



## Structural Analysis & Design Software



[www.dlubal.com](http://www.dlubal.com)



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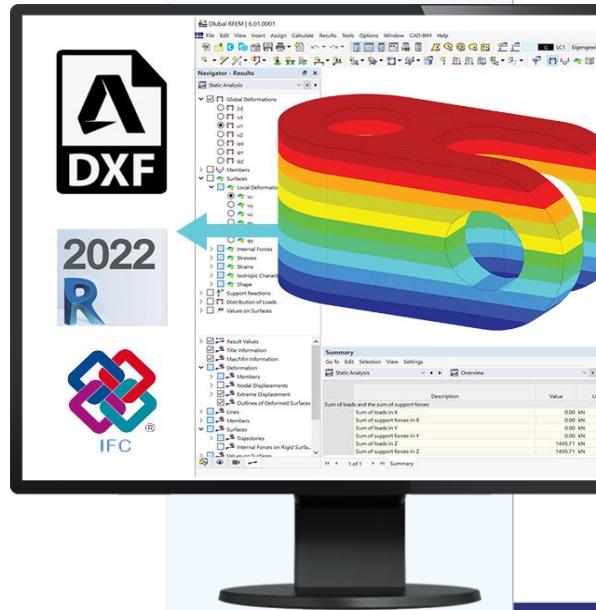


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## Webinar

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





# Questions During the Presentation



GoToWebinar Control Panel  
**Desktop**



E-mail: [info@dlubar.com](mailto:info@dlubar.com)



The screenshot shows the GoToWebinar Control Panel interface. At the top, there's a menu bar with File, View, Help, and a globe icon. Below the menu is a toolbar with icons for audio (orange), video (red), and other controls. A large blue callout box labeled "Show or hide control panel" with a right-pointing arrow is positioned above the toolbar. To the right of the toolbar is a window titled "Audio" which includes a "Sound Check" button and dropdown menus for "Computer audio" (selected) and "Phone call". It also shows "MUTED" status and microphone and speaker volume sliders. Another blue callout box labeled "Adjust audio settings" with a left-pointing arrow is positioned to the right of the "Audio" window. Below the audio window is another window titled "Questions" with a sub-section for "Staff Questions". A blue callout box labeled "Ask questions" with a right-pointing arrow is positioned above the "Staff Questions" section. Inside this section is a text input field with placeholder text "[Enter a question for staff]" and a "Send" button. At the bottom of the interface, it displays "Webinar ID: 373-901-987" and the "GoToWebinar" logo.

# CONTENT

01

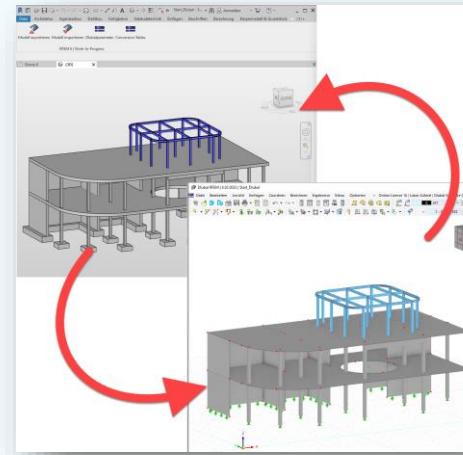
Data exchange between Autodesk Revit  
and RFEM 6

02

Import and export of IFC files

03

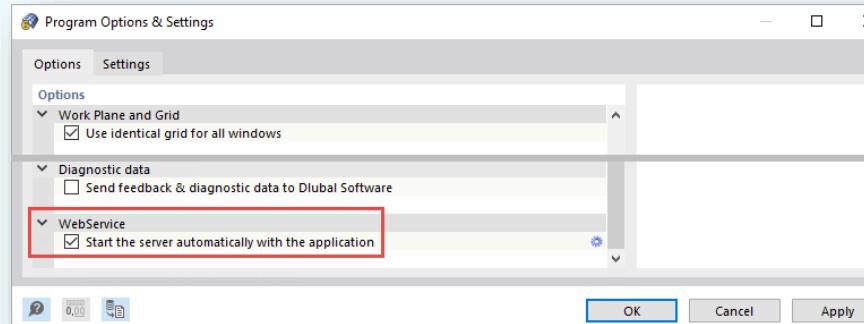
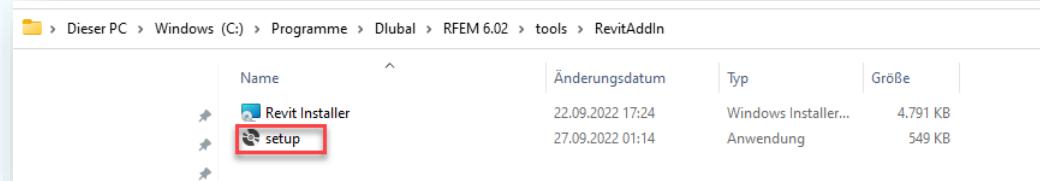
Import and export of DXF files





# 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

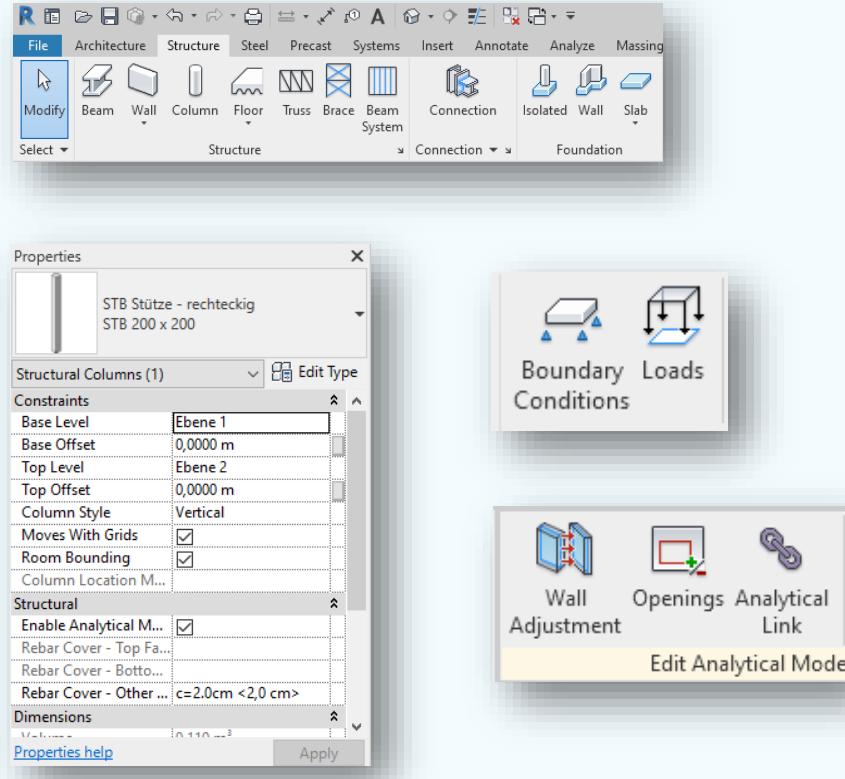




# DLUBAL relevant structural objects in Revit

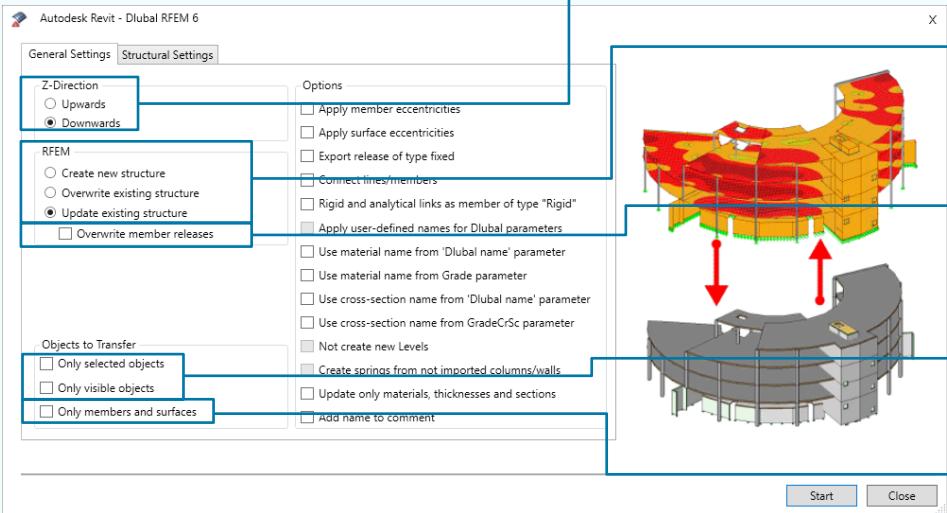
## Implemented objects

- 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 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)

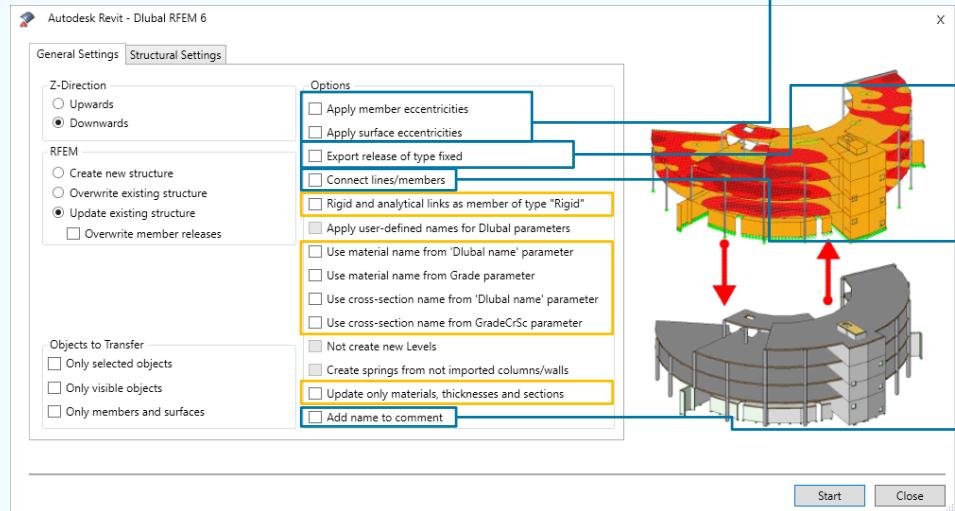
Allows export of subsystems. Control over selected or visible objects in Revit

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





# Export 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.

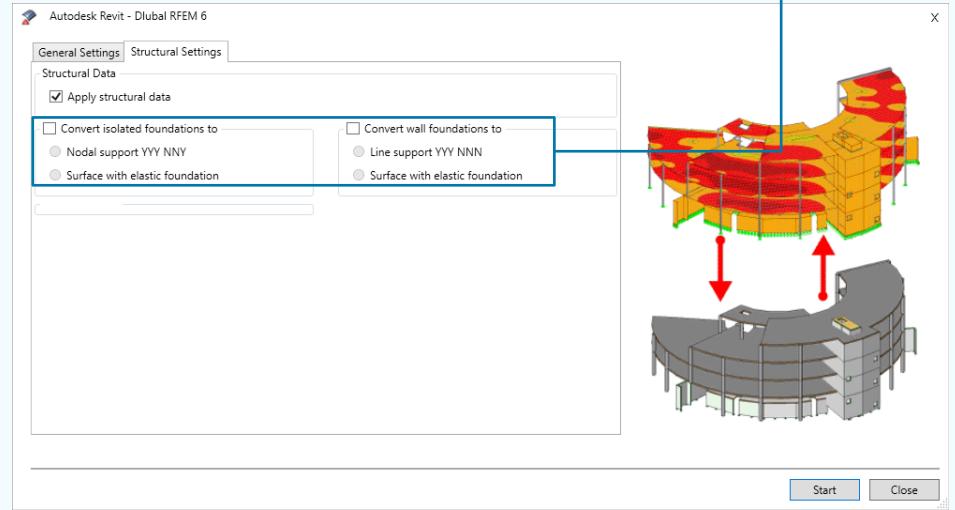




# Export settings



EXPORT



→ 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

Autodesk Revit - Dlubal RFEM 6

Is Regex  From RFEM ID: X000000X-X000-X000-X000000000000

Custom name  Dlubal name

Export to RFEM Import from RFEM

Revit	RFEM
Material	Material
IsRegex: False	IsRegex: False
Ortbeton - bewehrt Verputzt	C30/37   EN 1992-1-1:2004/A1:2014
Beton C30/37	S235   EN 1993-1-1:2005-05
Concrete	
Ortbeton - bewehrt	
Metall - Baustahl S235	
Section	Section
IsRegex: False	IsRegex: False
STB ø400	HEA 140   Euronorm 53-62; ...   S235
IsRegex: True	HEA 160   Euronorm 53-62; ...   S235
HEA\d{2}(\d{2})	IPE 160   Euronorm 19-57; ...   S235
	IPE 300   Euronorm 19-57; ...   S235
	IPE 600   Euronorm 19-57; ...   S235
	IsRegex: True

New  Delete  Save  Close



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



**Revit Parameters - Dlubal Link**

Select items for Add/Remove  Enable user defined names  Automatic detection

Name	Imported	Type	Parameter Group	Categories
<input type="checkbox"/> Without Tension	No	Yes/No	Analytical Model	Analytical Walls
<input type="checkbox"/> Surface Support	No	Yes/No	Analytical Model	Analytical Floors, Analytical Foundation Slabs
<input type="checkbox"/> Dlubal Name (Material)	No	Text	Identity Data	Materials
<input type="checkbox"/> Dlubal Name (Cross Section)	No	Text	Identity Data	Structural Columns, Structural Framing
<input type="checkbox"/> Member Type Truss	No	Yes/No	Analytical Model	Analytical Brackets, Analytical Beams, Analytical Columns
<input type="checkbox"/> Member Type Tension	No	Yes/No	Analytical Model	Analytical Brackets, Analytical Beams, Analytical Columns

Add Parameters  Remove Parameters  Start  Close

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.

**Properties**

Analytical Columns (1)  Edit Type

Analytical Model

Analyze As

Stabtyp Fachwerk   
Stabtyp Zugstab

Analytical Links

Analytical Properties

Family Type STB Stütze - rechteckig...  
Physical Material Asset Beton - C 30/37  
Length 3,0000 m  
Cross-Section Rotat... 0,00°

Analytical Alignment

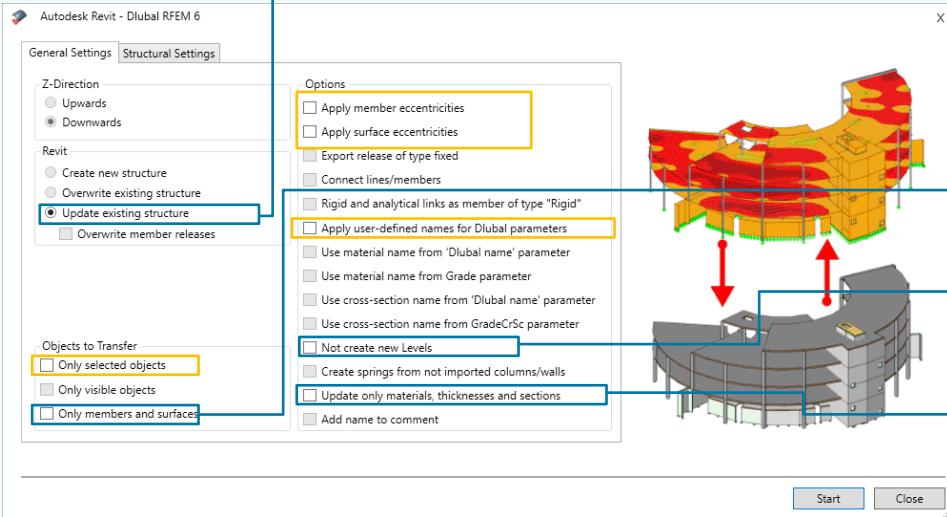
Top Alignment Meth... Auto-Detect  
Top y Projection Location Line  
Top z Projection Location Line  
Top Extension Method Auto-Detect

Properties help  Apply





# 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

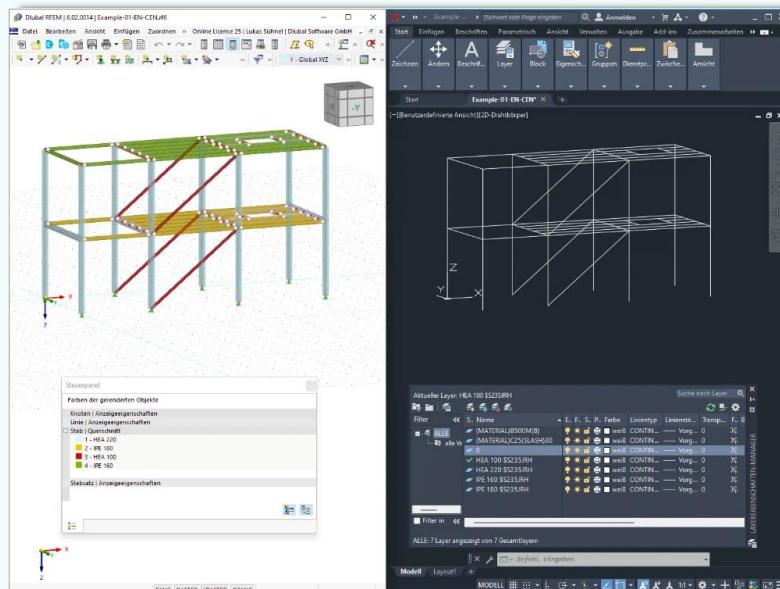
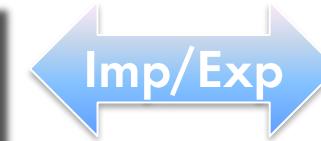
- IFC 4
- Structural Analysis View / Reference View
- Allows opening of IFC-files in CAD software





# 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.

A screenshot of a computer monitor displaying the Geo-Zone Tool. The interface includes a top navigation bar with various icons and tabs. Below the bar is a map of Europe with a red marker pointing to a location in Germany. The main area shows a detailed map of the region around Berlin with color-coded zones representing different weather or seismic zones. A legend on the left side explains the color coding.



## Cross-Section Properties

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

A screenshot of a computer monitor displaying the Cross-Section Properties tool. The interface has a sidebar on the left with various filters and search fields. The main area shows a list of "T-Profiles aus Stahl" (Steel T-profiles) with columns for name, width, height, thickness, and weight. A blue steel T-profile is shown at the bottom of the screen.



## 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.

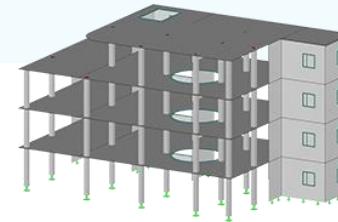
A screenshot of a computer monitor displaying the FAQs & Knowledge Base. It shows a list of "Häufig gestellte Fragen (FAQs)" (Frequently Asked Questions) with titles like "Was ist ein Zuggelenk und wie kann ich es in R15xx darstellen?" and "Wie kann ich die Spannweite eines Balkens mit einer Spannstütze bestimmen?". Below the FAQ list are several "Fragen & Antworten, die Ihnen weiterhelfen" (Questions & Answers that help you) with small thumbnail images.



## Models to Download

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

A screenshot of a computer monitor displaying a collection of 3D model examples. The screen is filled with various 3D models of structures like buildings, bridges, and industrial equipment, each with a small preview image and a download button below it.





# Free Online Services

## Youtube Channel - Webinars, Videos

Videos and webinars about the structural engineering software.



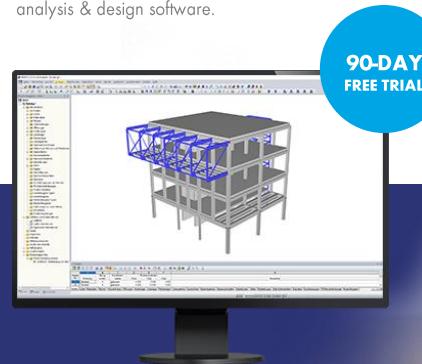
## Webshop with Prices

Configure your individual program package and get all prices online!



## Trial Licenses

The best way how to learn using our programs is to simply test them for yourself. Download a 90-day free trial version of our structural analysis & design software.



We offer free support via email and chat



# Get Further Details About Dlubal



Visit website

[www.dlubal.com](http://www.dlubal.com)

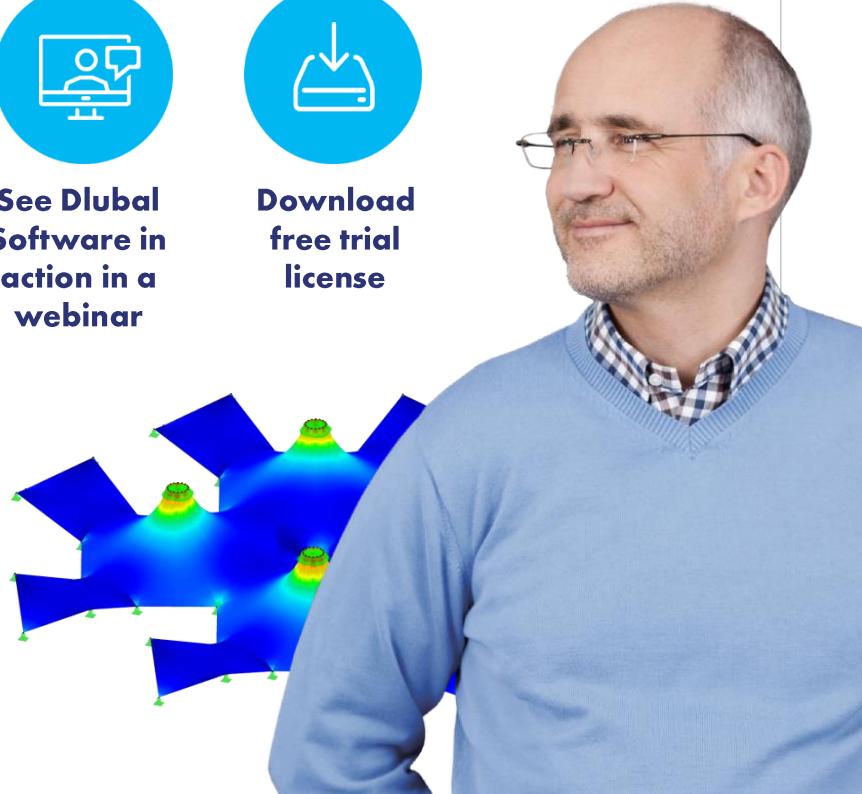
- Videos and recorded webinars
- Newsletters
- Events and conferences
- Knowledge Base articles



See Dlubal Software in action in a webinar



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