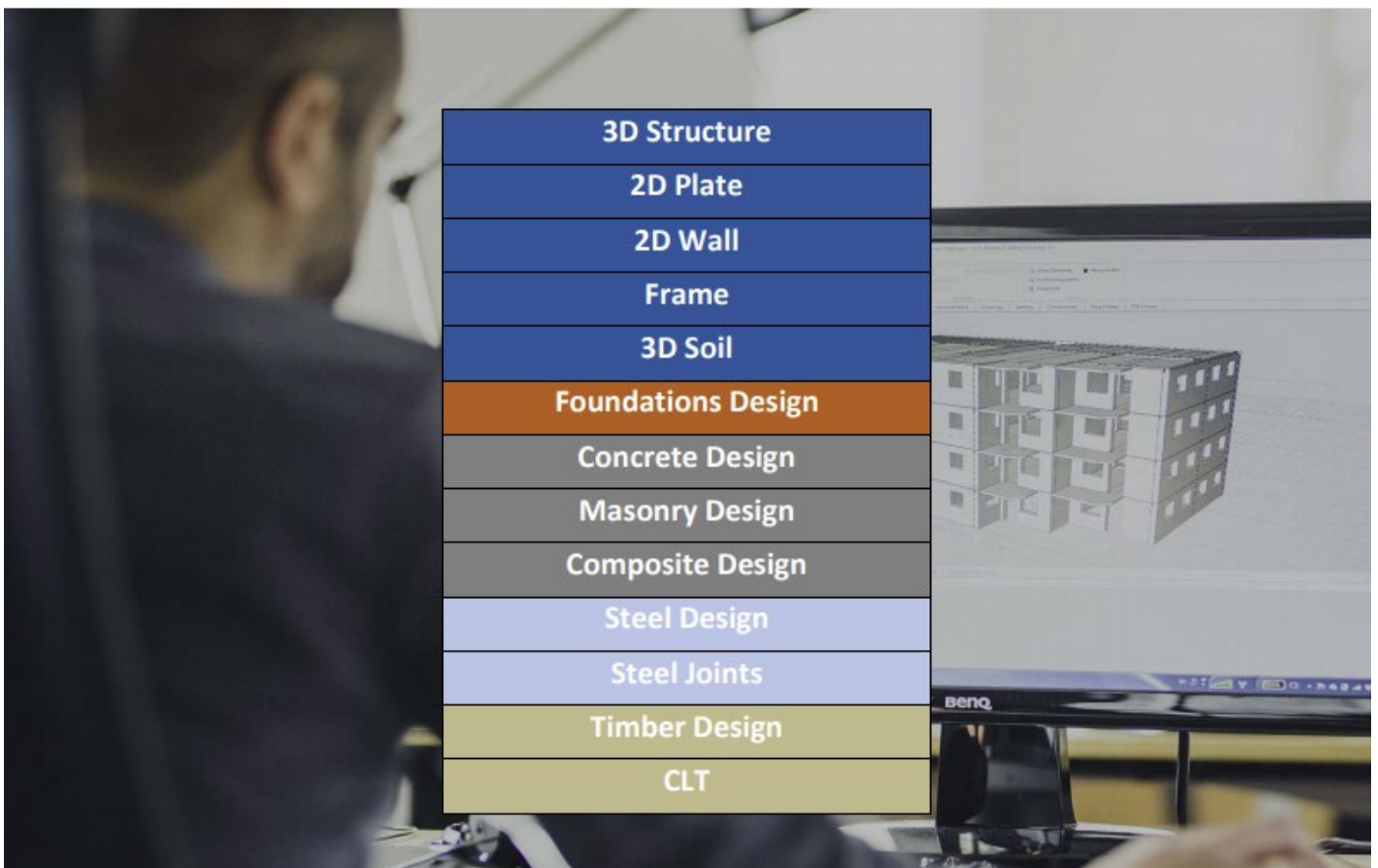




FEM-Design



FEM-DESIGN USER MANUAL

This manual is part of a series of videos found on YouTube. For new user it is a good idea to view the videos in the order shown in this manual. Please do not hesitate to contact us when in trouble. StruSoft support will be happy to help you.

StruSoft support: <https://strusoft.freshdesk.com/en/support/home>

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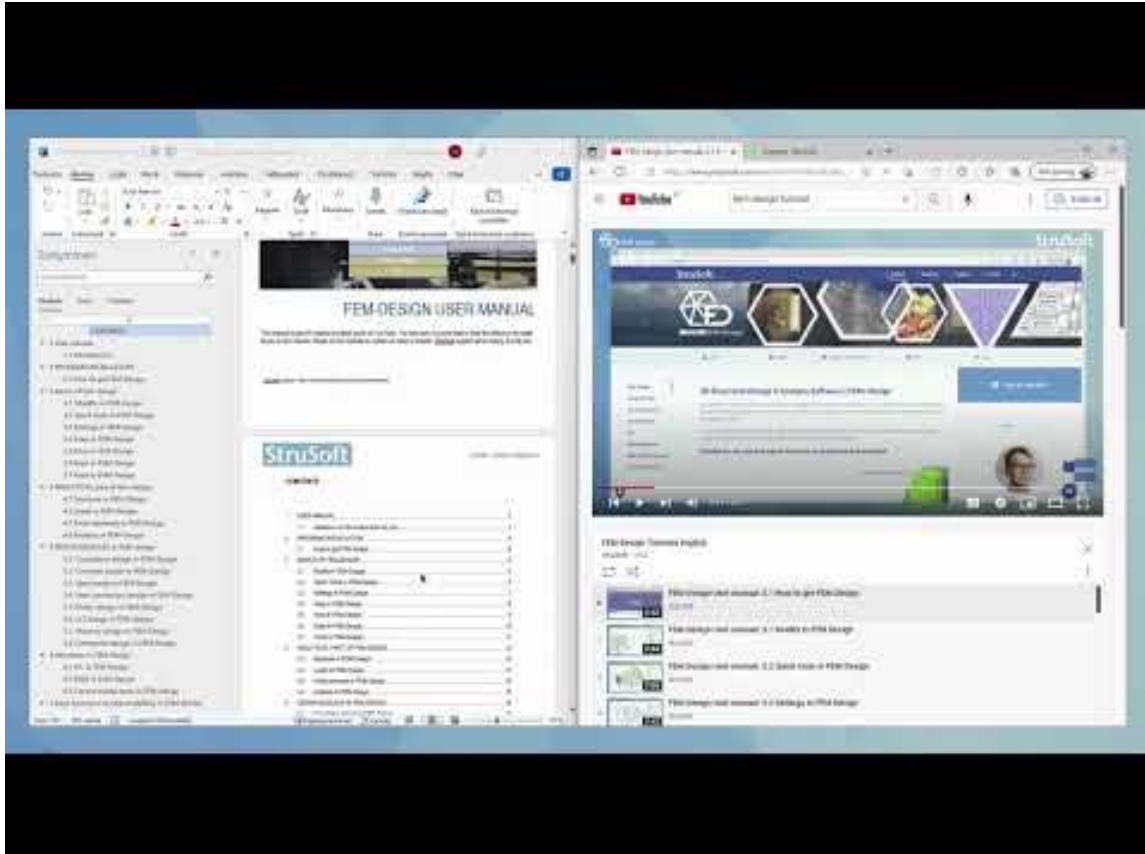


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1 USER MANUAL

1.1 Introduction



Notes:

2 PROGRAM INSTALLATION

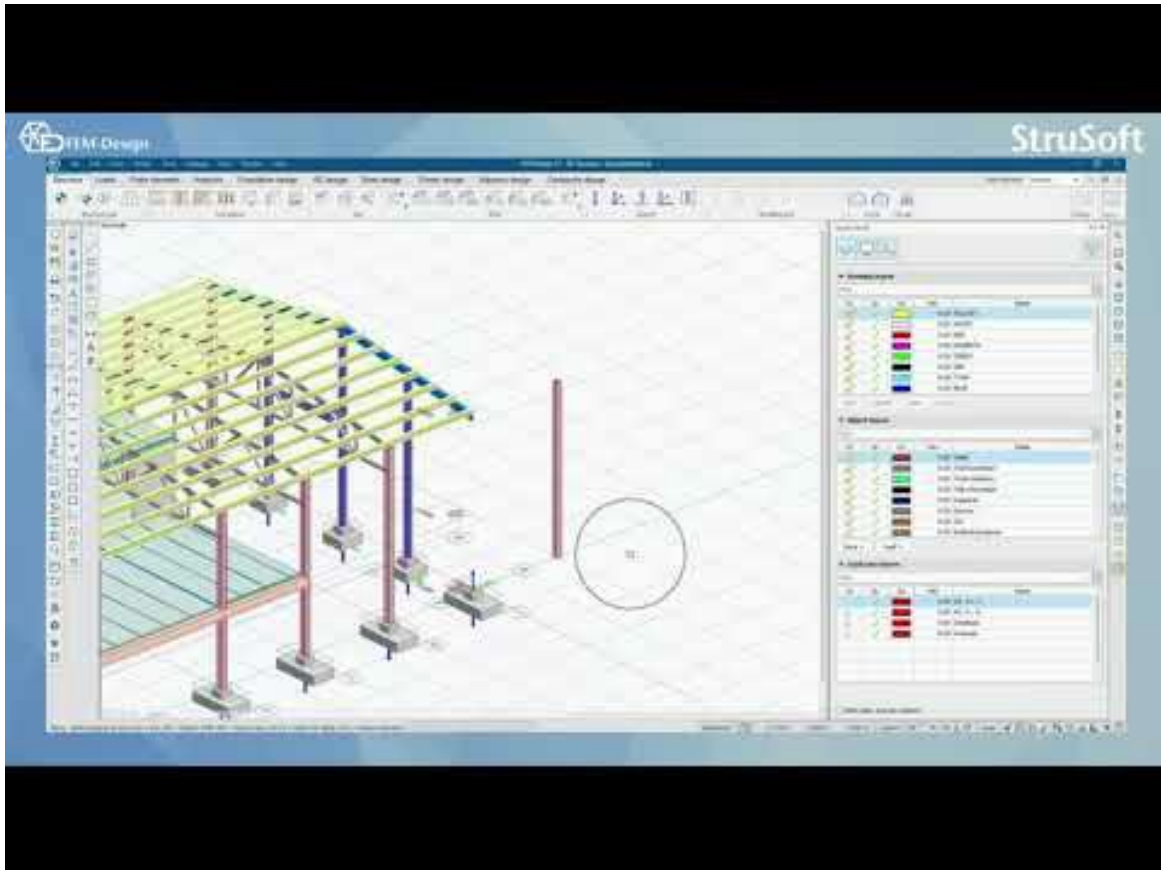
2.1 How to get FEM Design



Notes:

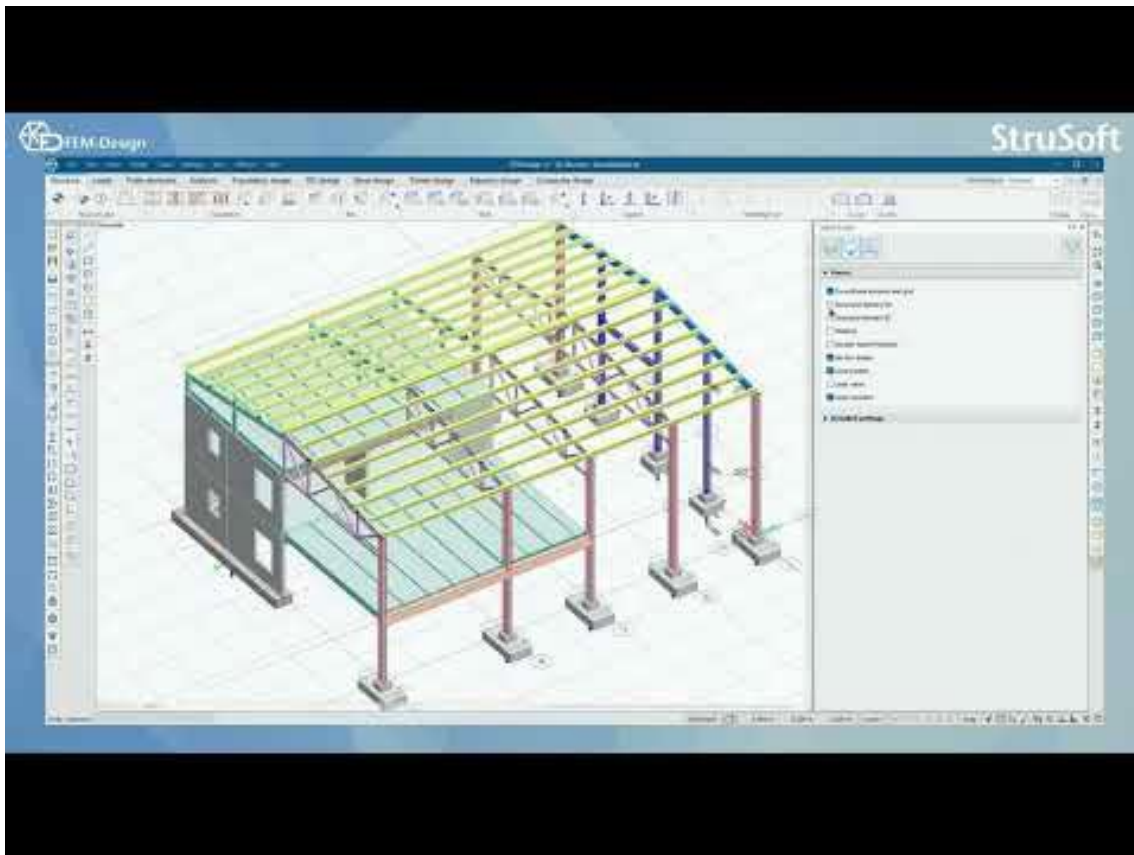
3 BASICS OF FEM-DESIGN

3.1 Modify in FEM-Design



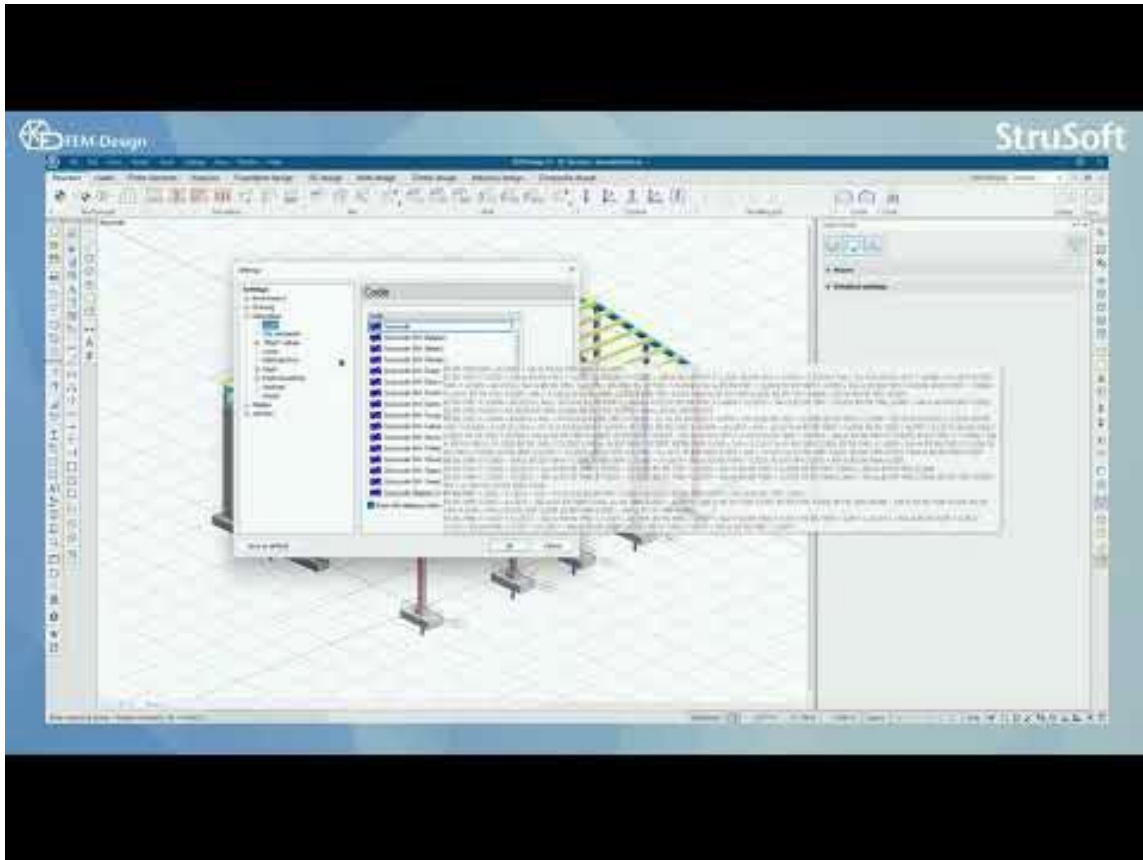
Notes:

3.2 Quick Tools in FEM-Design



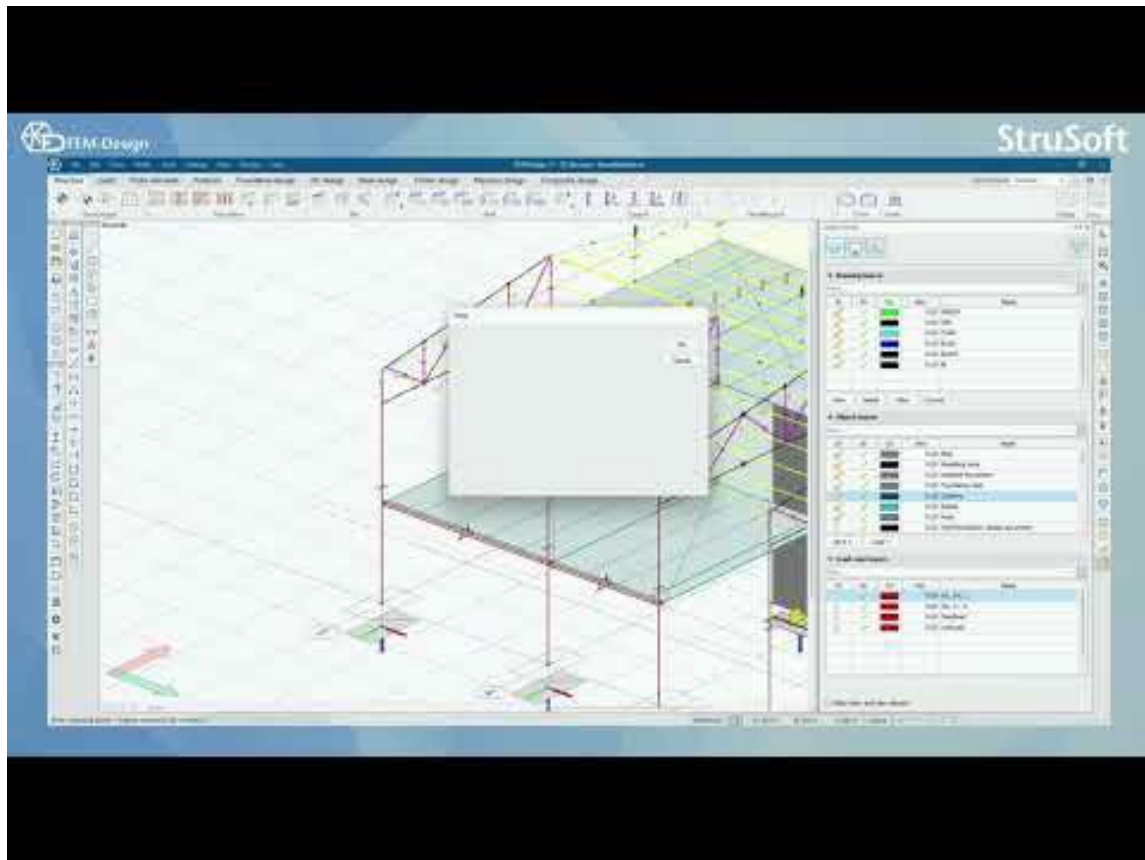
Notes:

3.3 Settings in FEM-Design



Notes:

3.4 Snap in FEM-Design



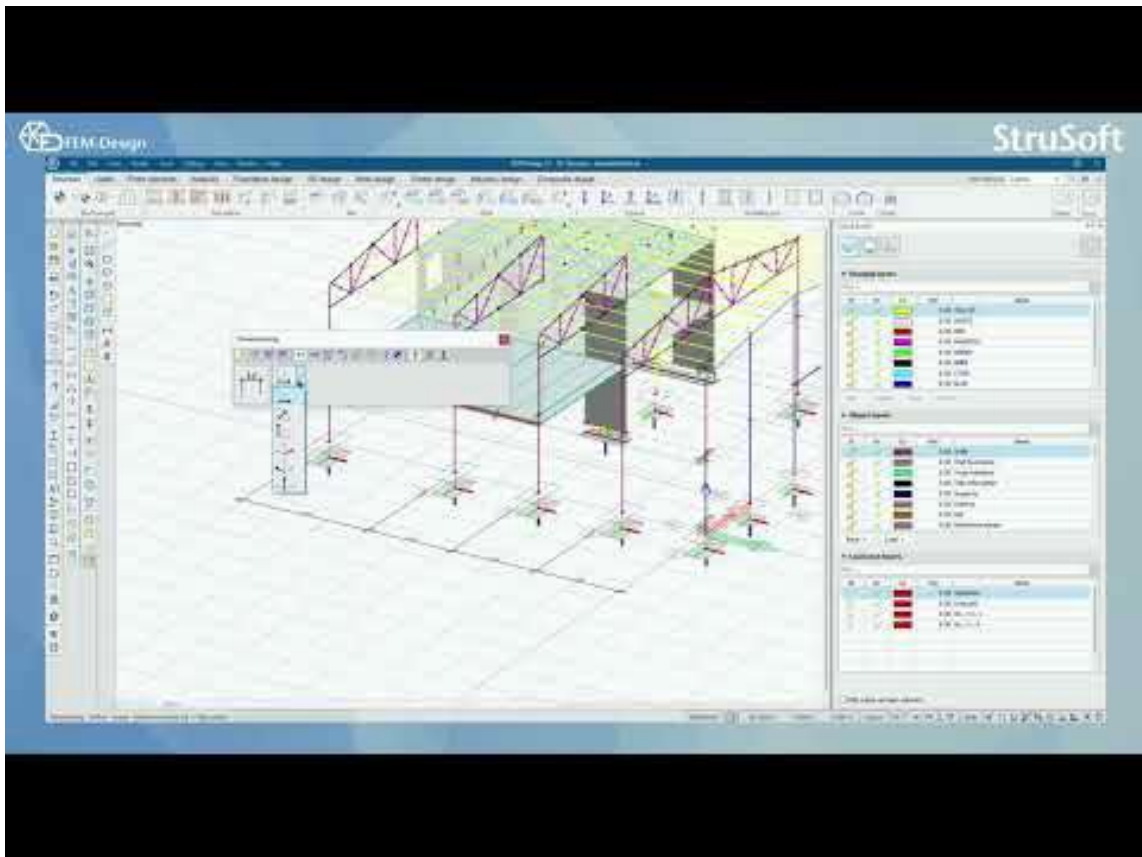
Notes:

3.5 View in FEM-Design



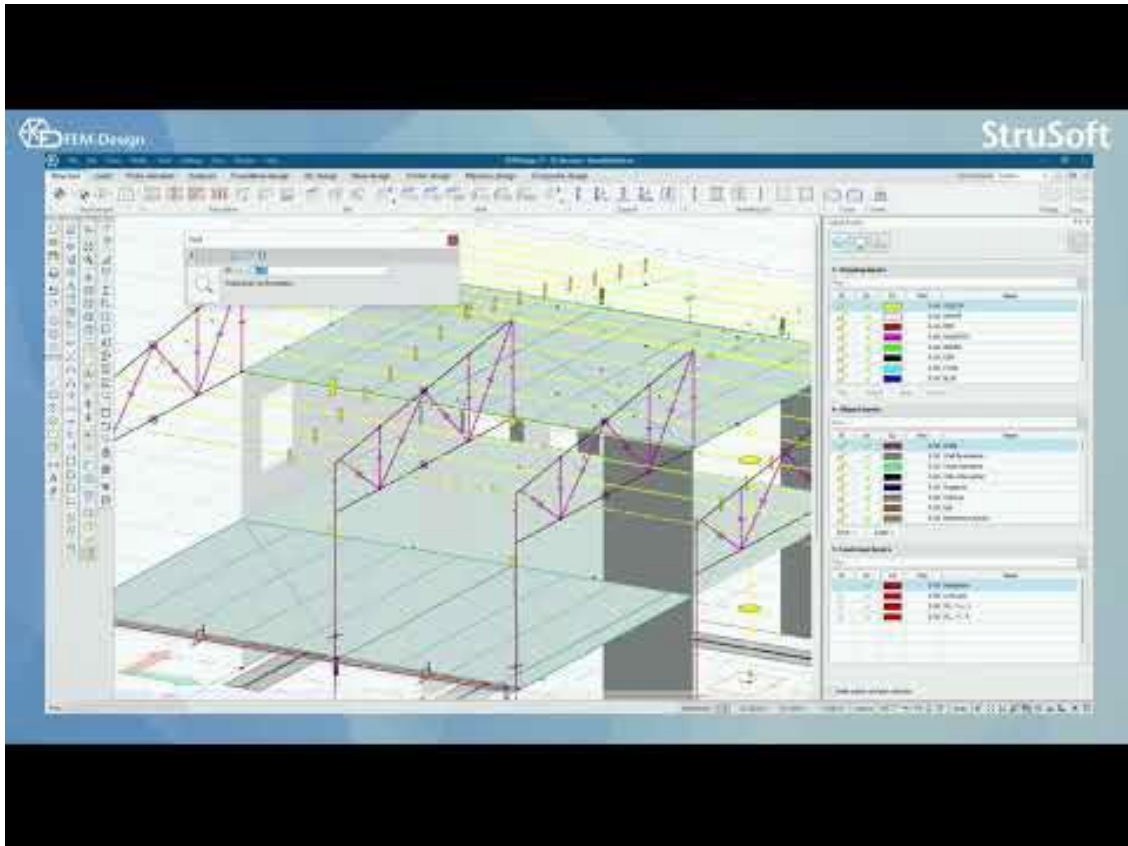
Notes:

3.6 Draw in FEM-Design



Notes:

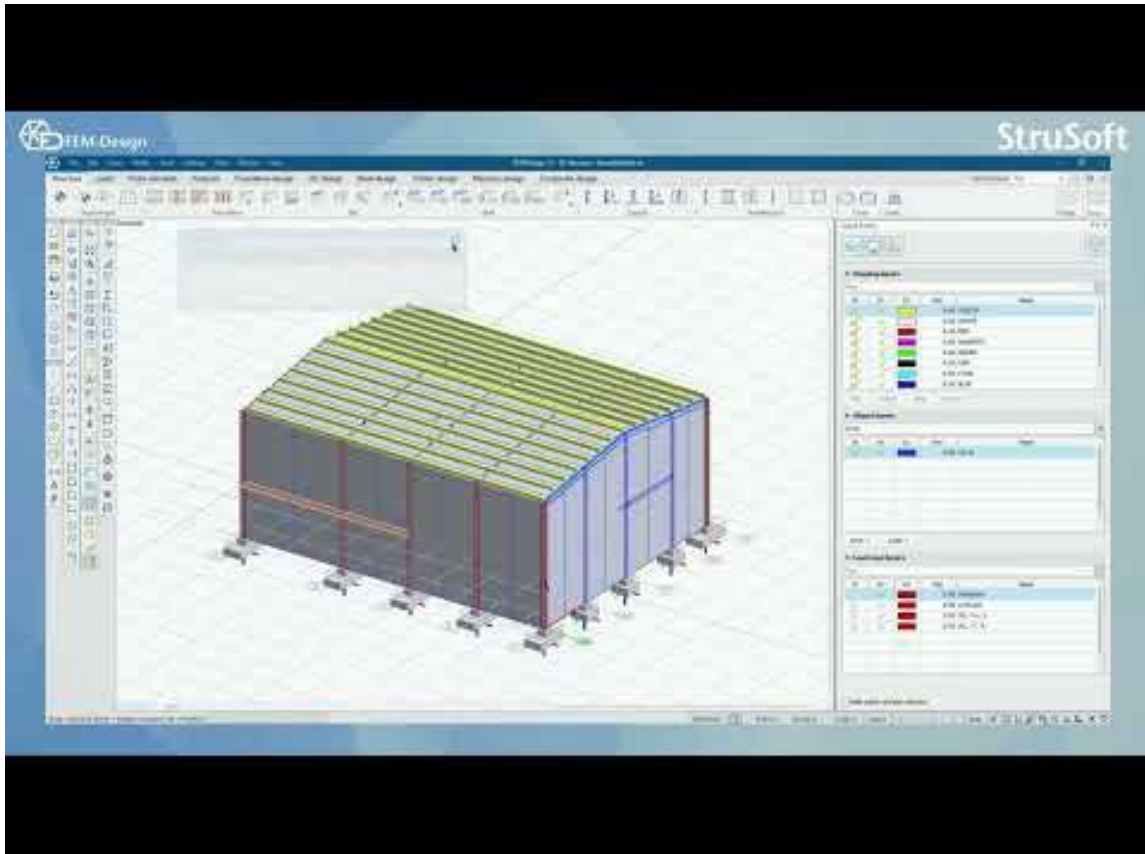
3.7 Tools in FEM-Design



Notes:

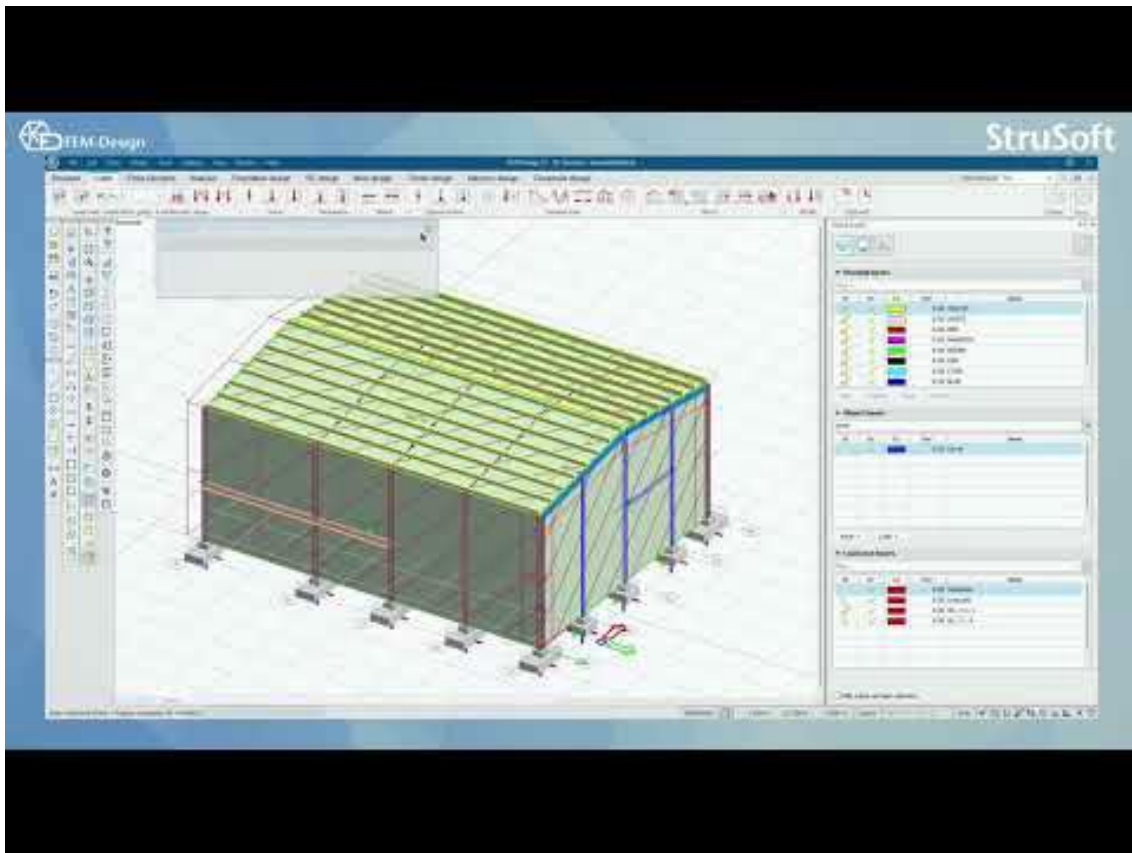
4 ANALYTICAL PART OF FEM-DESIGN

4.1 Structure in FEM-Design



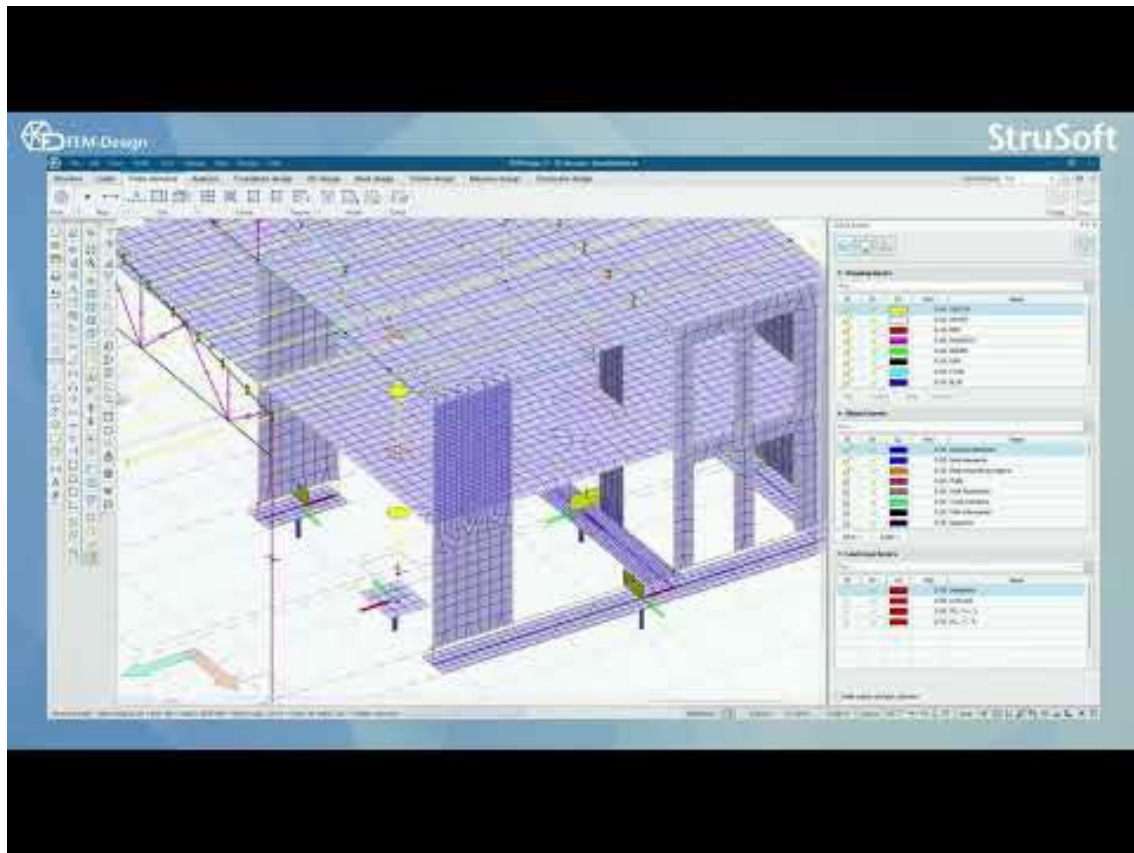
Notes:

4.2 Loads in FEM-Design



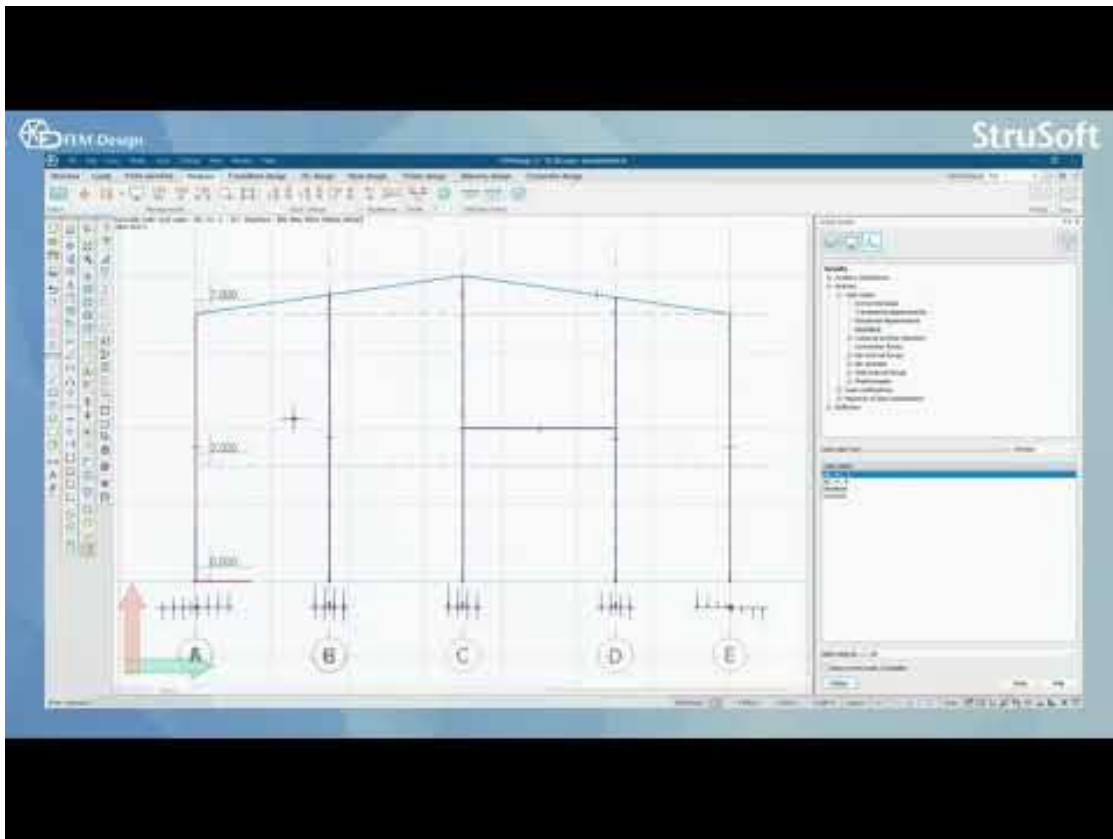
Notes:

4.3 Finite elements in FEM Design



Notes:

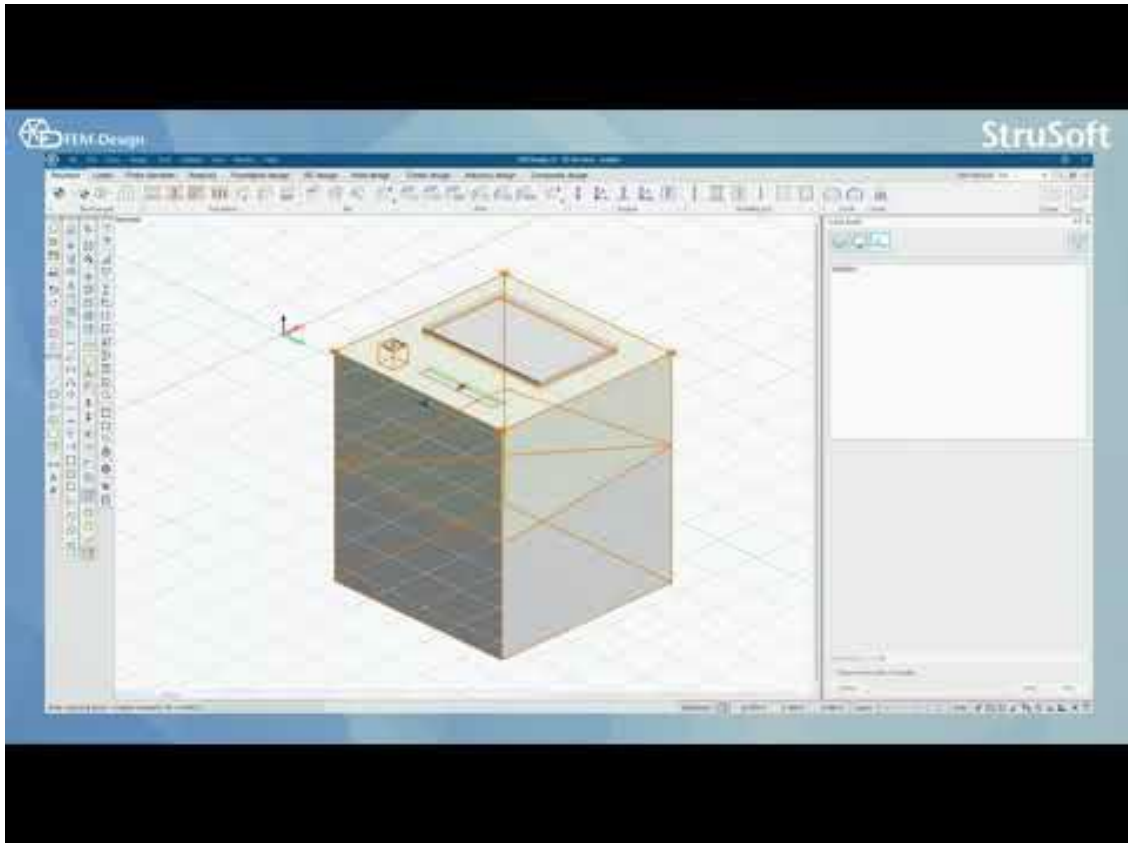
4.4 Analysis in FEM-Design



Notes:

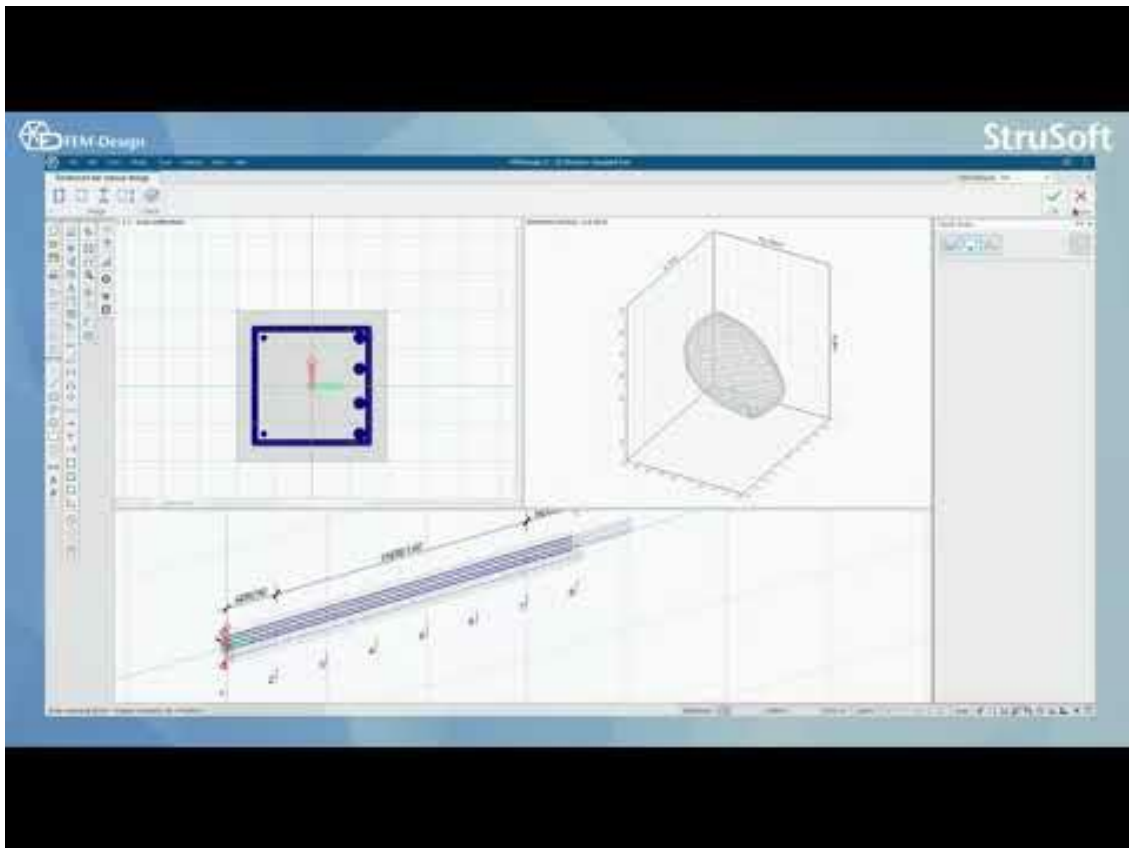
5 DESIGN MODULES IN FEM-DESIGN

5.1 Foundation design in FEM-Design



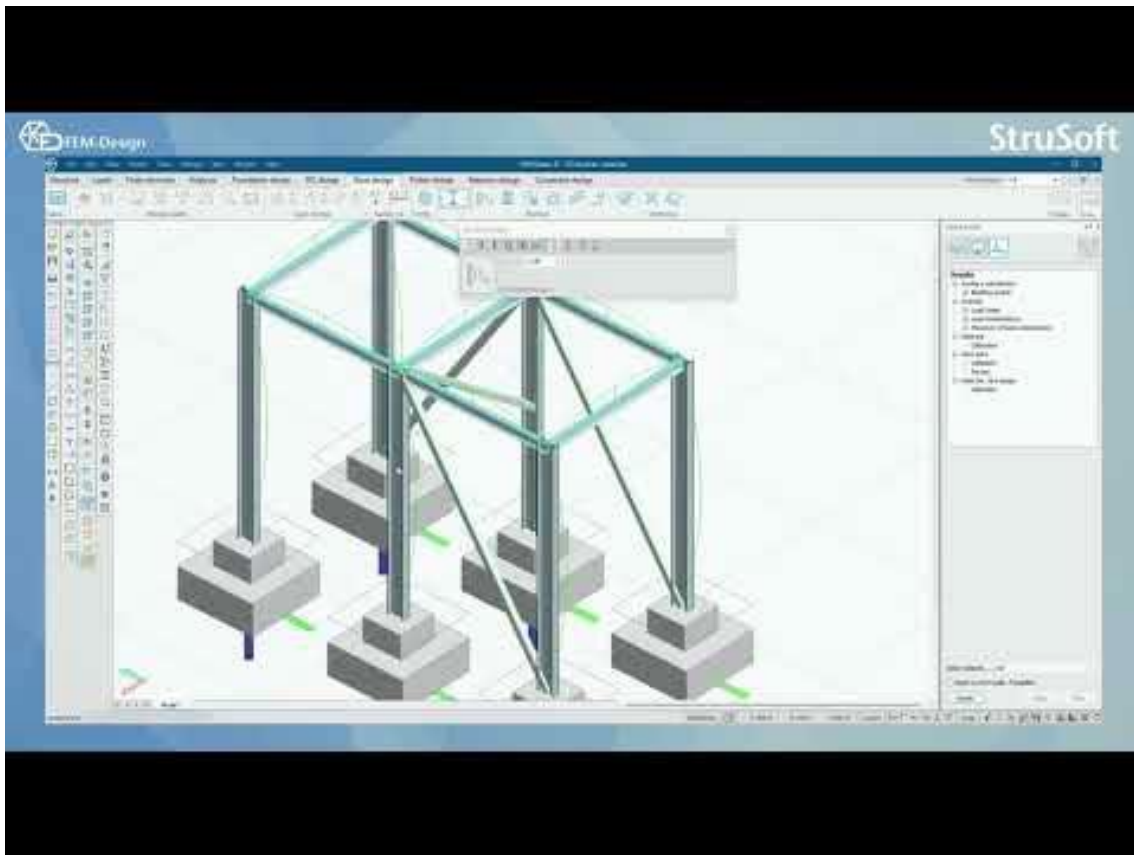
Notes:

5.2 Concrete design in FEM-Design



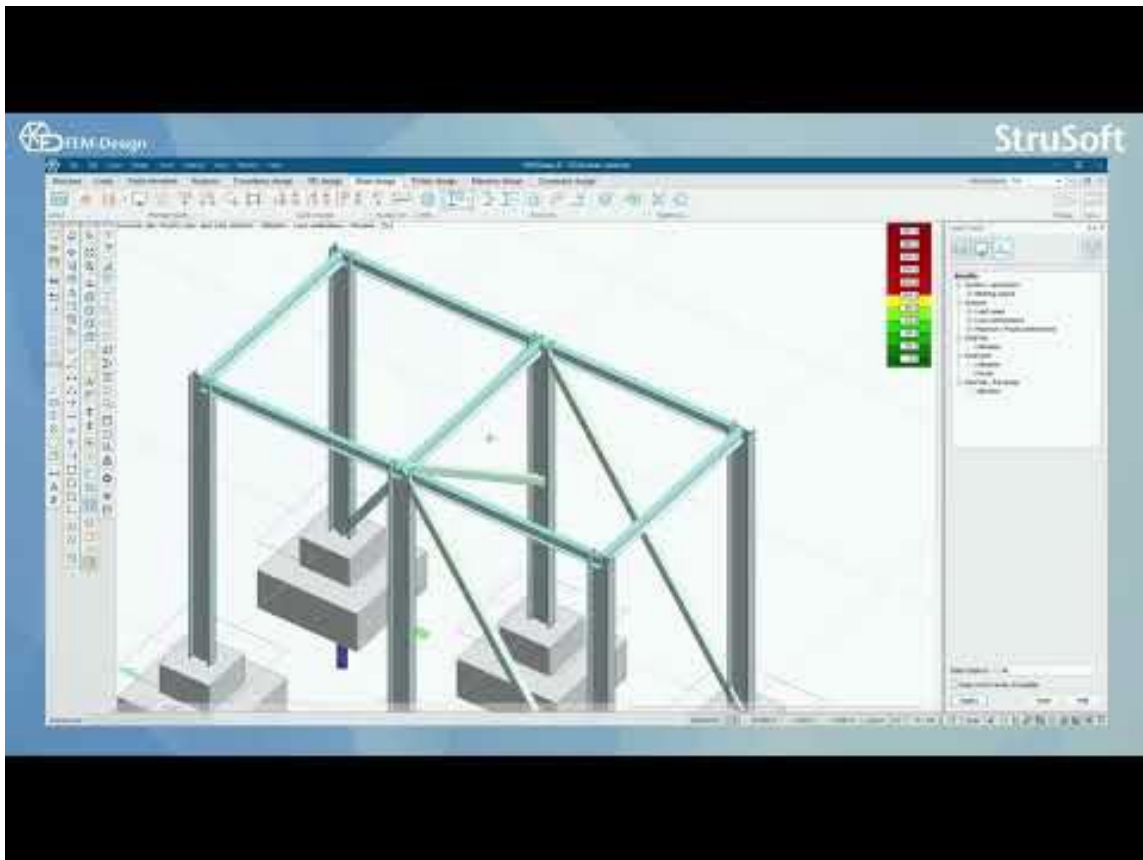
Notes:

5.3 Steel design in FEM-Design



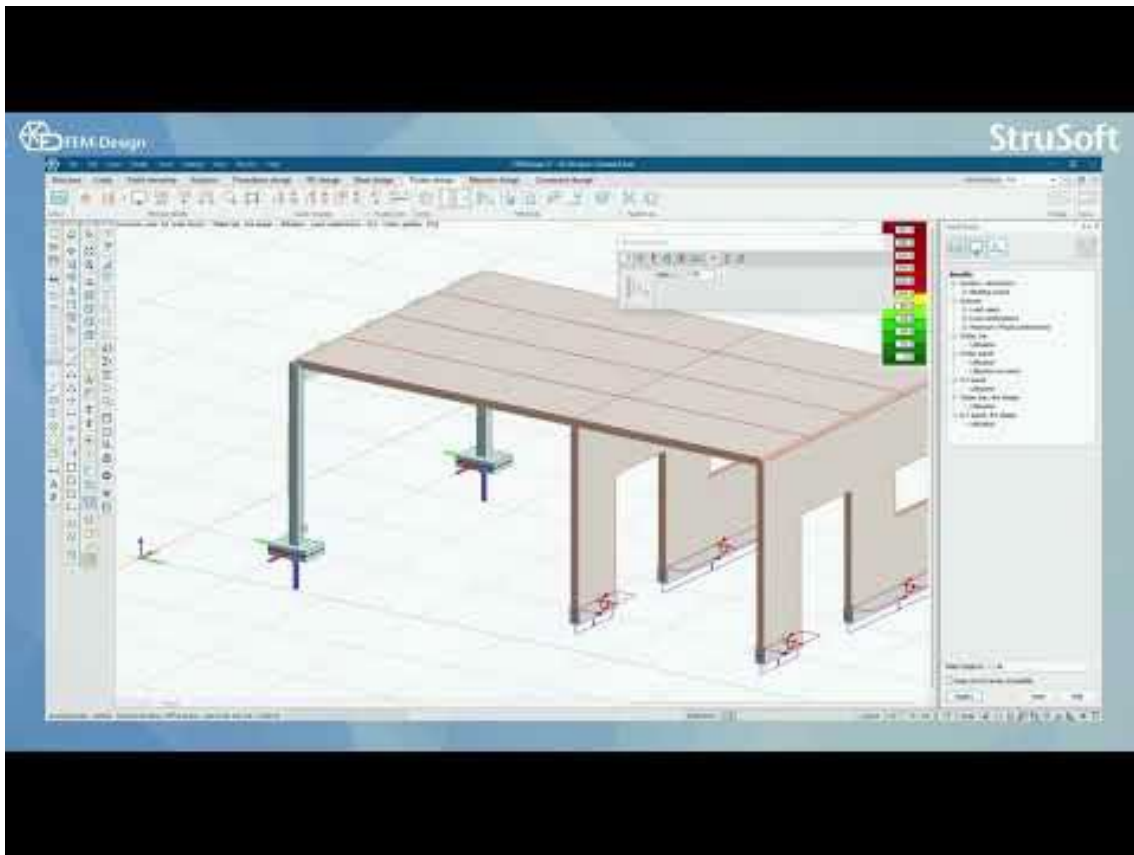
Notes:

5.4 Steel connection design in FEM-Design



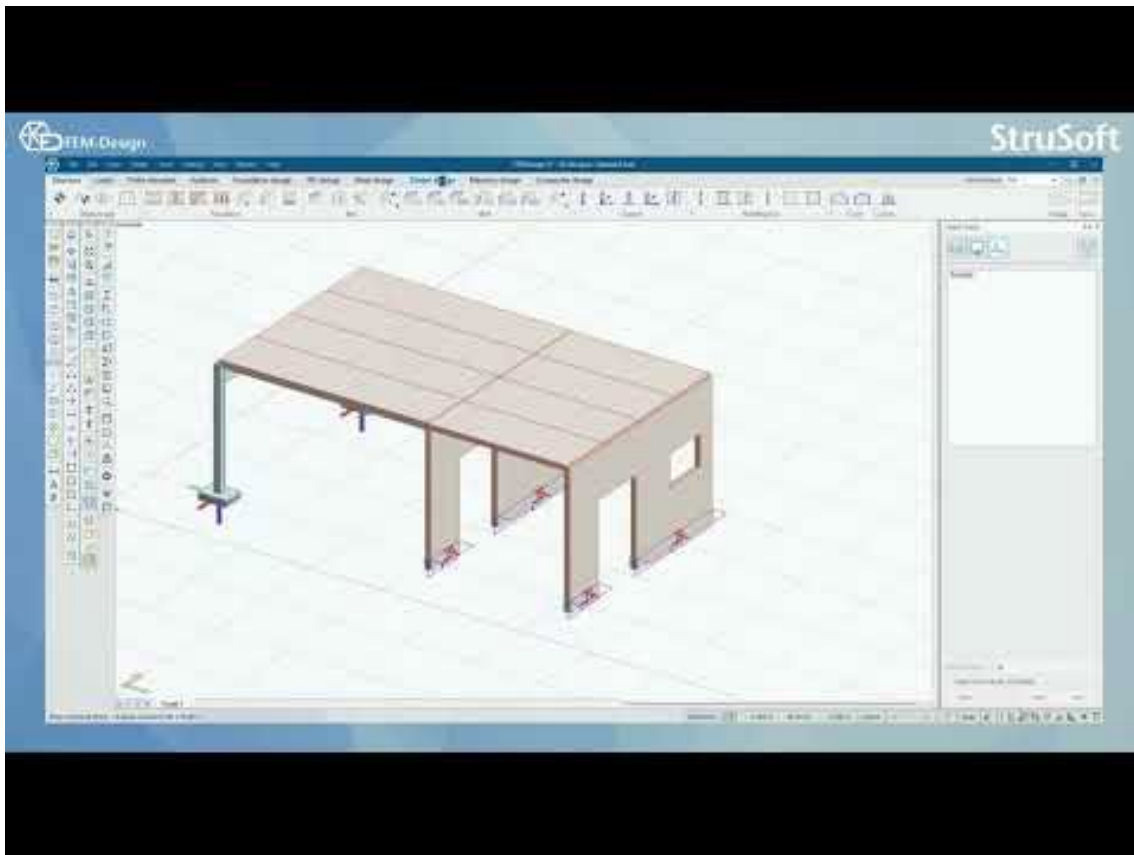
Notes:

5.5 Timber design in FEM-Design



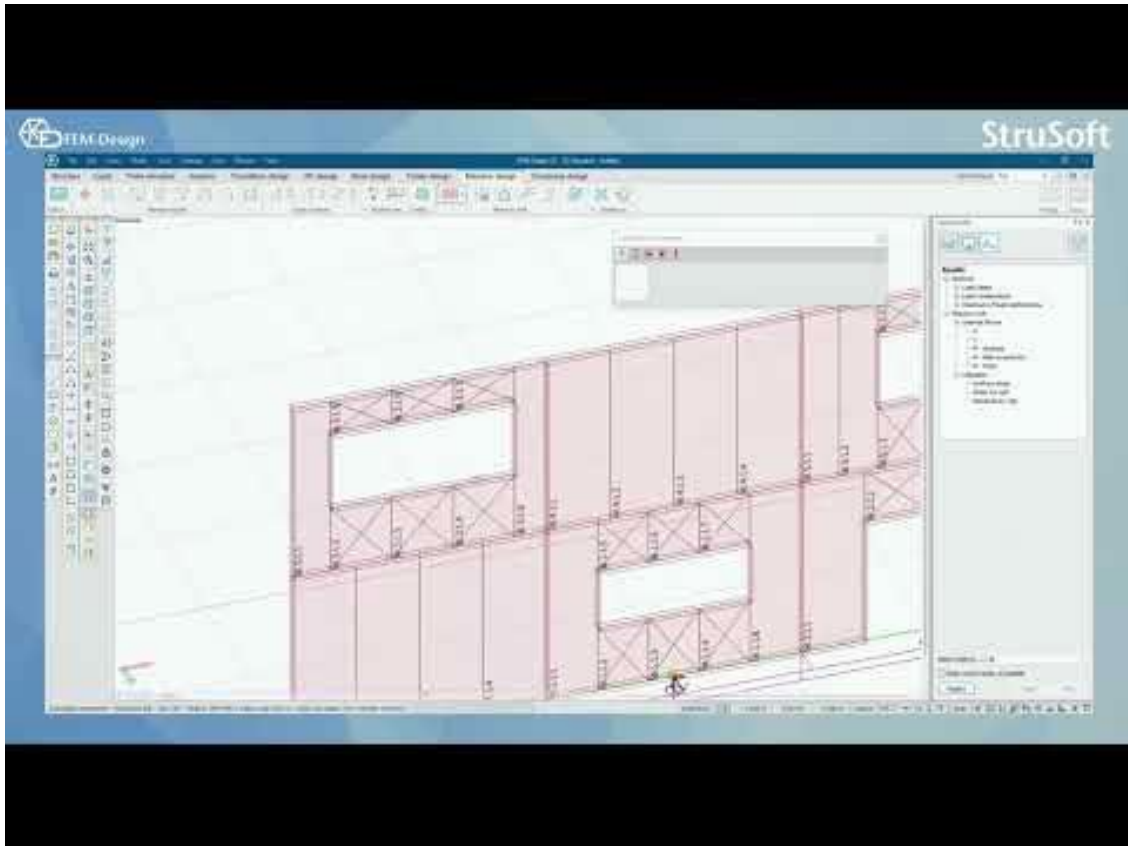
Notes:

5.6 CLT design in FEM-Design



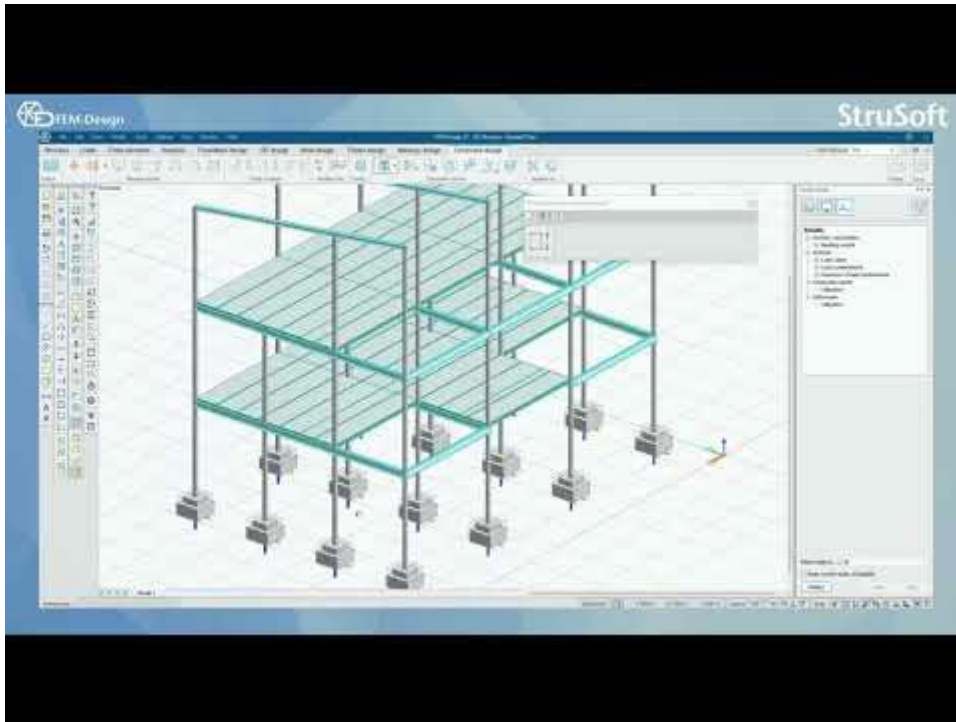
Notes:

5.7 Masonry design in FEM-Design



Notes:

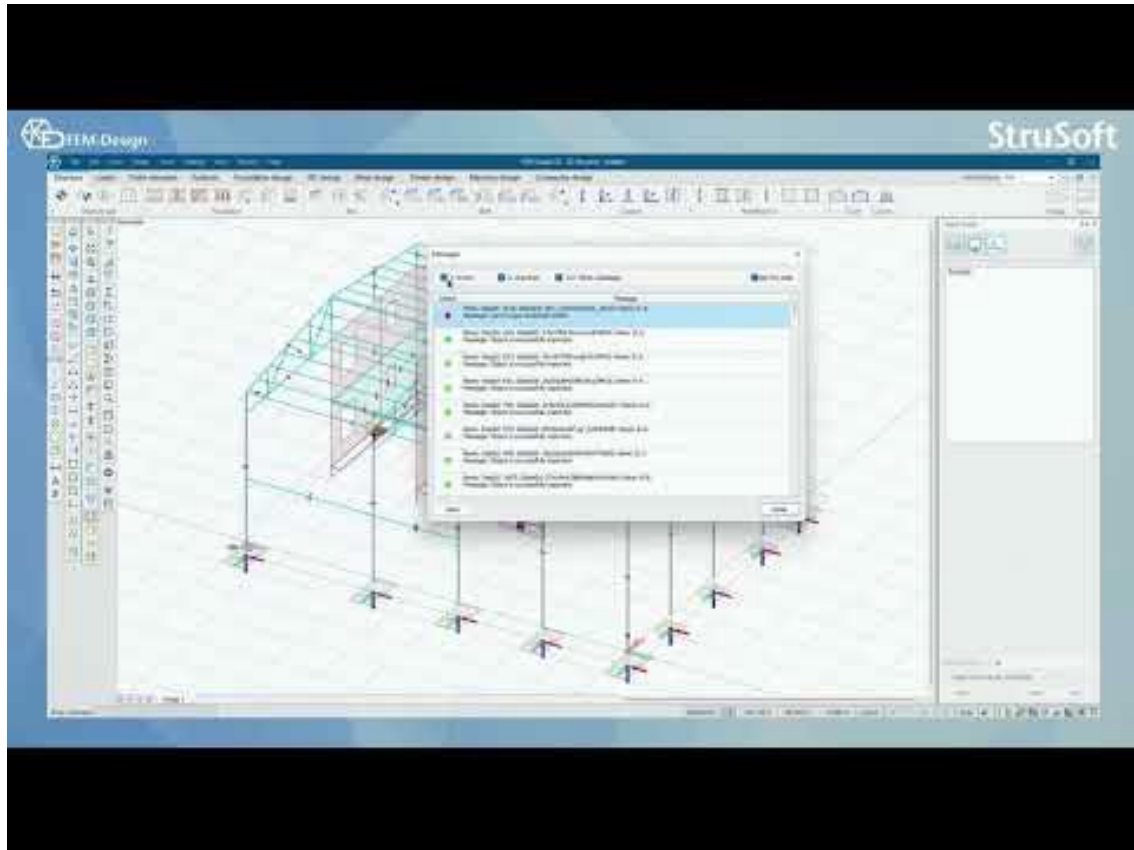
5.8 Composite design in FEM-Design



Notes:

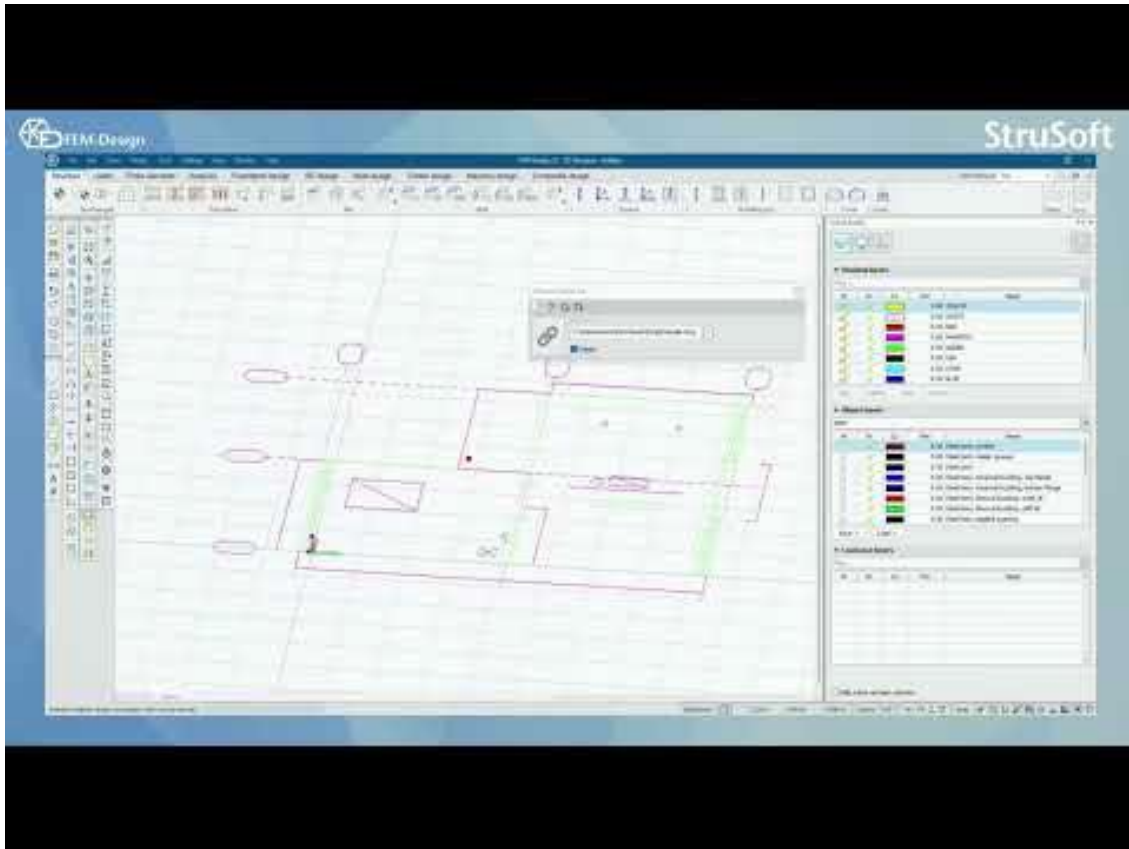
6 REFERENCES IN FEM-DESIGN

6.1 IFC in FEM-Design



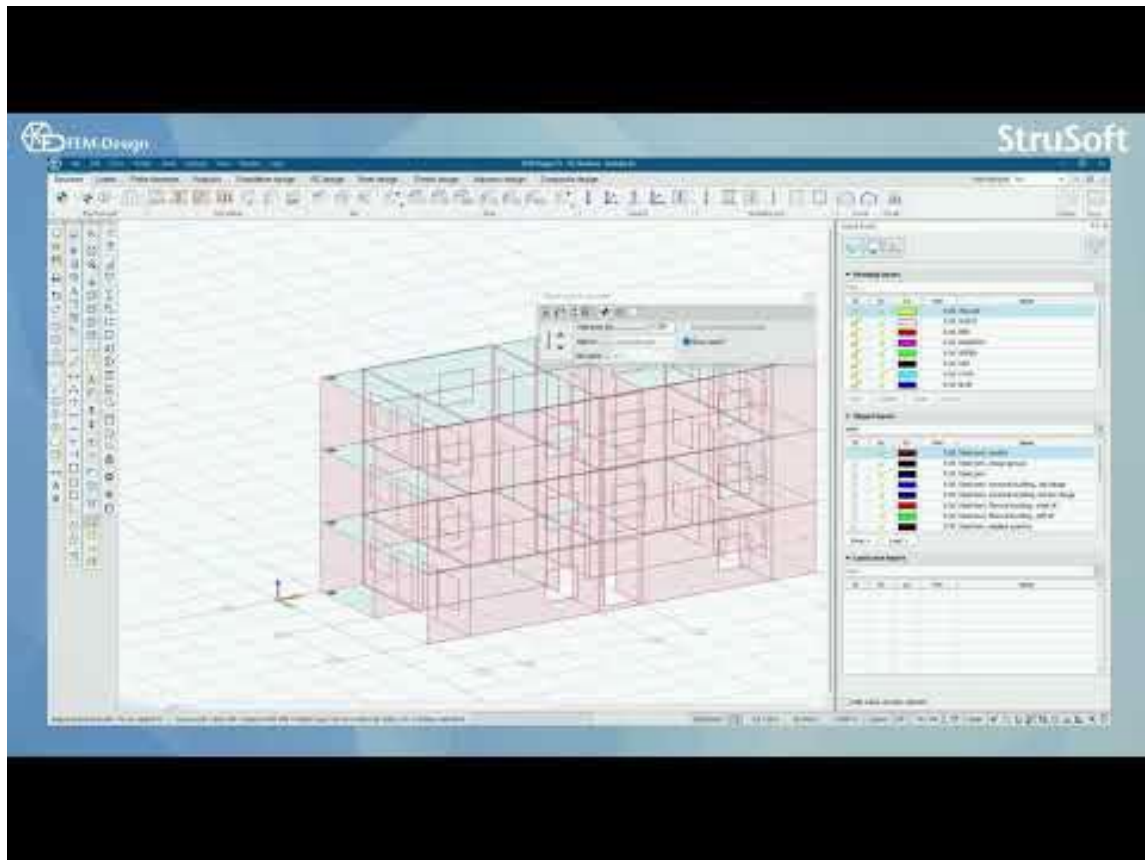
Notes:

6.2 DWG in FEM-Design



Notes:

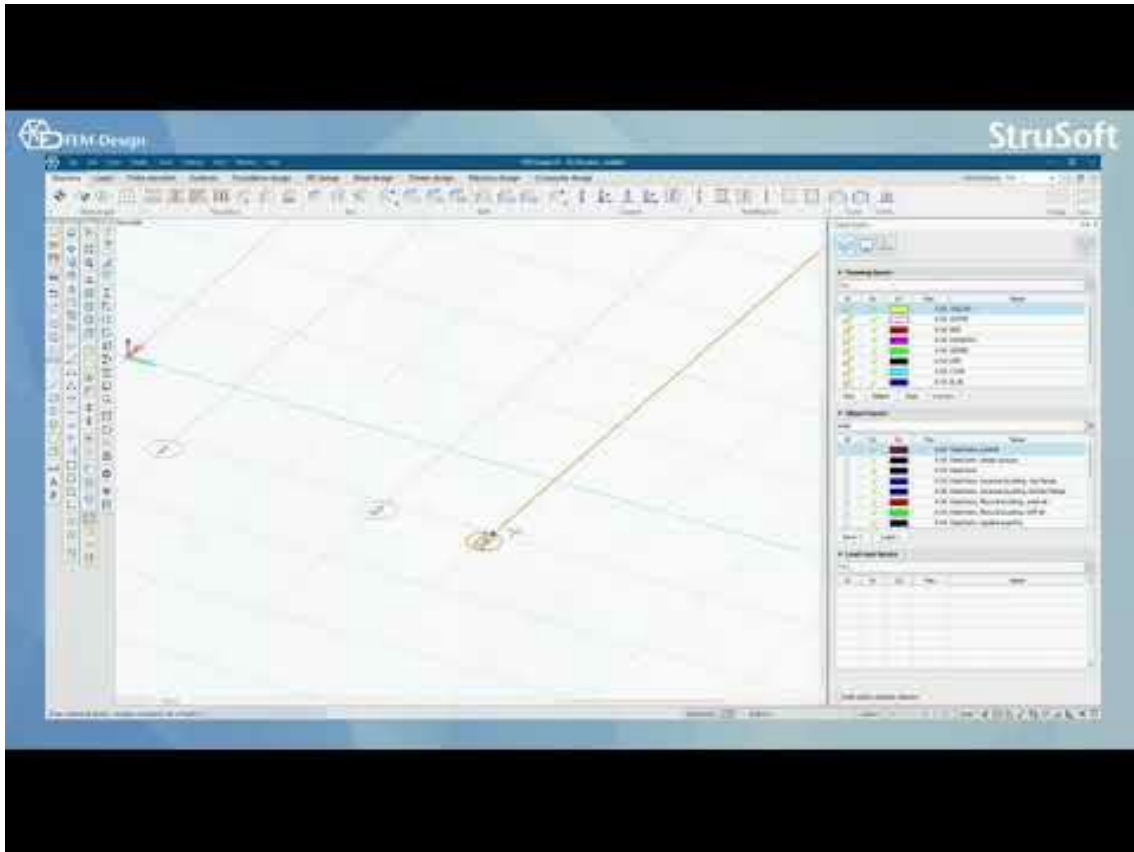
6.3 Correct model tools in FEM-Design



Notes:

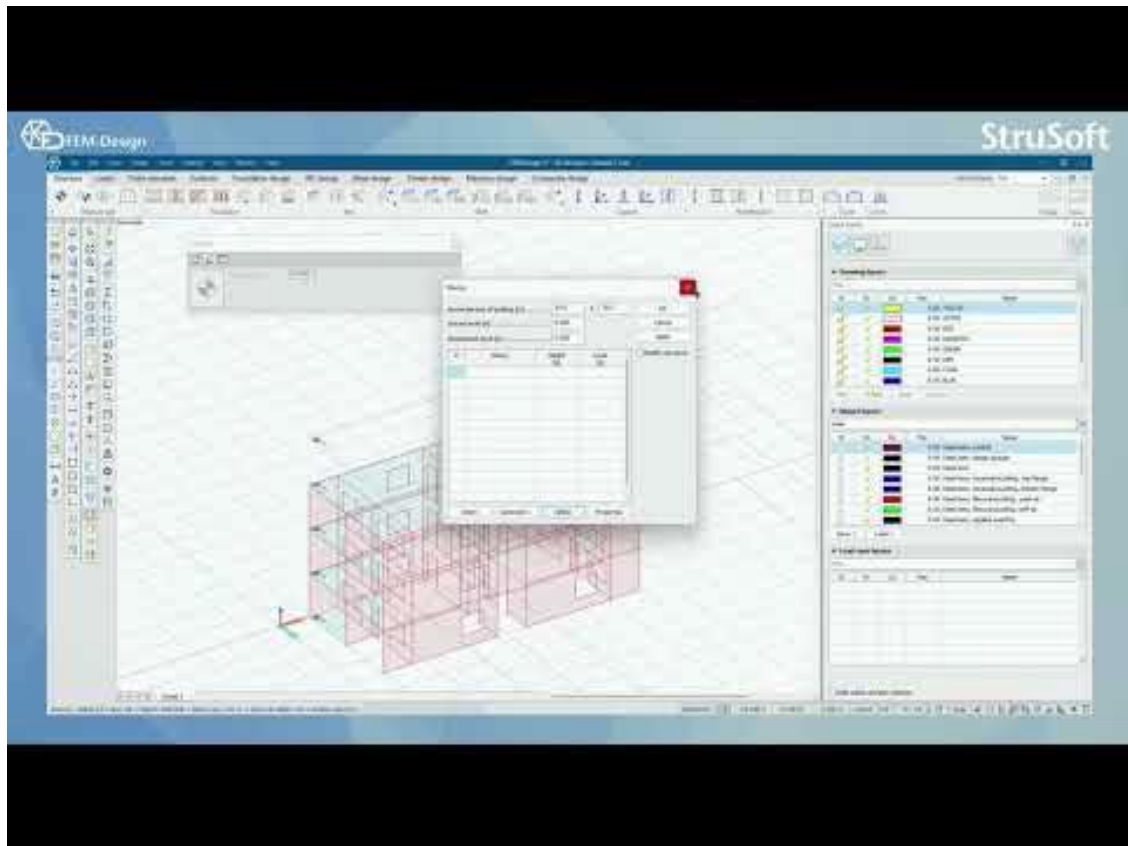
7 BASIC FUNCTIONS TO HELP MODELLING IN FEM-DESIGN

7.1 Grid and axes in FEM-Design



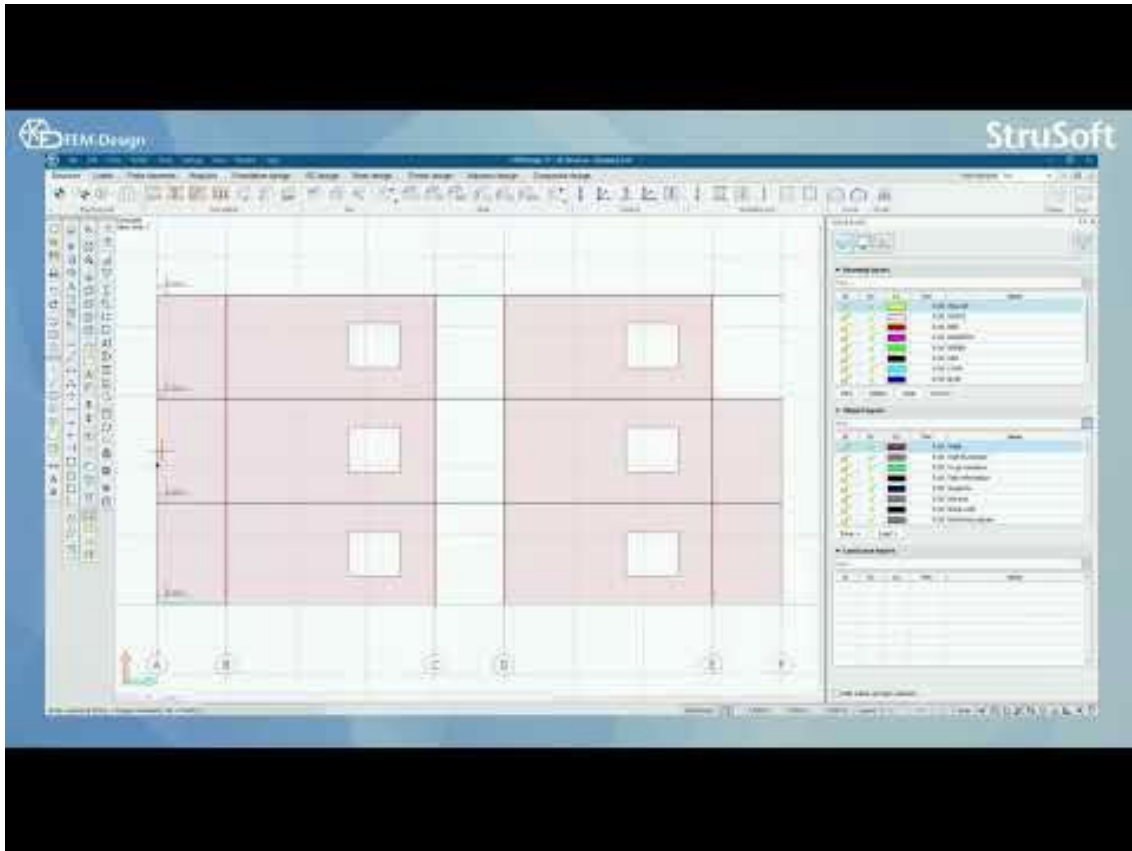
Notes:

7.2 Storeys in FEM-Design



Notes:

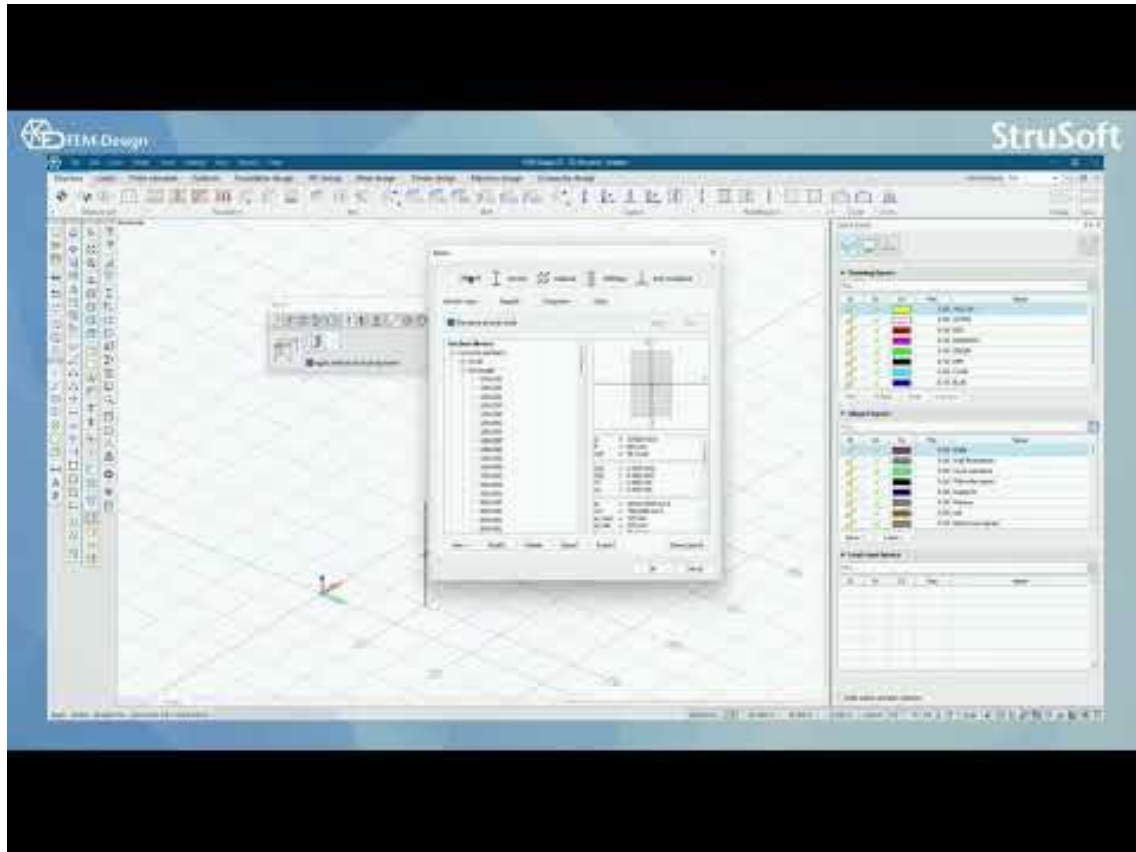
7.3 2D views in FEM-Design



Notes:

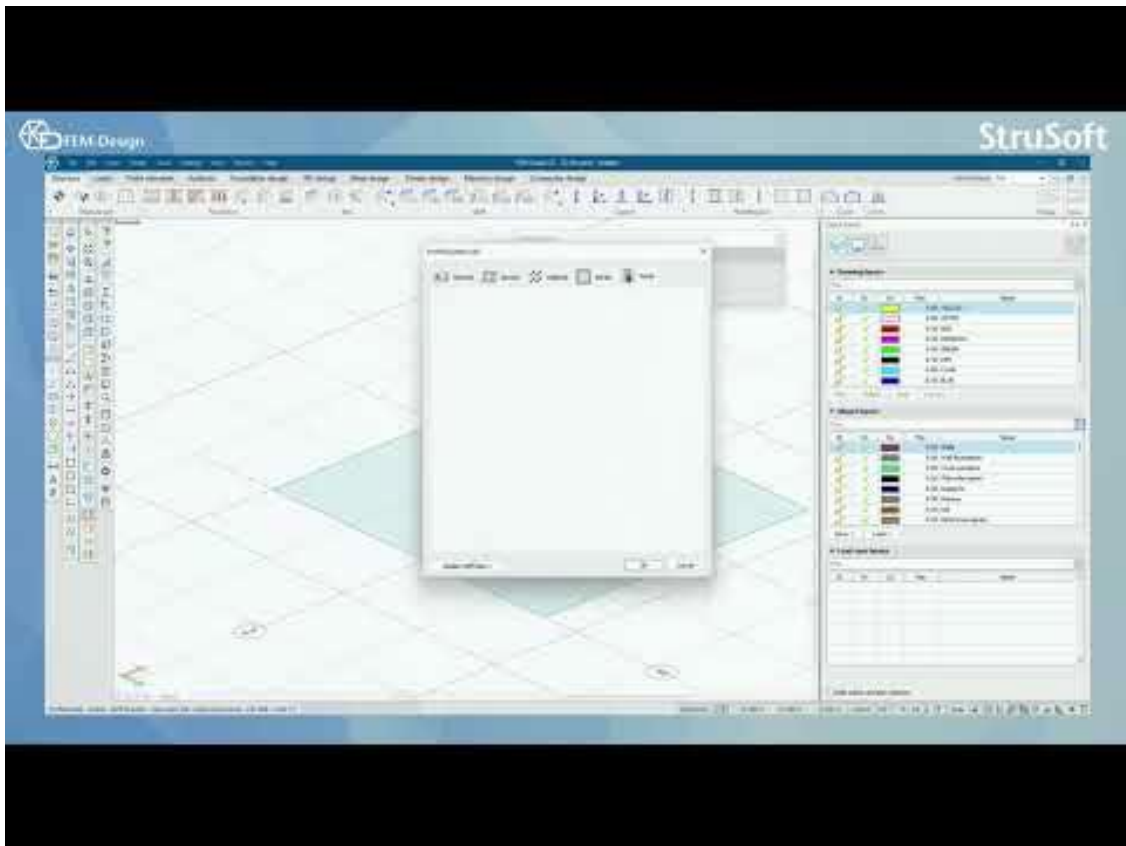
8 DIFFERENT STRUCTURES IN FEM-DESIGN

8.1 Bars in FEM-Design



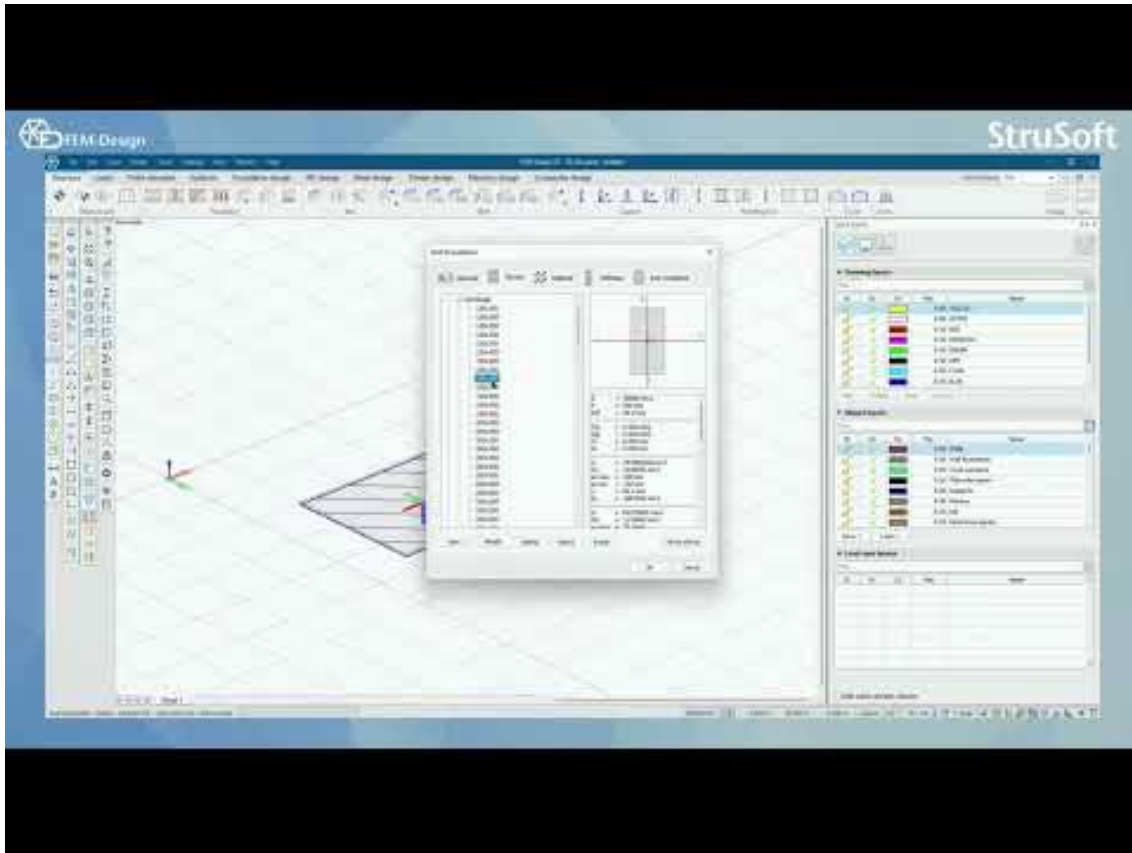
Notes:

8.2 Shells in FEM-Design



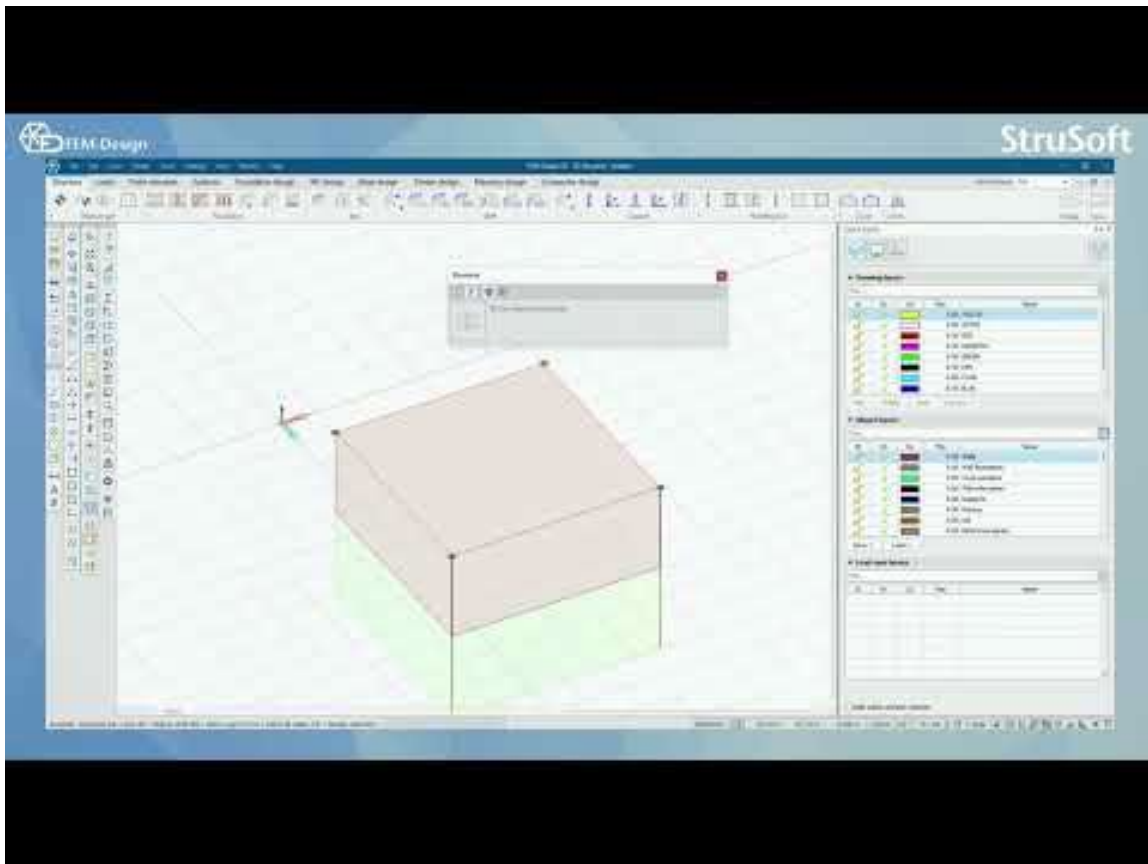
Notes:

8.3 Foundations in FEM-Design



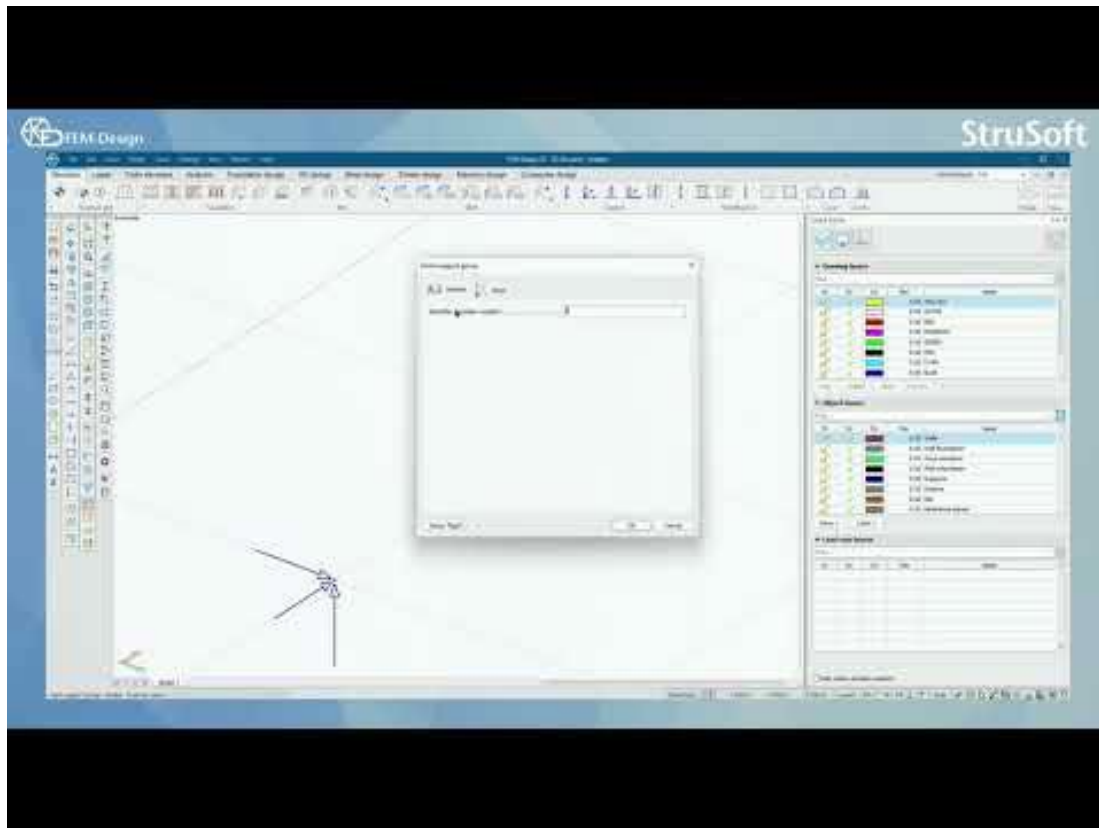
Notes:

8.4 Soil in FEM-Design



Notes:

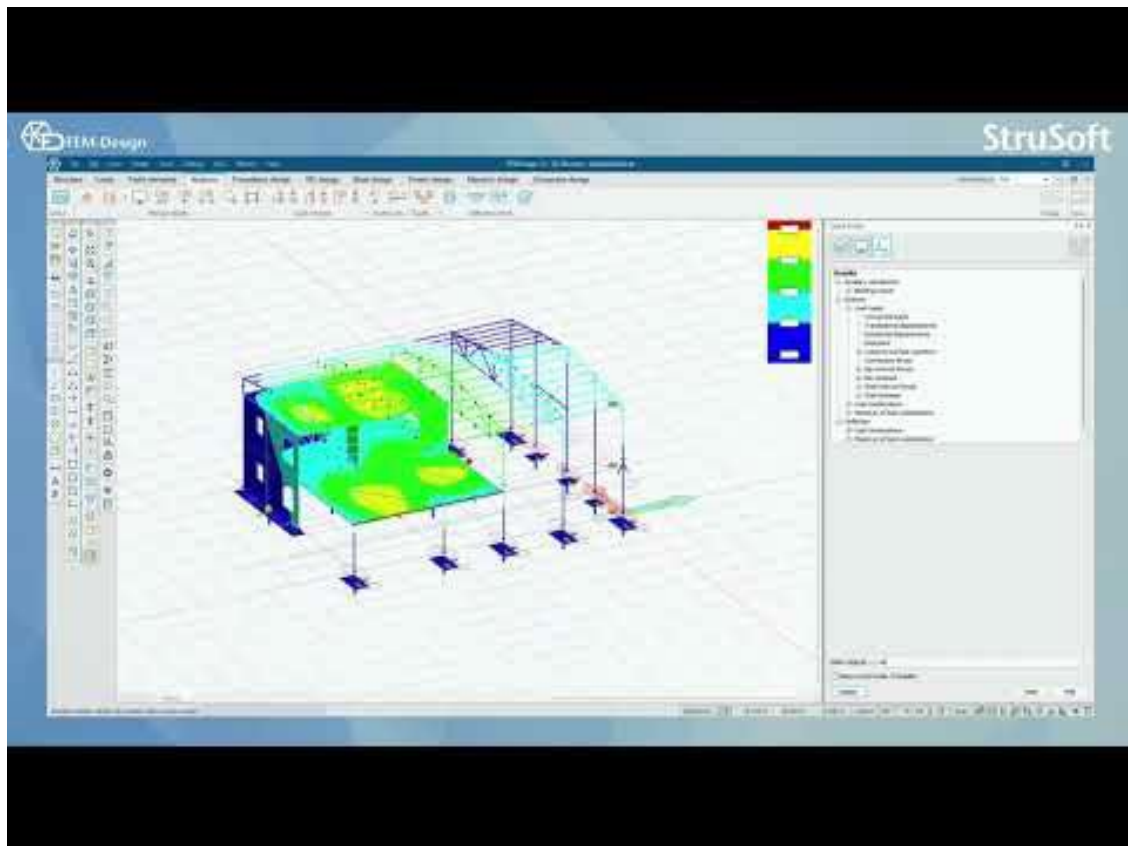
8.5 Supports in FEM-Design



Notes:

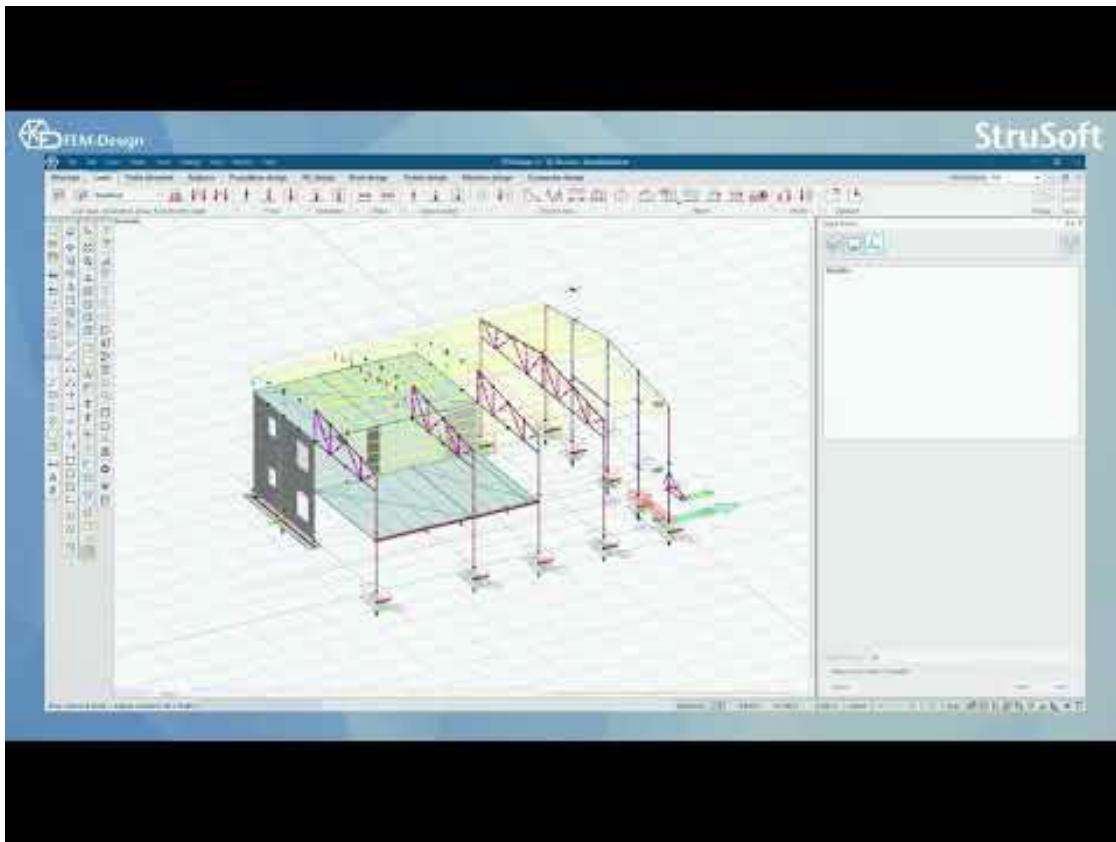
9 LOADS IN FEM-DESIGN

9.1 Dead load in FEM-Design



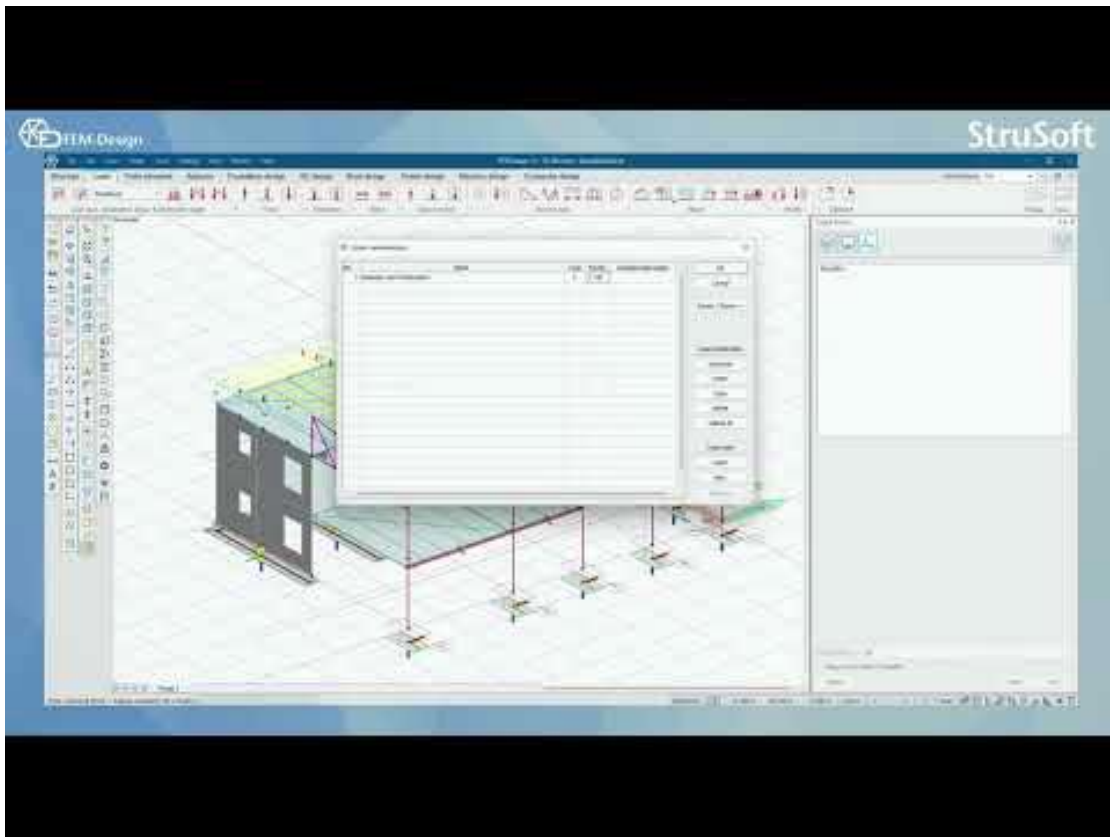
Notes:

9.2 Load cases and groups in FEM-Design



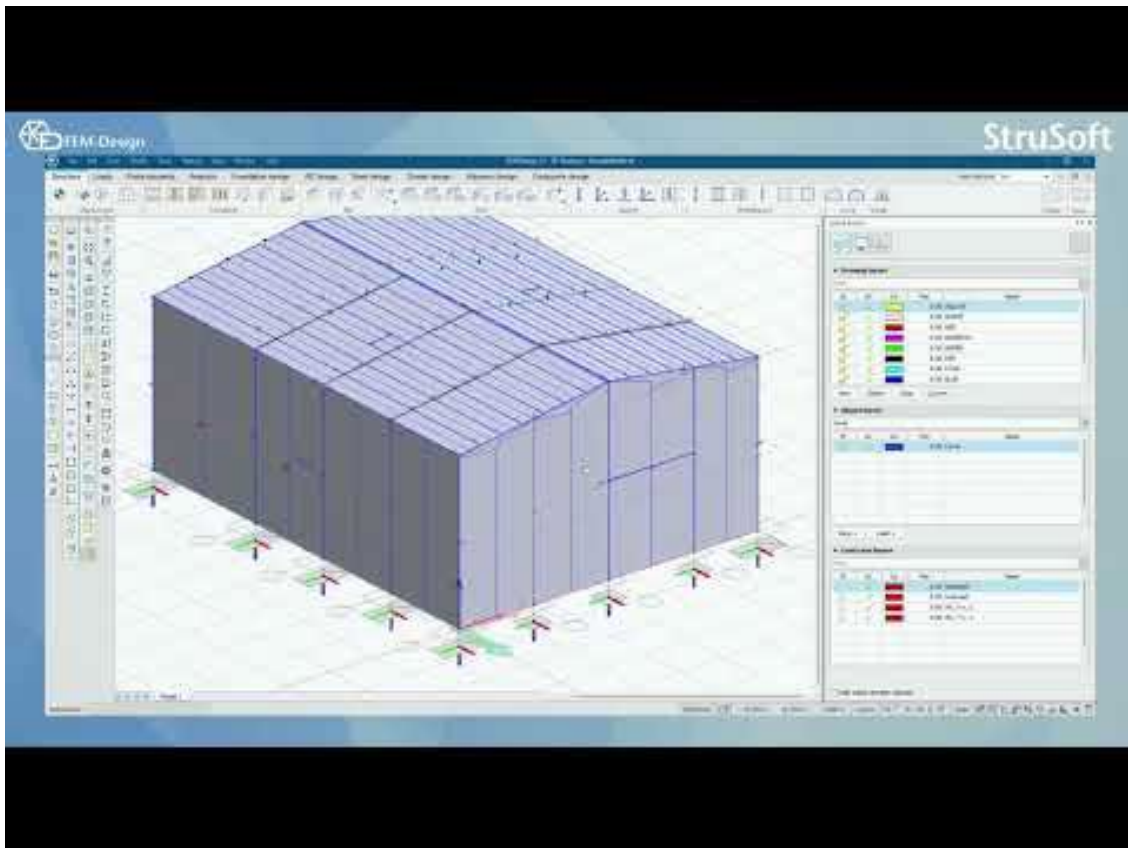
Notes:

9.3 Load combinations in FEM-Design



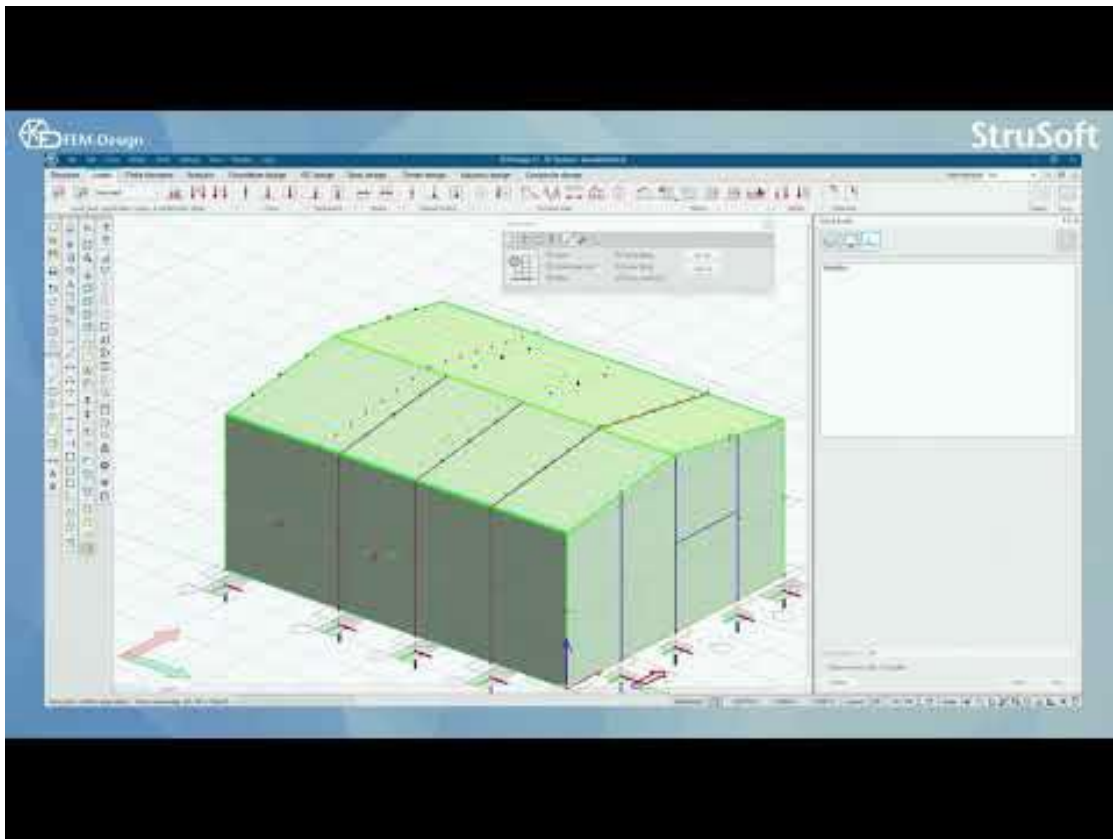
Notes:

9.4 Covers and wind loads in FEM-Design



Notes:

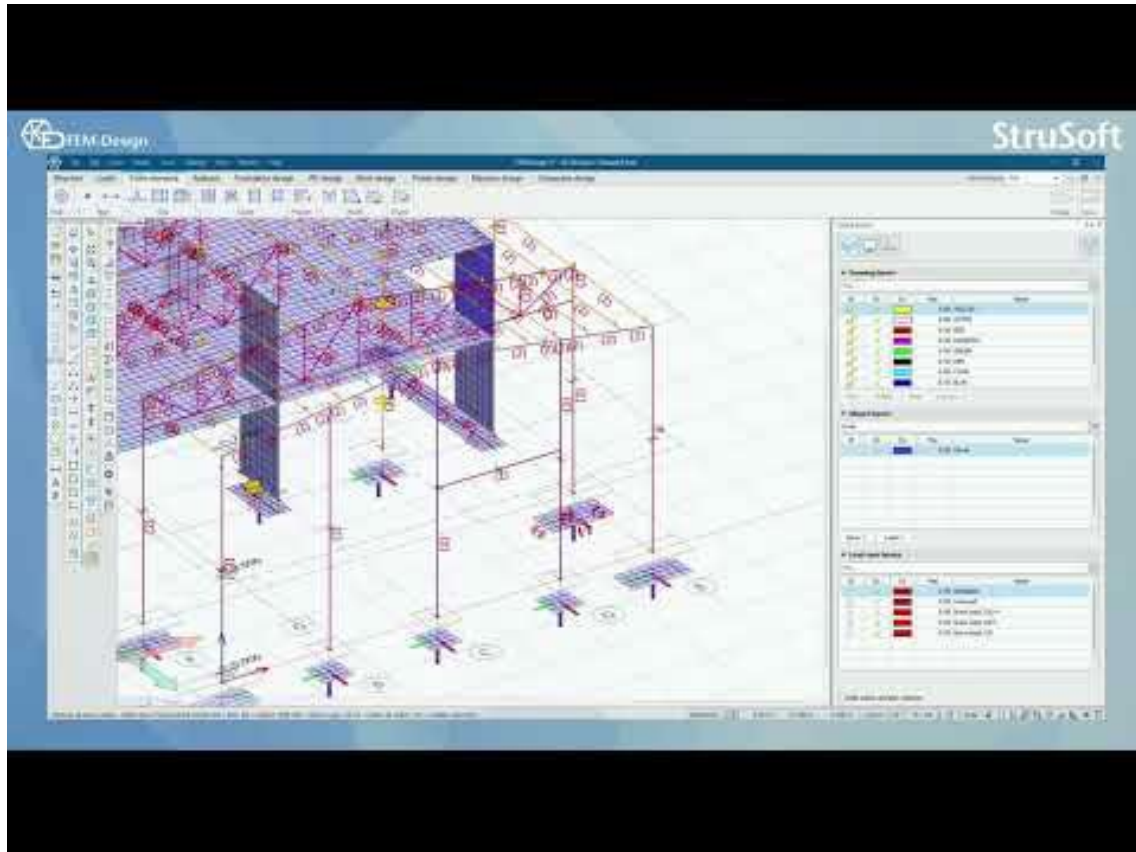
9.5 Snow loads in FEM-Design



Notes:

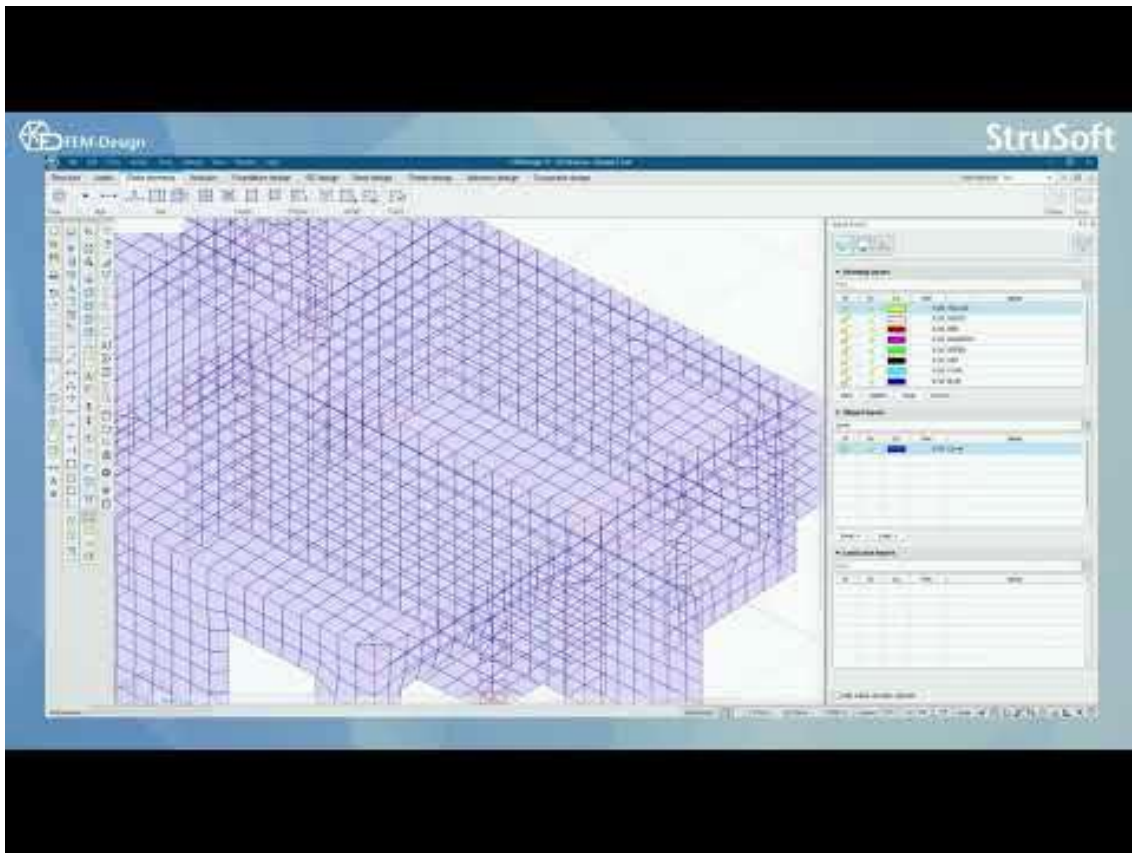
10 FINITE ELEMENTS IN FEM-DESIGN

10.1 Finite elements for bars in FEM-Design



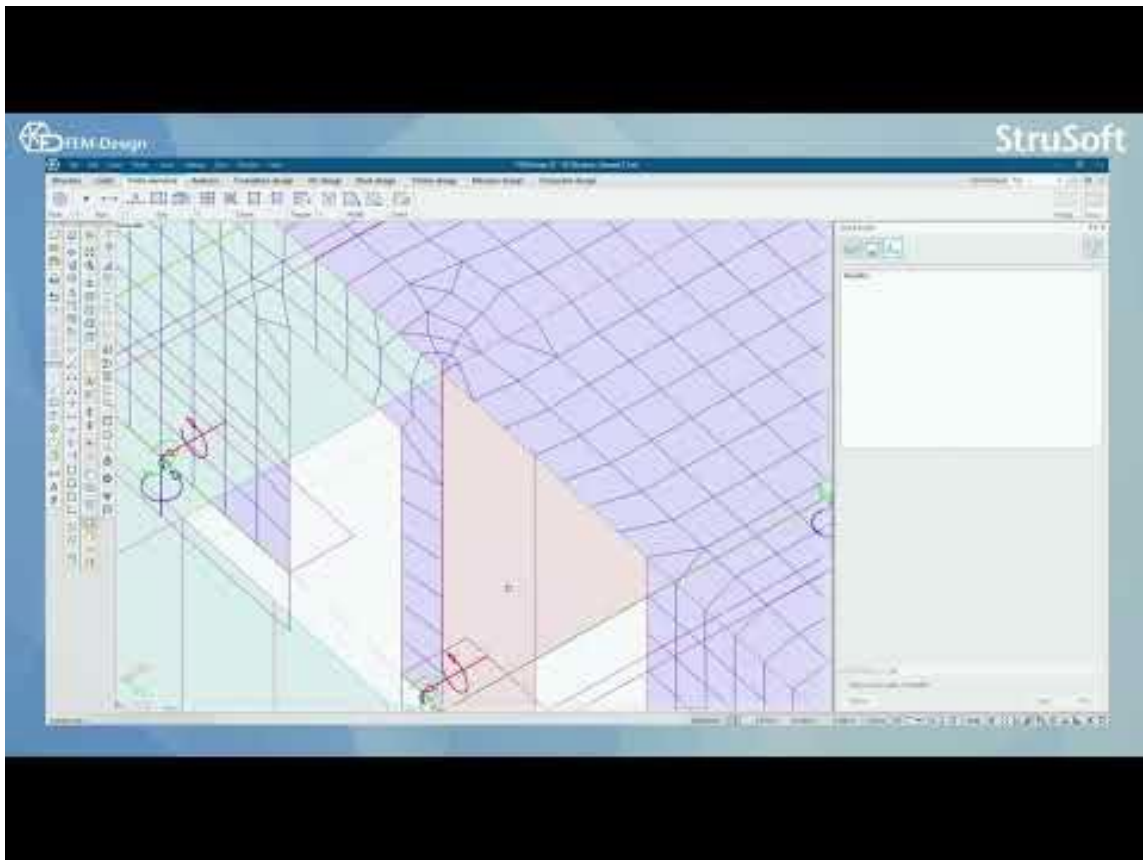
Notes:

10.2 Finite elements for shells in FEM-Design



Notes:

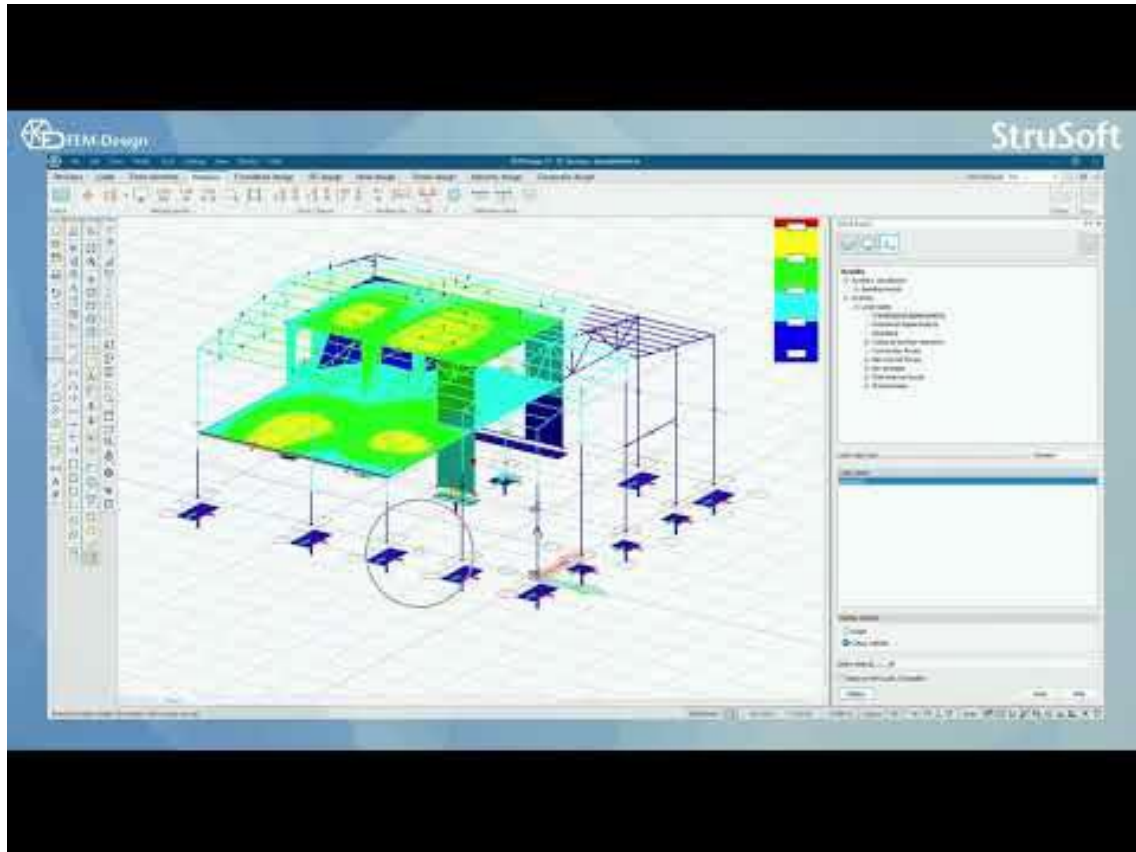
10.3 Common errors in finite elements in FEM-Design



Notes:

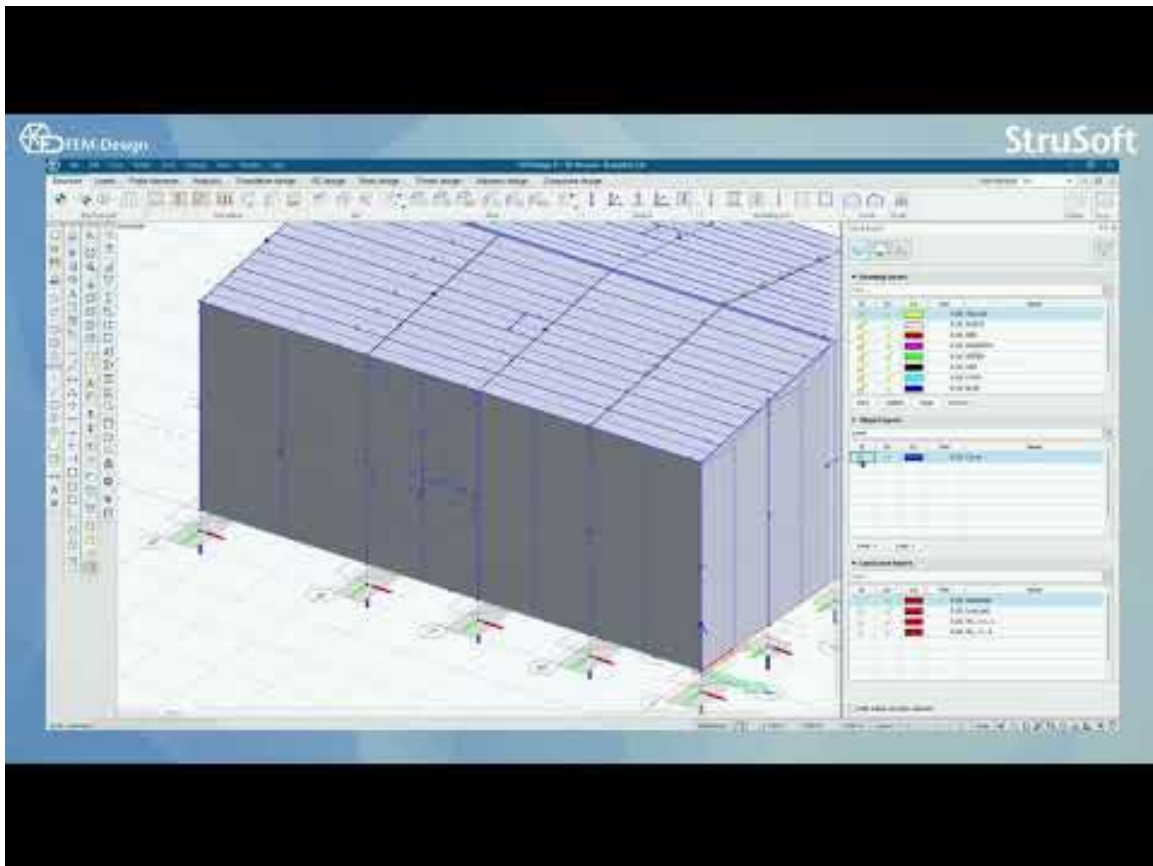
11 CALCULATION TYPES IN FEM-DESIGN

11.1 Basic checks after calculation of the model in FEM-Design



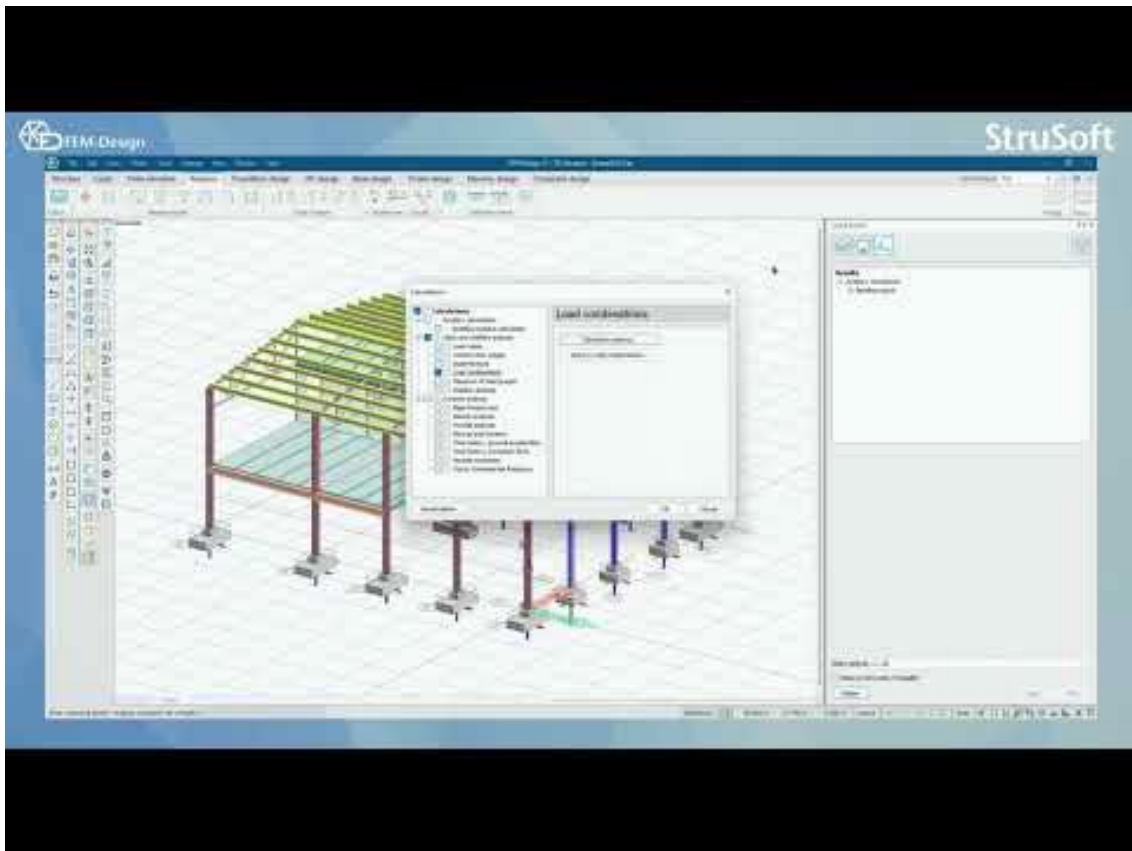
Notes:

11.2 Errors and warnings in the calculation process in FEM Design



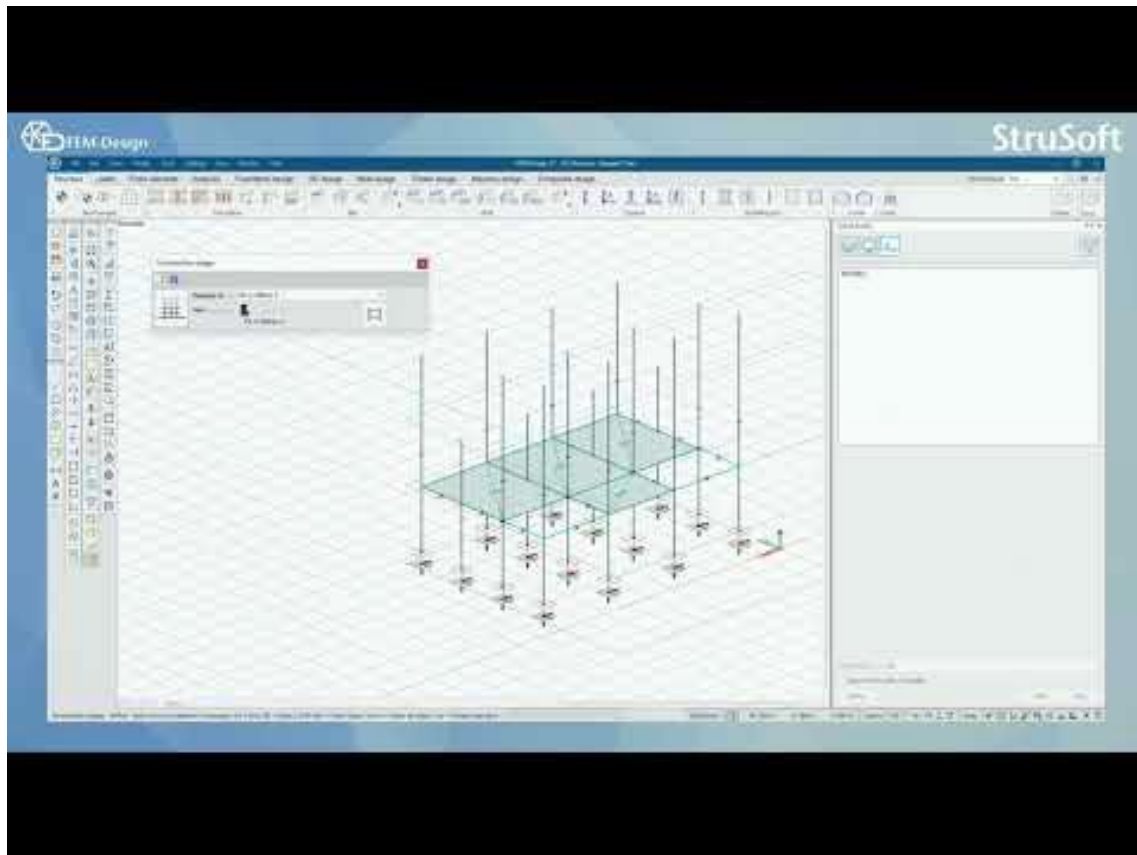
Notes:

11.3 Load combination calculation in FEM-Design



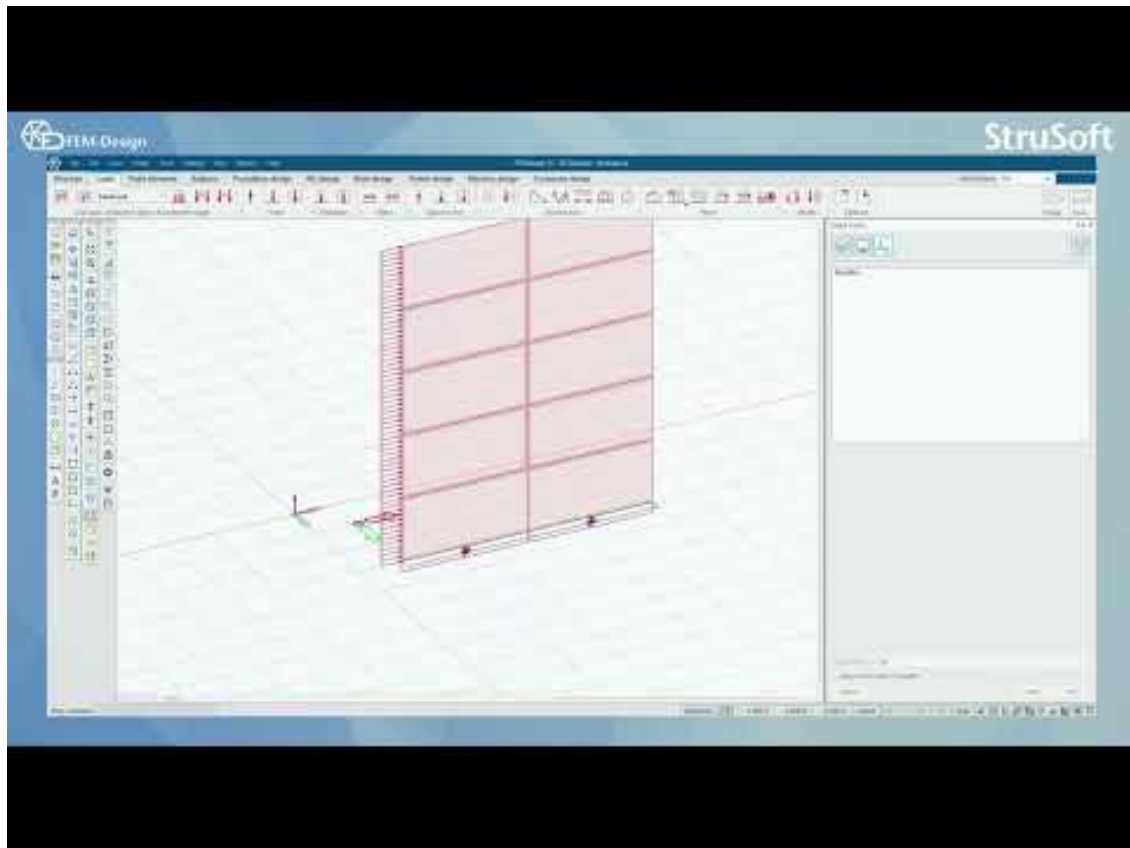
Notes:

11.4 Construction stages calculation in FEM-Design



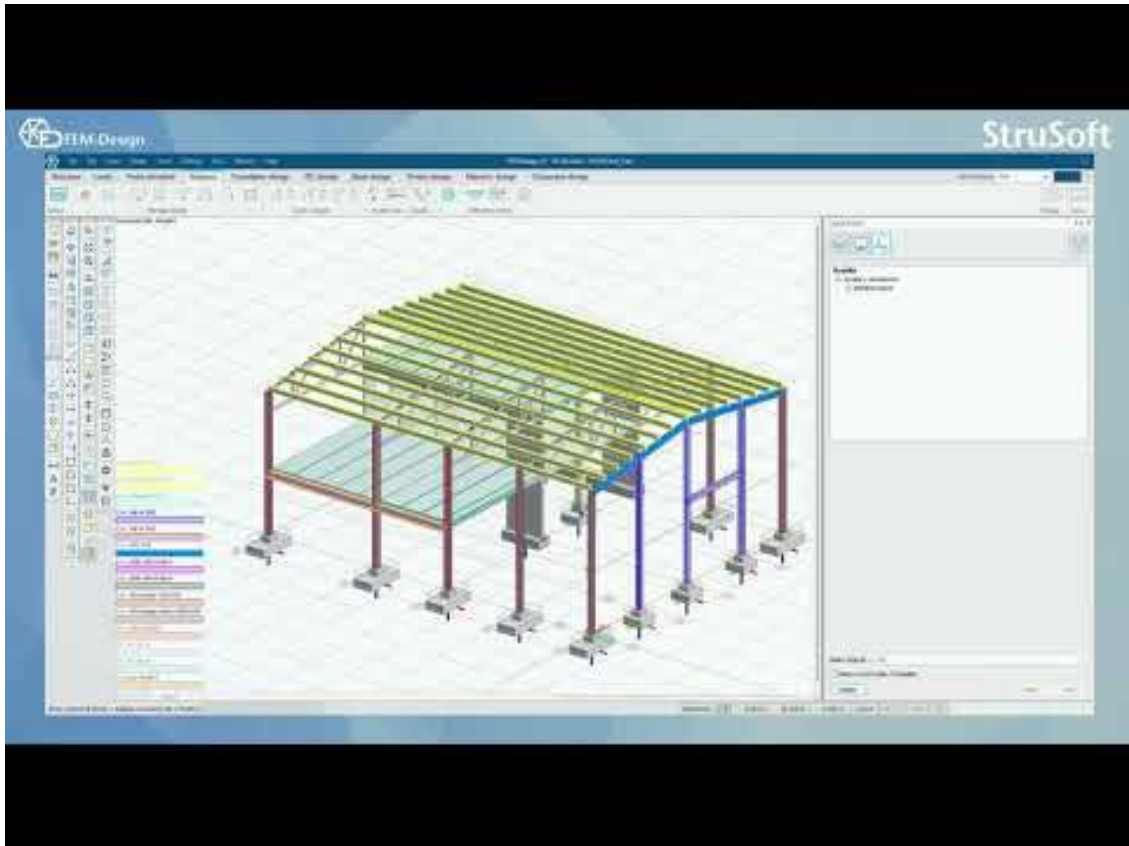
Notes:

11.5 Nonlinear calculation in FEM-Design



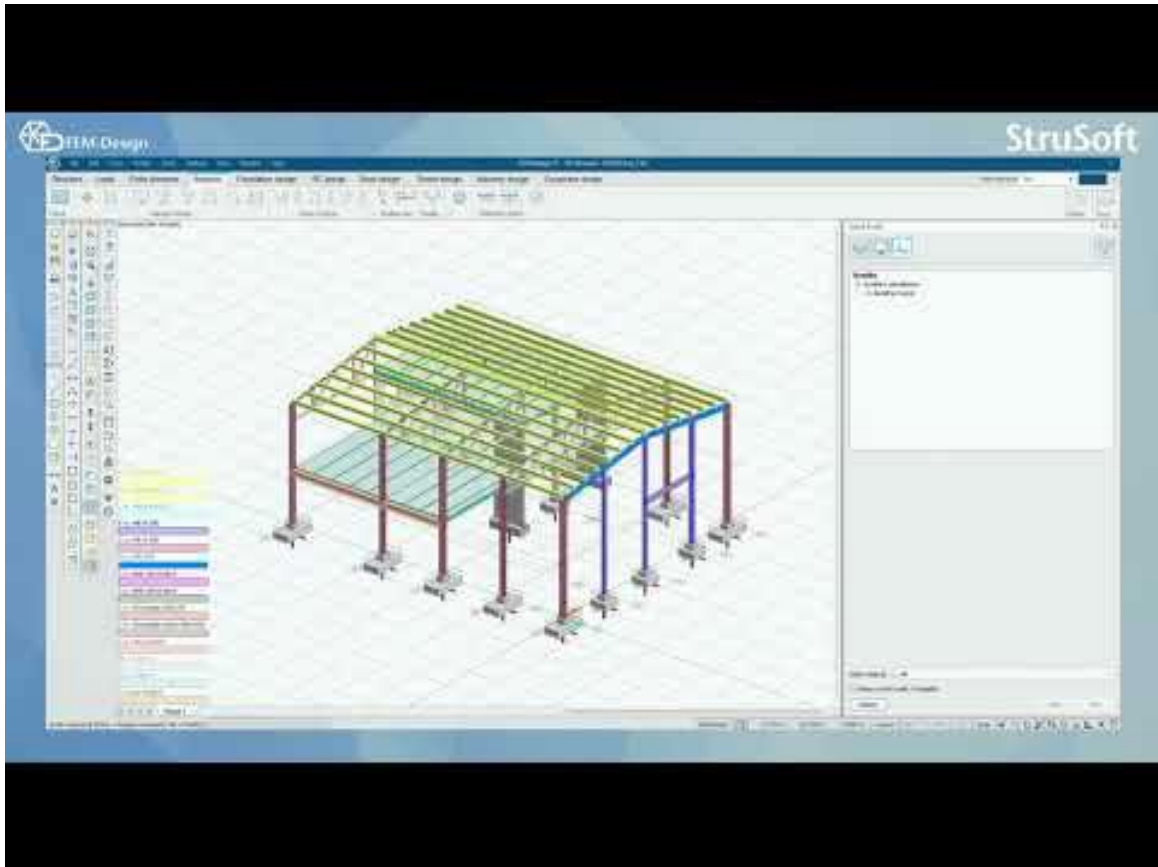
Notes:

11.6 Imperfection and second order analysis in FEM-Design



Notes:

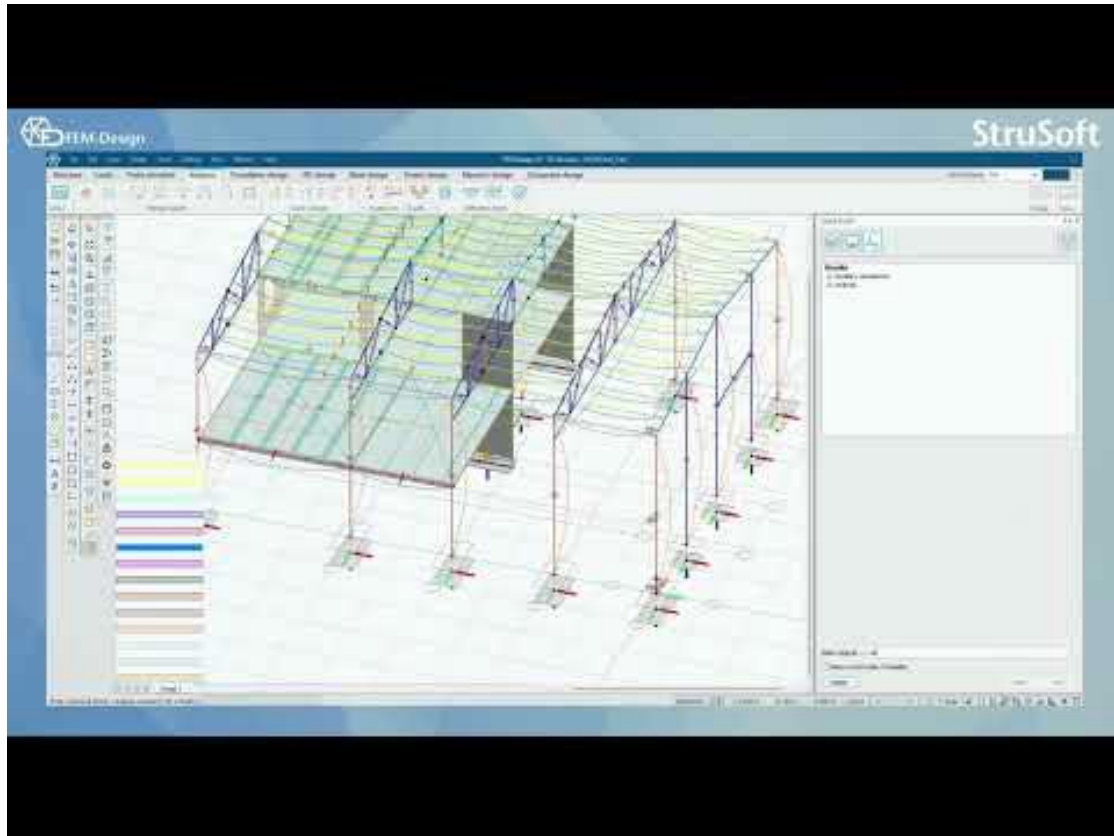
11.7 Stability analysis in FEM-Design



Notes:

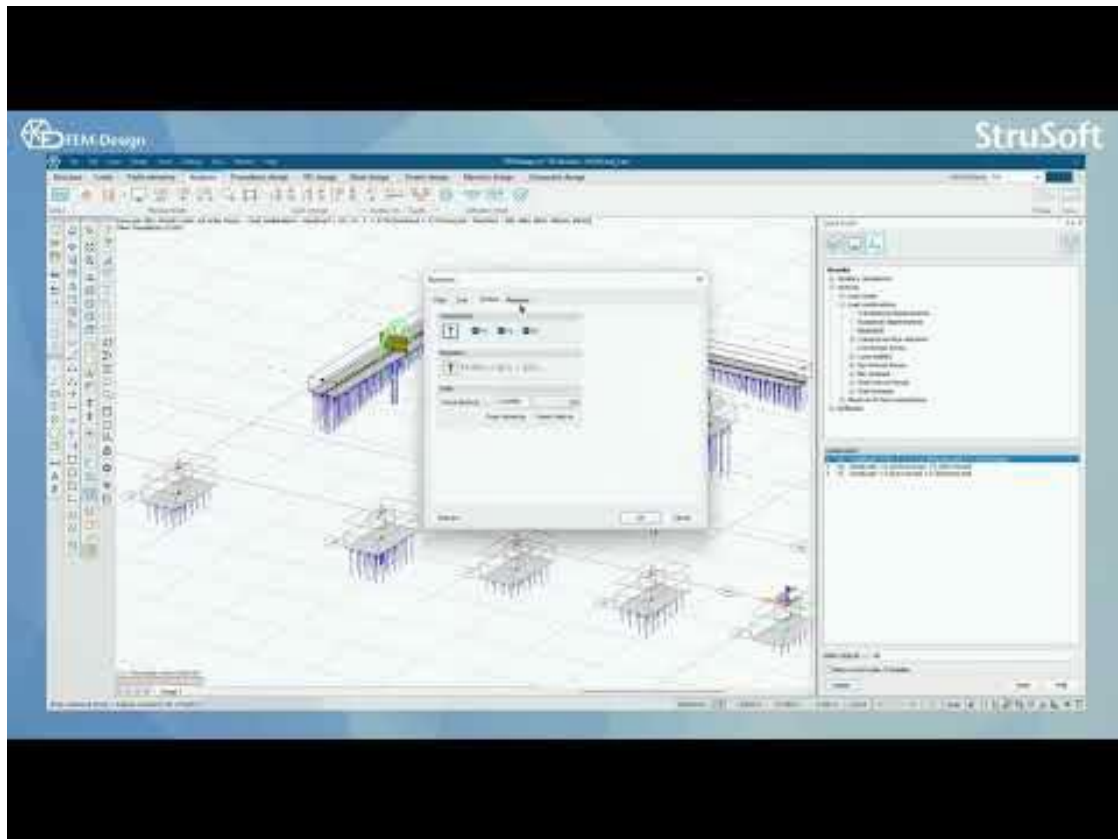
12 RESULTS IN FEM-DESIGN

12.1 Deflection check in FEM-Design



Notes:

12.2 Reactions in FEM-Design



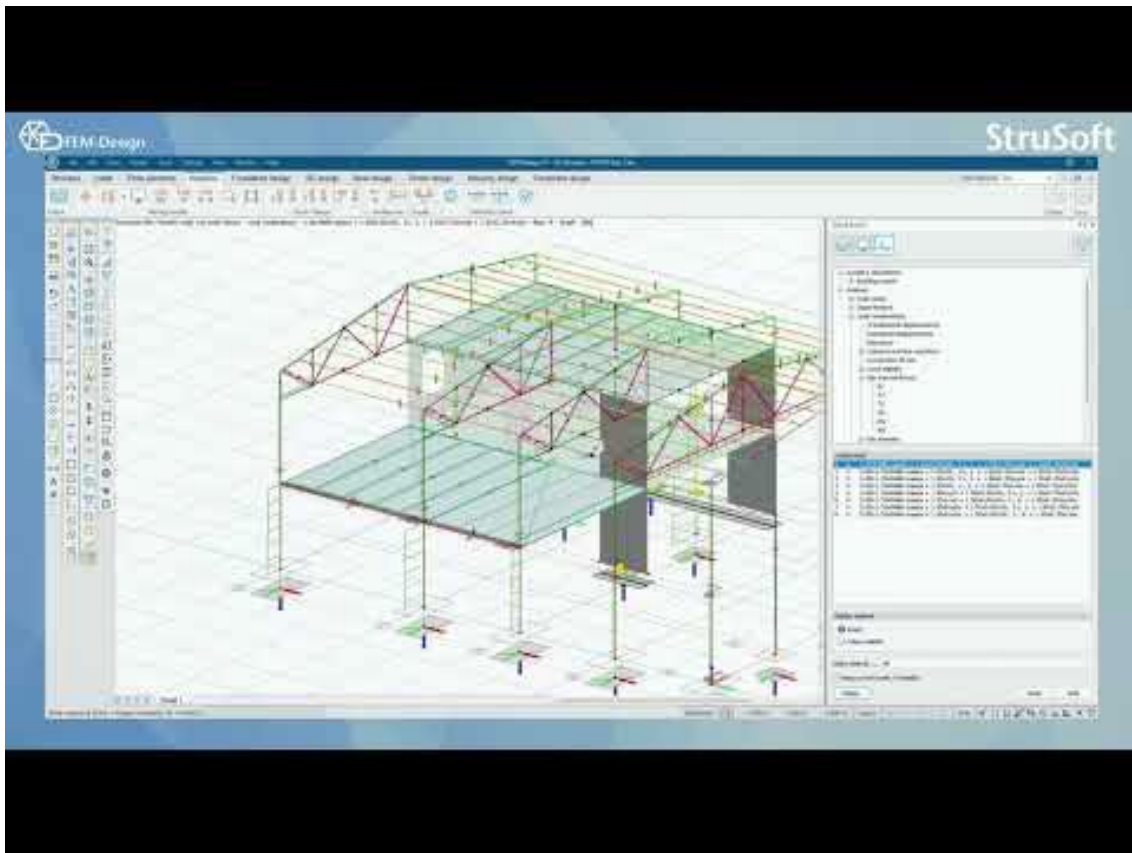
Notes:

12.3 Shell internal forces and stresses in FEM-Design



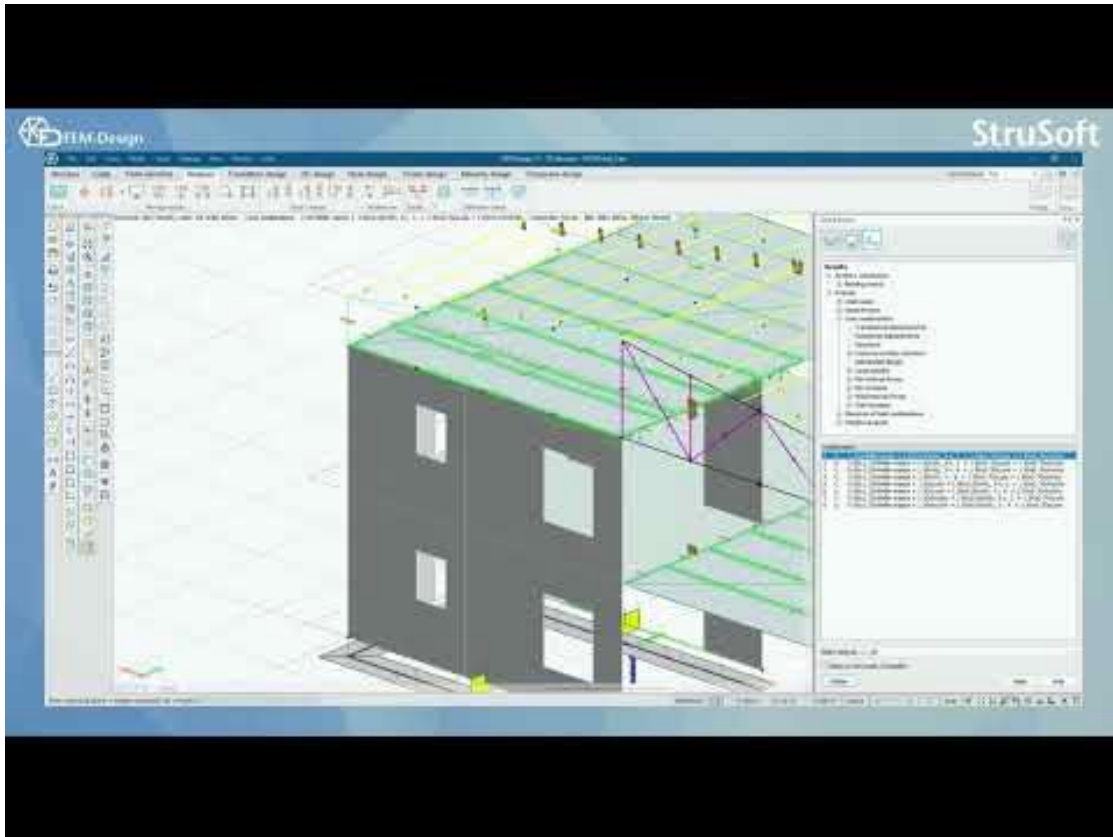
Notes:

12.4 Bar internal forces and stresses in FEM-Design



Notes:

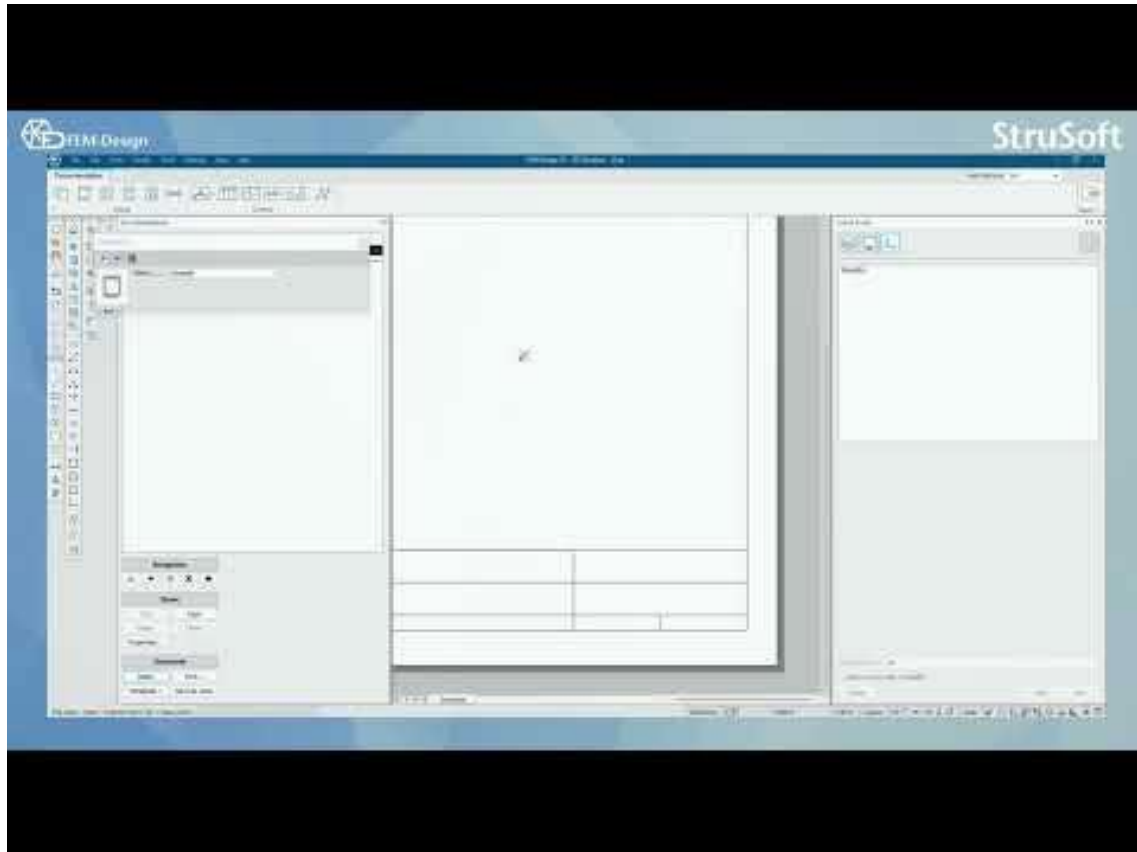
12.5 Connections forces in FEM-Design



Notes:

13 DOCUMENTATION

13.1 Documentation in FEM-Design



Notes:
