



Structural Analysis & Design Software

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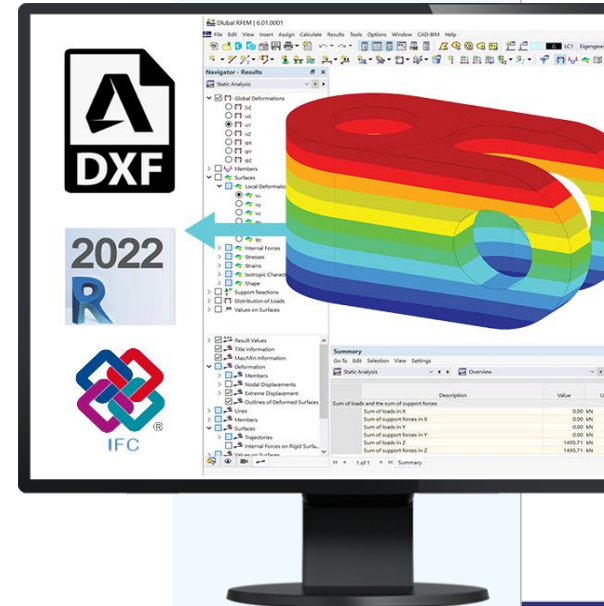


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Webinar

Interfaces with RFEM 6 Briefly Presented: DXF, IFC, Autodesk Revit



Questions During the Presentation



GoToWebinar Control Panel
Desktop



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Show or hide control panel



The screenshot shows the GoToWebinar control panel interface. At the top, there is a menu bar with 'File', 'View', and 'Help'. Below it is the 'Audio' section, which includes a 'Sound Check' indicator with a green bar and a question mark. There are two radio buttons: 'Computer audio' (selected) and 'Phone call'. A red 'MUTED' indicator is visible. Below this, there are dropdown menus for 'Mikrofon (2- Sennheiser USB h...)' and 'Lautsprecher (2- Sennheiser U...'. A volume slider is also present. The 'Questions' section is below the audio settings, featuring a text input field with the placeholder '[Enter a question for staff]' and a 'Send' button. At the bottom, the 'Webinar ID: 373-901-987' and the 'GoToWebinar' logo are displayed.



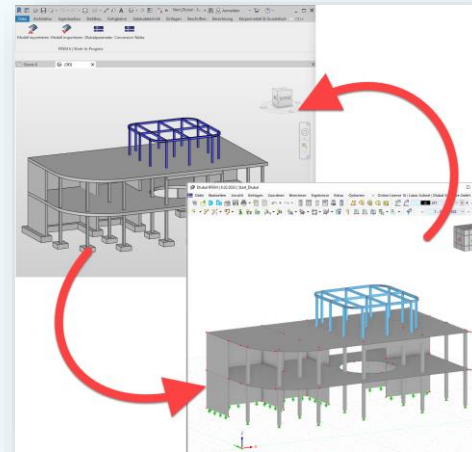
Adjust audio settings

Ask questions



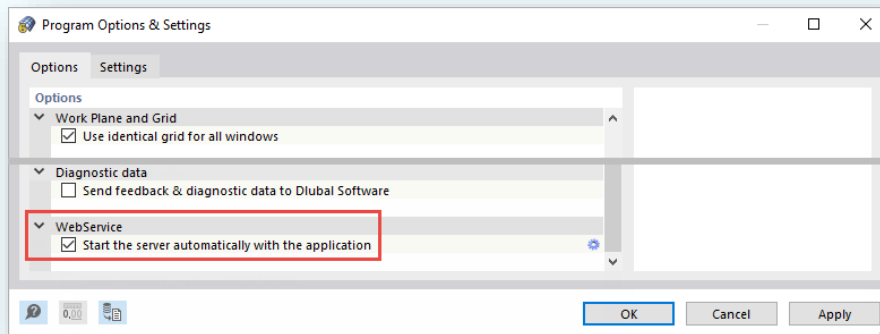
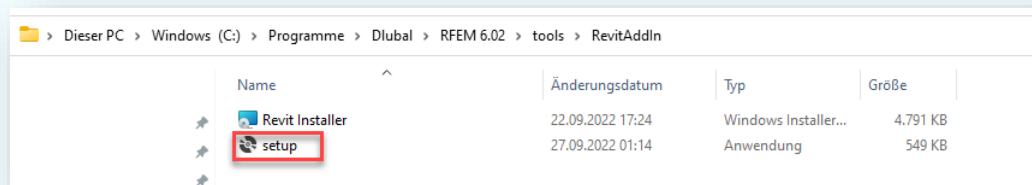
CONTENT

- 01 Data exchange between Autodesk Revit and RFEM 6
- 02 Import and export of IFC files
- 03 Import and export of DXF files



General information

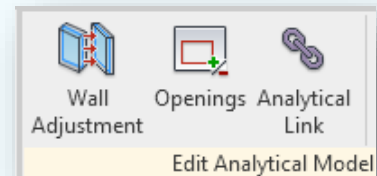
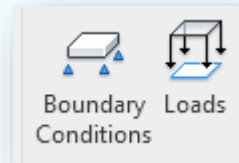
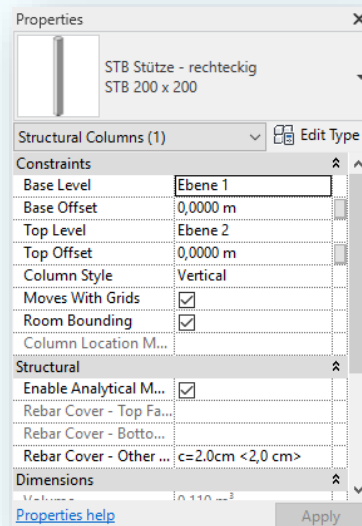
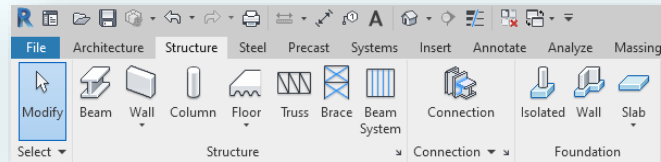
- Current interface to Revit 2022 (Work-In-Progress Version)
- Direct interface (web services)
→ Revit and RFEM on one PC
- Manual subsequent installation
- Currently requires a web service license, but will be freely available in future
- Necessary setting in RFEM



Global relevant structural objects in Revit

Implemented objects

- Load-bearing walls, load-bearing floor slabs, foundation slabs
- Girders, columns, struts
- Beam systems
- Openings
- Materials and cross-sections (conversion table)
- Hinges
- Support conditions (point, line, area)
- Foundations (as nodal or line support)
- Offsets (eccentricities)
- Couplings

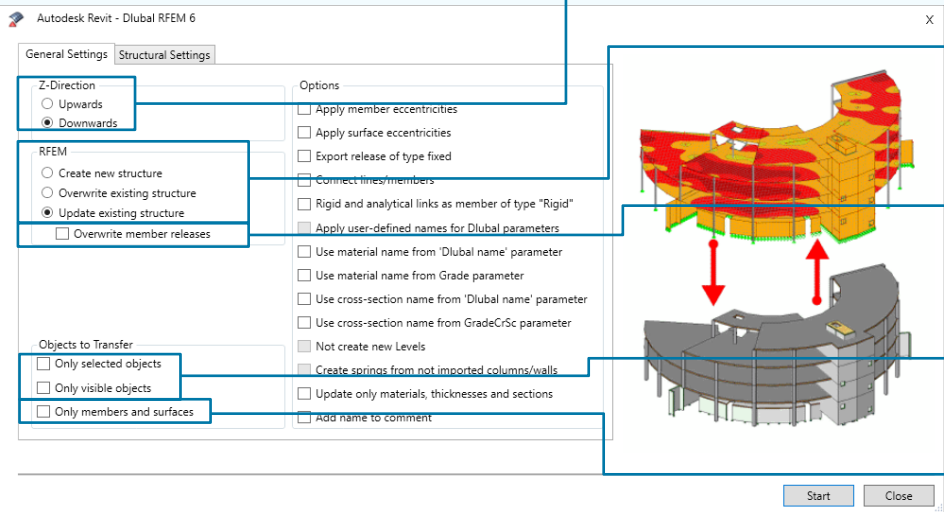




EXPORT



Export settings



Direction of the global Z-Axis in RFEM

Basic export type. Update allows changes in Revit to be adopted in RFEM while maintaining RFEM-specific inputs (e.g. loads)

Member hinges are not overwritten with Revit definitions in Dlubal. Release definitions in RFEM are of higher priority (e.g. non-linearities)

Allows export of subsystems. Control over selected or visible objects in Revit

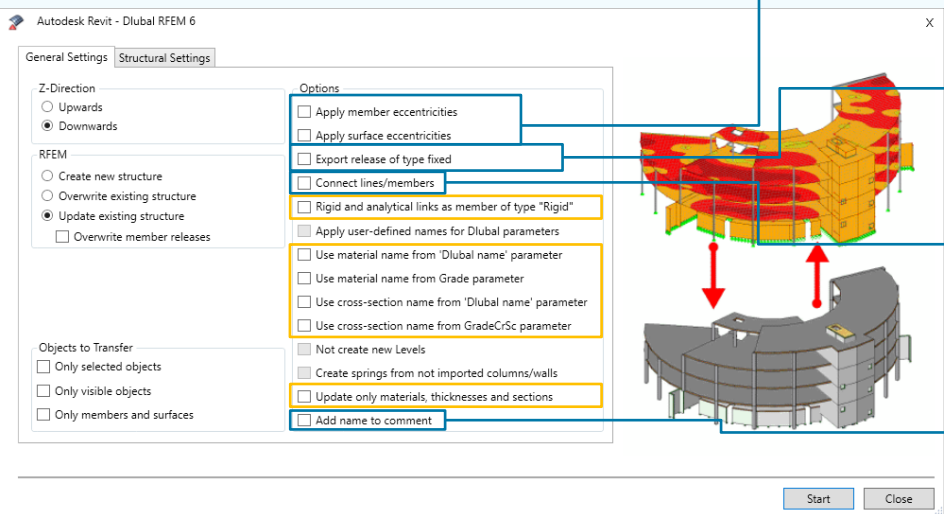
Exports only the main objects beams, columns, slabs without hinges and support definitions. Any incomplete or incorrect definition in Revit is therefore ignored.



EXPORT



Export settings



Writes offsets in Revit as member or surface eccentricity in RFEM

Generates "empty" releases on all RFEM members that do not receive any specific release information from Revit. The bars are thus rigidly connected.

Connects lines/members that cross each other. Thus, a mechanically connected system can be created that can be calculated. However, this may be associated with model changes that make later model comparison with Revit more difficult.

Documents the Revit material and cross-section names in the associated RFEM comments.

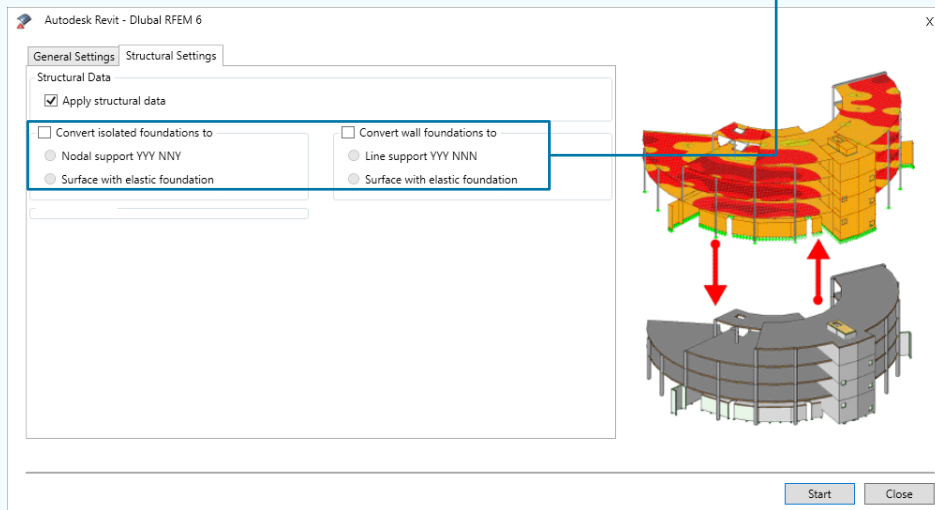


EXPORT



Export settings

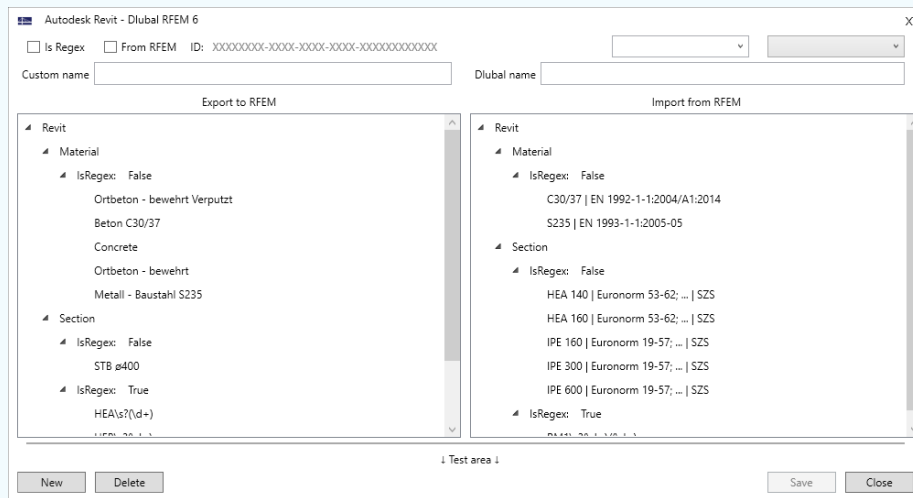
Objects of the type isolated foundation or wall foundation can be created in RFEM either as a pinned nodal support or a pinned line support or as an elastically bedded surface. In Dlubal there are no foundation objects, only simple supports. The assigned spring stiffnesses are preset and must be adjusted in RFEM. The dimensions of the surfaces are also preset and may need to be modified.



Conversion table



EXPORT



Left column controls conversion for export from Revit to RFEM
Right column controls conversion for import from RFEM to Revit

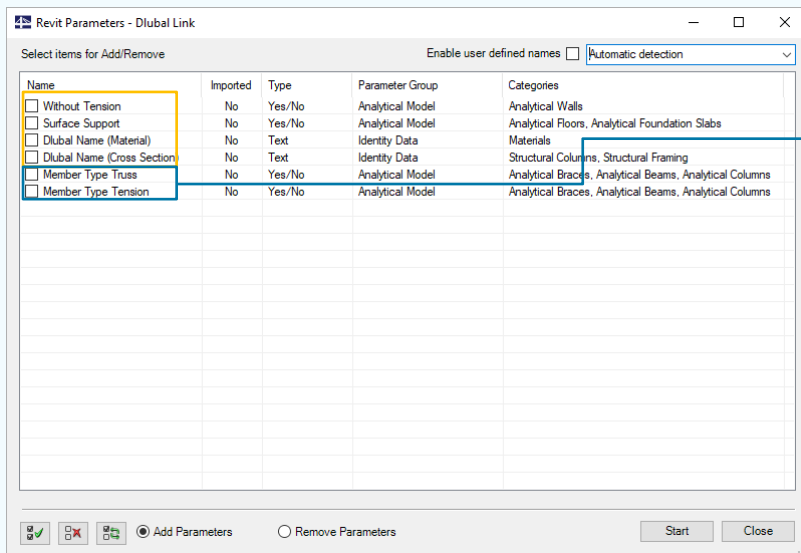
Subdivision for materials and cross-sections

Creation of regular expressions possible. Allows conversion of multiple objects via one entry (<https://regex101.com/>)

Revit parameter

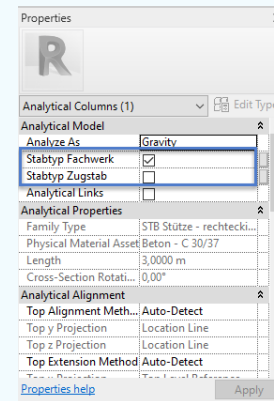


EXPORT



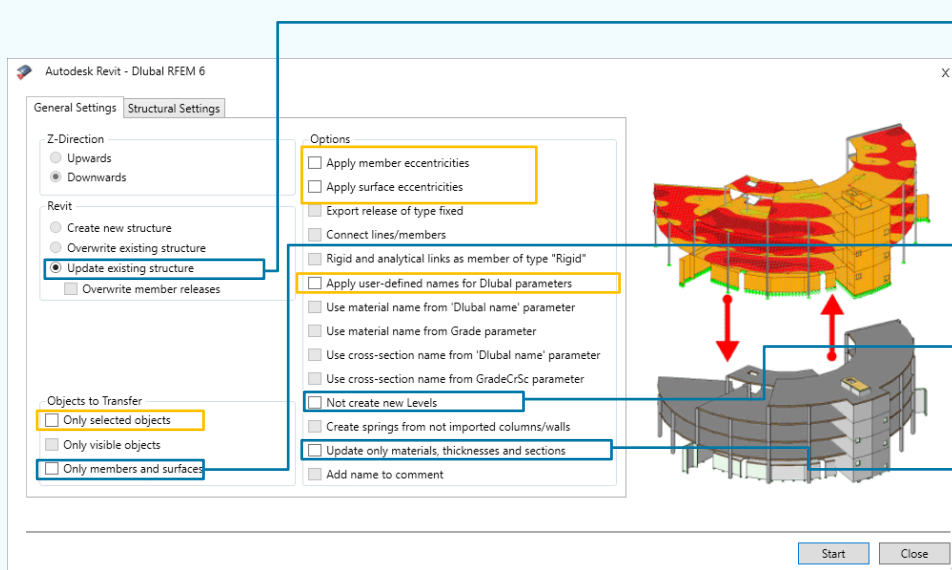
Allows definition of additional information within the Revit objects that can be interpreted in RFEM

Member types "truss" and "tension" can be defined or saved in the analytical object properties.





Import settings



Only possibility is the update of the open Revit project. Revit families that are already loaded in the project are automatically used if the conversion is correct. No families can be loaded into the project. Likewise, no families are created.

Imports only the main objects beams, columns, slabs without hinges and support definitions.

During the import, RFEM can create new planes for the position definition of objects. This option can be used to prevent it.

Reduces updating to changing materials, section names, and surface thicknesses. Coordinates not updated. No adding or deleting objects



General information

Import

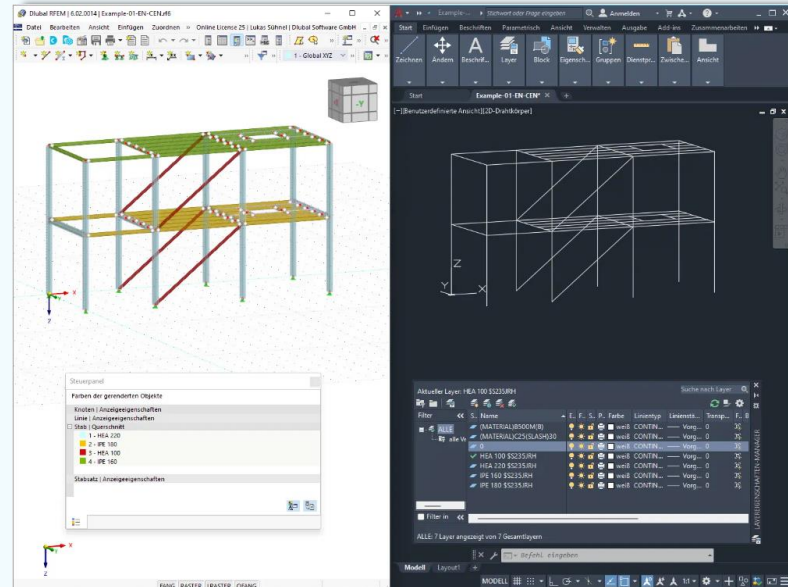
- IFC 2x3 / IFC 4
- Structural Analysis View / Coordination or Reference View
- Integrated IFC Viewer
- Conversion into Dlubal objects

Export

- IFC 4
- Structural Analysis View / Reference View
- Allows opening of IFC-files in CAD software

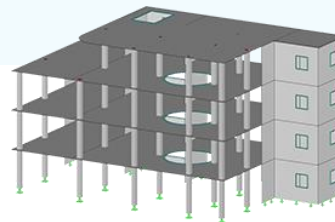
General information

- Direct import from AutoCAD or Import of DXF-files
- Import from specific layers
- Conversion of lines into members (requires specific layer description)
- Import as background layer
- Export supports only lines



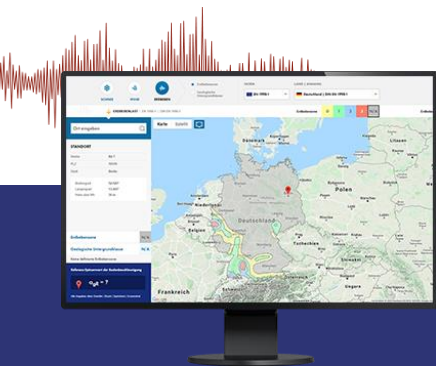


Free Online Services



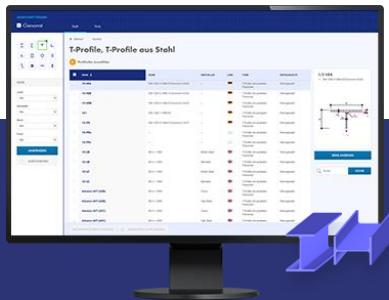
Geo-Zone Tool

Dlubal Software provides an online tool with snow, wind and seismic zone maps.



Cross-Section Properties

With this free online tool, you can select standardized sections from an extensive section library, define parametrized cross-sections and calculate its cross-section properties.



FAQs & Knowledge Base

Access frequently asked questions commonly submitted to our customer support team and view helpful tips and tricks articles to improve your work.



Models to Download

Download numerous example files here that will help you to get started and become familiar with the Dlubal programs.





Free Online Services

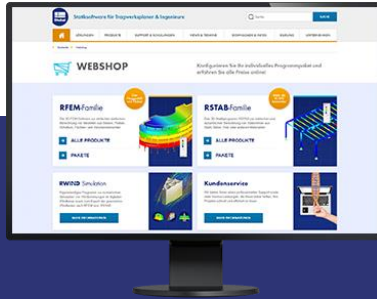
Youtube Channel - Webinars, Videos

Videos and webinars about the structural engineering software.



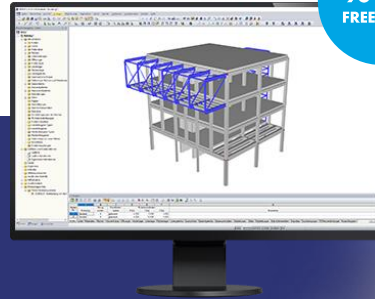
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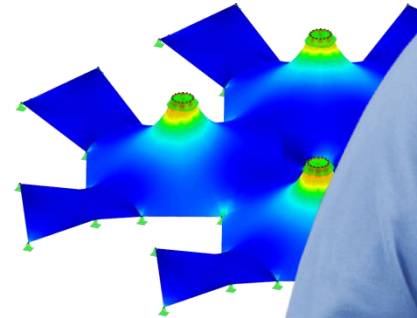
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