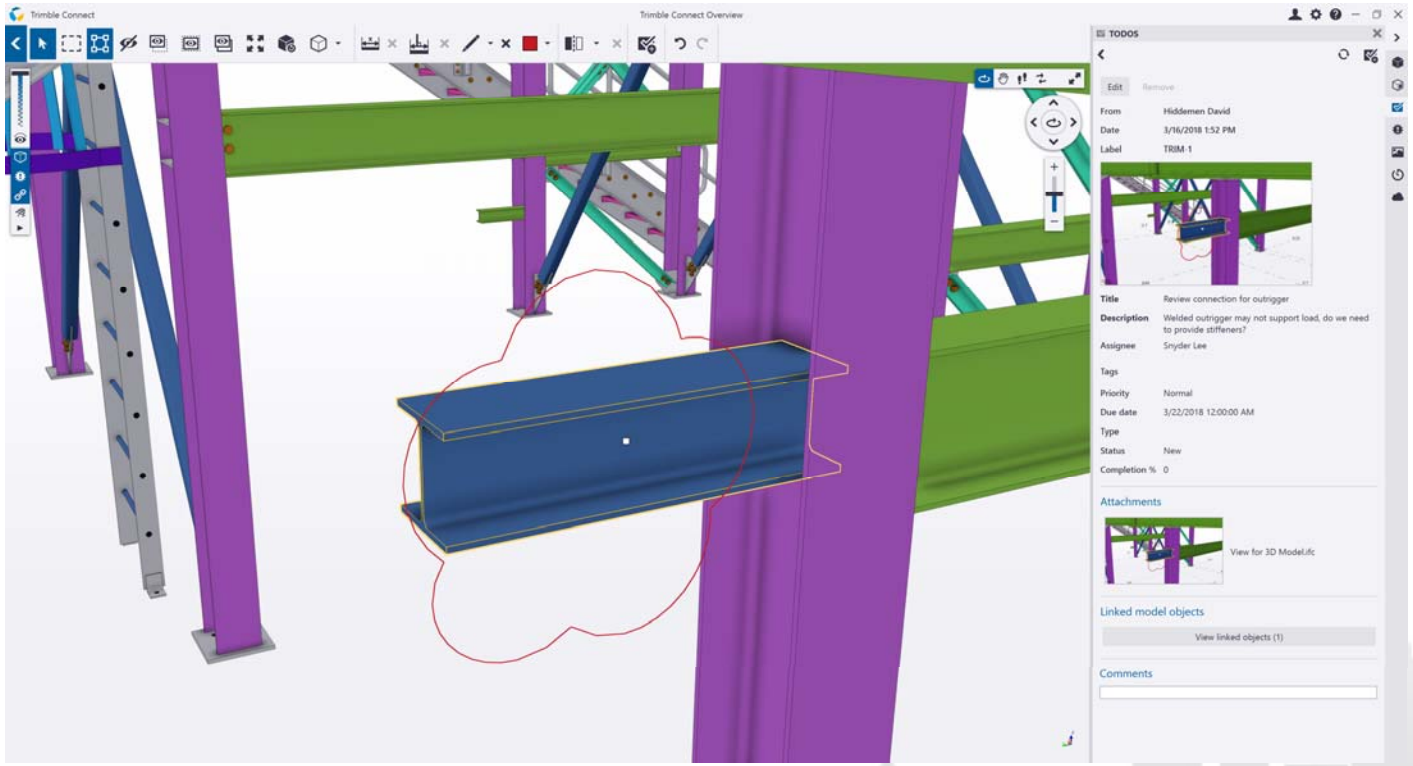
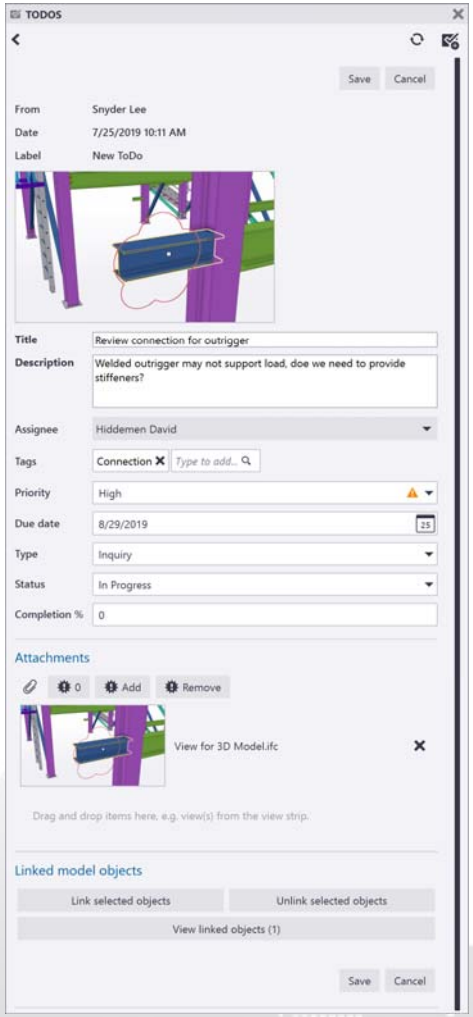
TEKLA BASECAMP

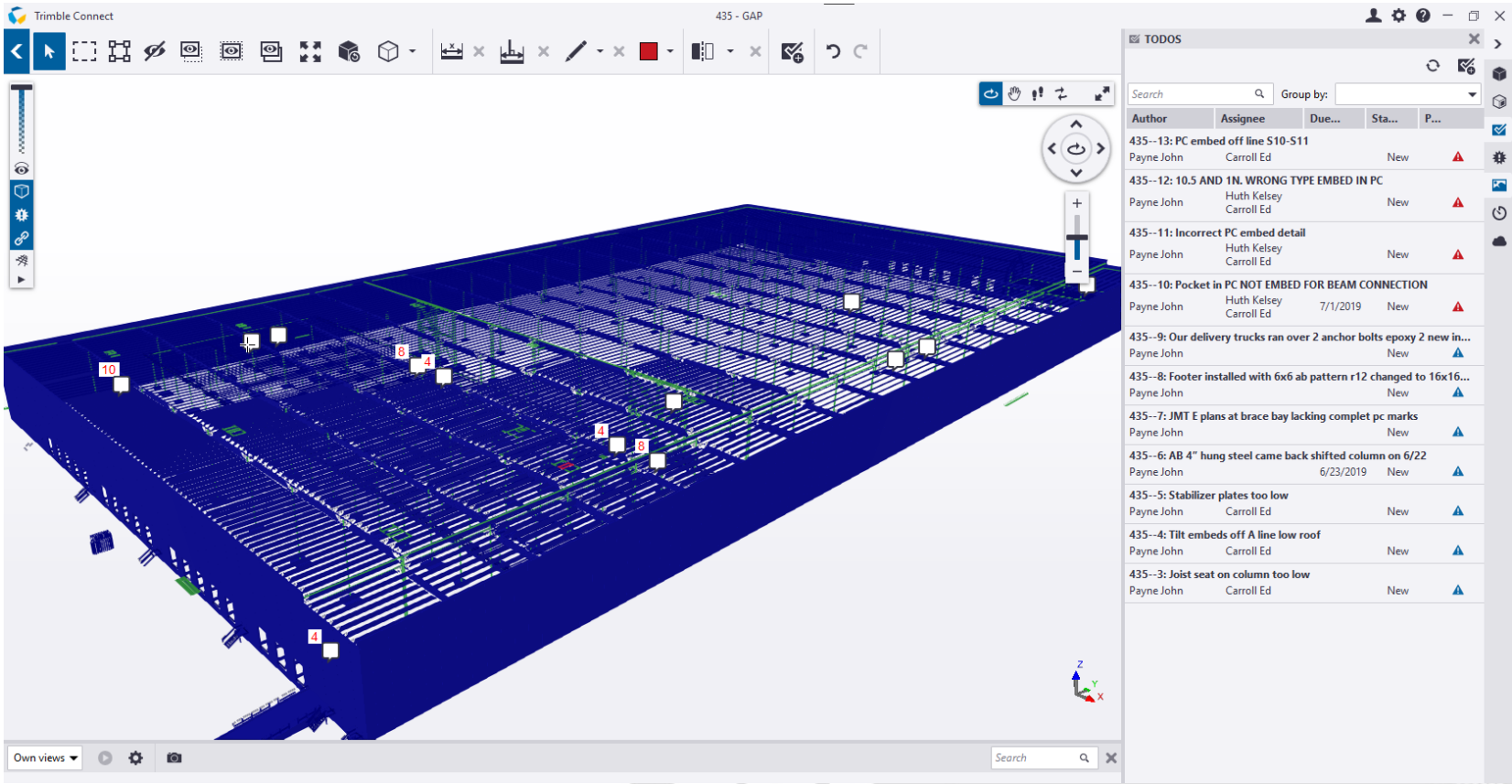
ToDo’s - Create & Track Task





2019

ToDo’s – Assign, Track, Resolve Issues



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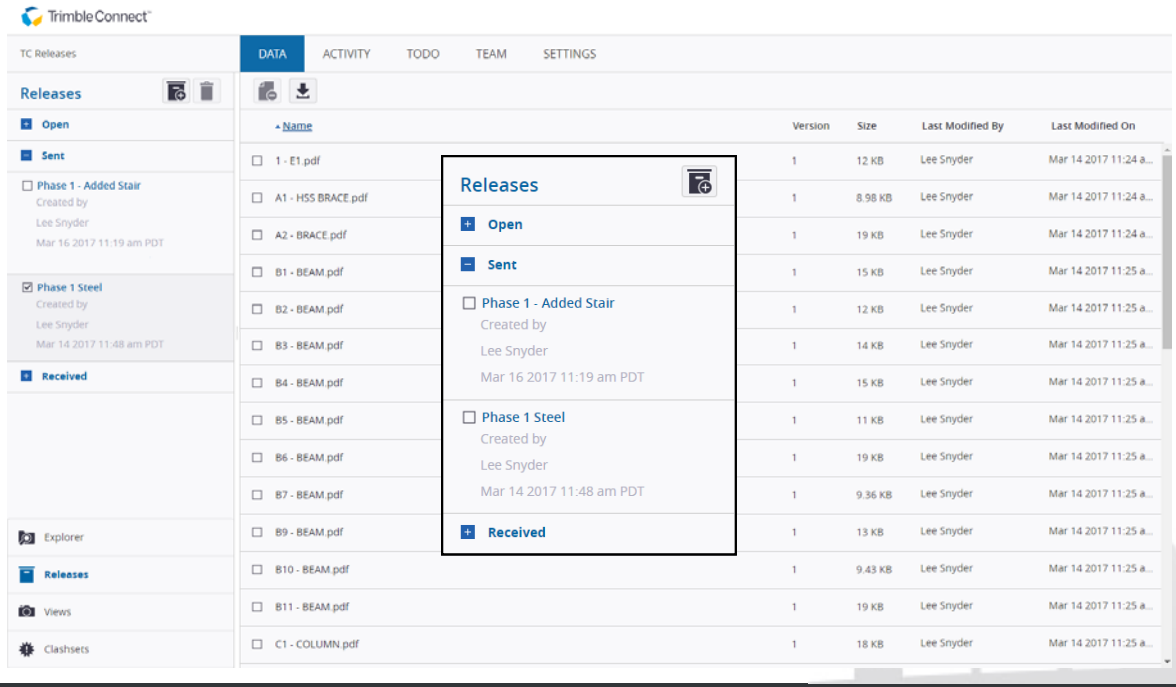
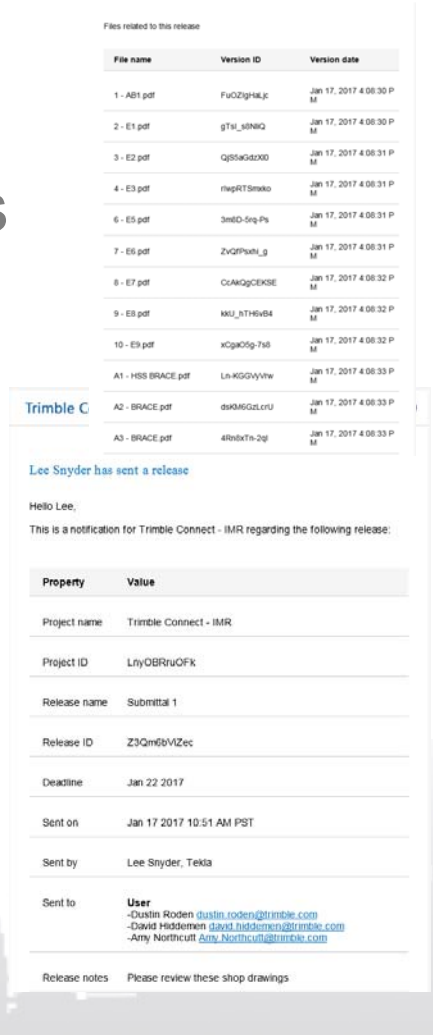
Releases

- Send versions of files or folders to project members





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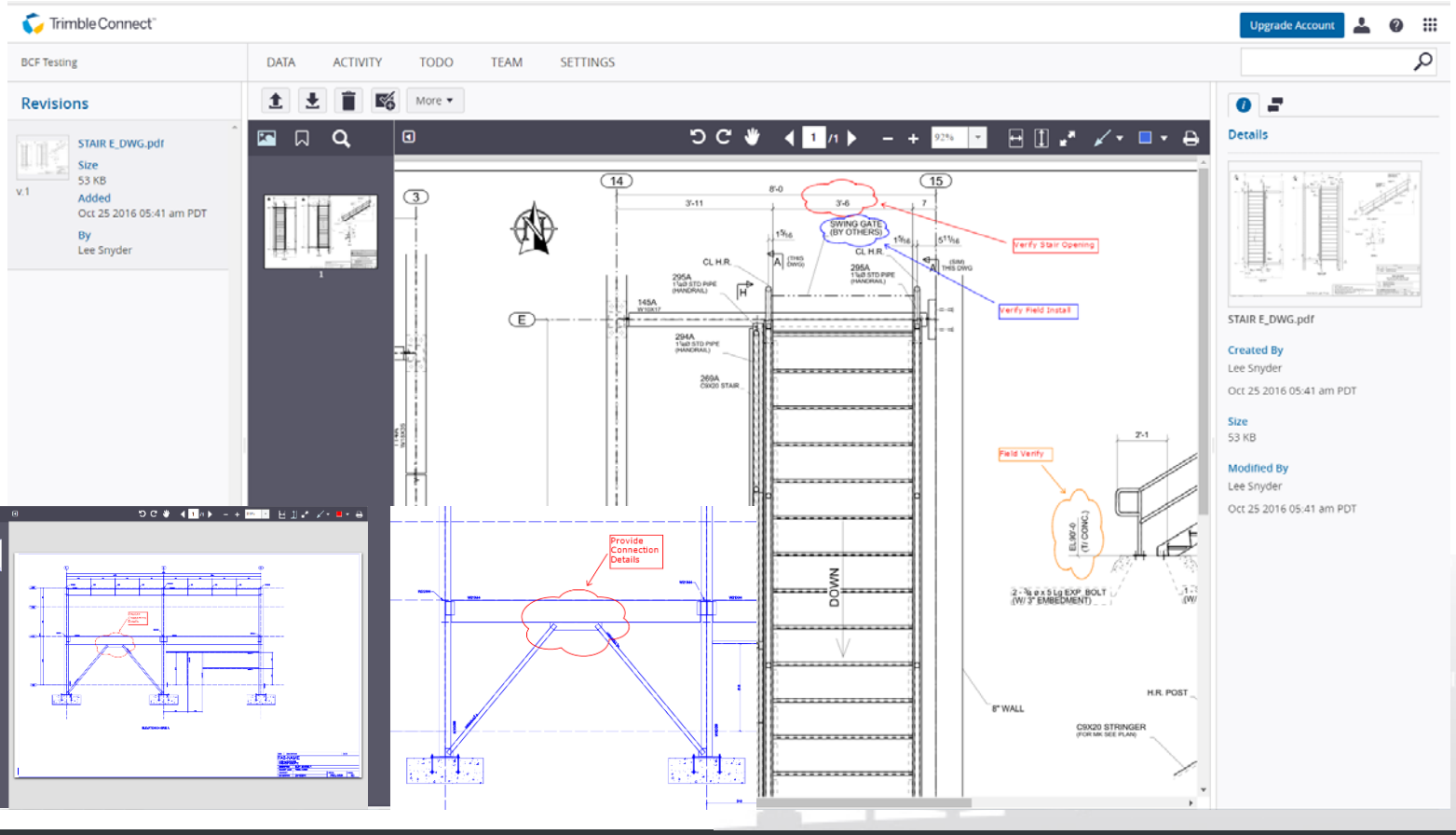
Document Markup Tools



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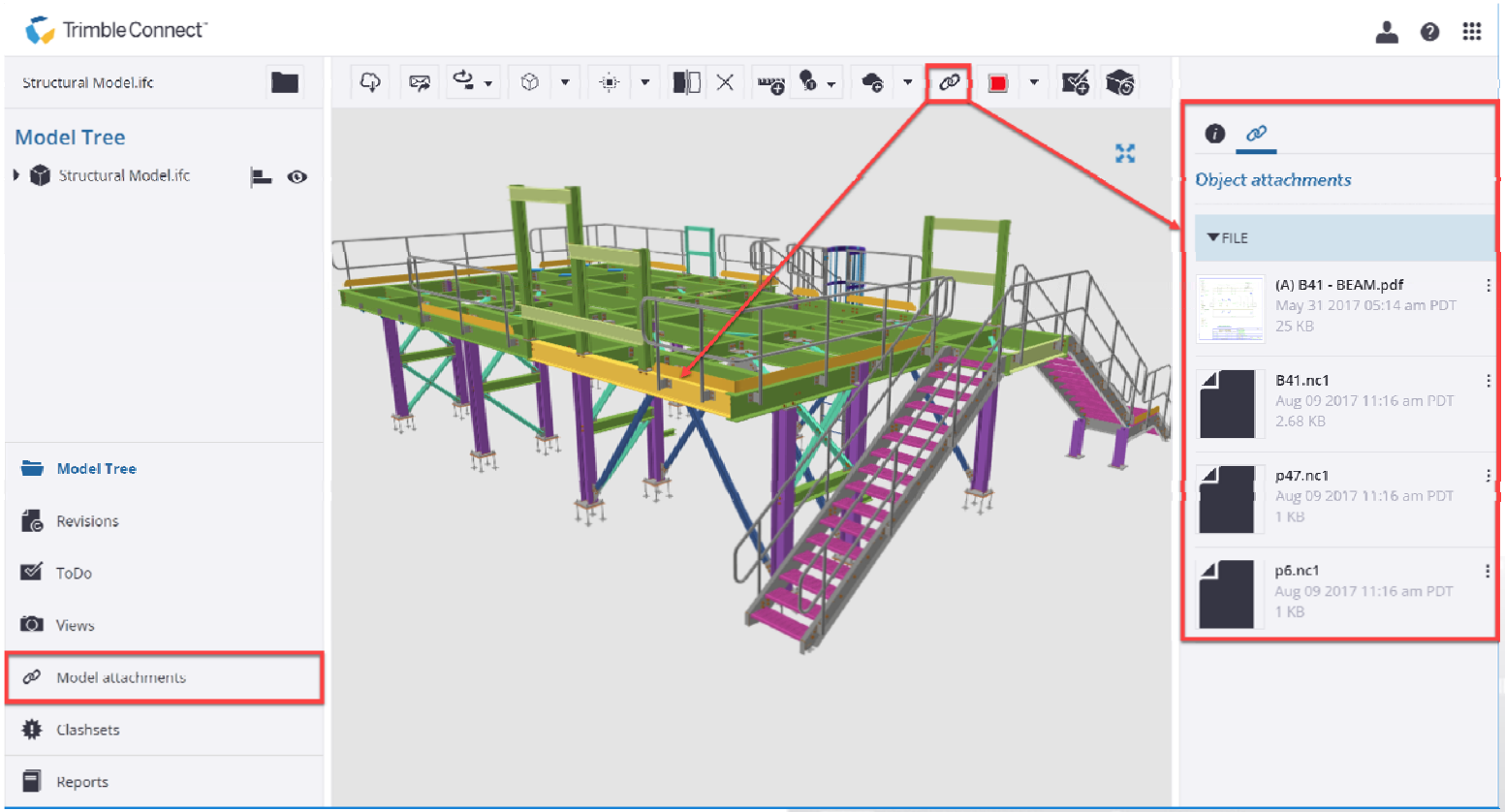
Attach file(s) or a URL to BIM object(s)



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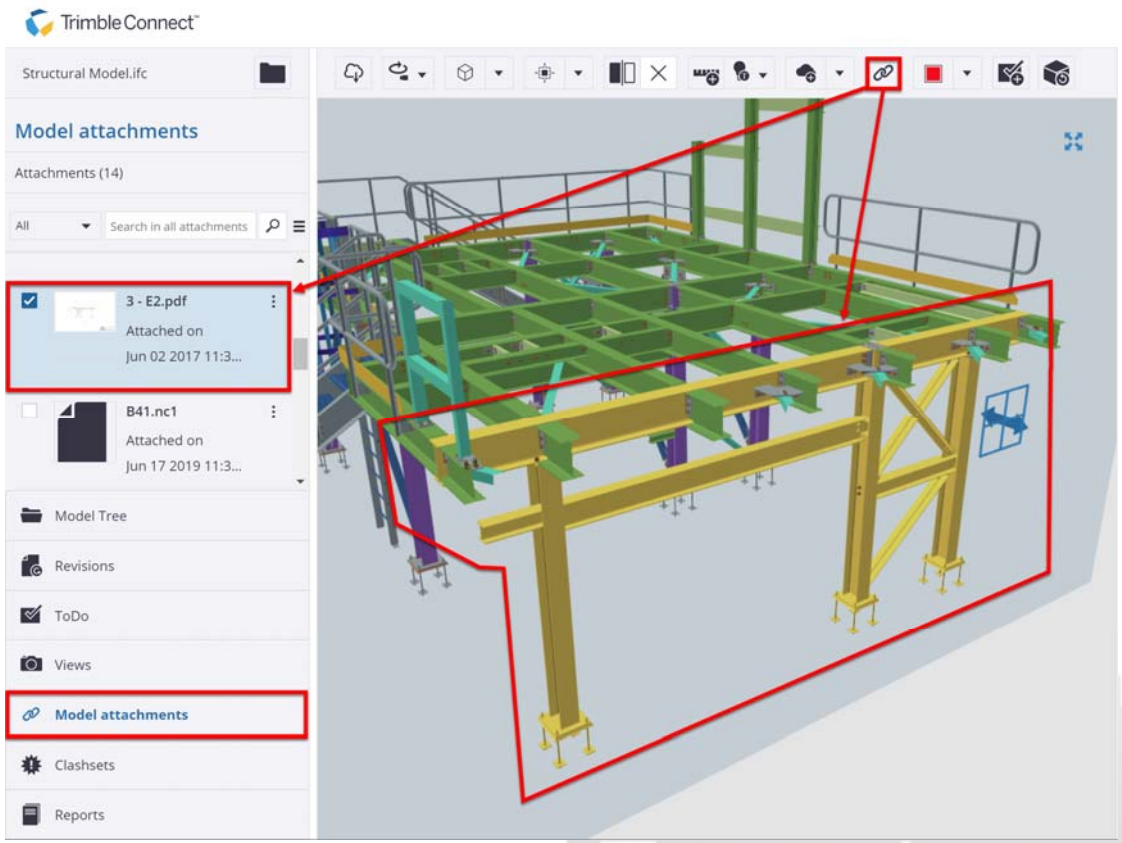

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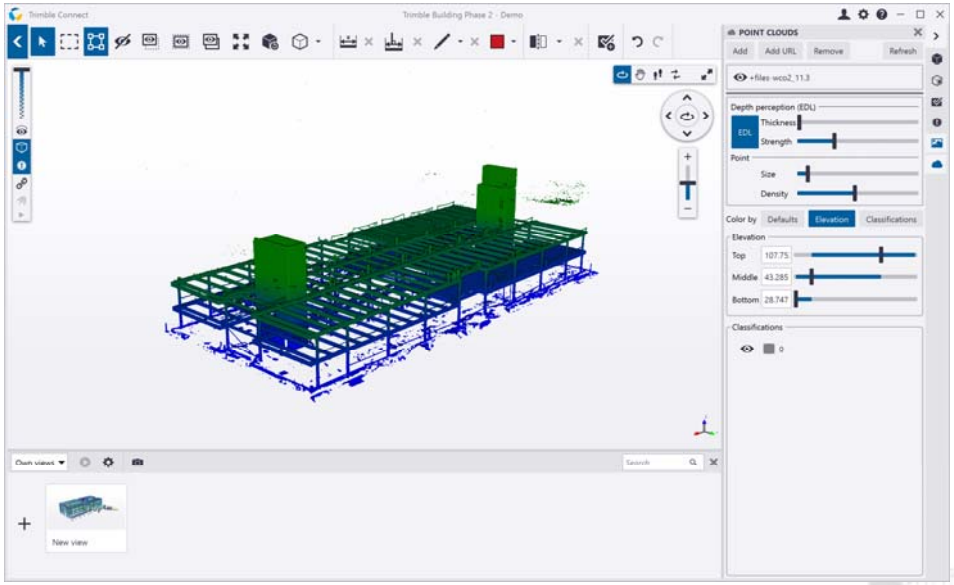
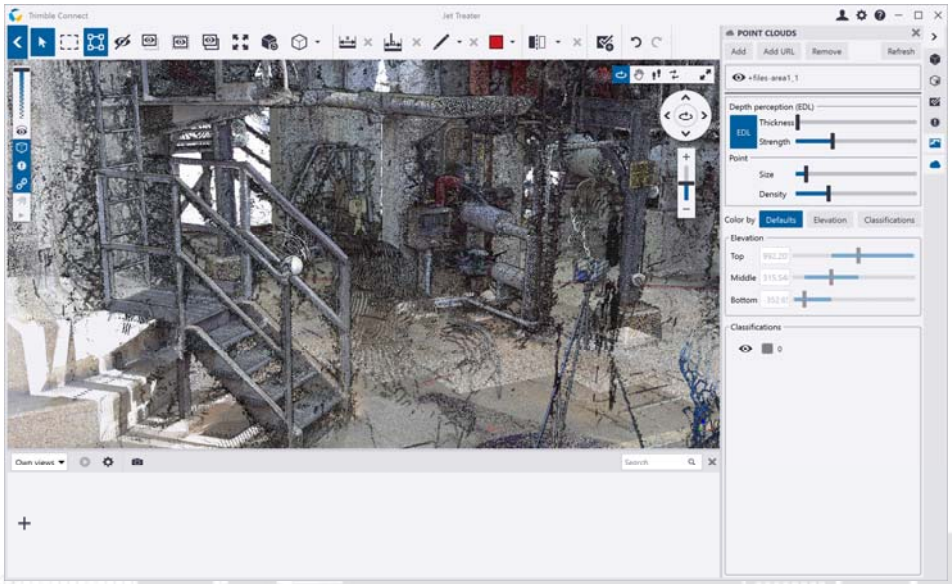
Point Clouds

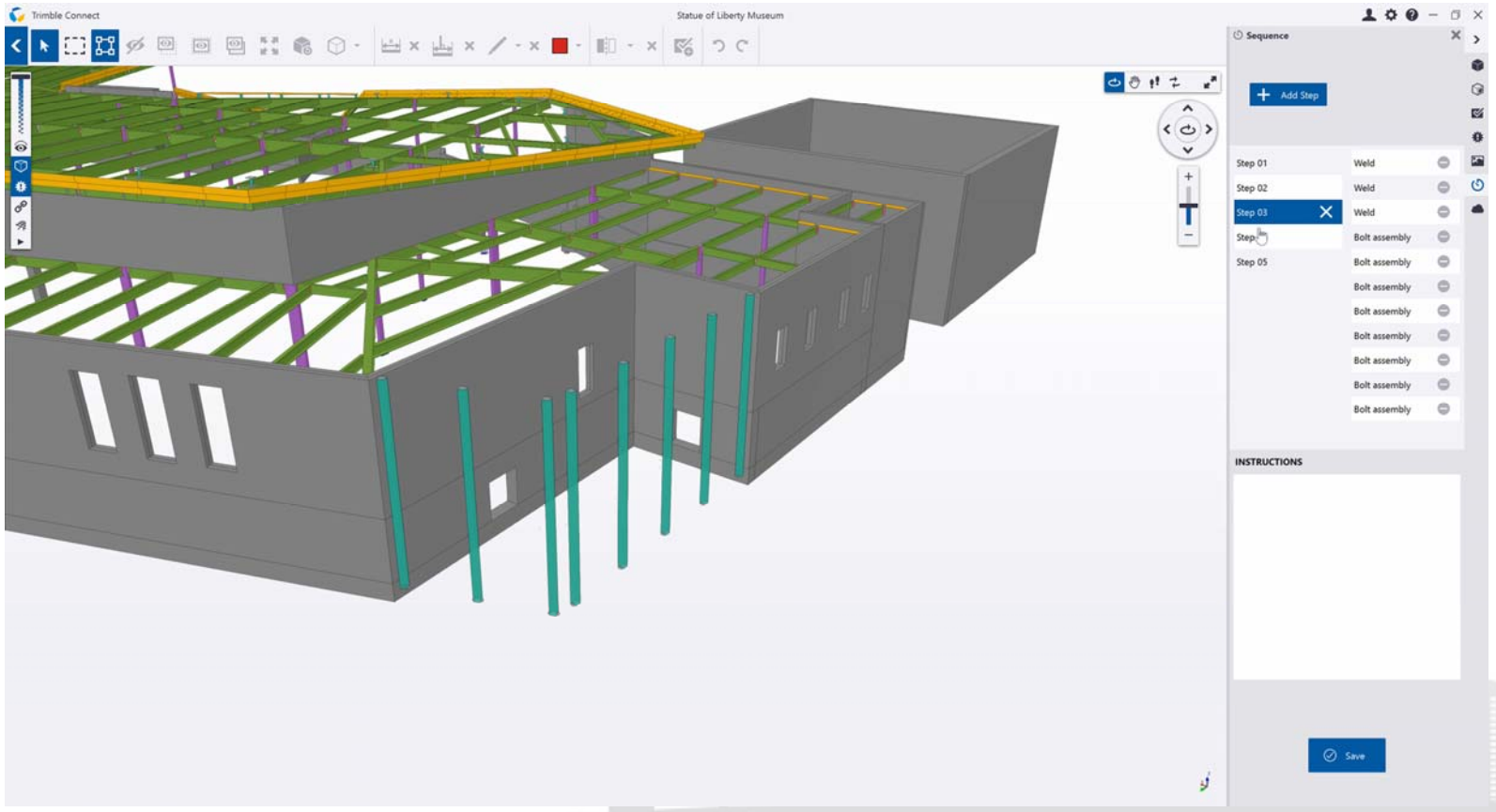
- Supported types to import: DB, JS, LAS, LAZ, XYZ, TDX, TZF, E57
- URL support for streaming Potree point clouds





2019

Sequence - Animate erection & installation sequences



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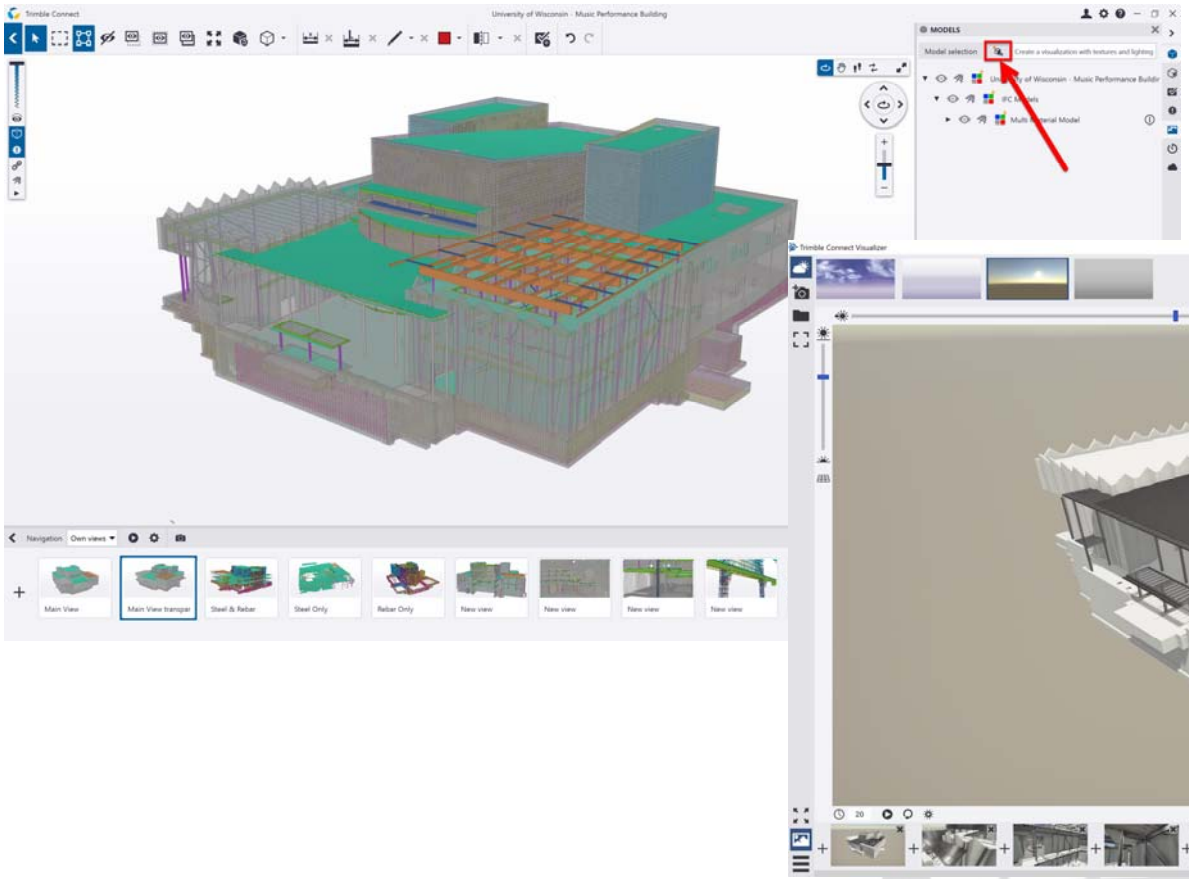
Trimble Connect Visualizer



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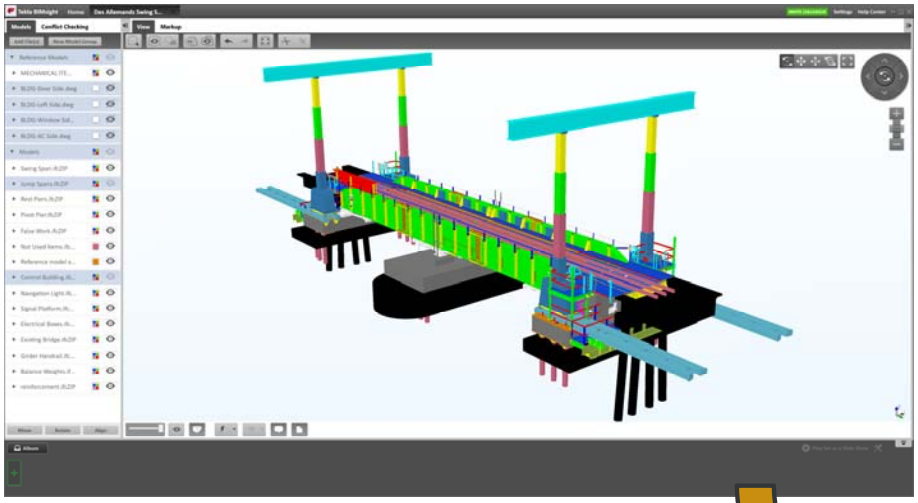
Tekla BIMsight → Trimble Connect Desktop

- Import Tekla BIMsight package (Simple Drag and Drop)
  - Documents, models and alignments

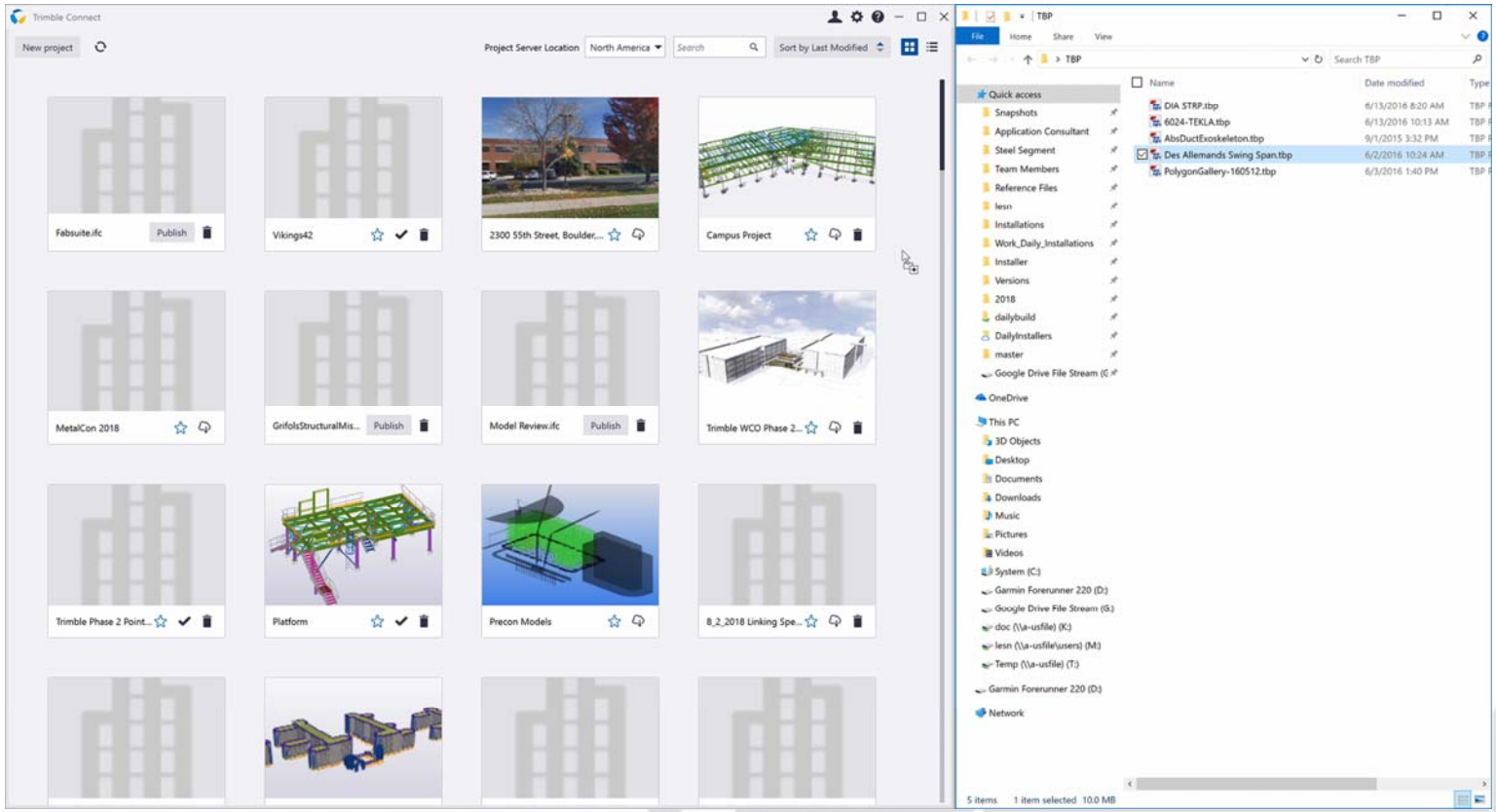


TEKLA BIMsight

Trimble Connect™

2019

Tekla BIMsight → Trimble Connect Desktop



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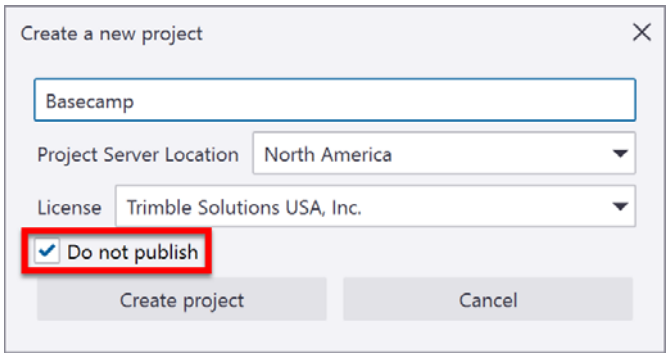
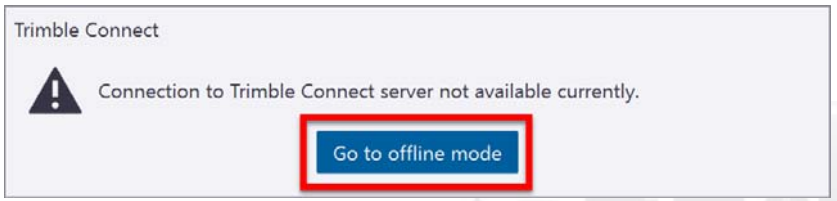
Trimble Connect Desktop - Offline

- Use Trimble Connect Desktop without being connected to the internet
- Choose to not publish certain projects to the cloud





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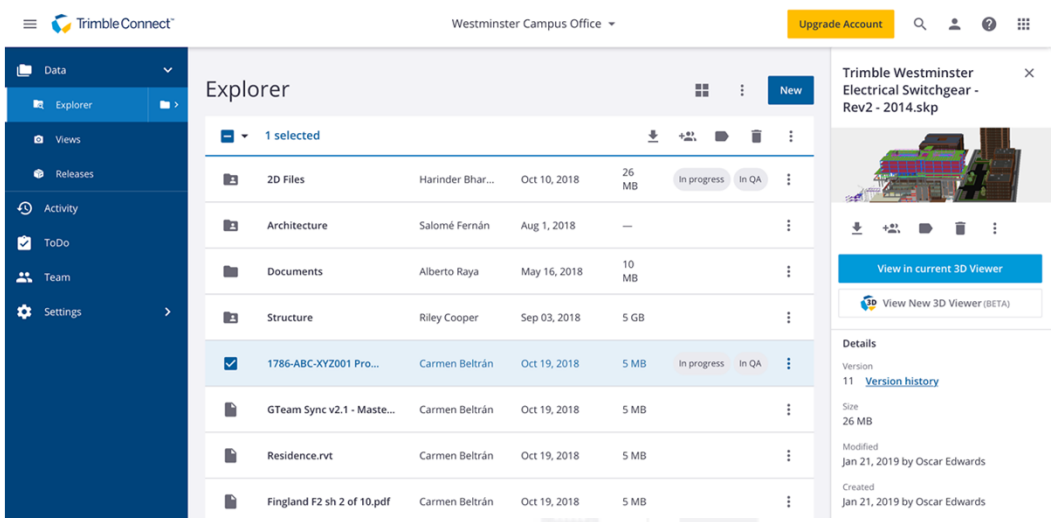
2019

RECENT DEVELOPMENT

New **UI for Browser**

- Unified Experience
- Constructible
- Easy Access
- Optimized Interaction
- BIM Data
- Performance



2019

TEKLA BASECAMP

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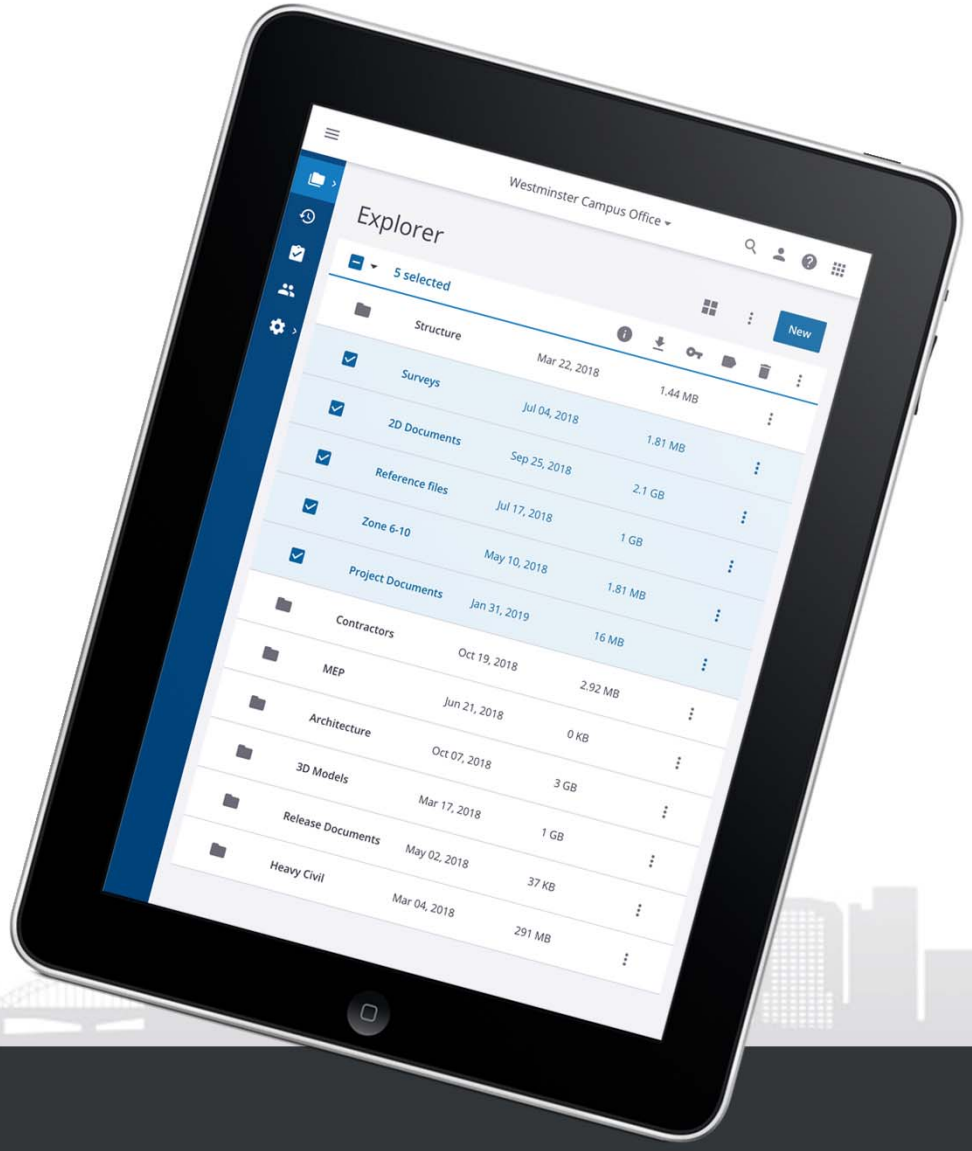

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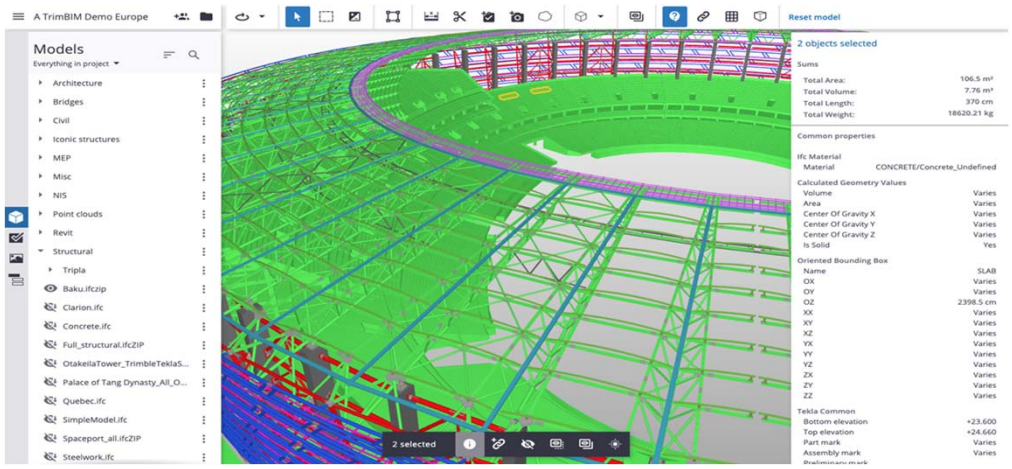
New **3D Viewer**

- Unified Experience
- Constructible
- Easy Access
- Optimized Interaction
- BIM Data
- Performance



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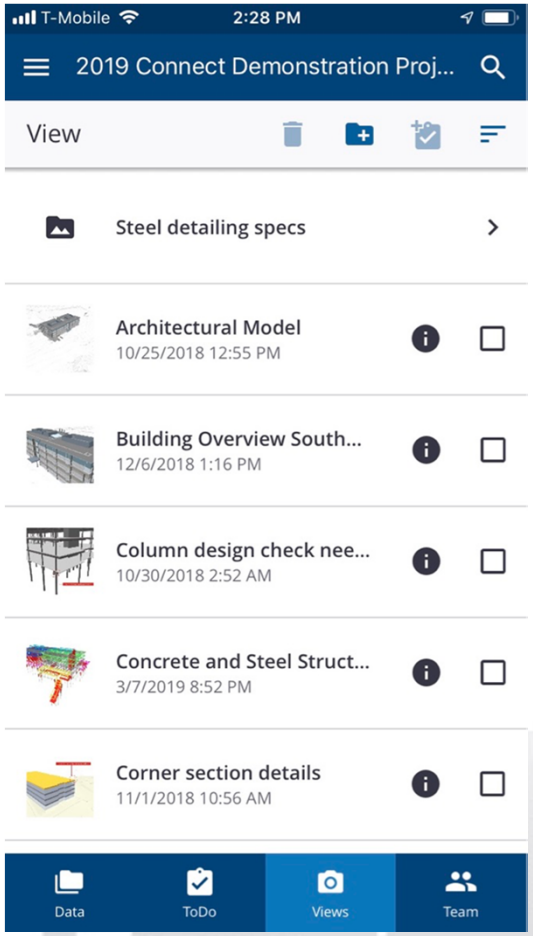
New **Mobile UI**

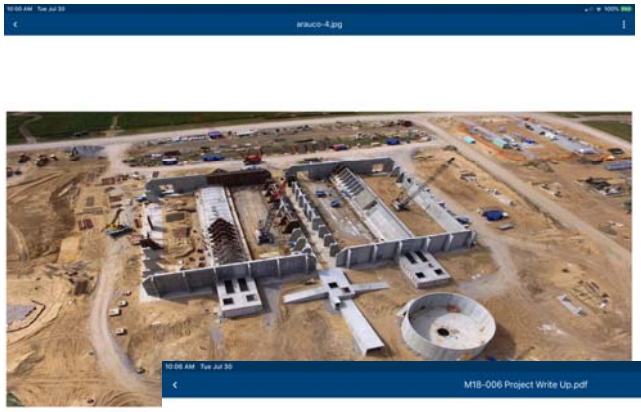
- Unified Experience
- Constructible
- Easy Access
- Optimized Interaction
- BIM Data
- Performance

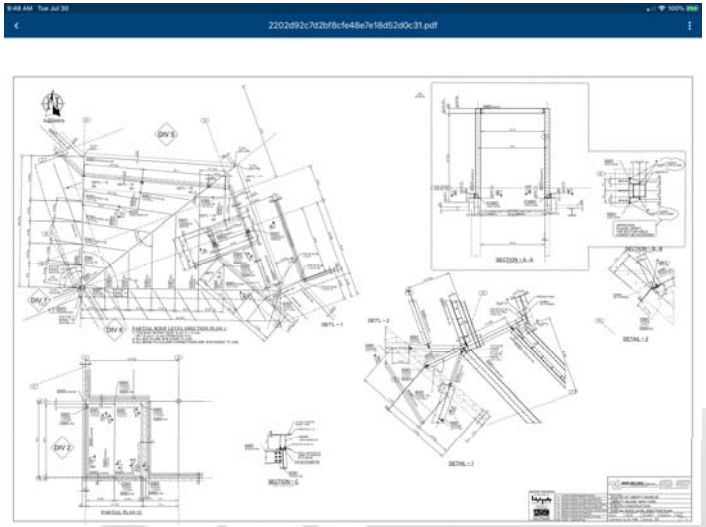


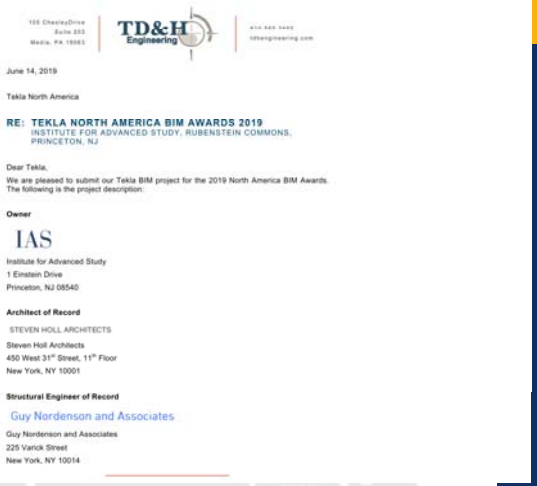
2019

TCM - 2D Viewer

- Users can view the 2D files with the following extensions within TCM:
  - doc
  - docx
  - rtf
  - txt
  - ppt
  - pptx
  - pdf
  - jpg
  - jpeg
  - gif
  - png
  - tif
  - tiff
  - bmp







2019

GETTING STARTED

2019

TEKLA BASECAMP

Getting Started With Trimble Connect

- https://www.tekla.com/products/trimble-connect/getting-started

- Quick start guide

- Support Documentation

2019

Thank you

2019

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2019

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Tekla and Trimble Field Technology Integrations

Ian_Warner@Trimble.com

- FTG Product Manager
- Internal Trimble Construction Project Manager
- University, Trade School & Union Outreach Liaison

Discussion Topics:

- Trimble Field Link & Layout
- 3D Scanning
- CrewSight & LEM
- XR10 & TCHv3.0
- SiteVision
- Partners & Sales Programs
- FTG & EDU Sessions

2019

TRIMBLE FIELD LINK & LAYOUT OPTIONS

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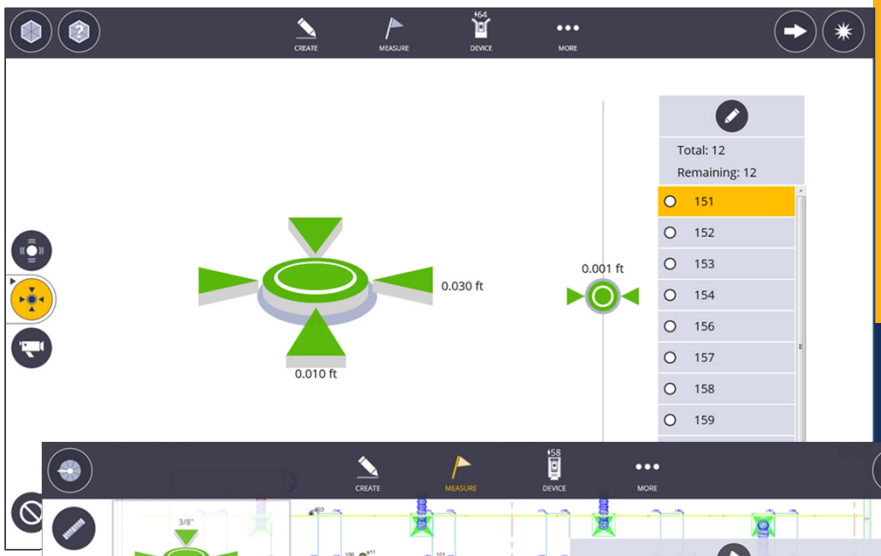
Trimble Field Technology Layout Portfolio

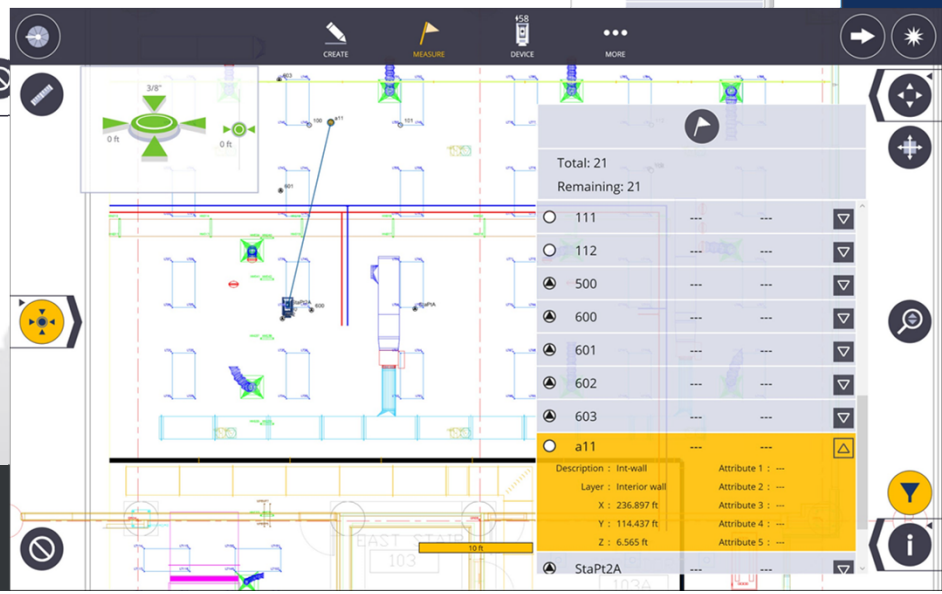
- Robotic Total Stations
- GNSS & GPS Options

- Rapid Positioning Tool
- Field Ruggedized Tablets

2019

Trimble Field Link with Robotic Total Station





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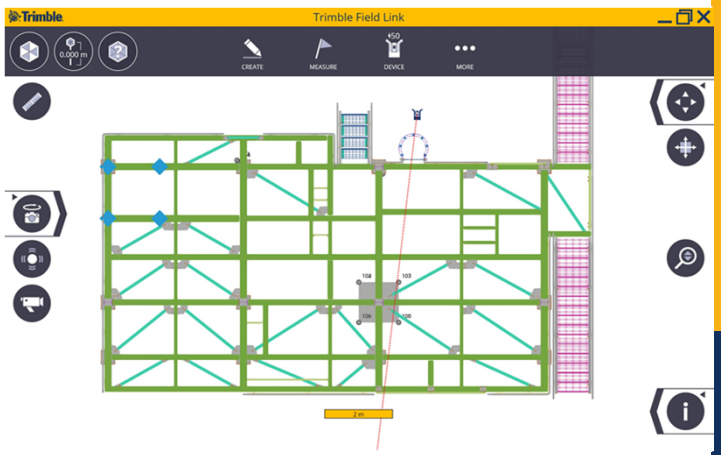
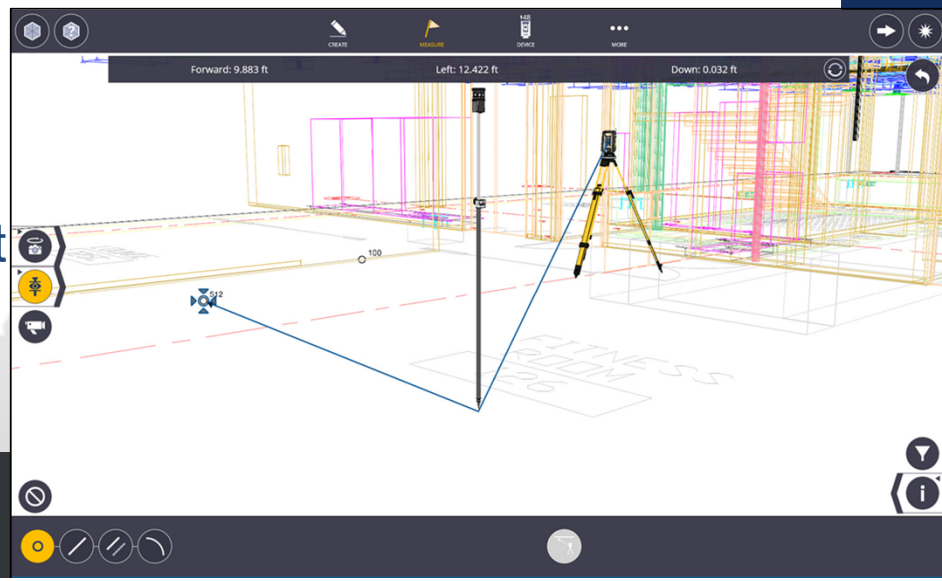
2019

Trimble Field Link Developments

- Accepts Large Models in **.IFC**, .DWG, .DXF, .SKP, and **.PDF**, or Draw Your Own Plan
- Create Points in the Field, Anchor Bolt Patterns, Linework to As-Built Points, . . .
- Layout Points, or Directly to Linework, Using Prisms, or Laser Pointer in 1.5 Seconds!
- Visual Layout using Laser Pointer for Correct XY or Z location on Walls, Floors or Ceilings

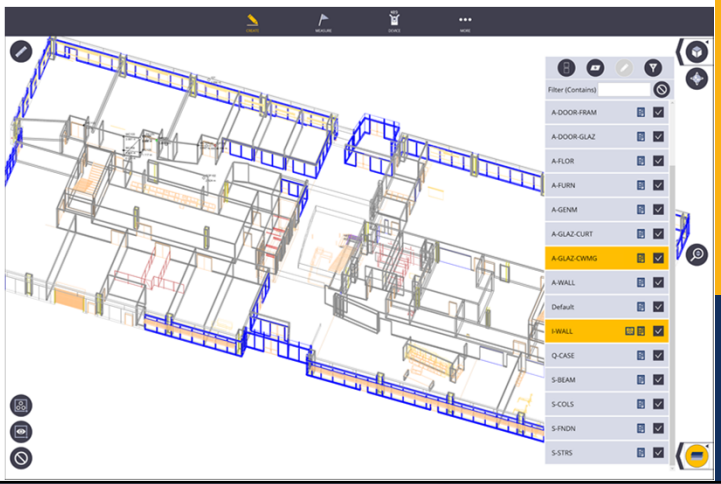


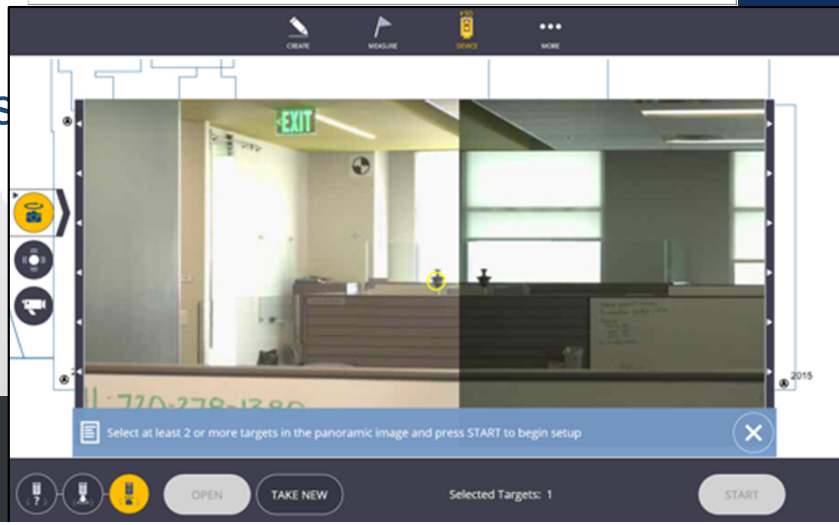


2019

Trimble Field Link Developments

- 3D Orbit View, View Cube, and Extents
- Solid Model, Transparency Settings & Linework Only View Options
- Sectioning Tools & Layer Tools
- Information Button - IFC Data, Points and Line
- Reports for Field Issues, Deviations, & Surfaces
- Trimble Vision, Panorama Images & Augmented Reality!

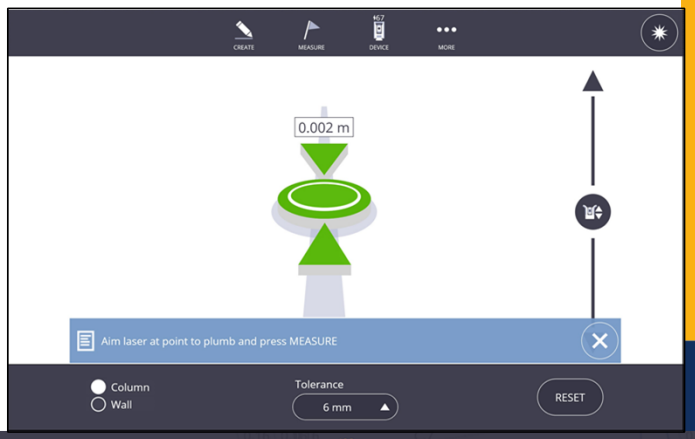


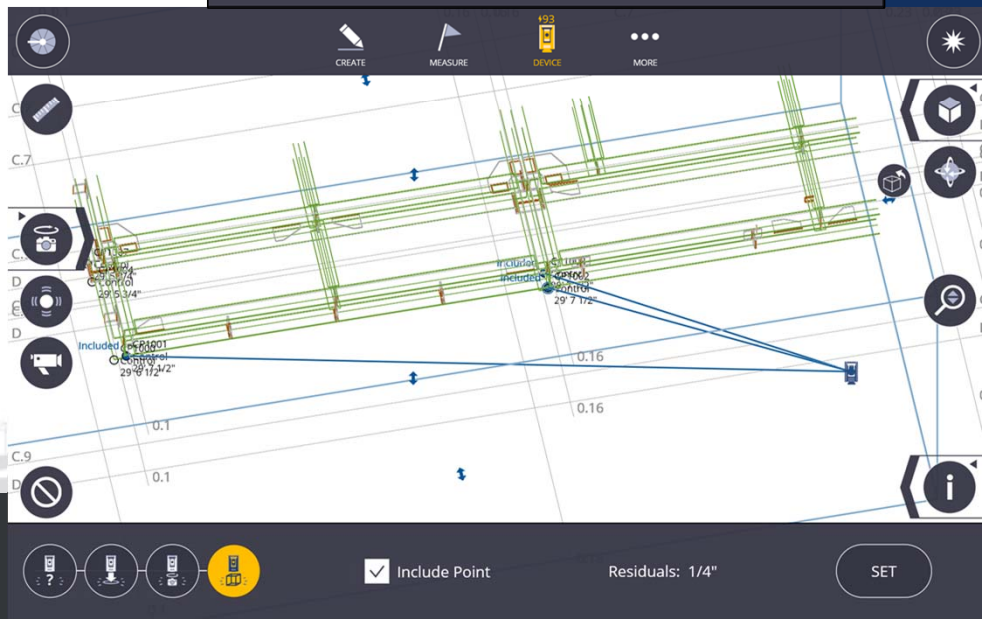


2019

Trimble Field Link Developments

- **Quick Plumb Tool** - Columns & Walls
- Quick Measure Tool - H, V, & Slope Distances
- Surface Tools to Check Floors, Walls and Ceilings
- Planes and Slope Staking -
- Turn To Feature (theodolite type options)
- Set Up on Control Points, Multiple Control Points, Panorama Set Up, and ...
- **Component Based Set-Up**





2019

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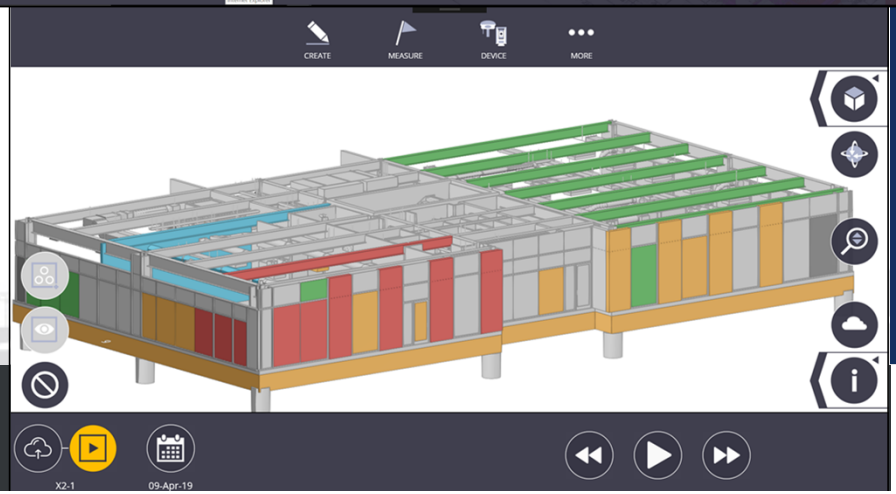
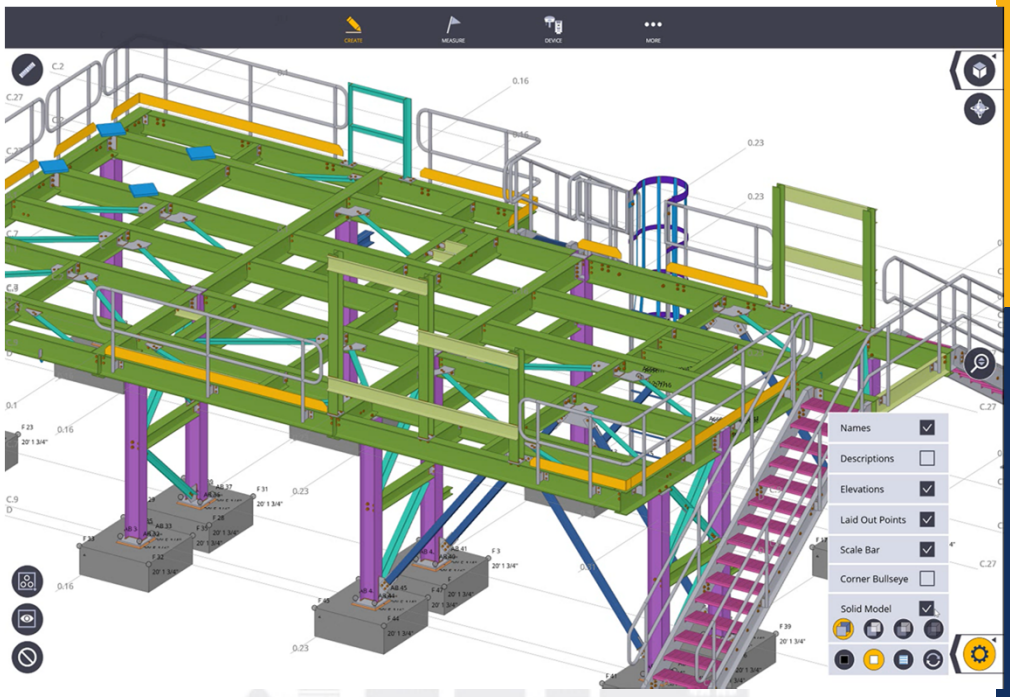
Trimble Field Link v5.3

- **Multiple CAD file Management**
  - Combine IFC, DWG, SKP, PDF's
  - Move, Rotate & Scale
  - Section, Layer & Visibility
  - In Trimble Field Link Office Only
- Prism Search Enhancements
- **Trimble Connect Status Reporting**
- More coming soon . . .



Trimble Field Link Resources

- Tekla.com - Resources - Field Link
  - Focus on Tekla Steel & Concrete
    - Tekla Workflow for IFC Export
    - Tekla Point Creation & Layout Manager
    - TFL Quick Overview
    - TFL & IFC Import & Creation
    - Component Based Layout
- Learn.Trimble.com



- https://resources.tekla.com/youtube-general-steel/tekla-structures-to-trimble-field-link-workflow

2019

2019

TRIMBLE REALWORKS AND LASER SCANNING

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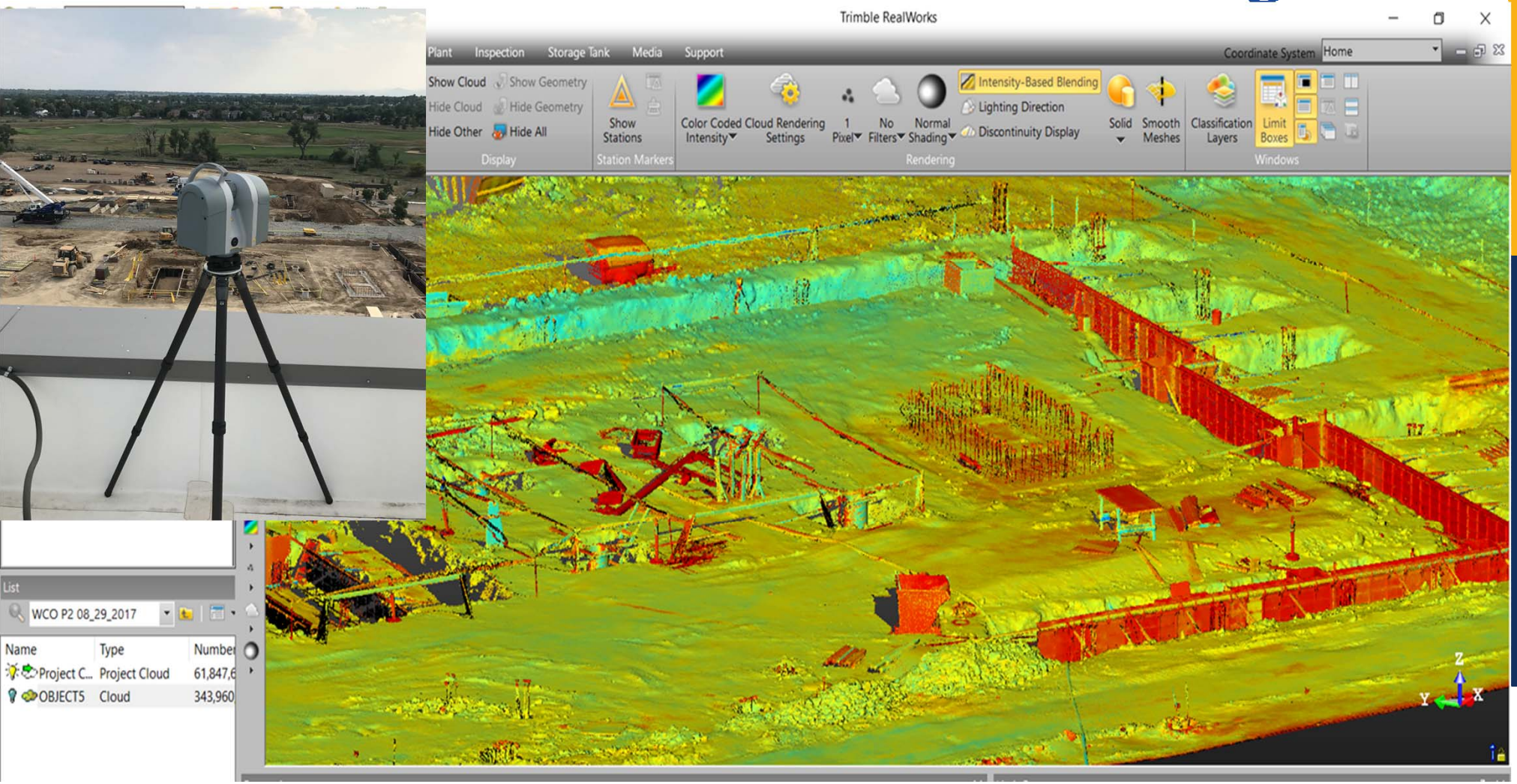
Trimble RealWorks and Laser Scanning



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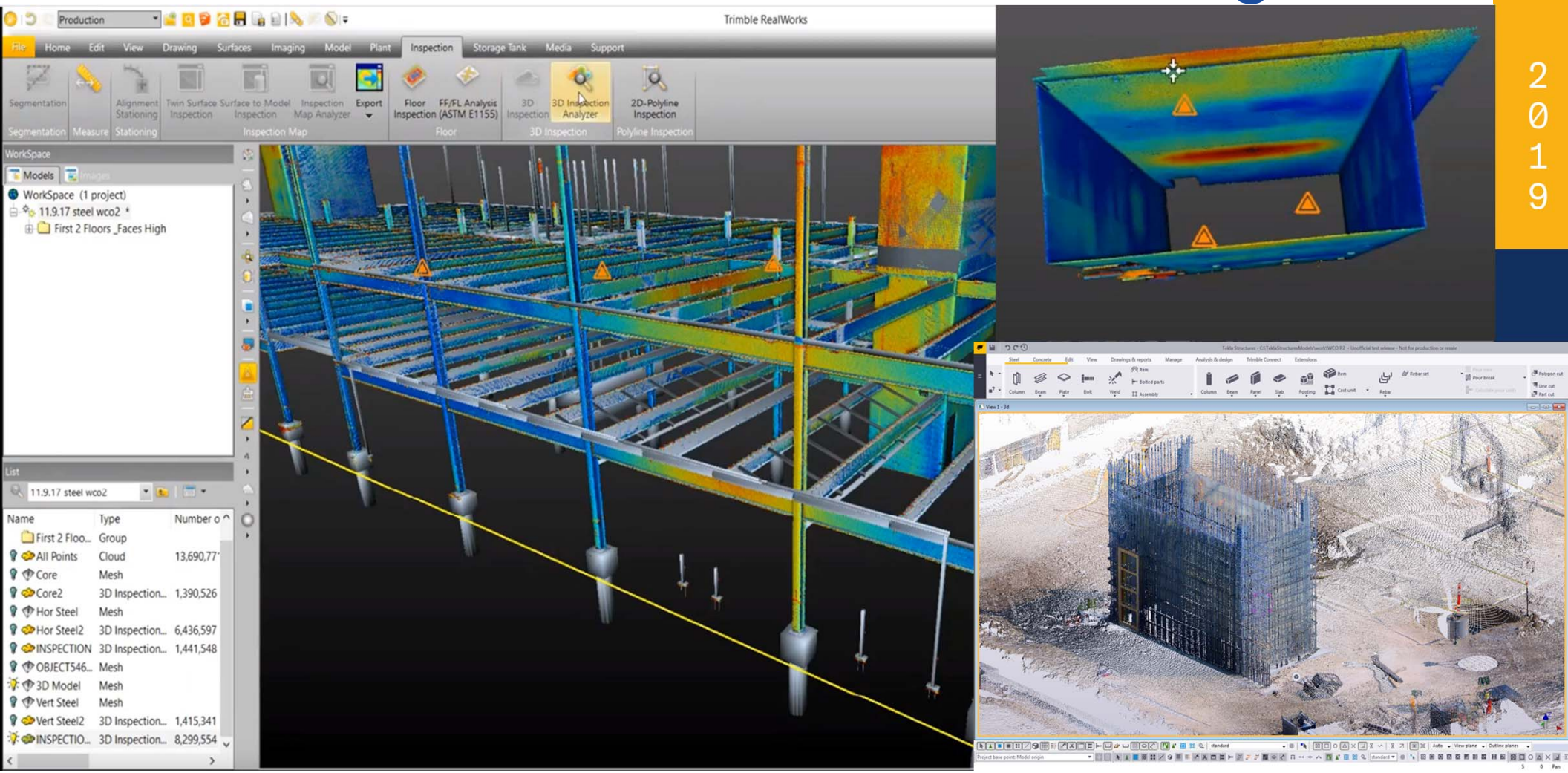
Trimble RealWorks and Laser Scanning



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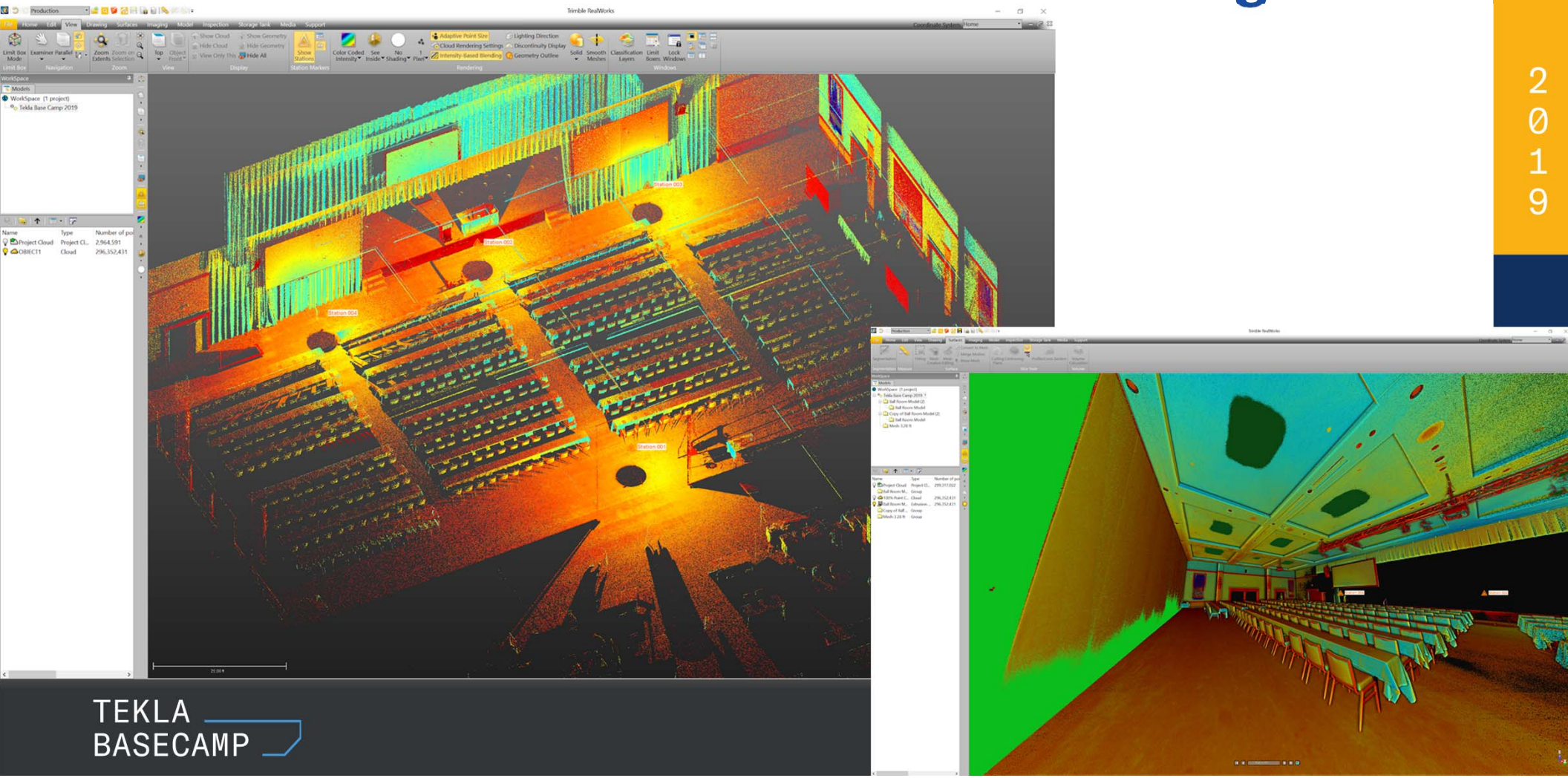
Trimble RealWorks and Laser Scanning



2019

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Trimble RealWorks and Laser Scanning

2019

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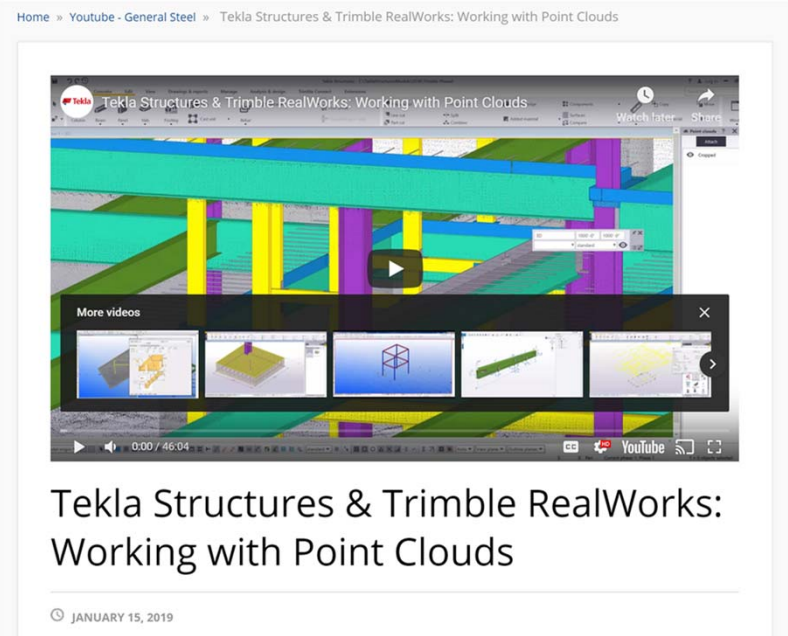
Trimble RealWorks and Laser Scanning

- Tekla.com - Resources - Point Clouds
  - Focus on Tekla Steel & Concrete
    - Tekla Workflow for Export
    - RealWorks Import
    - Heat Mapping to Model
    - Floor Flatness
    - RW to TFL for Layout
    - Connect Desktop
- Learn.Trimble.com



https://resources.tekla.com/youtube-general-steel/tekla-structures-trimble-realworks-working-with-point-clouds

2019

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TRIMBLE LABOR & EQUIPMENT TRACKING

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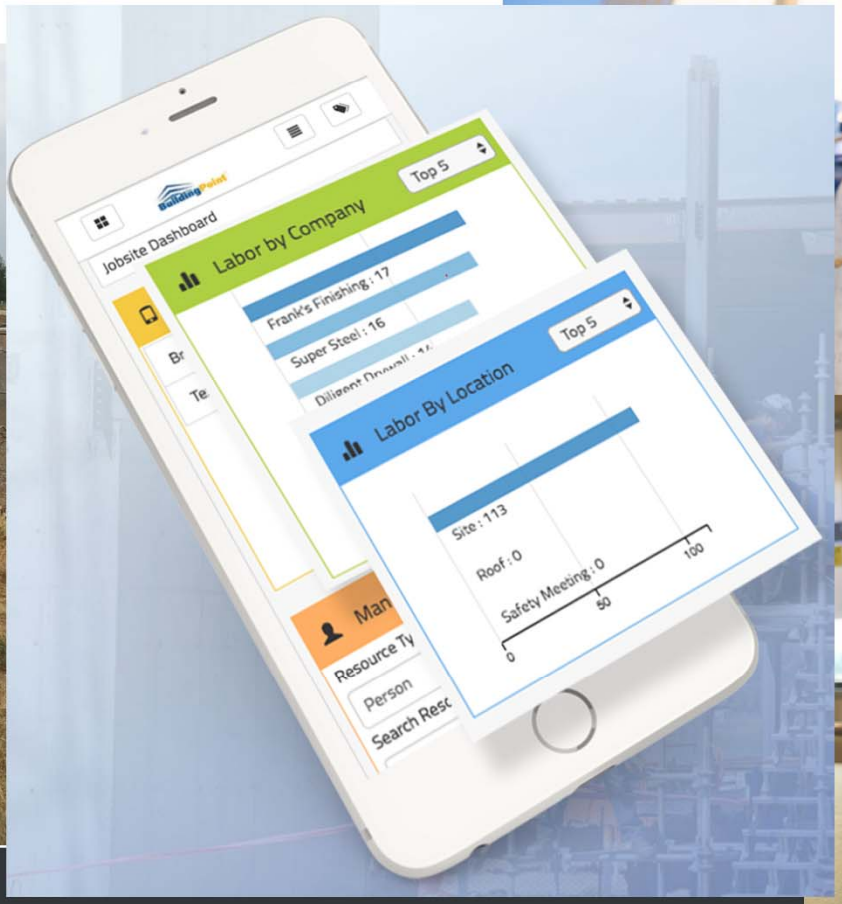
Trimble CrewSight



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Trimble CrewSight

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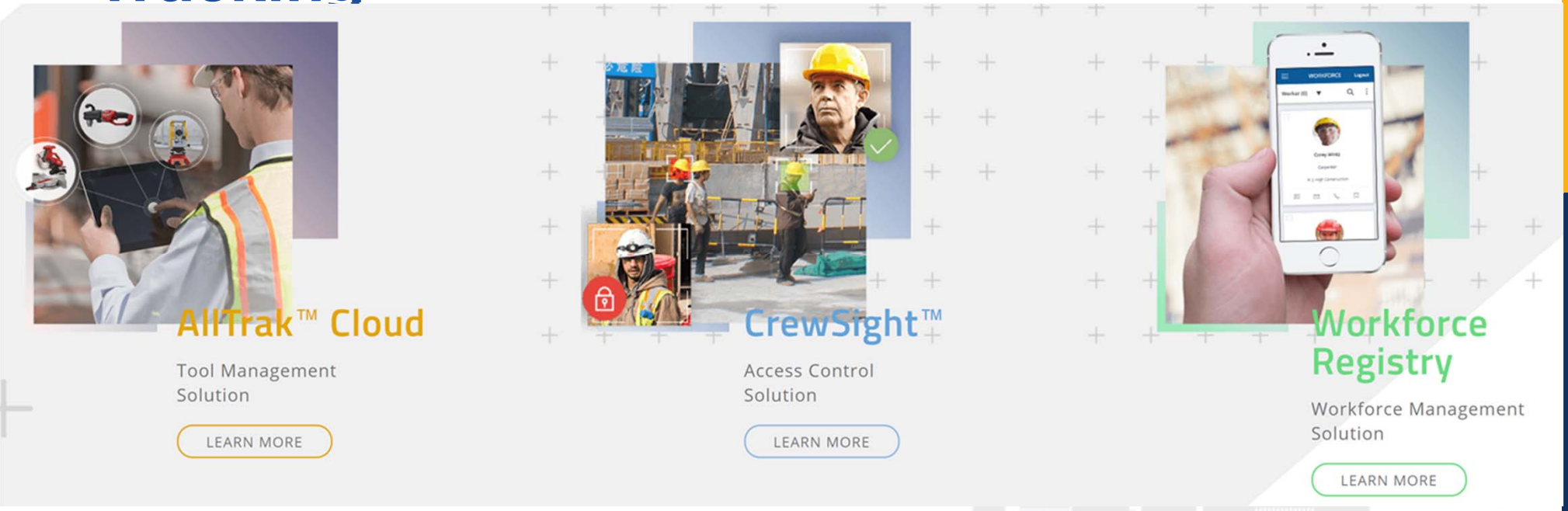
Trimble Labor, Material & Equipment Tracking



Learn More:

Trimble.com/field-technologies/labor-management and/or_tool-tracking

2019

2019

TRIMBLE MIXED REALITY SOLUTIONS

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Trimble XR10 with HoloLens 2

- Mixed-reality HMD OEM using Microsoft HoloLens 2 components
  - Manufactured and sold exclusively by Trimble
- Hardhat integration to enabled mixed reality workflows in safety controlled environments
  - Construction
  - Oil, Gas, & Chemical
  - Manufacturing
  - Automotive
- Sold as part of Trimble Buildings FTG Portfolio
  - Direct via Trimble Buildings
  - Indirect via BuildingPoint Channel
- MSRP: $4,750.00 (hardware)
  - Bundles available w/software
- Shipping late 2019 in 12 markets

Mixed Reality - Trimble's Product Suite

SiteVision
SketchUp Viewer

Architects

Design Review
Stakeholder Buy-In

SiteVision
Trimble Connect

GC's

Model Coordination
Preconstruction
Training
Model Sequencing
3D Task Management
Install Verification

SiteVision
Trimble Connect

Pre-Fabricators

Design Review
Guided Assembly
Remote Assistance

SiteVision
Trimble Connect

Subcontractors

Preconstruction
Model Sequencing
Guided Install
Remote Assistance
3D Task Management
Install Verification

Maintenance

Hidden As-Built View
3D View of IoT Data
3D Task Management
Remote Assistance

2019

CONSOLIS
Efficiency in the production phase

CONSOLIS

Trimble SiteVision

- Release scheduled for later this year
- Limited availability and knowledge
  - Demo units only for first month
- Courses will be available as well on Learn.Trimble.com

Trimble SiteVision: System Components

INTEGRATED HARDWARE

EDM enabled handheld Bracket

Battery powered bracket that connects Catalyst antenna, EDM and mounted BYO smartphone into a singled handheld unit

TRIMBLE CATALYST

USB-powered GNSS Antenna and Positioning Service

Digital antenna allowing high quality GNSS signals and satellite corrections to be passed to the Catalyst engine running on the Android device.

SITEVISION APP

Augmented Reality App

Leverages the power of Google AR Core and Trimble positioning technology to visualize geospatial data in high accuracy

BYO PHONE

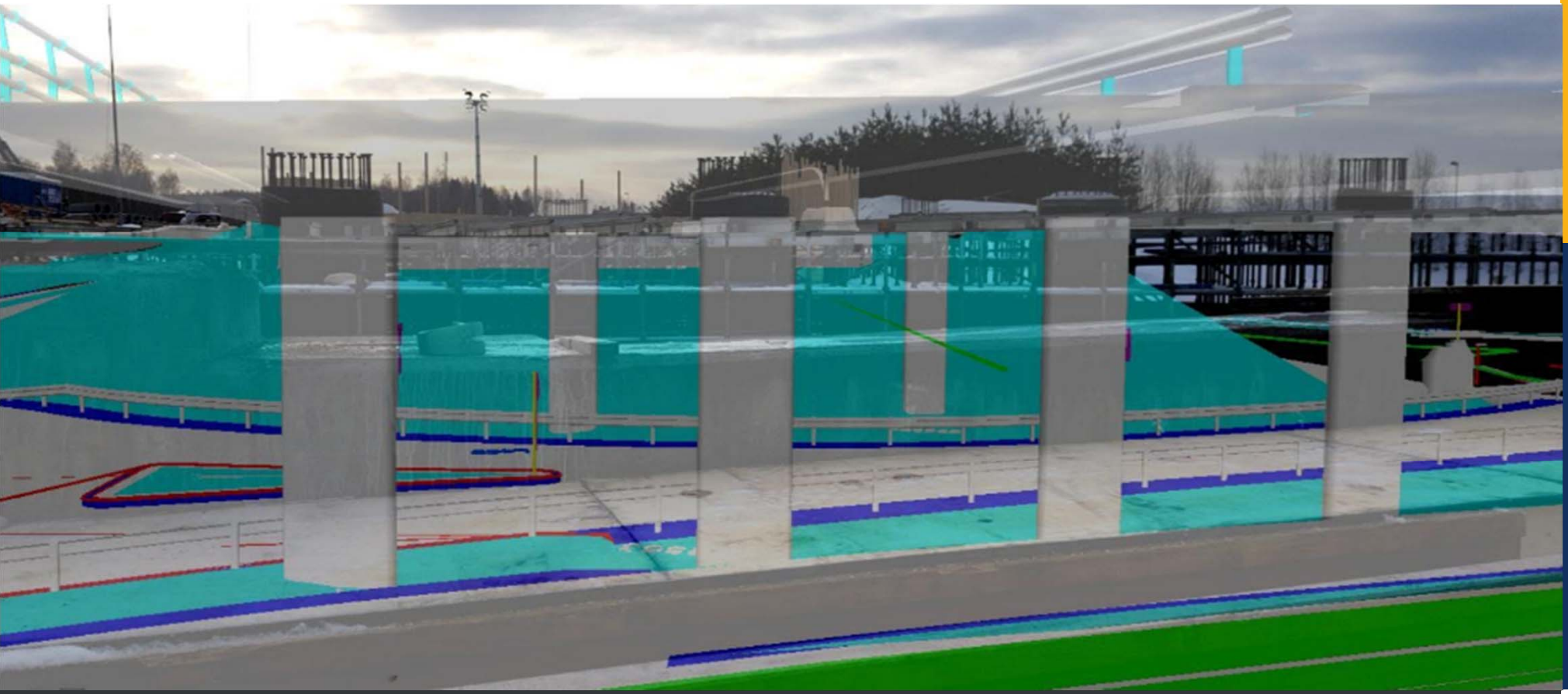
Compatible with Android 9 smartphones

The smartphone provides a host platform and computing power for calculating positions using the SiteVision app.

2019

TNZ Office Utilities_24-Jun-18_01-55.zip
Layers
High
Load Model
Place Model
Tools
MENU
Display Settings
Configuration
User Guide
About SiteVision
Opacity
2D

Construction Inspection, QA/QC & Progress



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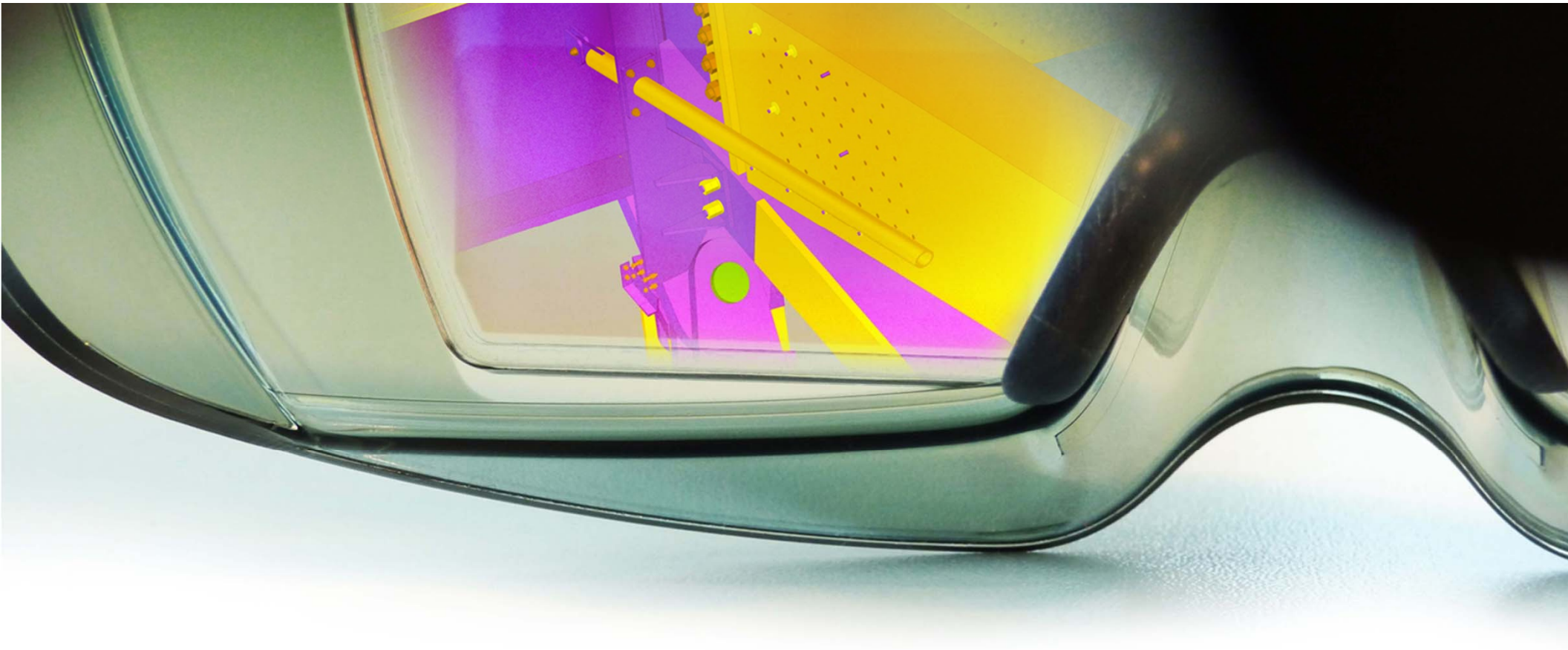

Learn More:

Trimble.com/MixedReality

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Trimble BuildingPoint Partners

https://buildings.trimble.com/where-to-buy

- **RPT600 $17,990 Full Kit w/ 360 Prism**
- **Tablet Trade-In Program**
- **Trimble RealWorks Free with Scanner**
- **Tekla Base Camp Only - 10% Off RTS & Accessories + (1) Free Trimble Field Link Office License**

2019

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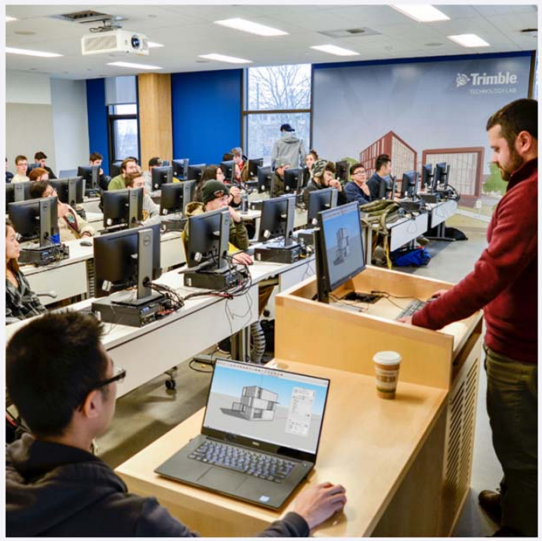
Trimble Educational Outreach & Training

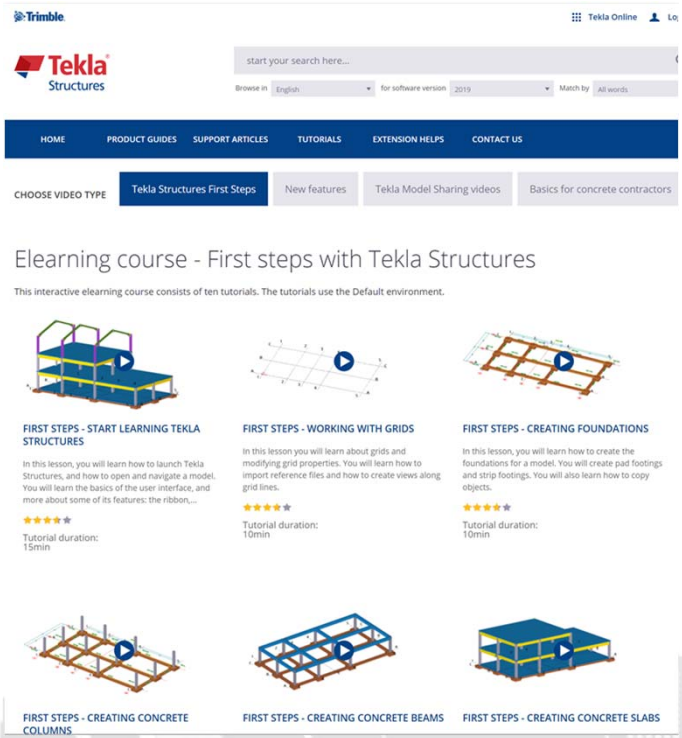
- Campus.Tekla.com
- Learn.Tekla.com
- Education.Trimble.com



Trimble Technology Labs

Partnering with Trimble gives your institution access to many of the latest tools available in Trimble's Constructible-enriched portfolio.

Learn More



- https://teklastructures.support.tekla.com/video_tutorials

2019

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