



Structural Analysis & Design Software

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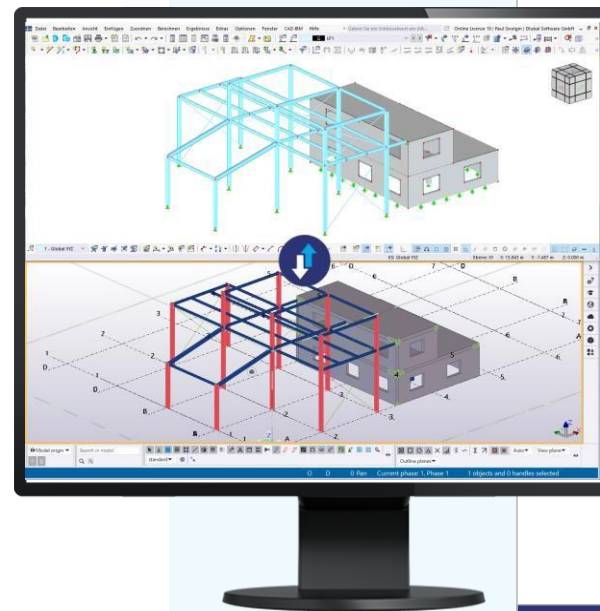
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Webinar

Tekla Structures Integration in RFEM 6



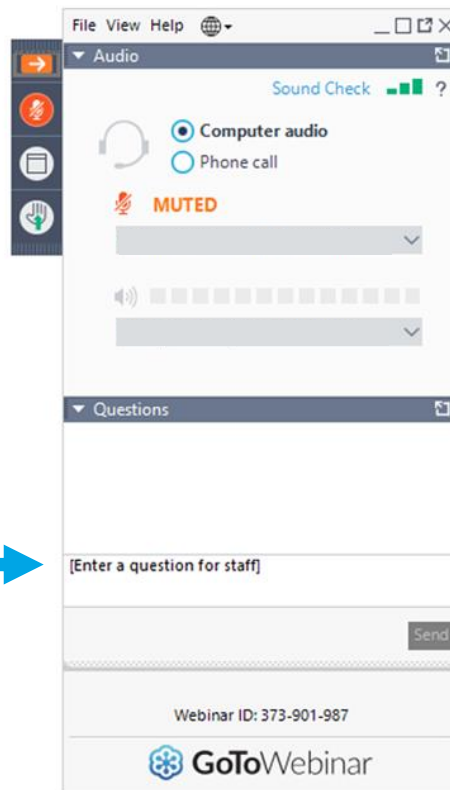
Questions During the Presentation



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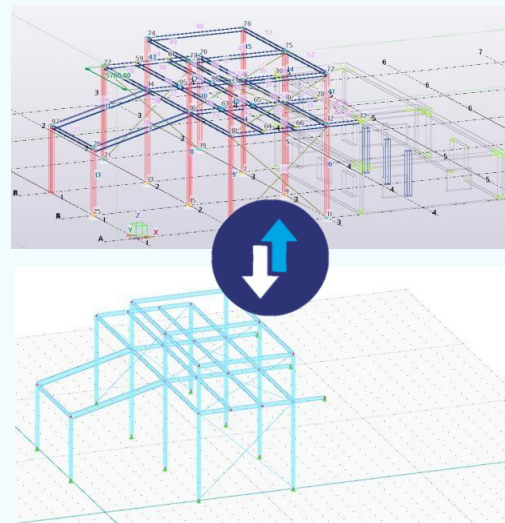
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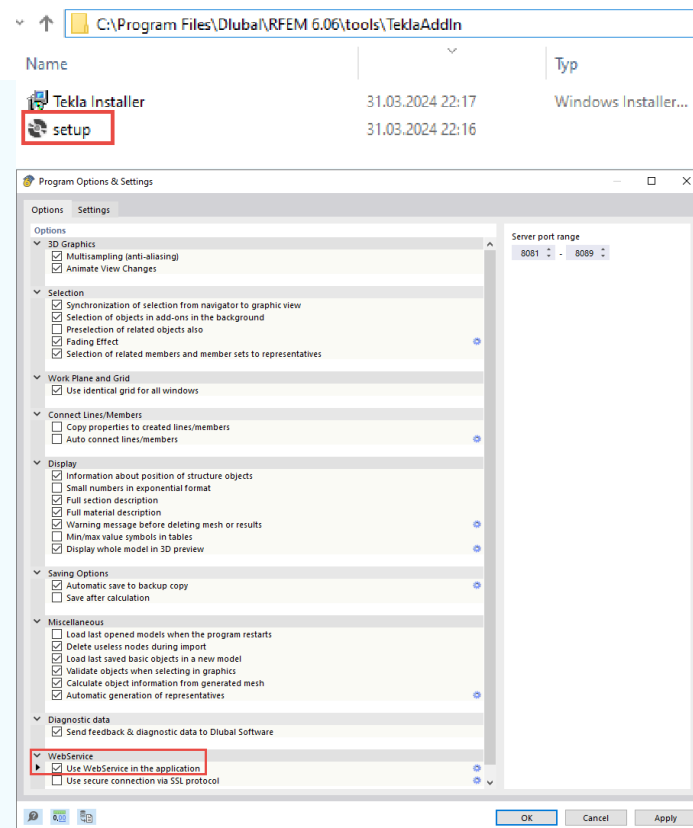
Content

- 
- 01 Introduction to Tekla Structures interface and RFEM 6 integration options
 - 02 Tekla Structures model export to RFEM 6
 - 03 Model review and design in RFEM 6
 - 04 Updated model export to Tekla Structures



General information

- Currently, Tekla Structures 2021-2024 supported
- Direct interface (Tekla and RFEM on one PC)
- Plugin must be installed manually



Structural Objects in Tekla Structures

- Members
- Surfaces
- Sections
- Materials
- Supports
- Hinges
- Rigid Links

▼ General

Name COLUMN
Profile W14X38
Material A992

Column
 Beam
 Panel
 Slab

Column
 Beam
 Plate

Releases

Start:

☒ Support condition Supported
☒ Rotation Not rotated
Set rotation by current work plane

☒ Ux Fixed 0.00
☒ Uy Fixed 0.00
☒ Uz Fixed 0.00
☒ Rx Fixed 0.00
☒ Ry Fixed 0.00
☒ Rz Fixed 0.00

Webinar

6

Export to RFEM

Export Options

- ☐ Physical model
- ☒ Analytical model
- ☐ Export load cases
- ☒ Export rigid links
- ☐ Create unique profile for each set of members
- ☒ Set Z-axis upward
- Mirror:**
 - ☐ X-coordinates
 - ☐ Y-coordinates
 - ☐ Z-coordinates
- ☐ New model
- ☒ Overwrite current model

OK Cancel

→ Solids without consideration of axial positions.

→ Adjusted "line model" with defined axis positions.

→ Transferred rigid links in the analytical model from Tekla Structures to RFEM.

→ Same cross-sections are summarized with one cross-section number in RFEM. With this option, a separate cross-section is created for each member.

→ Align the global Z-axis upwards in RFEM.

→ When exporting to RFEM, create a new model or overwrite an existing model.



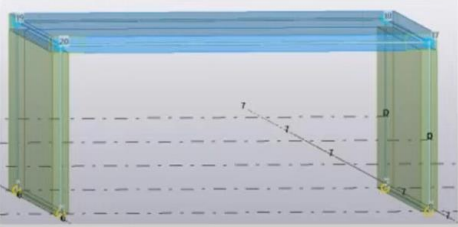
physical model



[2]



analytical model



Import from RFEM

An existing Tekla model can be overwritten, extended or updated.

Import analytical model from RFEM.

Separate settings for updating existing model.

When overwriting or extending an existing model, elements can be mirrored axially.

Conversion Tables

Left column controls conversion for export from Tekla to RFEM.

Right column controls conversion for import from RFEM to Tekla.

Subdivision for materials and cross-sections.

Creation of [regular expressions](#) is possible. Allows conversion of multiple objects via one entry.

Possible Workflows

Analytical model in Tekla

Information about cross-sections, materials, supports, hinges, member type, rigid links



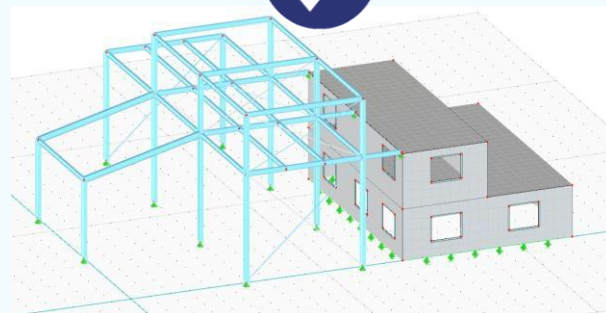
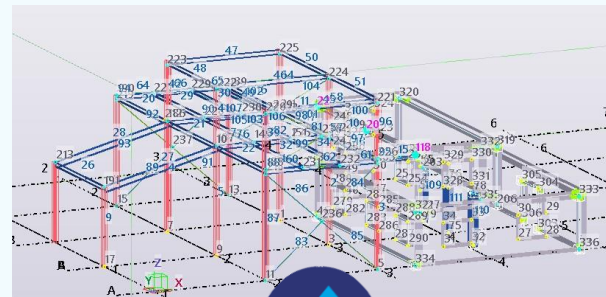
Export complete model to RFEM

Modifications and additions such as loads and load combinations
Design/Optimization



Update

cross-section changes
material changes
new objects
deleted objects
new model orientation



Possible Workflows

Analytical model in Tekla

Information about cross-sections, materials, supports, hinges, member type, rigid links



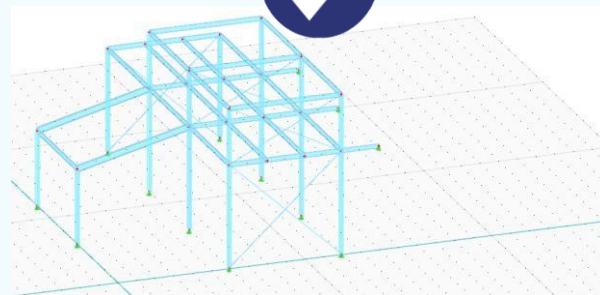
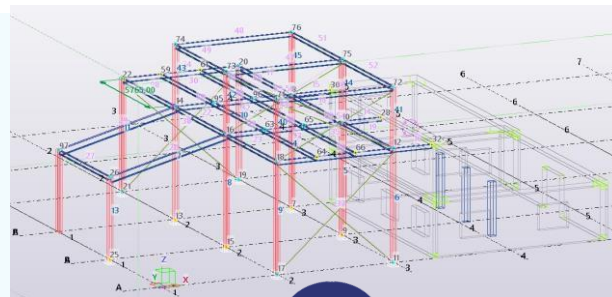
Export part of the model to RFEM

Modifications and additions such as loads and load combinations
Design/Optimization



Update

cross-section changes
material changes
new objects
deleted objects
new model orientation



Possible Workflows

Structural analysis model in RFEM

loads and load combinations

Design/Optimization



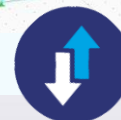
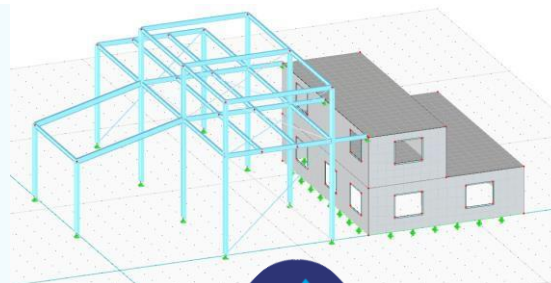
Import complete model or part of the model to Tekla

mass determination, prefabrication sheets,...



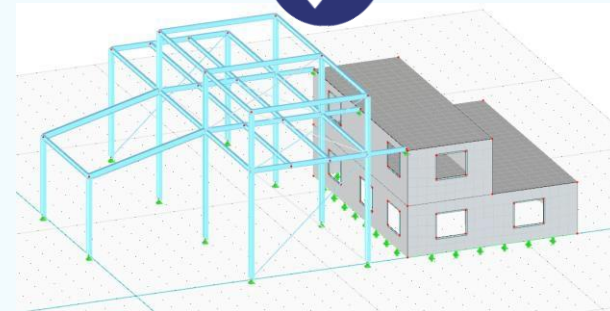
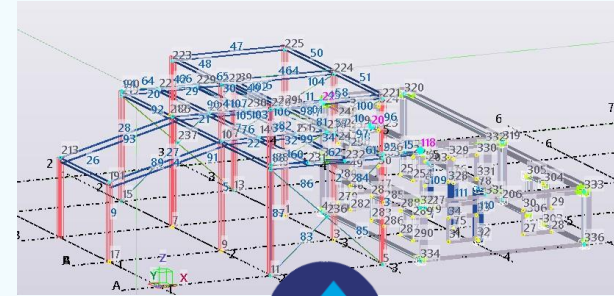
Update

cross-section changes
material changes
new objects
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new model orientation



Future Development

- “Set of Members” transferred between Tekla and RFEM (available 1-2 weeks)
- Conversion of tapered members
- Export of load groups and loads from Tekla to RFEM
- Eccentricity consideration in integration workflow



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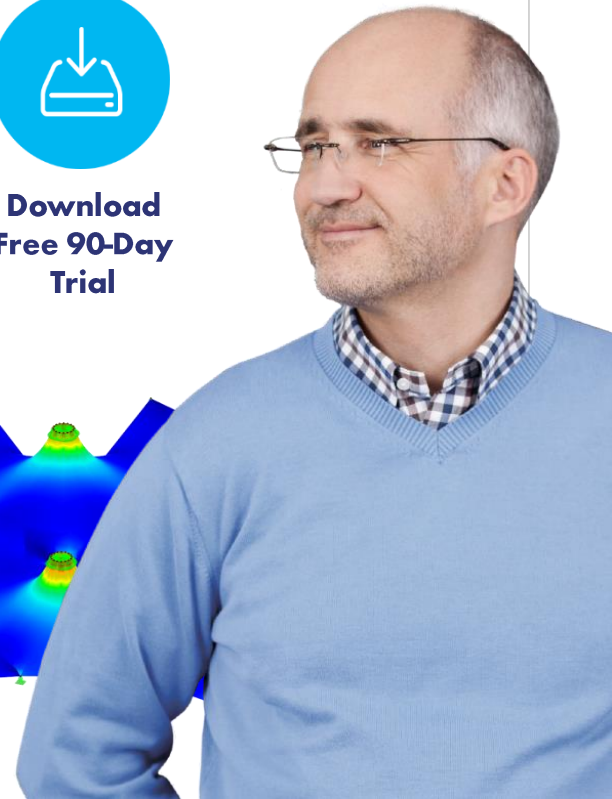
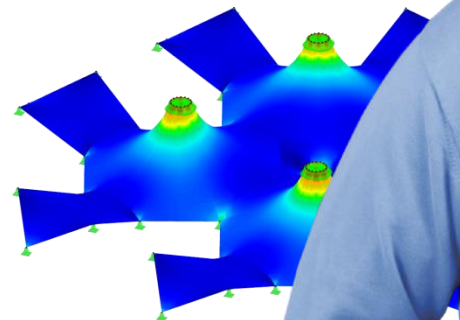
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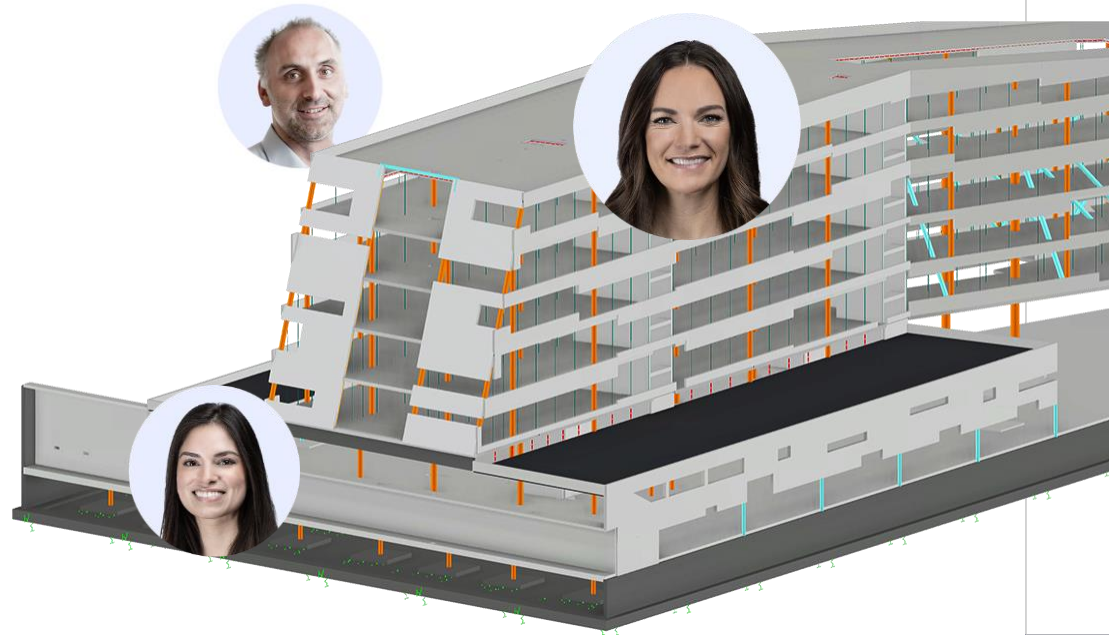
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