



Structural Analysis & Design Software

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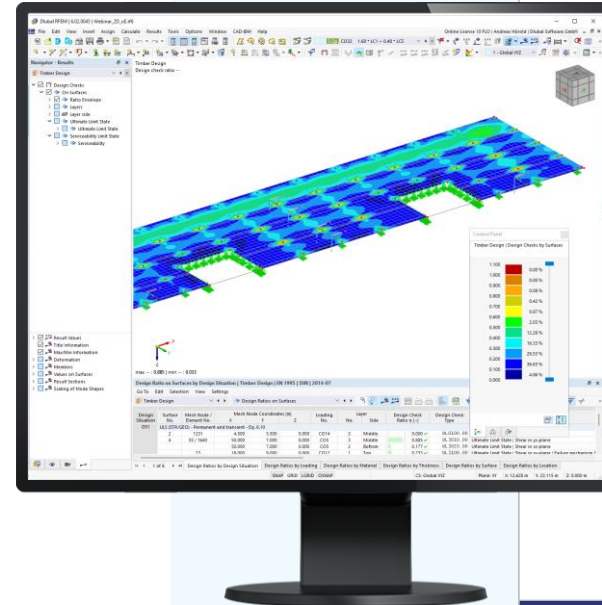
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Webinar

Modeling and Design of CLT Panels in RFEM 6



Questions During the Presentation



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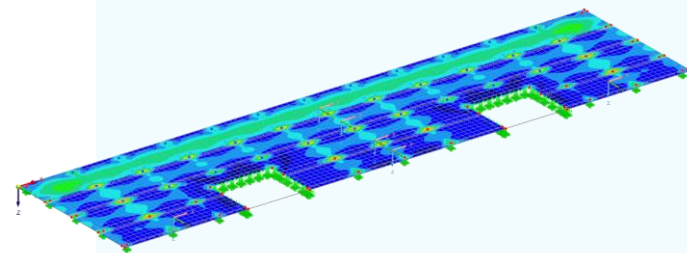
Adjust audio settings

Ask questions




CONTENT

- 01 **Concept of Multilayer Surfaces Add-On in CLT Design**
- 02 **Design of CLT panels, plates, and walls**
- 03 **Hints for modeling and result evaluation**

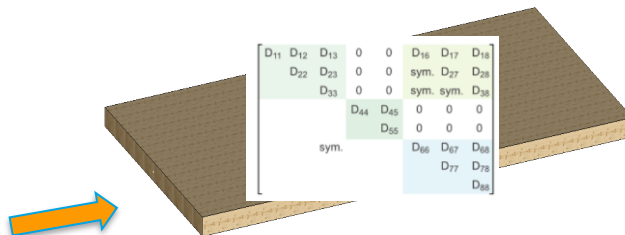




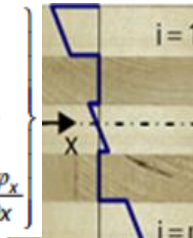
1 Stiffness per Layer is defined

$$d_i = \begin{pmatrix} d_{i,11} & d_{i,12} & 0 \\ \text{sym} & d_{i,22} & 0 \\ & & d_{i,33} \end{pmatrix} = \begin{pmatrix} \frac{E_x}{1-\nu_{xy}^2} & \frac{\nu_{xy} E_y}{1-\nu_{xy}^2} & 0 \\ \frac{\nu_{xy} E_x}{1-\nu_{xy}^2} & \frac{E_y}{1-\nu_{xy}^2} & 0 \\ \text{sym} & & G_{i,xy} \end{pmatrix}$$


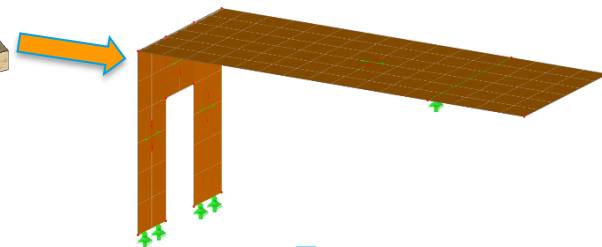
2 Global Stiffness matrix is generated



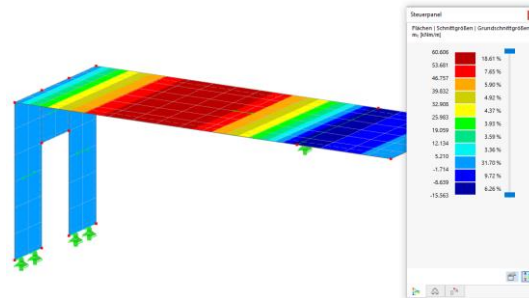
Separate Stress to every Layer

$$\epsilon(z) = \begin{Bmatrix} \epsilon_x \\ \epsilon_y \\ \gamma_{xy} \end{Bmatrix} = \begin{Bmatrix} \frac{\partial u}{\partial x} \\ \frac{\partial v}{\partial y} \\ \frac{\partial u}{\partial y} + \frac{\partial v}{\partial x} \end{Bmatrix} + z \begin{Bmatrix} \frac{\partial \varphi_y}{\partial x} \\ -\frac{\partial \varphi_x}{\partial y} \\ \frac{\partial \varphi_y}{\partial y} - \frac{\partial \varphi_x}{\partial x} \end{Bmatrix}$$


3 Export to RFEM

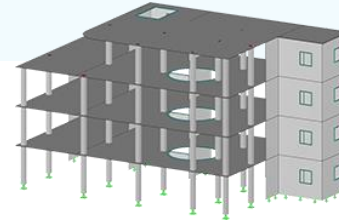


4 Inner Forces and Deformations



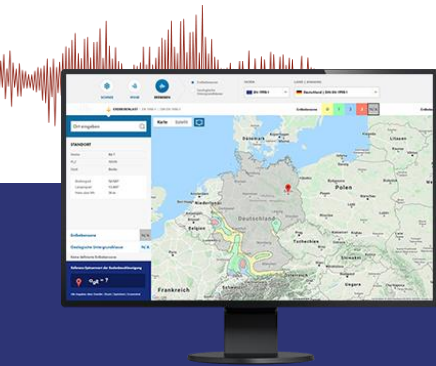


Free Online Services



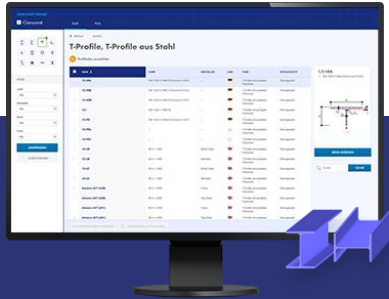
Geo-Zone Tool

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



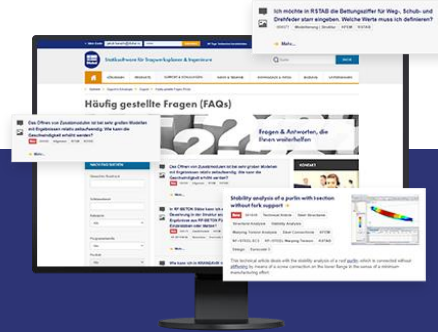
Cross-Section Properties

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

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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

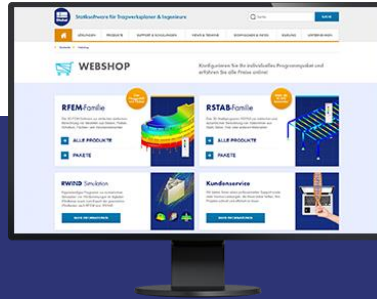
Youtube Channel - Webinars, Videos

Videos and webinars about the structural engineering software.



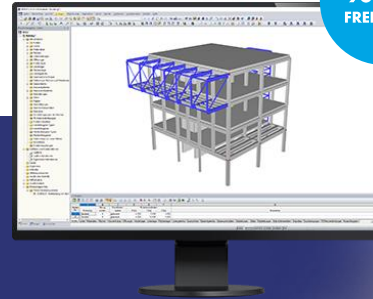
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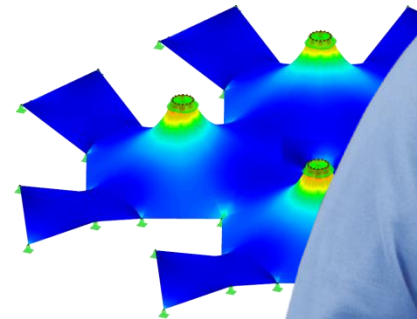
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