v26.1

IDEA StatiCa®

What’s new in IDEA StatiCa 26.1

Presenting



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Product Engineer



Lukas Juricek
Product Engineer

IDEA StatiCa®

Goto webinar – questions and reactions



Today’s agenda

1

Anchoring

Solving problems we missed

2

Connections and API

Building connections
(and other magic) through API

3

Member stability

Stability issues solved, buckling length calculated

4

FEA and CAD synchronisation

Bringing FEA and CAD models together

5

Reinforced sections

Get ready for new Eurocode, use thermal analysis

6

Q&A

Ask anything you want to know!

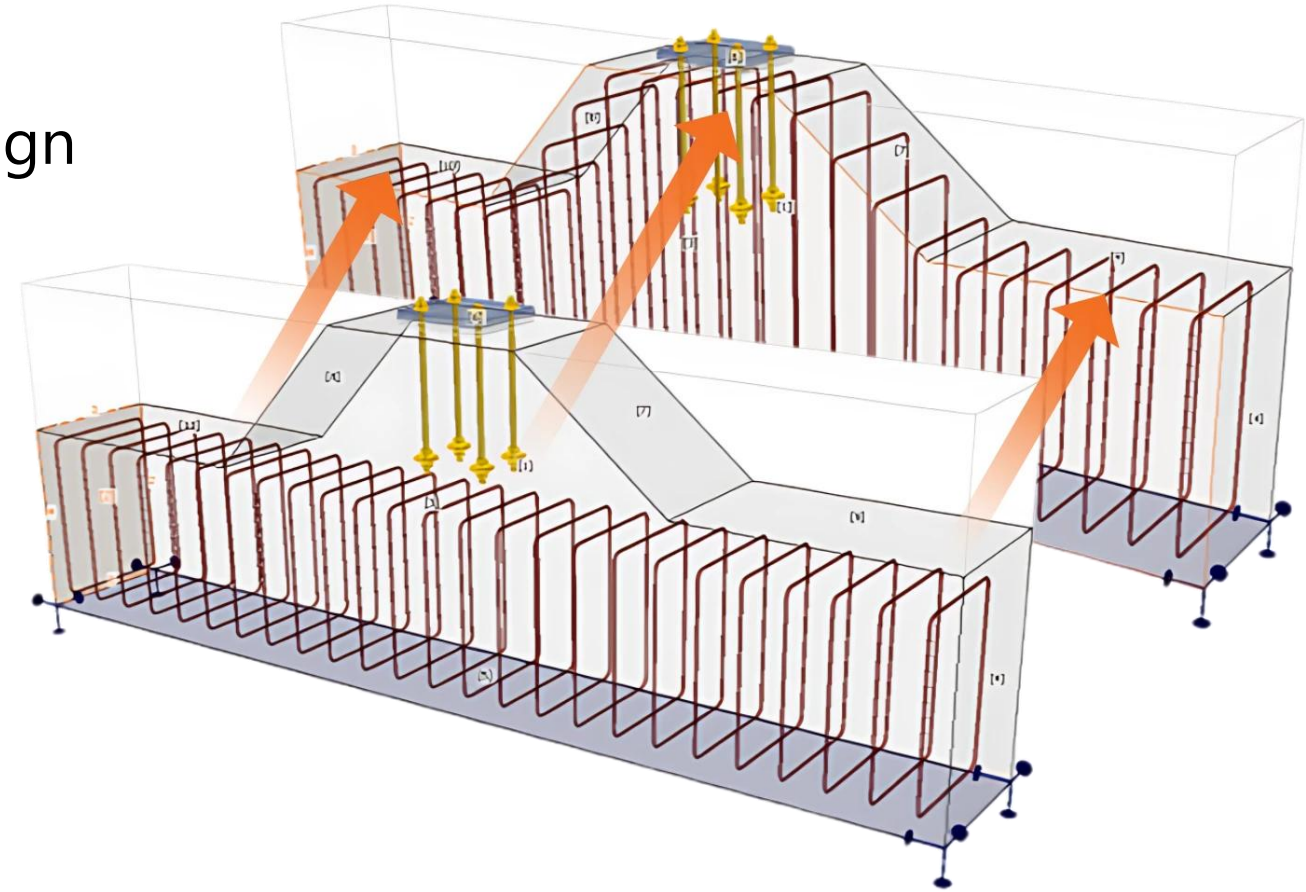
v26.1

IDEA StatiCa®

Anchoring

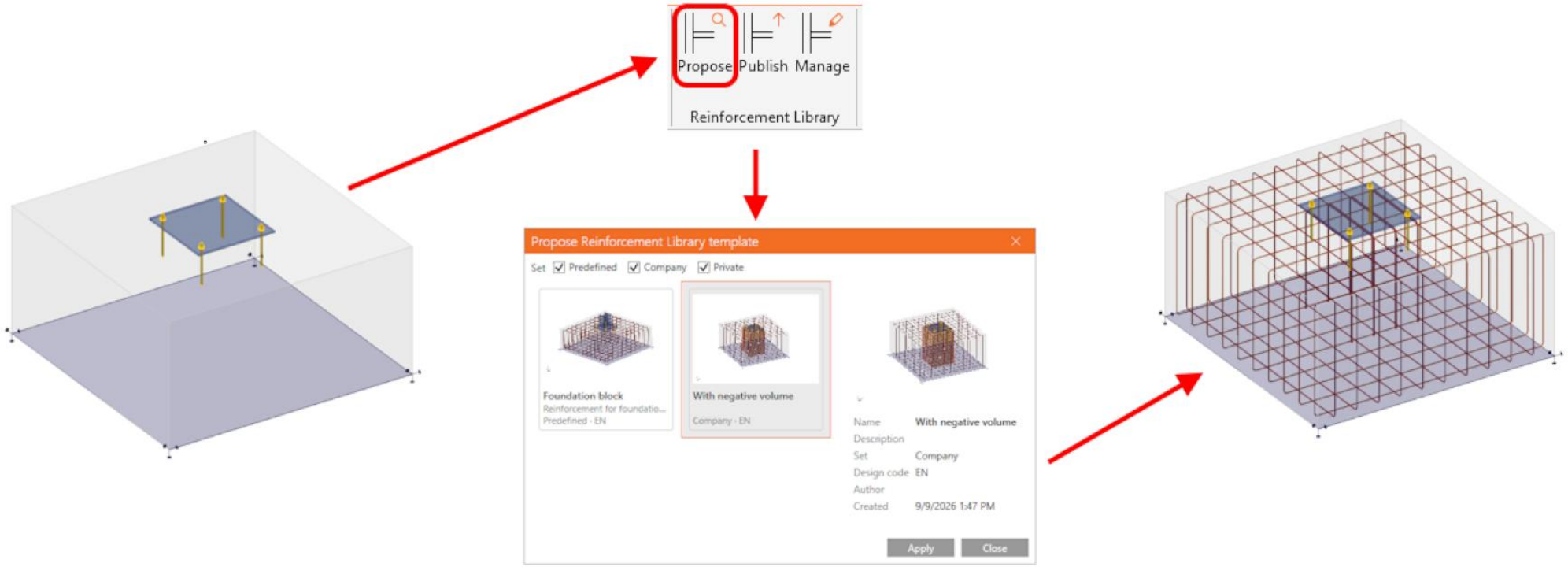
Your feedback – what we missed?

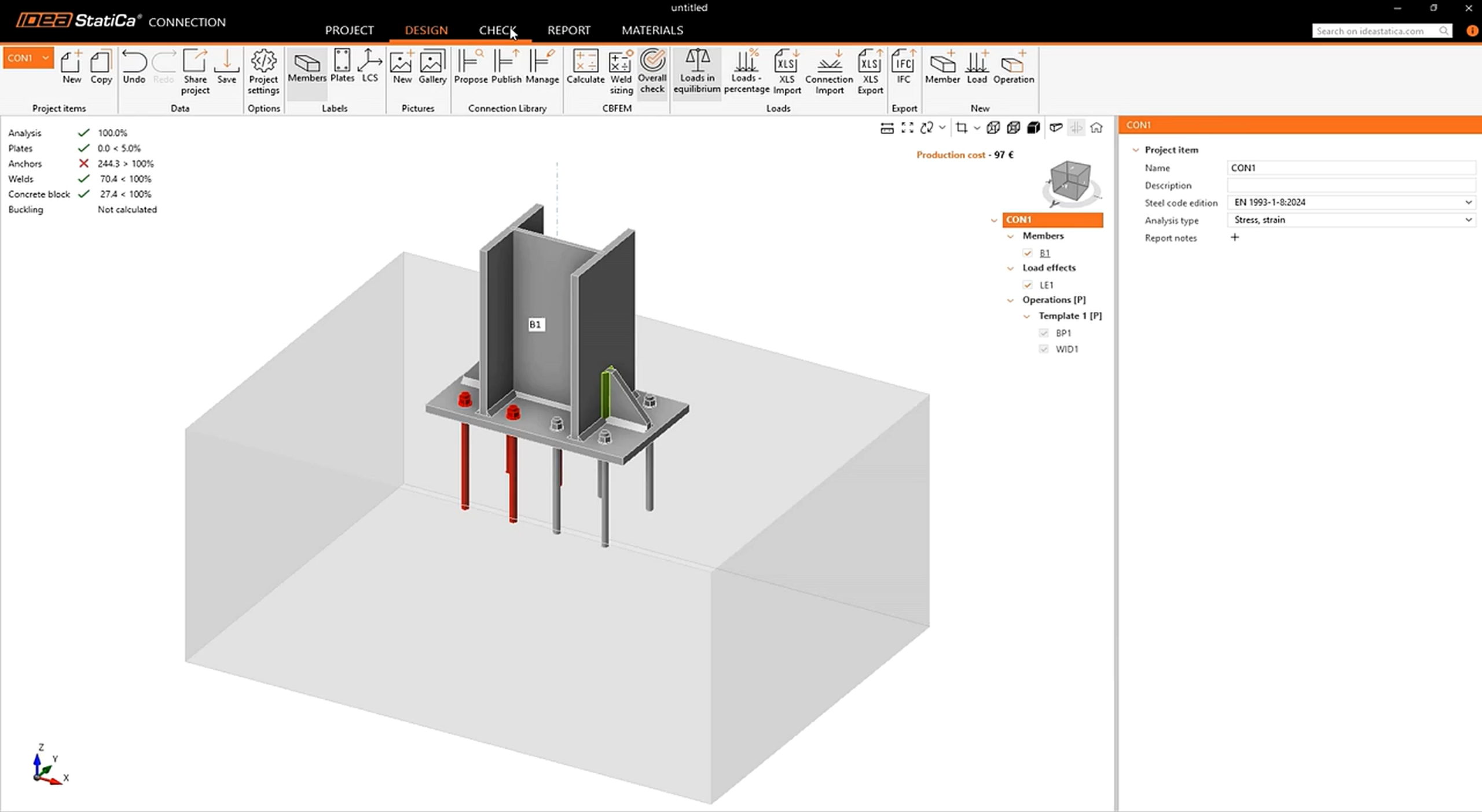
- Fast way to calculation
- Easier reinforcement design
- Defensible results
- Localization



Reinforcement templates in Detail

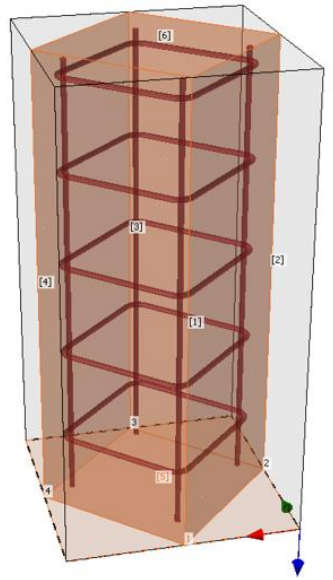
- For steel structural engineers who were afraid to touch anchoring, because they don't design concrete regularly

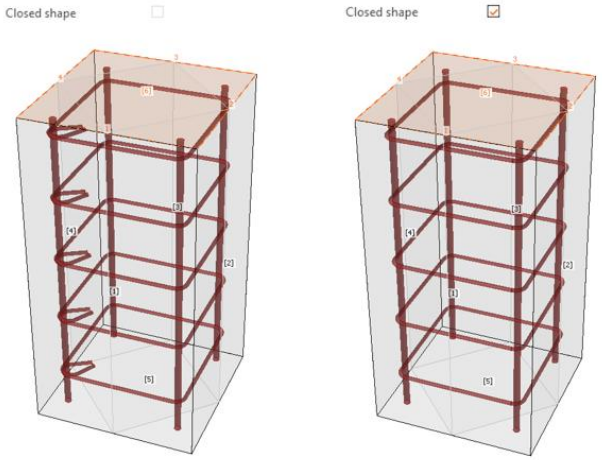


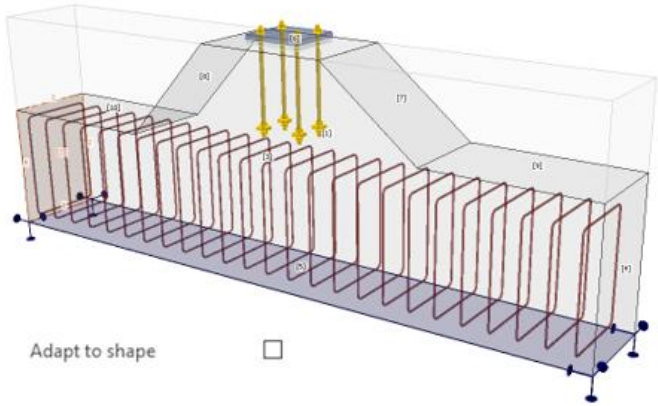

untitled
IDEA StatiCa CONNECTION
PROJECT
DESIGN
CHECK
REPORT
MATERIALS
Search on ideastatica.com
CON1
New
Copy
Undo
Redo
Share project
Save
Project items
Data
Project settings
Options
Members
Plates
LCS
Labels
New
Gallery
Pictures
Propose
Publish
Manage
Connection Library
Calculate
Weld sizing
Overall check
CBFEM
Loads in equilibrium
Loads - percentage
XLS Import
Connection Import
XLS Export
Loads
IFC
Export
Member
Load
Operation
New
Analysis 100.0%
Plates 0.0 < 5.0%
Anchors 244.3 > 100%
Welds 70.4 < 100%
Concrete block 27.4 < 100%
Buckling Not calculated
Production cost - 97 €
B1
CON1
Members
B1
Load effects
LE1
Operations [P]
Template 1 [P]
BP1
WID1
CON1
Project item
Name CON1
Description
Steel code edition EN 1993-1-8:2024
Analysis type Stress, strain
Report notes
Z
Y
X
Design code: EN 1993-1-8:2024
Analysis: Stress, strain
Load effects: In equilibrium
Units: mm

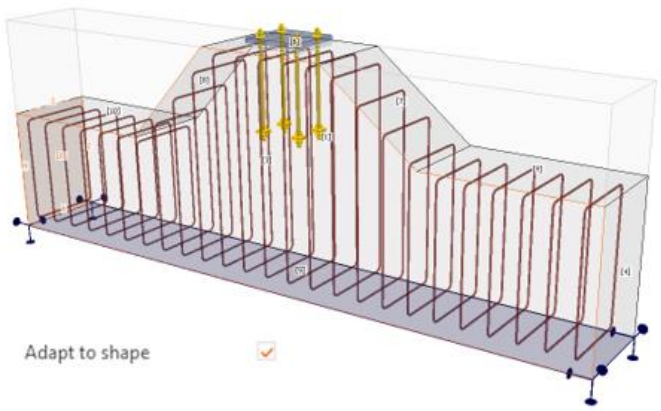
Simplifying reinforcement design

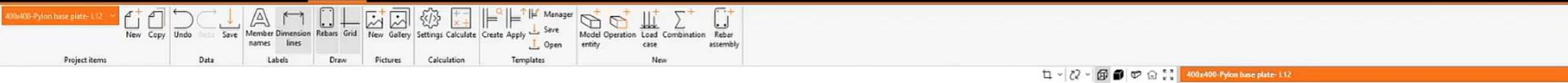
- Use negative volume and working plane to define reinforcement
- Closed stirrups are closed
- Reinforcement can adapt to the shape of the block
- Regular or irregular spacing
- More capable By two points and By polyline types

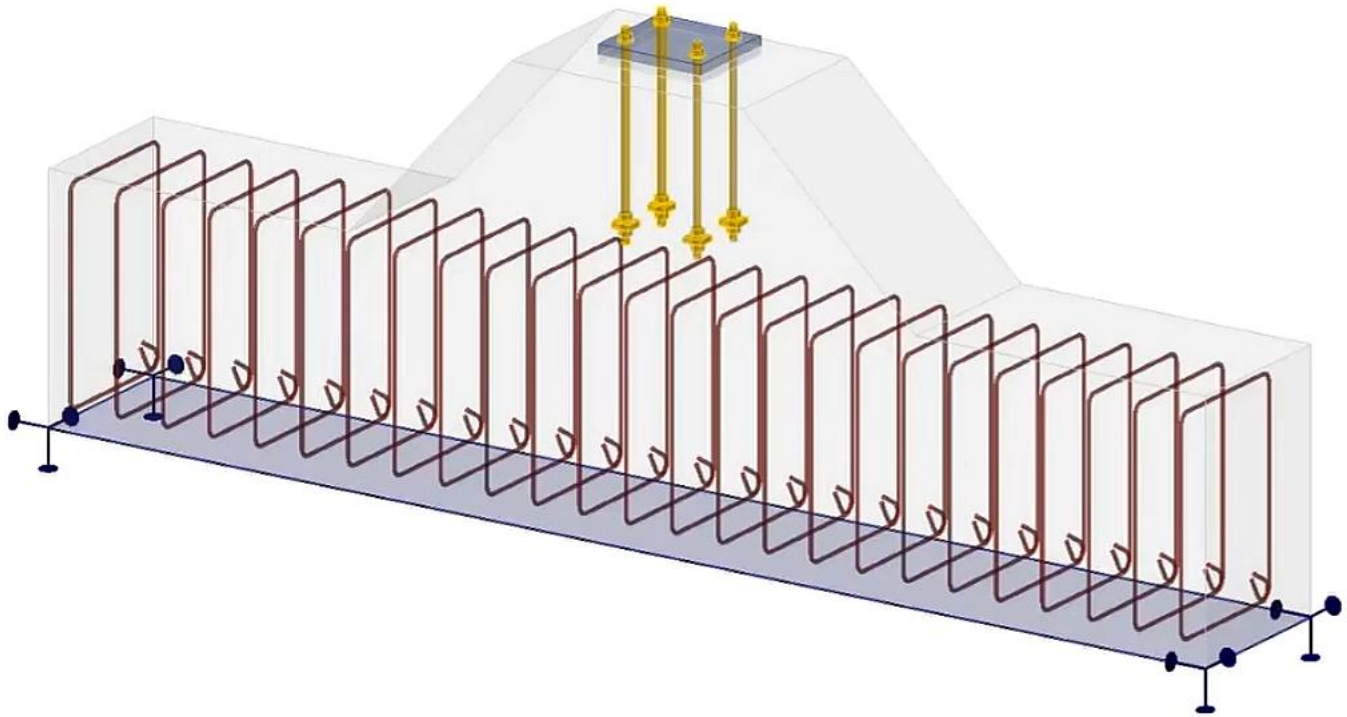
















400x400-Pylon bas...
Members
CB 1
NV1
NV2
Operations
CUT1
CUT2
Supports
SS1
Transfer devices
BP1
AN5
AN6
AN7
AN8
Loads and Combin...
Load cases
LE1
LE2
ULS Combinations
LE1
LE2
Reinforcements
Group of Bars
GB3D1
GB3D2
GB3D3

400x400-Pylon base plate- L12

Project item

Name	MD 1

Project item settings

Concrete cover [mm]	50
Calculate concrete cover with stirrup diameter	✓
Vertical bars at surface	✓
Minimum length of bars [mm]	100
Minimum length of stirrup branch [mm]	100
Default overhang over the opening [mm]	300
Default overhang over the opening as xΦ [-]	20.00
Default longitudinal bars anchorage type	
Default stirrups anchorage type	
Direction of concreting	Global Z +
Self weight direction	Global Z -
Gravitational constant [m*s^(-2)]	9.8

Results for anchors as equations

- Understanding and credibility of the results
- Printable to Report

Detailed information for AN2

Tensile resistance of the anchor (EN 1993-1-8:2005, Table 3.4)

$$F_{t,Rd} = \frac{k_2 \cdot A_s \cdot f_{ub}}{\gamma_{M2}} = \quad 90.4 \quad \text{kN} \quad \geq \quad N_{Ed} = \quad 41.7 \quad \text{kN}$$

Print Preview

Where:

$k_2 = 0.90$ – factor for non-countersunk anchors

$A_s = 157\ \text{mm}^2$ – tensile stress area of the anchor bolt

$f_{ub} = 800.0\ \text{MPa}$ – ultimate tensile strength of the anchor bolt

$\gamma_{M2} = 1.25$ – partial safety factor for bolt in tension (Table 2.1)

IDEA StatiCa®

Version 26.1.0.4701 Update

Connection | Stability | Member | Connection Library | Detail | Section BETA | RCS | Beam | Member | Checkbot | Viewer | Import | BIM links | Preferences | Project settings | License

Steel | Concrete | BIM | Settings

Try our new Section BETA app in 26.0 Read more

Open

OR

ORSI_Konin_slup35x40
DETAIL

Konin_slup35x40
DETAIL

Mxy max
RCS

Prestressed saddle beam with LTB
BEAM

Muro empotrado IDEA
DETAIL

section_general_test_v2
SEC

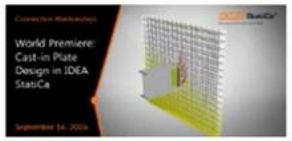
section_general_test
SEC

pila_base
CONNECTION

detail 2
DETAIL

Detail_base

News



Connection Wednesdays – World Premiere: Cast-in Plate Design in IDEA StatiCa

Cast-in plates are a common but notoriously challenging part of structural design. Engineers need to transfer forces safely between steel and concrete...

WEBINAR



Why membrane structure connections cost you more nerves than a Rubik's Cu...

In my previous post, I wrote about bulk design workflows and how repetitive connections don't have to be boring or risky anymore. That story was about...

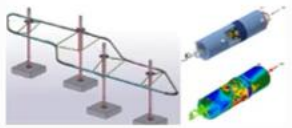
BLOG POST



Residential building in Prague

Atypical structural solutions for modern apartment buildings require looking beyond traditional design methods. This case study highlights the practical...

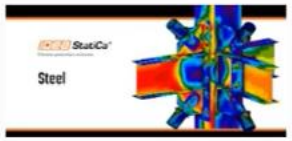
CASE STUDY



Precision pipe connections for landmark pergola in Vienna

The Seestadt Pergola in Vienna stands out for its elegant, curved geometry, but for the engineers, it posed a serious structural challenge. Designing moment-...

CASE STUDY



Faster, more accurate steel design

Perform the structural design of any steel connection, anchoring, or member, in minutes

GENERAL



Concrete code-checks made simple

Stop estimating, start calculating, and join 58,000 engineers saving days of work with results they can trust

GENERAL

Resources

Visit Support Center

Tutorials
Learn with step-by-step design examples.

Knowledge base articles
Library of help articles, features, info and tips.

Webinars
Register for upcoming webinars or watch recordings.

Videos
Watch short videos, tutorials or reviews at any time.

E-Learning



C1 - Structural design of reinforced concrete sections (EN)

START COURSE



C2 - Structural design of RC elements with discontinuity regions (EN)

START COURSE



C3 - Structural design of prestressed elements with discontinuity regions (EN)

START COURSE



S1 - Essentials of steel connection design (EN)

START COURSE



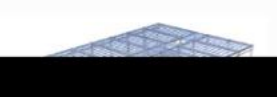
S2 - Advanced topics in steel connection design (EN)

START COURSE



S3 - Structural design of stability-sensitive members (EN)

START COURSE

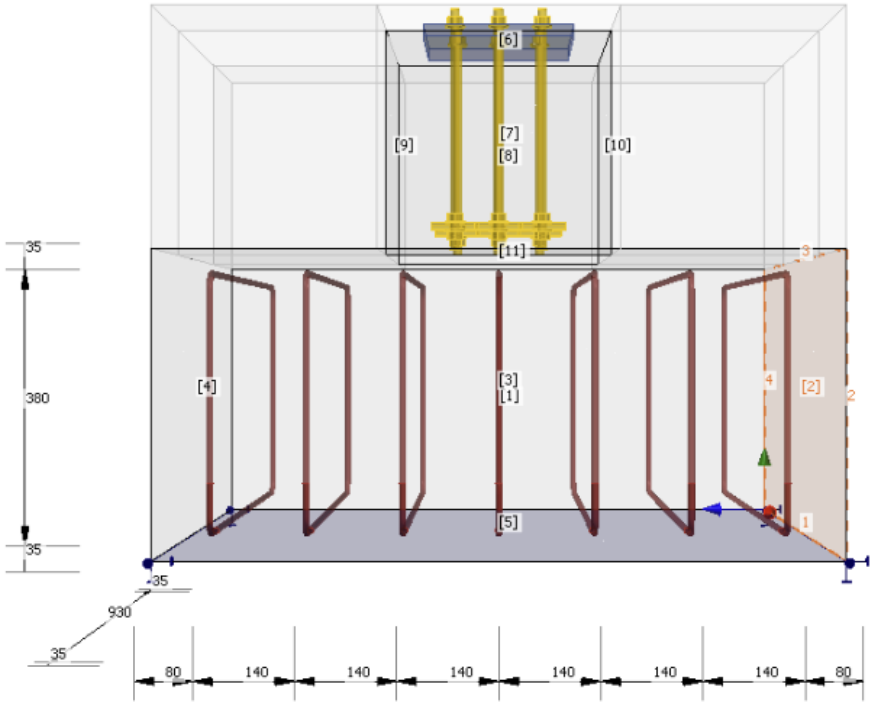


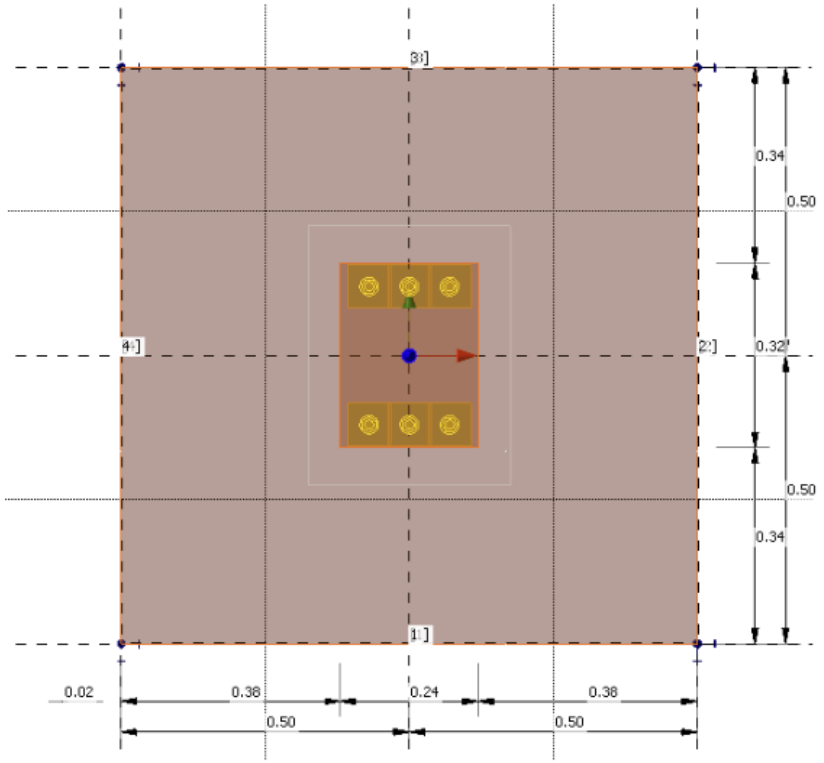


Need help?

Dimension lines in the 3D Detail scene

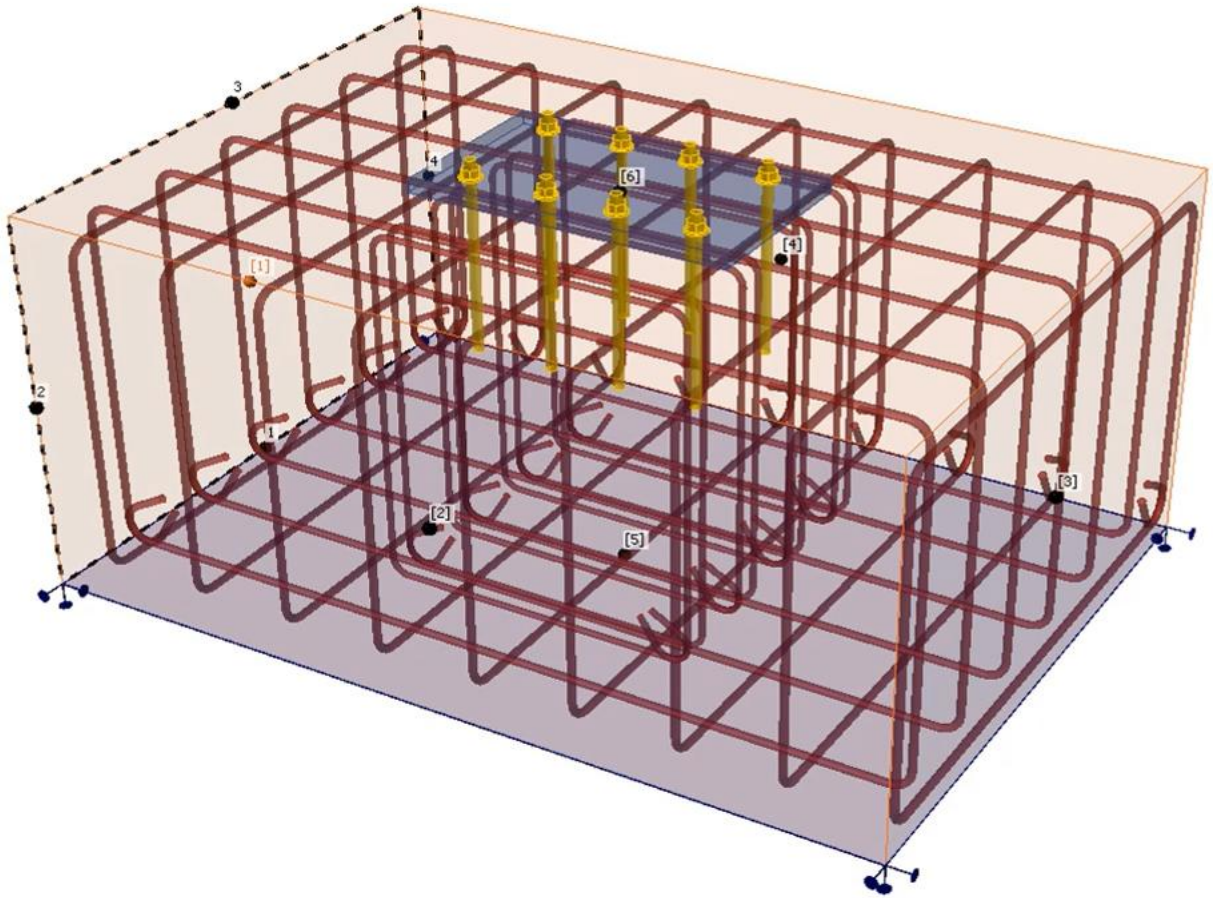
- For all entities
- User stays oriented in model





CON1 | New | Copy | Undo | Redo | Save | Member names | Dimension lines | Rebars | Grid | New | Gallery | Settings | Calculate | Propose | Publish | Manage | Model entity | Operation | Load case | Combination | Rebar assembly

Project items | Data | Labels | Draw | Pictures | Calculation | Reinforcement Library | New







- CON1
  - Members
    - CB 1
  - Supports
    - SS1
  - Transfer devices
    - BP1
    - AN1
    - AN2
    - AN3
    - AN4
    - AN5
    - AN6
    - AN7
    - AN8
  - Loads and Combinations
    - Load cases
      - LE1
    - ULS Combinations
      - LE1
  - Reinforcements
    - On more edges
      - GB3D1
      - GB3D2
      - GB3D3
      - GB3D4

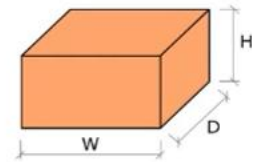
CB 1 [Solid Block]

Solid Block

Shape	Polygon
General shape	Edit shape
H - Height [m]	0.60
Material	C25/30

Position

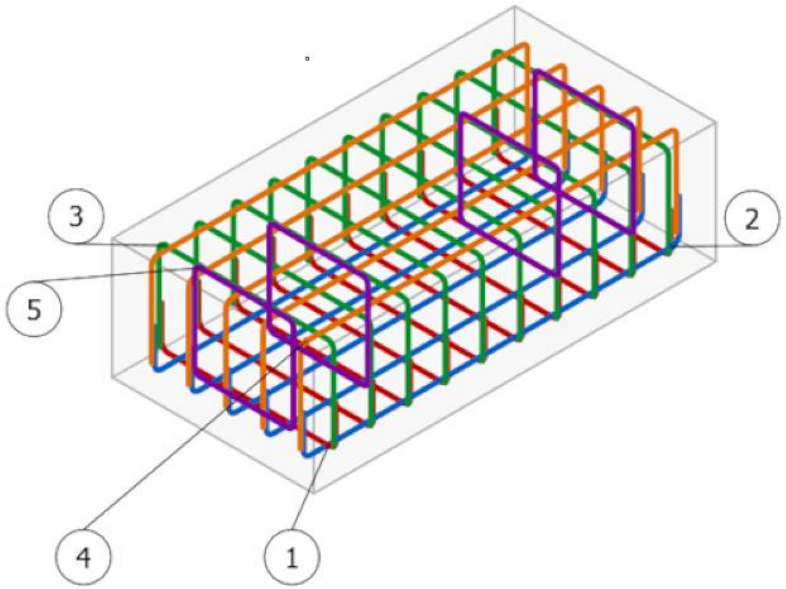
X - position [m]	0.00
Y - position [m]	0.00
Z - position [m]	-0.62
X - rotation [°]	0.0
Y - rotation [°]	0.0
Z - rotation [°]	90.0



Bill of materials for 3D models + 3D DXF export

Bill of material

Items numbering



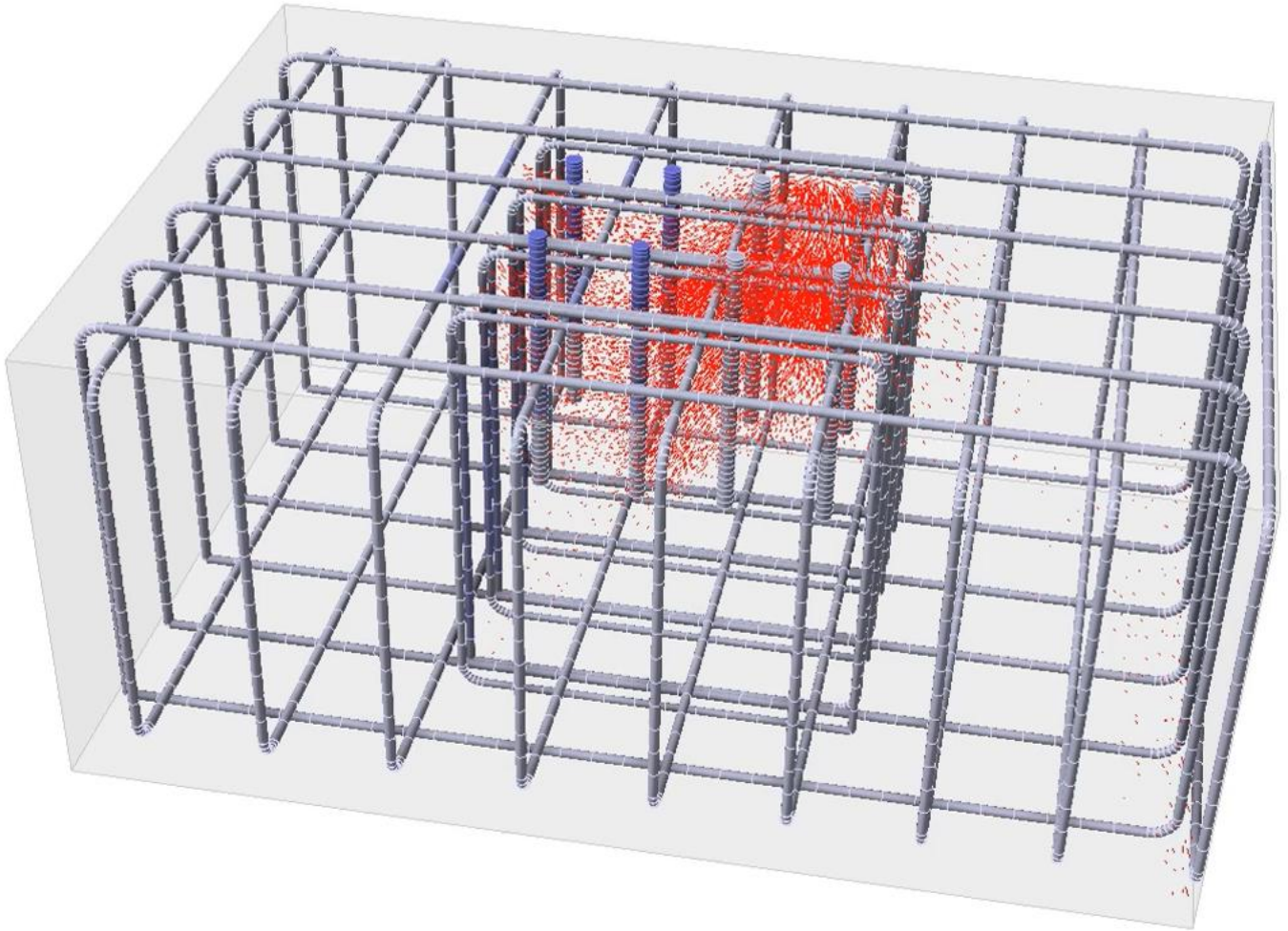
Parameter	Value	Shape
Index	4	
Φ [mm]	8	
Material	B 500B	
Number of items	40	
Length [mm]	310	
Weight [kg]	0	
Total length [m]	12.40	

Overview table

Φ [mm]	8	10	12
Total length of Φ [m]	12.40	4.75	90.48
Weight per meter of Φ [kg/m]	0	1	1
Total weight of Φ [kg]	5	3	80
Total weight of bars [kg]	88		

ULS:

Concrete	LE1	49.4%
Reinforcement	LE1	24.9%
Anchor	LE1	52.1%
Anchorage	LE1	97.4%



ULS Combinations
LE1

σs / σs,lim
[%]
100.0
80.0
60.0
40.0
20.0
0.0

Extreme ULS: LE1 (G100.0%)

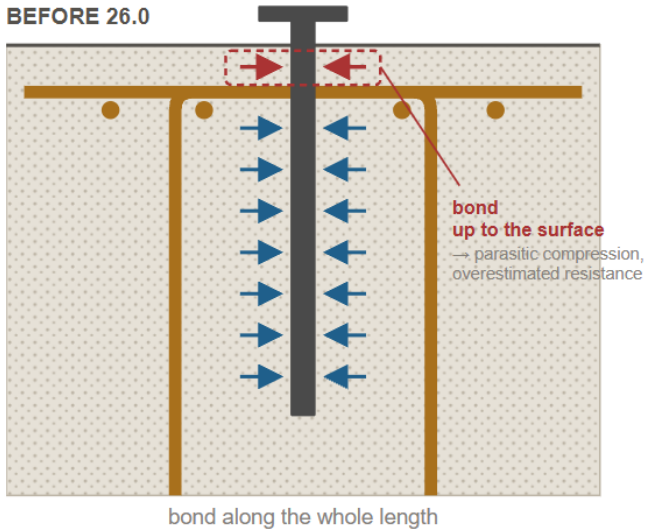
Load increment: G100.0%, V100.0%

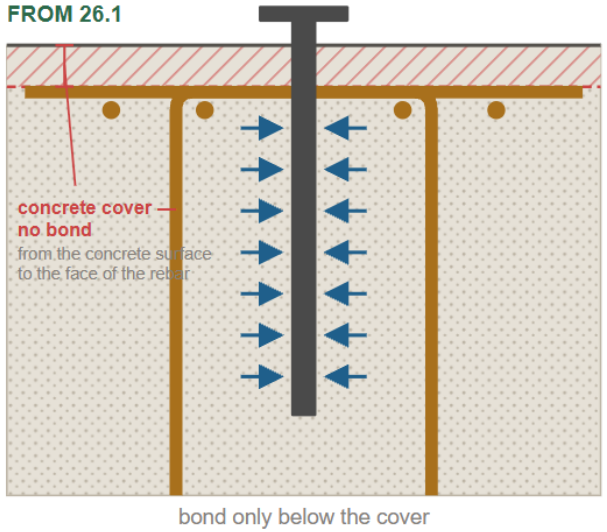
Check item	Item	Utilization
Strength of concrete	CB 1	σc/σc,lim: 49.4%
Strength of reinforcement	GB3D3	εs/εs,lim: 1.4%, σs/σs,lim: 24
Strength of anchor	AN1	εs/εs,lim: 6.4%, σs/σs,lim: 52
Anchorage length	GB3D1	τb/fbd: 97.4%

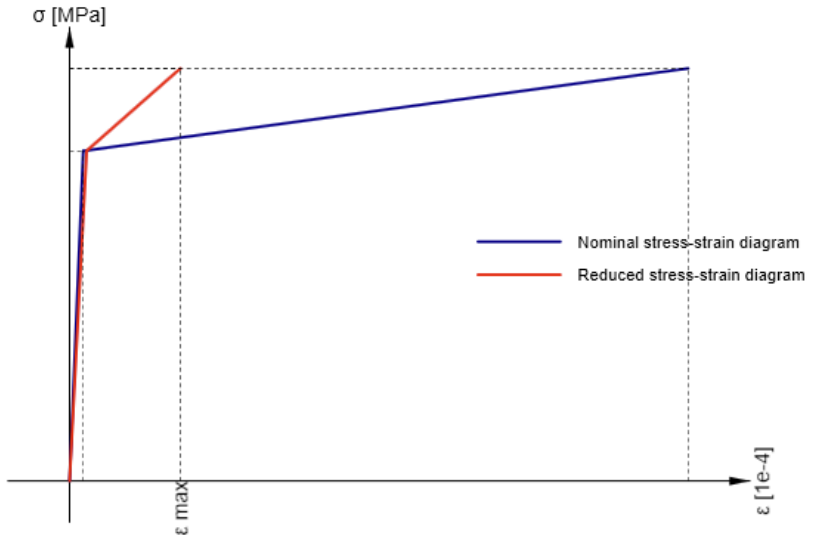
Additional reinforcement info:
Thickness proportional to force
Above yield Compression

Model changes in detail 3D CSFM

1. No bond in the concrete cover + half-planes at bar ends and bends
2. Bolt material – elastic stiffness and ductility of anchors







Anchoring: what's new

Much faster: the new reinforcement tools combined with sync from Connection

1

Reinforcement definition

Improved reinforcement operations

Reinforcement templates

Dimensions in the scene

2

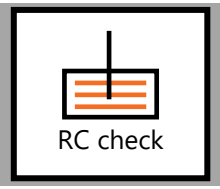
Eurocode checks

Tensile anchor checks included

3

Output

Bill of materials (BOM)



Click **RC check** to apply for a 14-day trial

What should anchoring focus on next?

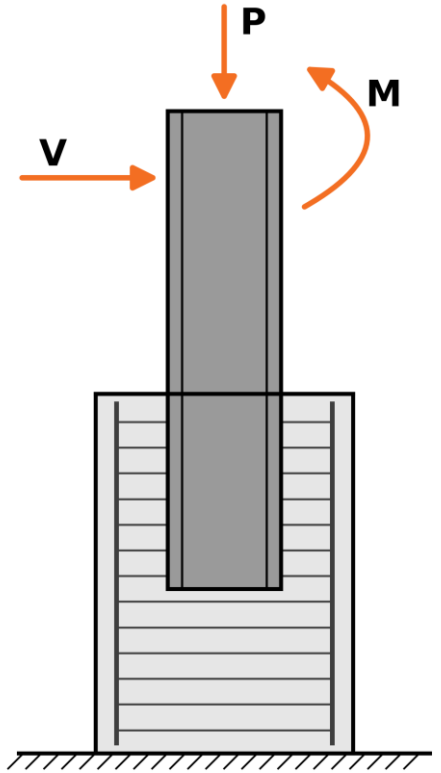
A Reinforcement pre-design tool

B Steel members embedded directly in concrete

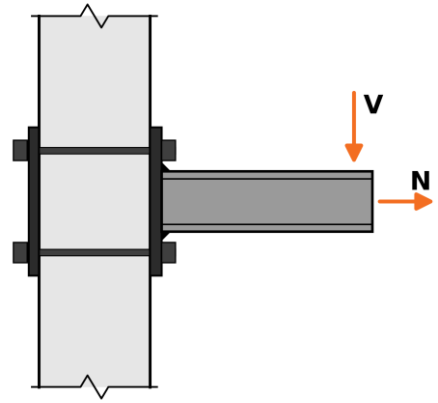
C Through anchors with a backing plate

D Catalogue of anchors from manufacturers

Vote now in the poll



B



C

v26.1

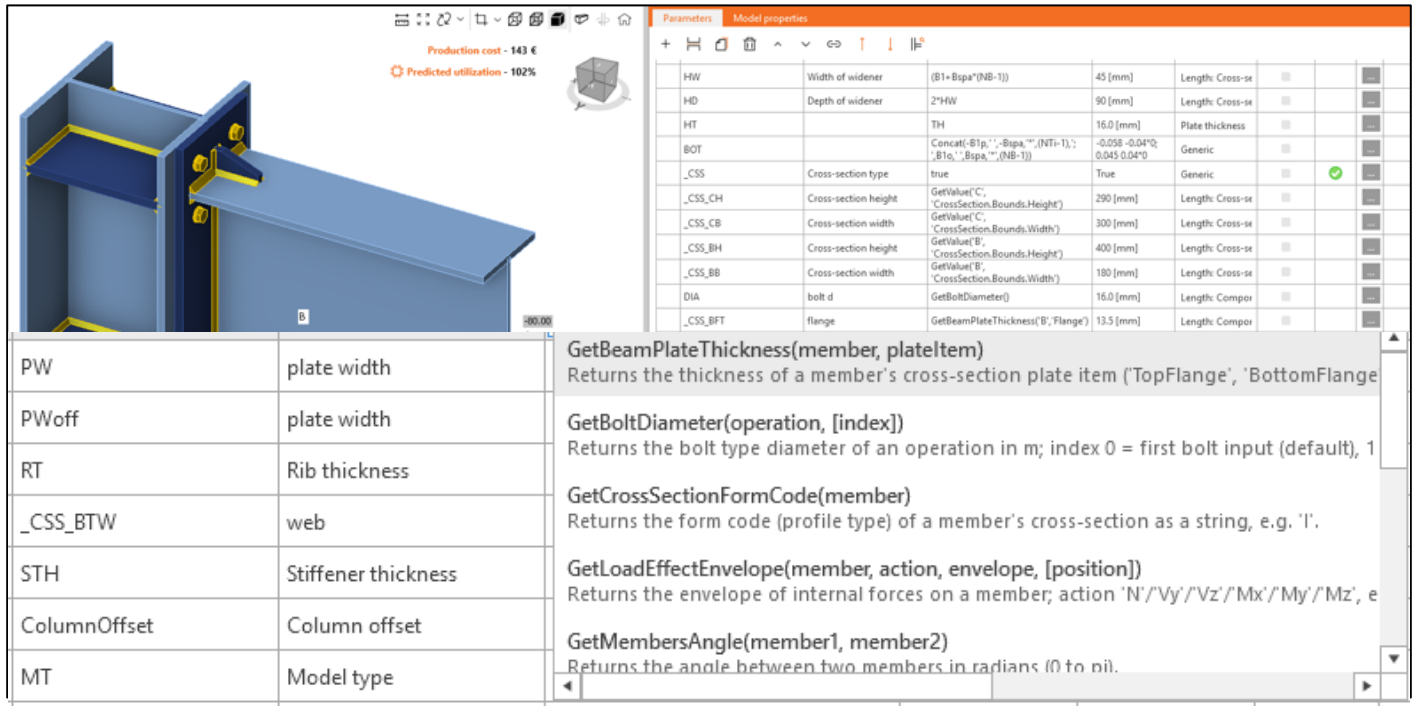
IDEA StatiCa®

Parametric templates & developer mode

Developer mode: Function and values suggestions (whisper)

1 Code completion

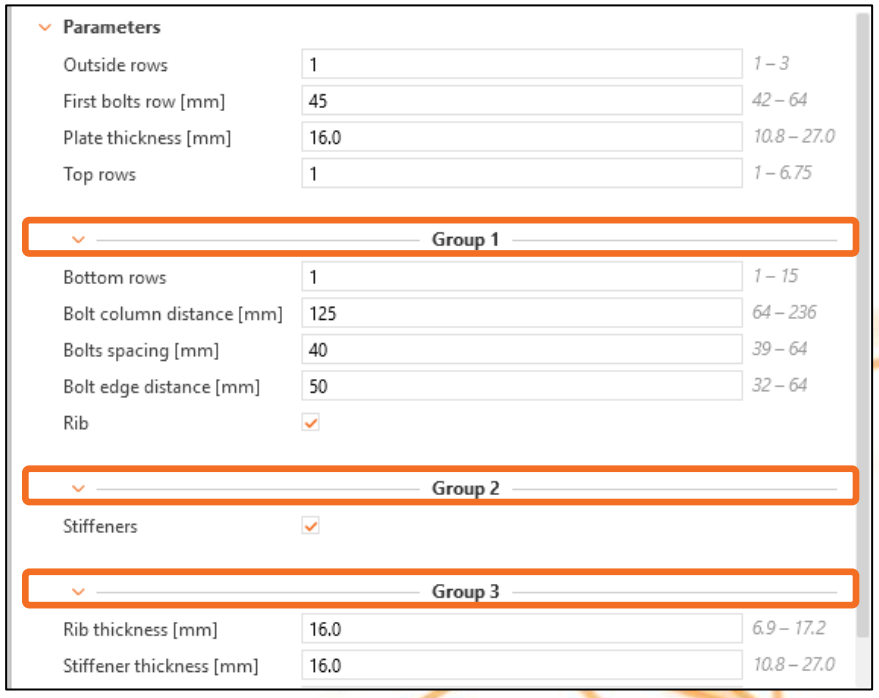
Function suggestions and expected values shown directly inside the object arguments



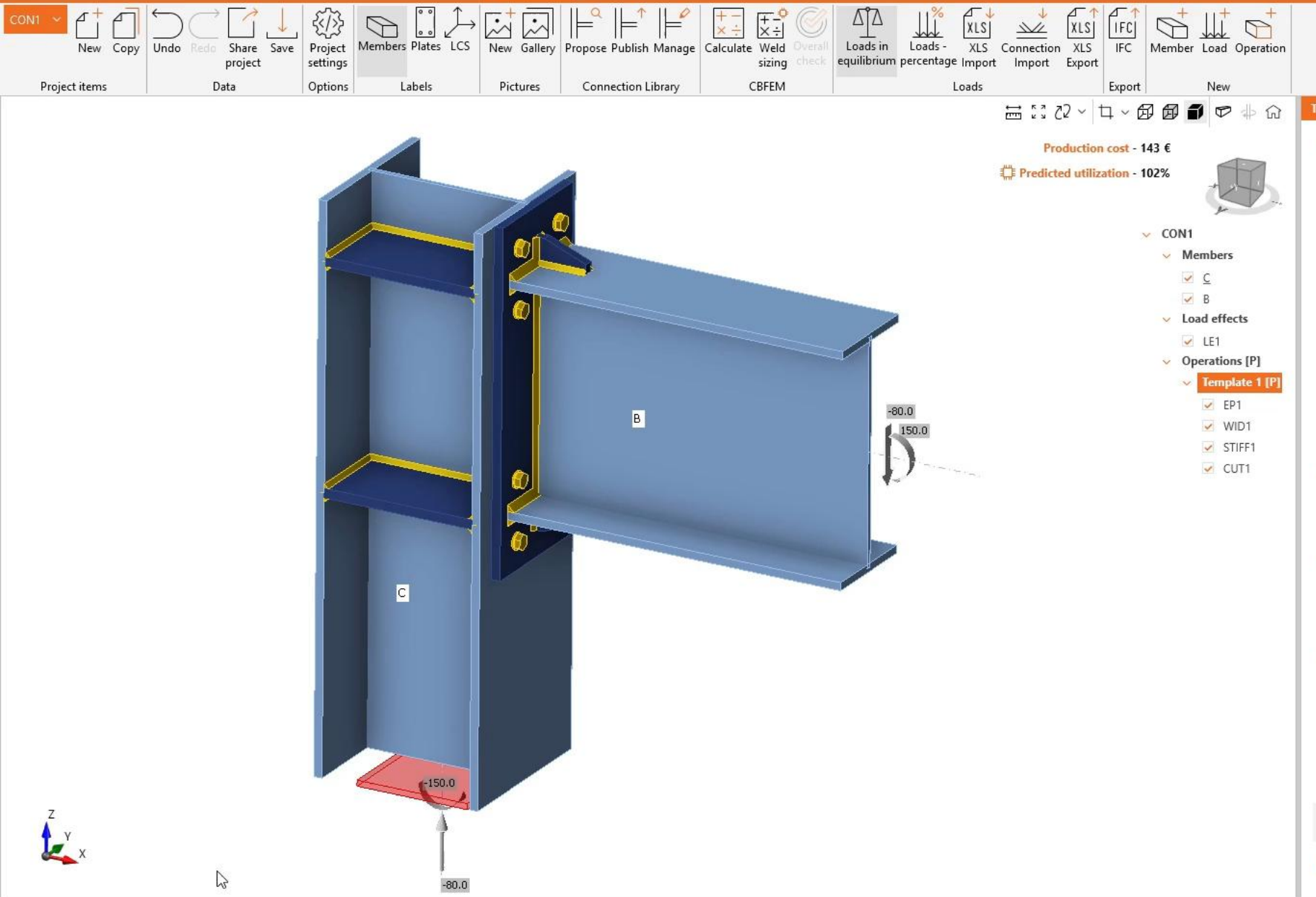
Developer mode, Parameters tab

2 Parameter grouping

Collapsible groups keep large templates readable



Template panel with parameter groups



Template | Weld sizing | Explode

Parameters

Outside rows	1	1 – 3
First bolts row [mm]	45	42 – 64
Plate thickness [mm]	16.0	10.8 – 27.0
Top rows	1	1 – 6.75
Bottom rows	1	1 – 15
Bolt column distance [mm]	125	64 – 236
Bolts spacing [mm]	40	39 – 64
Bolt edge distance [mm]	50	32 – 64
Rib	☑	
Stiffeners	☑	
Rib thickness [mm]	16.0	6.9 – 17.2
Stiffener thickness [mm]	16.0	10.8 – 27.0
Column offset [mm]	95	≤ 290

Welds

Weld sizing method	To capacity estimation
Material	S 355

Bolts

Type	M16 8.8
Shear plane in thread	☑
Shear force transfer	Bearing - tension/shear interaction

Plates of manufacturing operations

Material	S 355

Predicted utilization 102%

This real-time prediction uses simplified inputs; always verify results with a full calculation.
Learn more

13°C Slunečno
Search
9:35 AM 9/29/2026

v26.1

IDEA StatiCa®

Using API to automate Connections

Connection API in a nutshell

1

What is an API?

An application programming interface: your own code controls IDEA StatiCa Connection

2

No extra license

Included in every IDEA StatiCa license

3

Why use it?

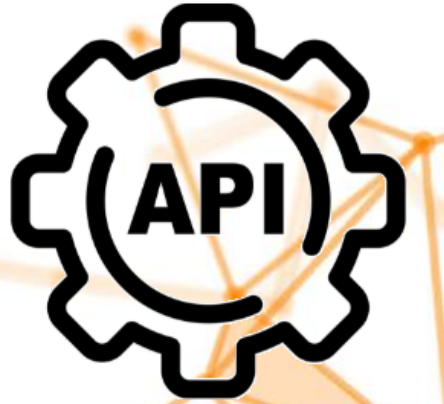
Instead of repeating the same task manually, automate it by a few lines of code, or let AI write them.

4

Who is it for?

Anyone with basic coding perception and an interest in automation





Connection API modelling

1 Prompt

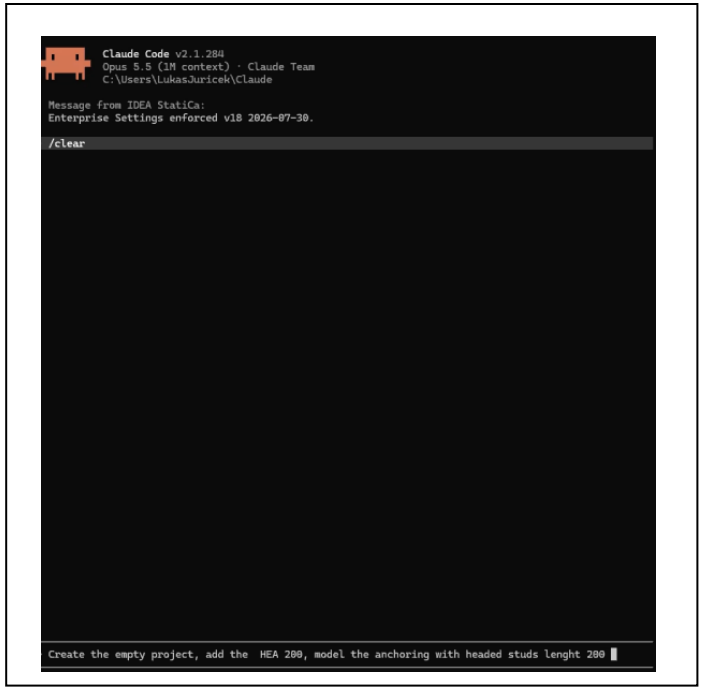
Joint described in an AI prompt

2 Connection API

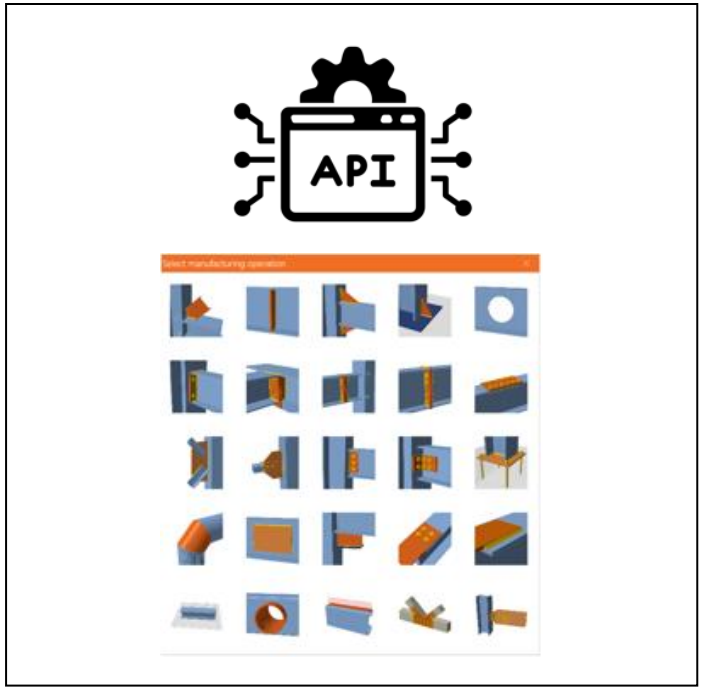
Members and operations created via the API

3 Designed connection

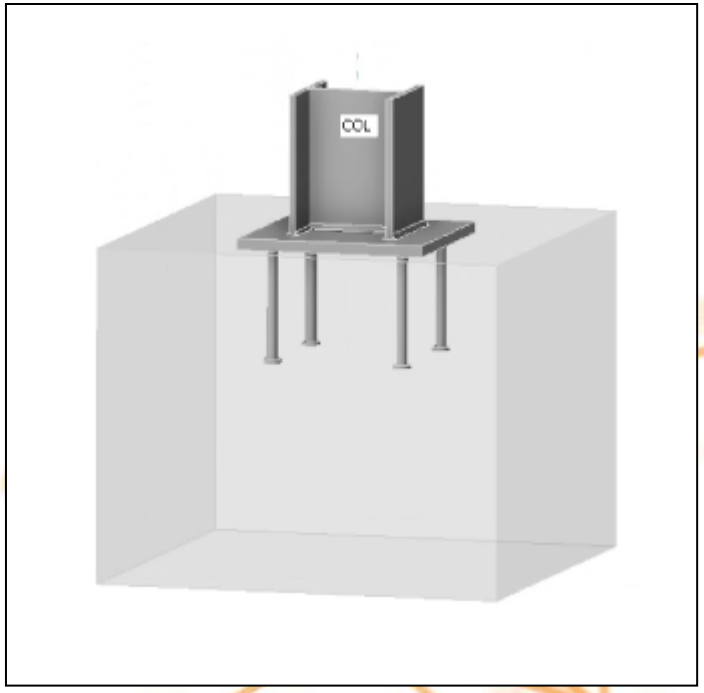
Model ready in IDEA StatiCa Connection



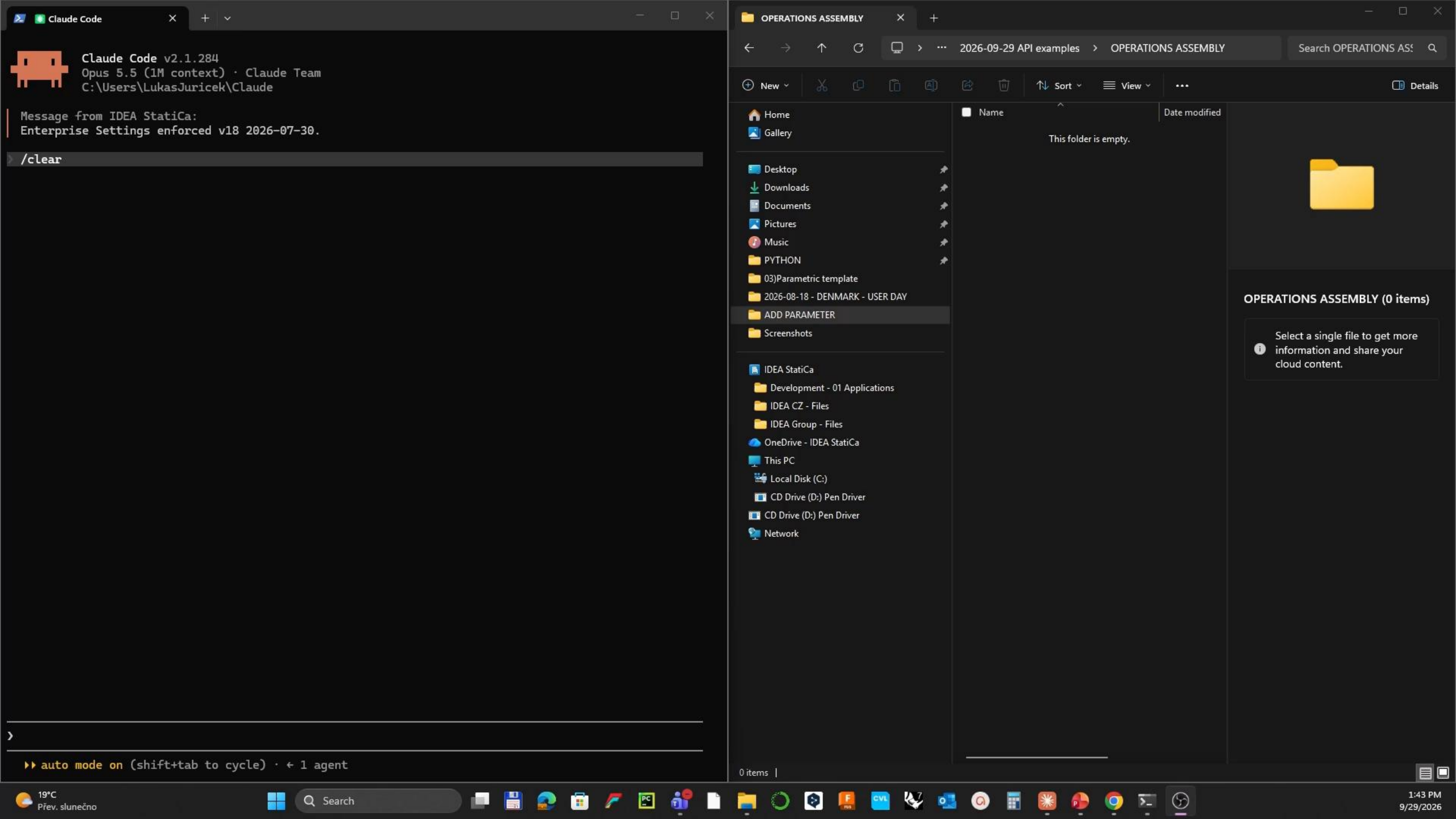
Prompt entered by the user



API call and manufacturing operations



Generated connection model


Claude Code
Claude Code v2.1.284
Opus 5.5 (1M context) · Claude Team
C:\Users\LukasJuricek\Claude
Message from IDEA StatiCa:
Enterprise Settings enforced v18 2026-07-30.
/clear
auto mode on (shift+tab to cycle) · ← 1 agent
OPERATIONS ASSEMBLY
2026-09-29 API examples
OPERATIONS ASSEMBLY
Search OPERATIONS ASS
New
Sort
View
Details
Home
Gallery
Desktop
Downloads
Documents
Pictures
Music
PYTHON
03)Parametric template
2026-08-18 - DENMARK - USER DAY
ADD PARAMETER
Screenshots
IDEA StatiCa
Development - 01 Applications
IDEA CZ - Files
IDEA Group - Files
OneDrive - IDEA StatiCa
This PC
Local Disk (C:)
CD Drive (D:) Pen Driver
CD Drive (D:) Pen Driver
Network
Name
Date modified
This folder is empty.
OPERATIONS ASSEMBLY (0 items)
Select a single file to get more information and share your cloud content.
0 items
19°C
Přev. slunečno
Search
1:43 PM
9/29/2026

Adding parameters

1 Existing model

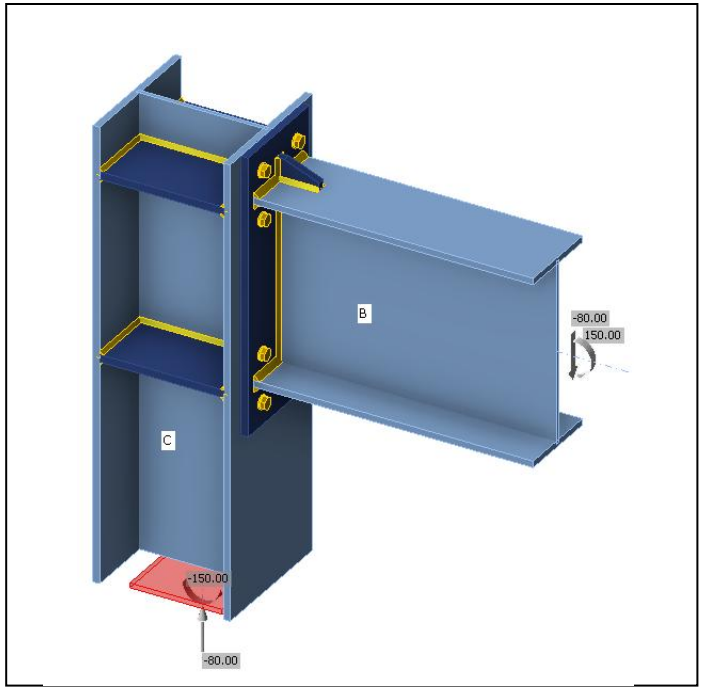
Connection before the parameter is added

2 API request

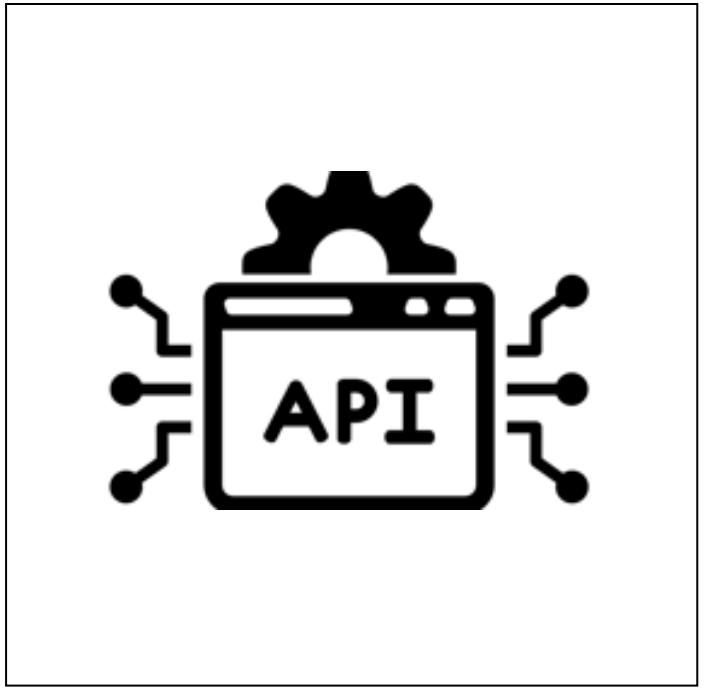
Parameter created by a POST request

3 New parameter

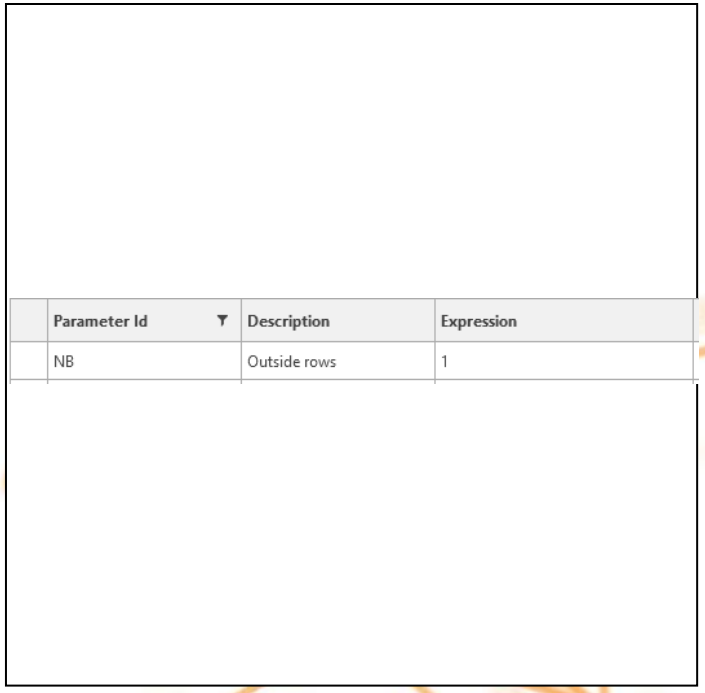
Listed in Parameters, no GUI input needed



Connection before the request



POST request to the parameters endpoint

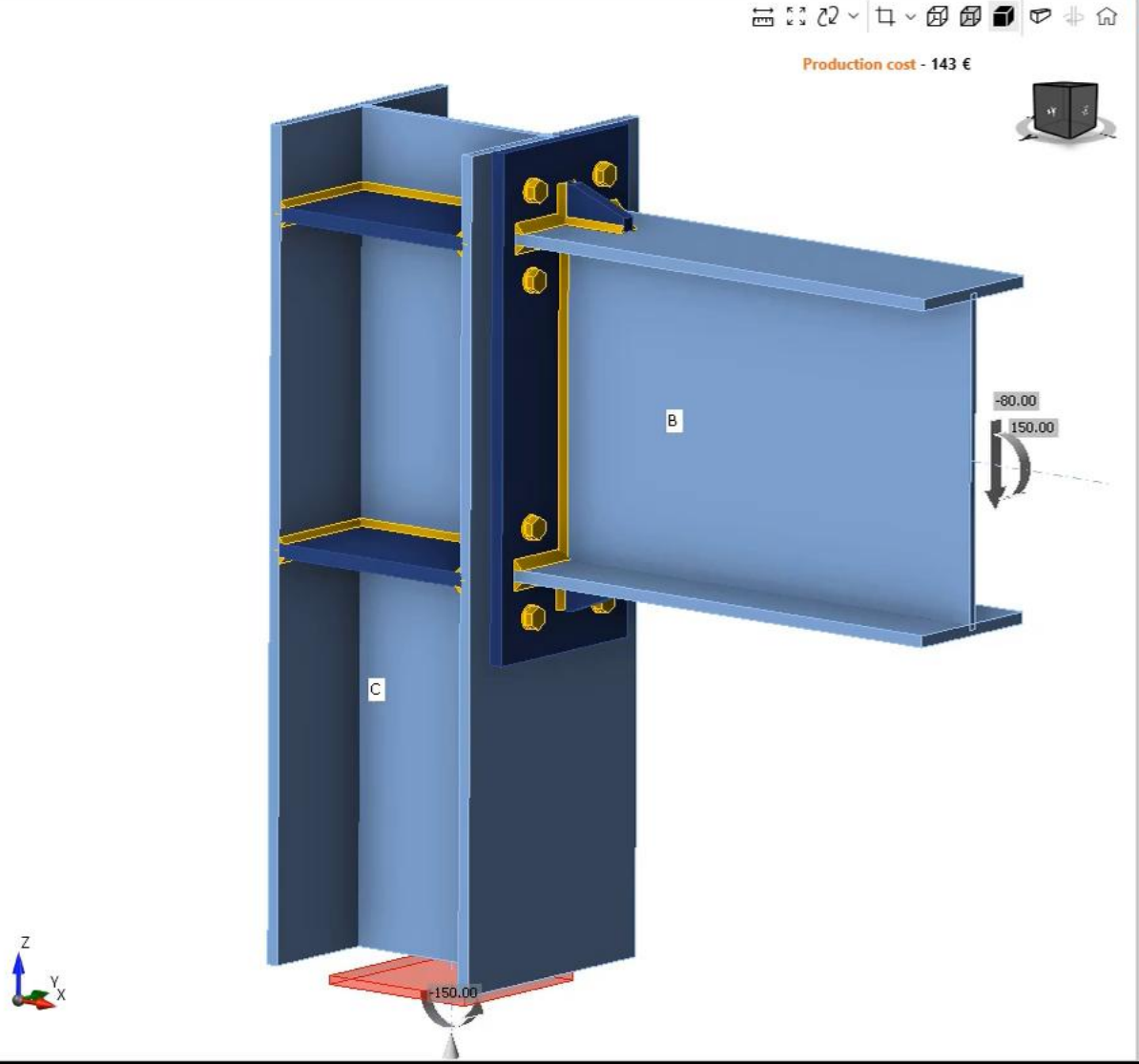


Parameter Id	Description	Expression
NB	Outside rows	1

New parameter in the Parameters table

CON1 | New | Copy | Undo | Redo | Share project | Save | Model | Conn Data | Save As | Apply | Simple

Project items | Data | IOM | Templates



Parameters | Model properties | Load defaults

Parameter Id	Description	Expression	Value	Value type	Visible	Valid	Default Expres

Add parameters to the connection

Press **F1** for more info

Reference Guide

Design code: EN 1993-1-8:2005 Analysis: Stress, strain Load effects: In equilibrium Units: mm

Grasshopper: consistency with API

Grasshopper now matches the API, but manufacturing operations are not covered yet

1

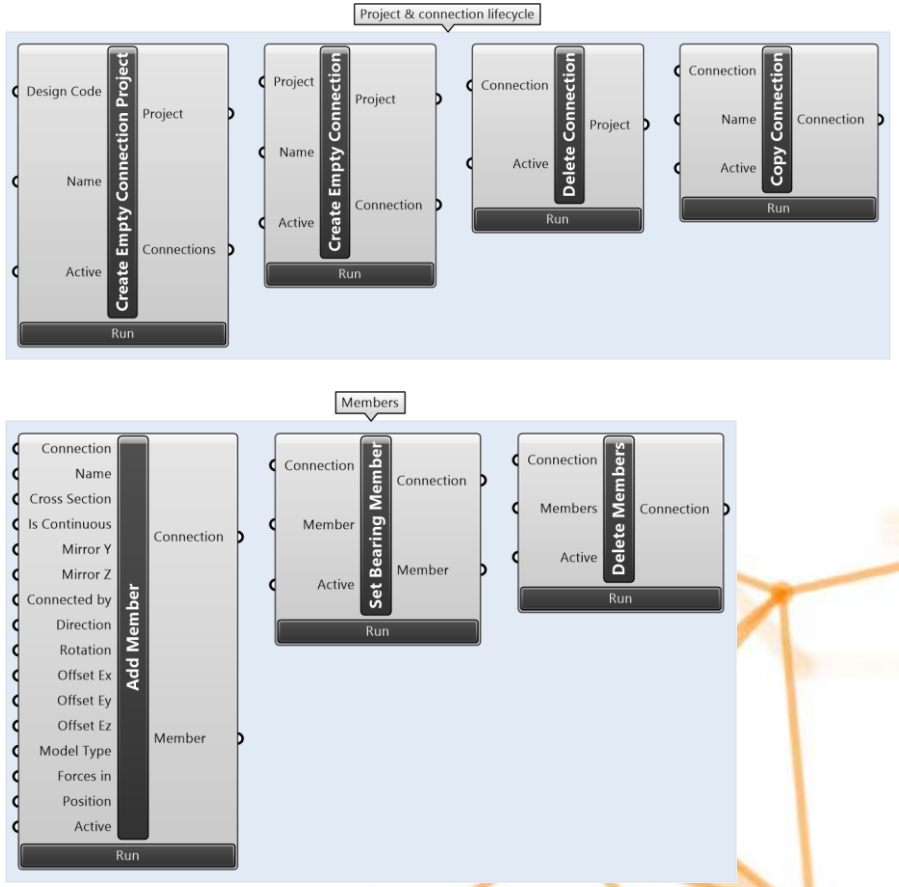
Grasshopper mirror same functionality as API

Grasshopper is now as mature and proven as the API solution

2

Still missing: manufacturing operations

Plates, bolts and welds cannot be added from Grasshopper yet



Automated BIM link installer

One configuration file installs the right BIM links on every workstation, unattended

links.yaml

```yaml
# true = install silently during setup

# Autodesk Revit
Revit2026: true
Revit2025: true

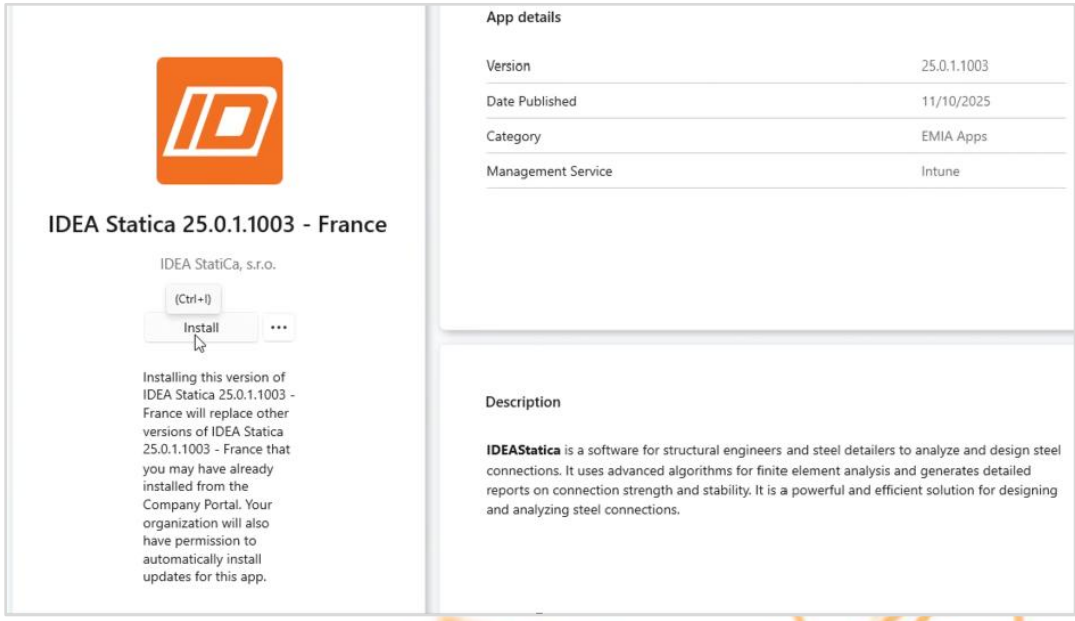
# Tekla Structures
LinkTekla2026: true

# Advance Steel
AS2026: false

# SDS/2
LinkSds22026: false
```

```
IDEAStatiCa_Setup.exe /quiet
LINKS_CONFIG=C:\deploy\links.yaml
```

COMPANY APP STORE (INTUNE)



"In key account conversations, this feature targets the IT champion — the person who decides how software gets rolled out."

Your next steps

Parametric templates

Try the simpler parametric templates on your next project

Ask your reseller to teach you



API

Start experimenting with the IDEA StatiCa API

Developer portal

API tutorials (support center)

API tutorials

Pick one and start this week

v26.1

IDEA StatiCa®

New Eurocode in IDEA StatiCa

Adoption of the new Eurocode

Published
EN 1993-1-8:2024

30 Sep 2027
national adoption, at the latest

30 Mar 2028
1st generation withdrawn

both editions valid

Each country adopts on its own schedule.

Any country can move earlier.

The new edition is in IDEA StatiCa.

Old and new, compared in one model.

Connection, Stability, (Section)

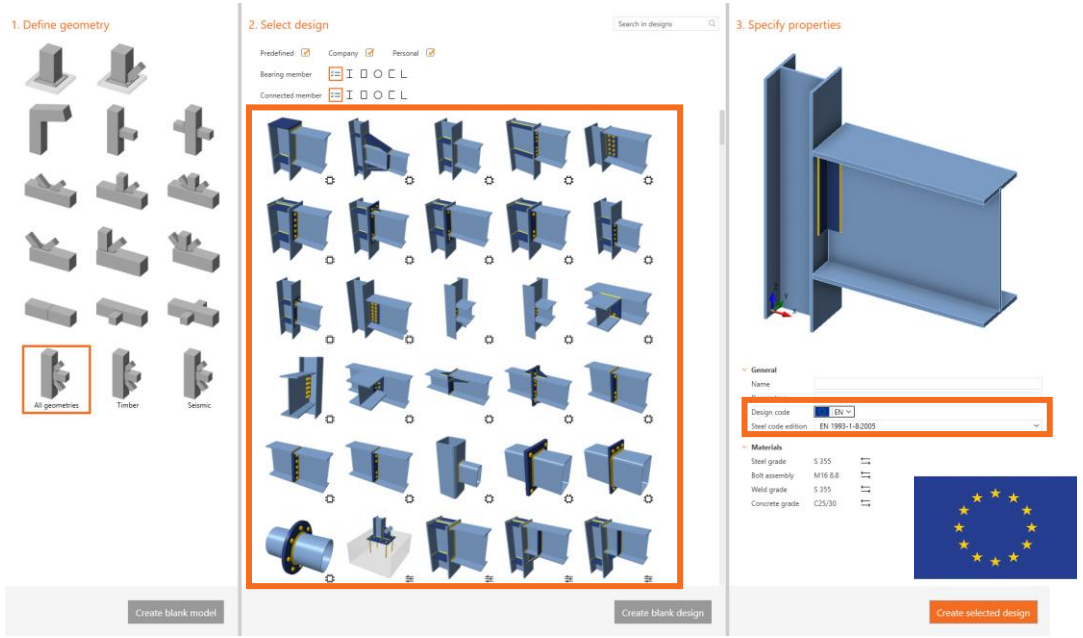
v26.1

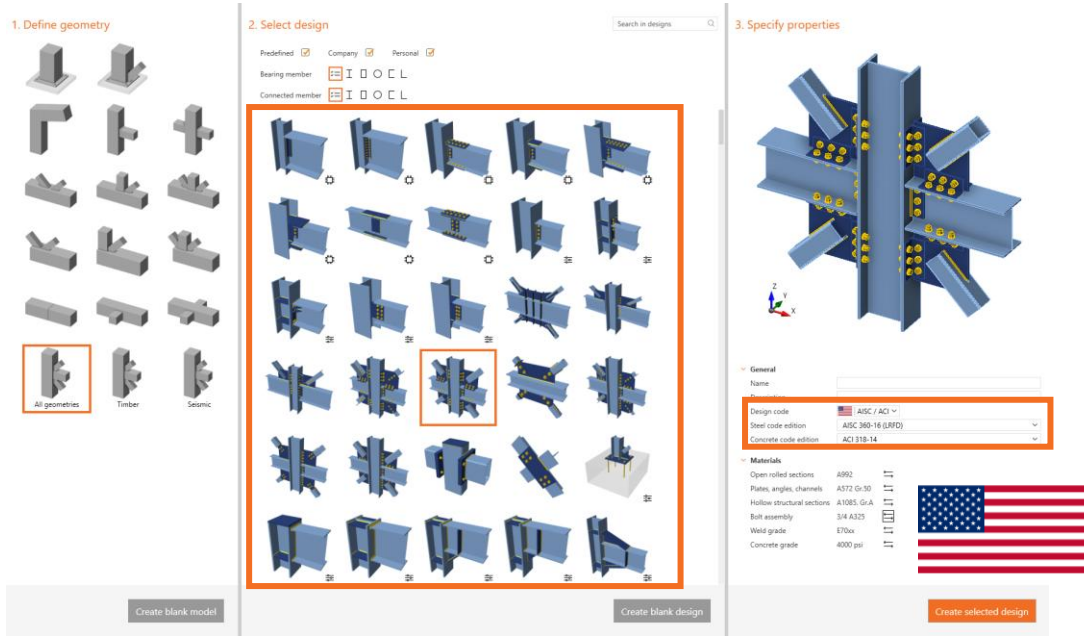
IDEA StatiCa®

Steel connections

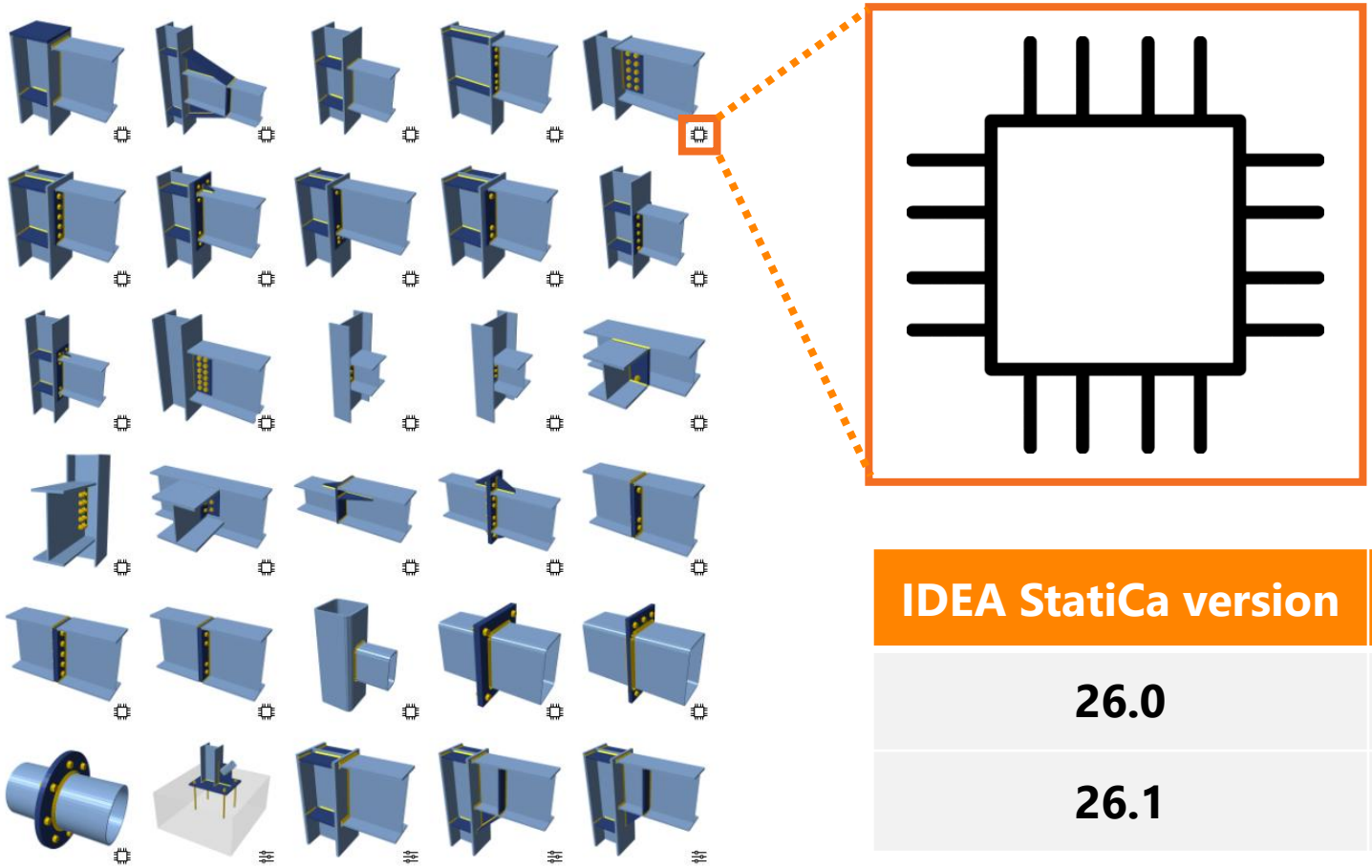
Localized templates in Wizard

Wizard proposes typical regional parametrized templates based on design code



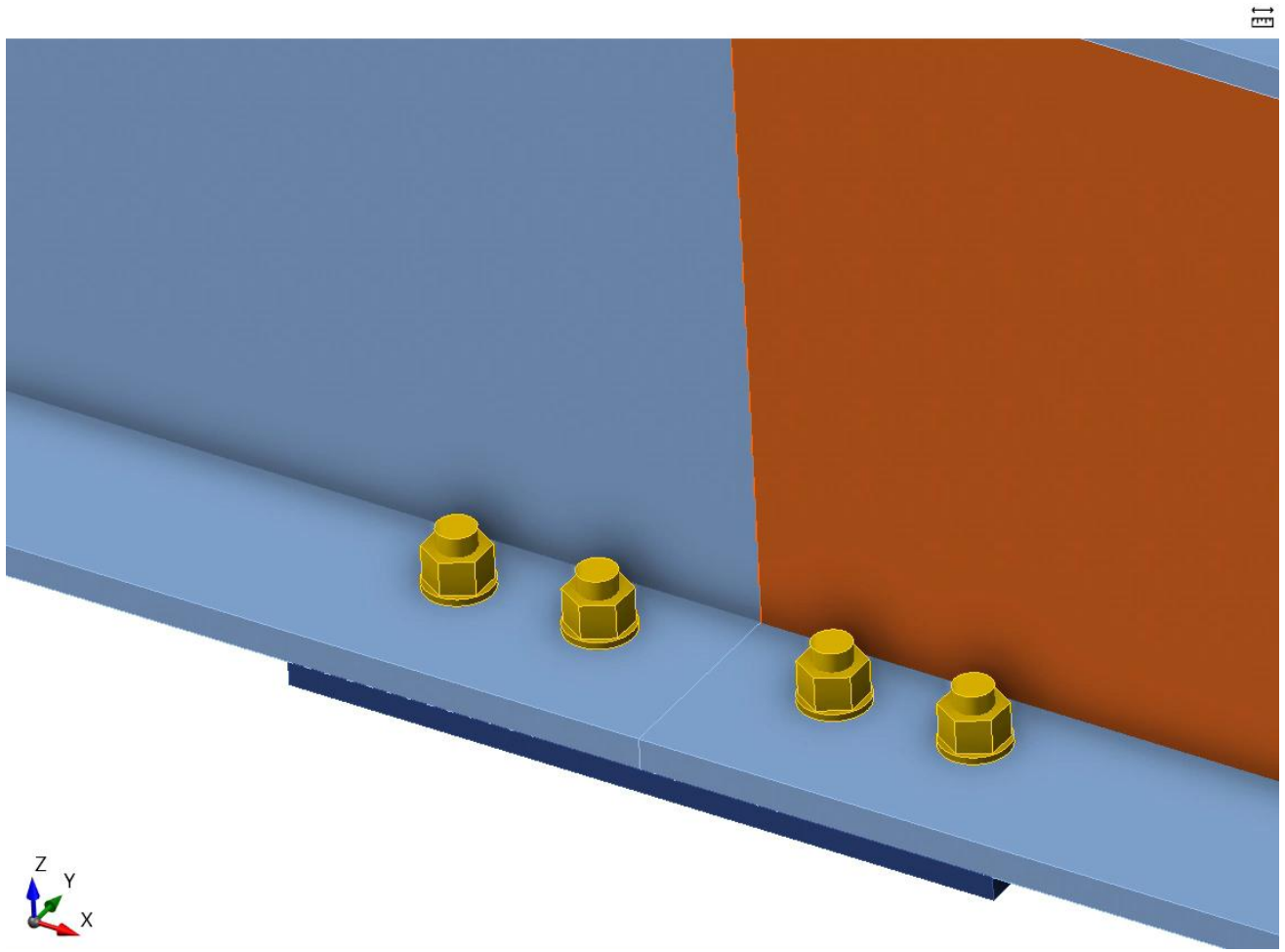


Machine learned templates with predicted utilization



IDEA StatiCa version	EC	AISC
26.0	13	1
26.1	26	8

Measurable position of bolts, pins and anchors



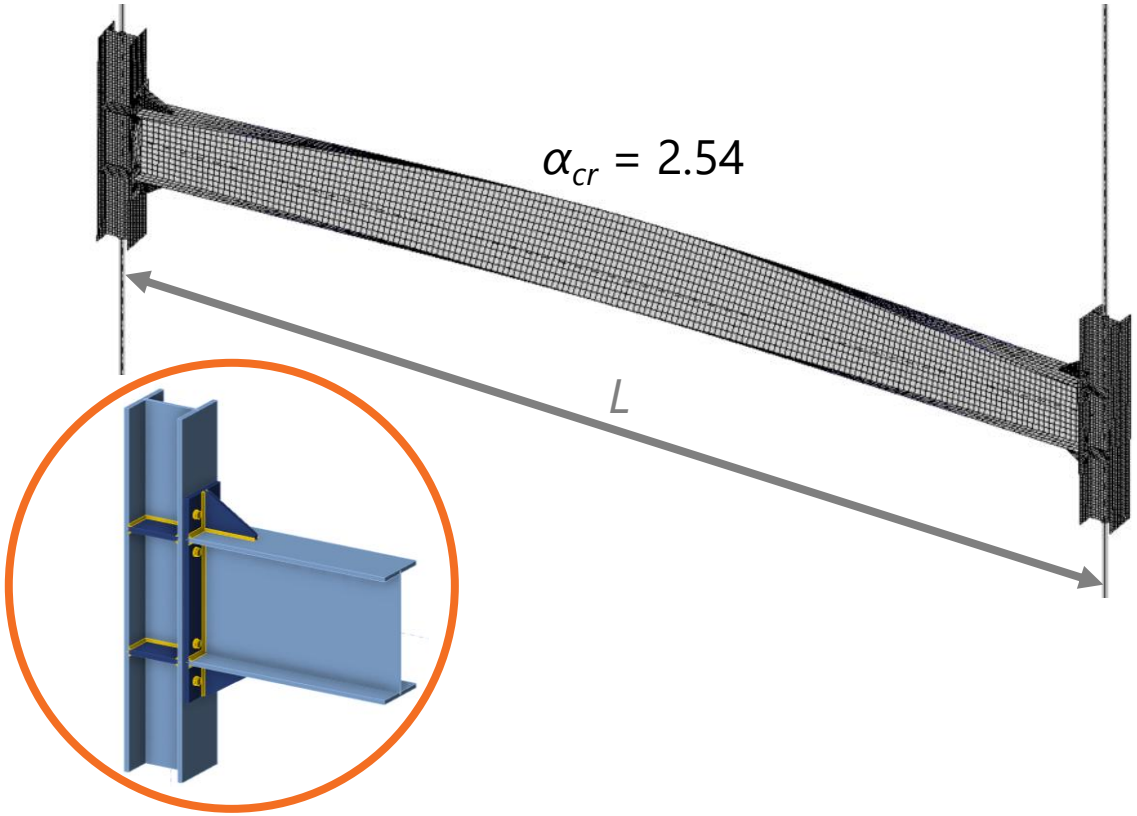
v26.1

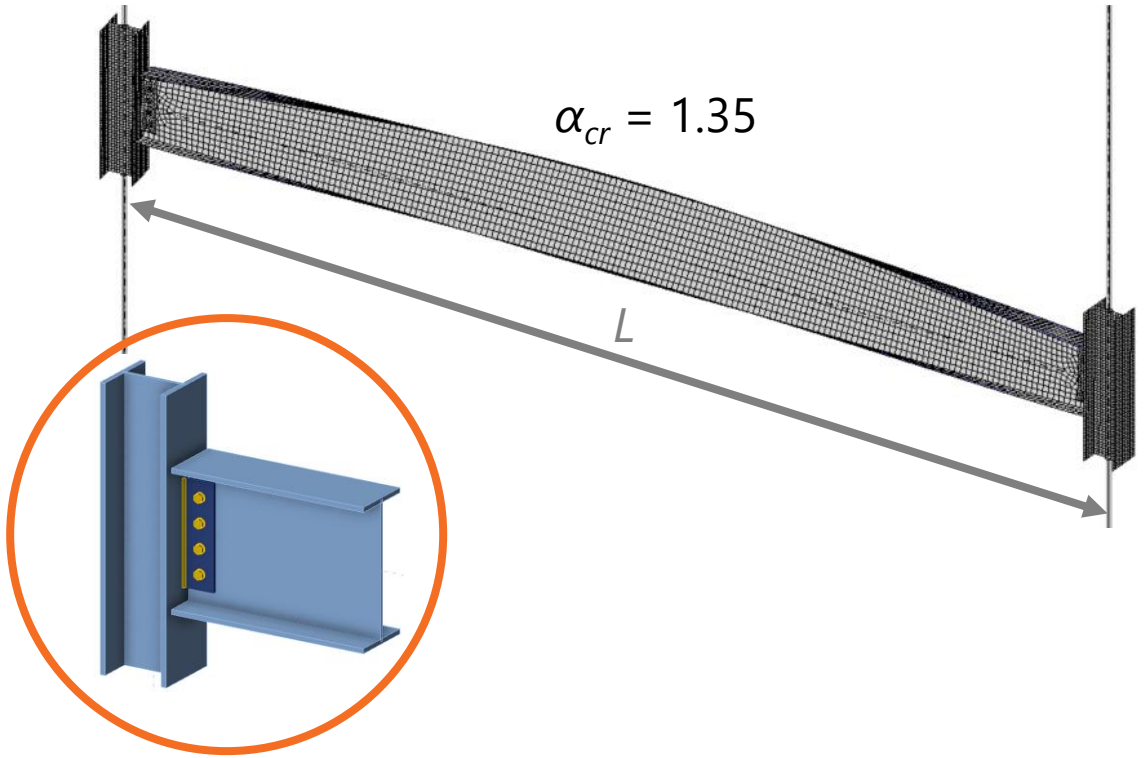
IDEA StatiCa®

Solving steel member stability

Calculate stability issues instead of guessing

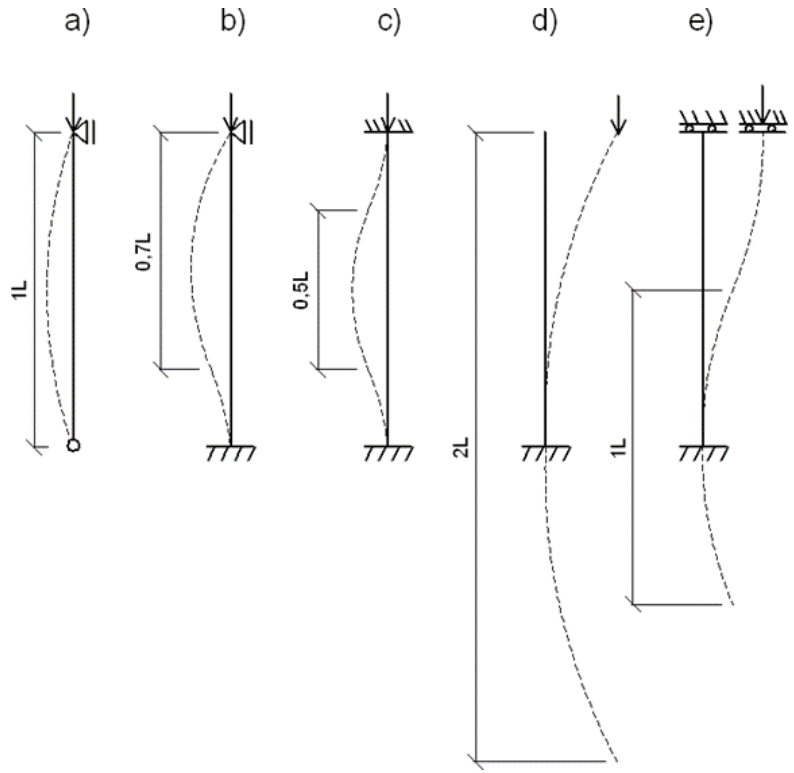
? How does the connection stiffness influence member stability?





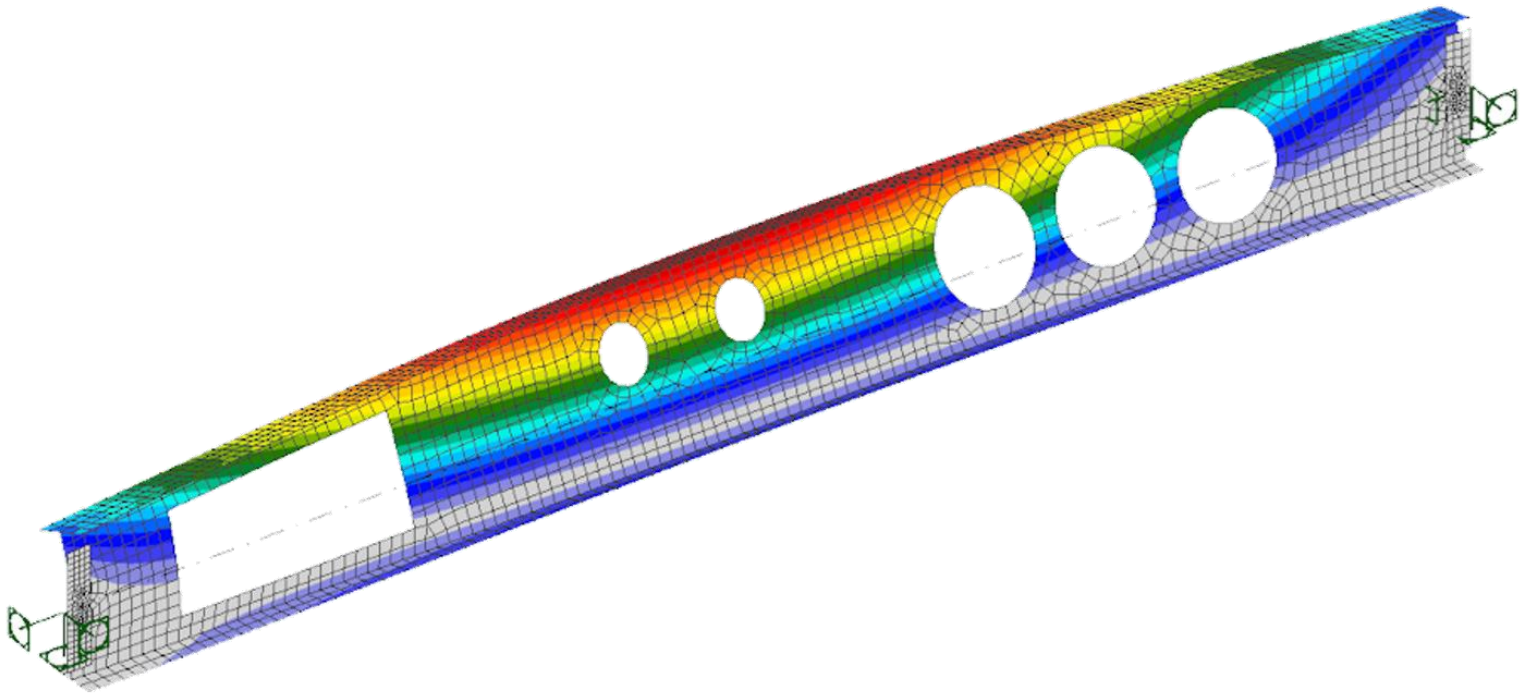
Calculate stability issues instead of guessing

? How to calculate the buckling length L_{cr} or the critical forces N_{cr}, M_{cr} for complex structures?



Calculate stability issues instead of guessing

? How to check the beam with large openings for lateral torsional buckling?



Calculate stability issues instead of guessing

- Stability includes real connection stiffness into the analysis leading to more realistic behaviour

- LBA gives the critical load factor α_{cr} . Calculate the critical force N_{cr} or the corresponding buckling length L_{cr}.
  No GMNIA needed

$$N_{cr} = \alpha_{cr} \cdot N_{Ed}$$

$$L_{cr} = \pi \sqrt{\frac{EI}{N_{cr}}}$$

- The GMNIA in Stability provides answers where design codes don´t provide the rules for stability checks

IDEA StatiCa Stability workflows

A. Standalone workflow

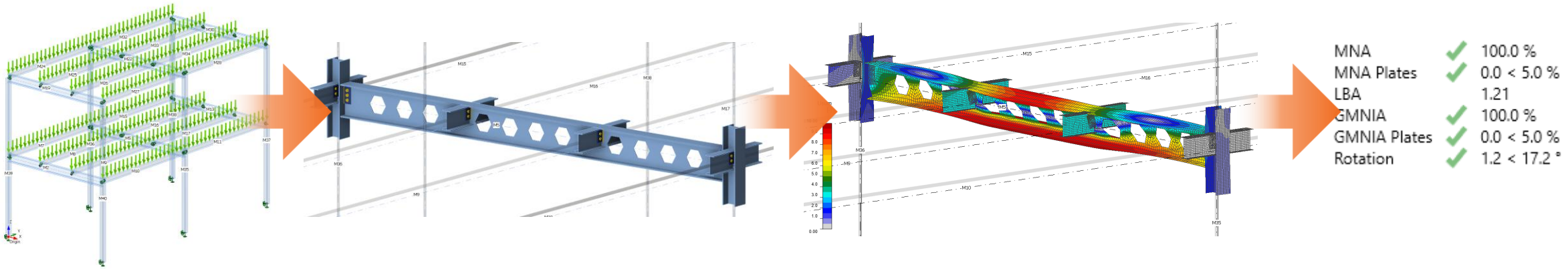
Step 1: Structure modelling + Loads + Linear analysis on 1D element structure

Step 2: Selection of CBFEM members + Connection design → MNA

Step 3: LBA → α_{cr} → Definition of imperfections

Step 4: Performing GMNIA → Checks for maximal plastic strain

Step 1 Step 2 Step 3 Step 4



IDEA StatiCa Stability workflows

B. Checkbot workflow

Checkbot

Step 1: Import loads + Linear analysis on 1D element structure

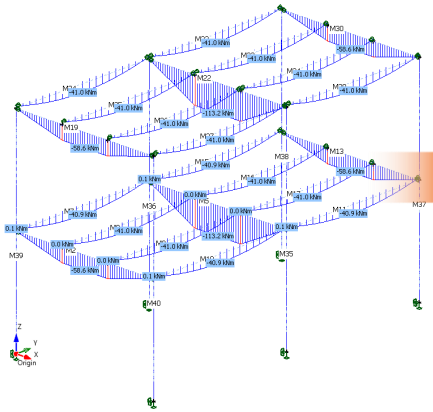
Step 2: Selection of CBFEM members + Connection design → MNA

Stability

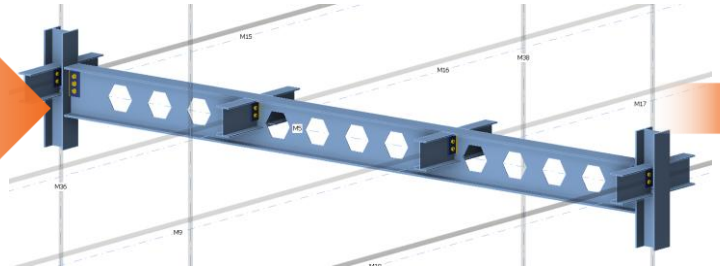
Step 3: LBA → Definition of imperfections

Step 4: Performing GMNIA → Checks for maximal plastic strain

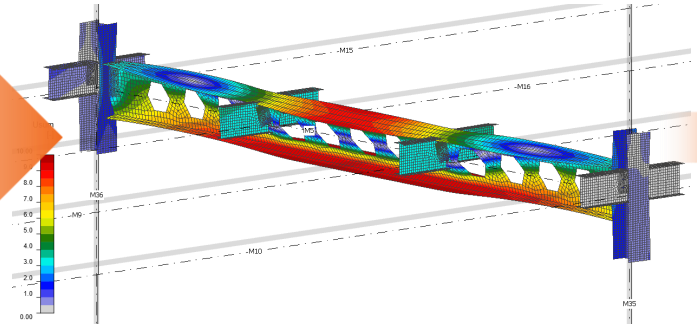
Step 1



Step 2



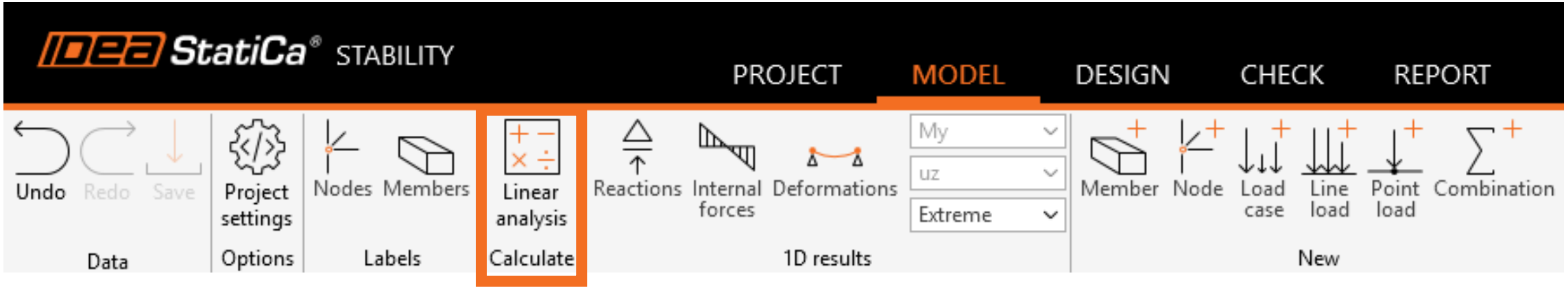
Step 3



Step 4

MNA	✓	100.0 %
MNA Plates	✓	0.0 < 5.0 %
LBA		1.21
GMNIA	✓	100.0 %
GMNIA Plates	✓	0.0 < 5.0 %
Rotation	✓	1.2 < 17.2 °

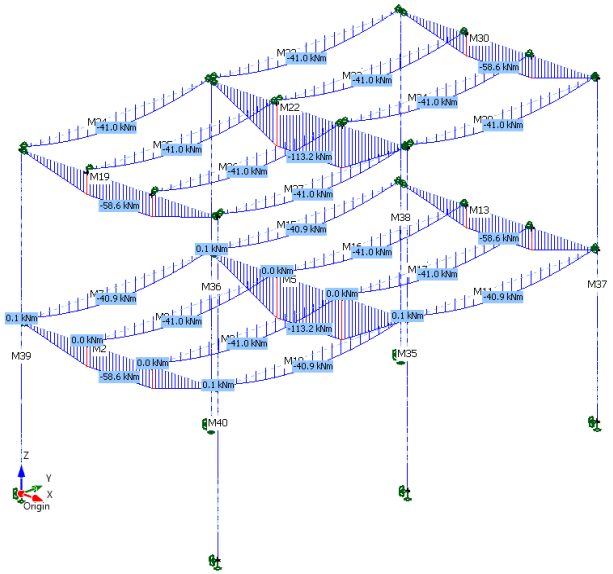
Step 1: Modelling of structure with 1D elements



MODEL tab serves for creation of the model structure using **1D elements**

Linear analysis is included for obtaining:

- distribution of internal forces – automatic export to Connection app
- reactions in supports
- deformations of the whole modeled structure



Undo Redo Save — Data

Project settings — Options

Nodes Members — Labels

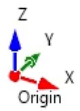
Linear analysis — Calculate

Reactions Internal forces Deformations — My / uz / Extreme — 1D results

Member Node Load case Line load Point load Combination — New



Members
Nodes
Load and Combinations
Load cases



Undo Redo Save — Data

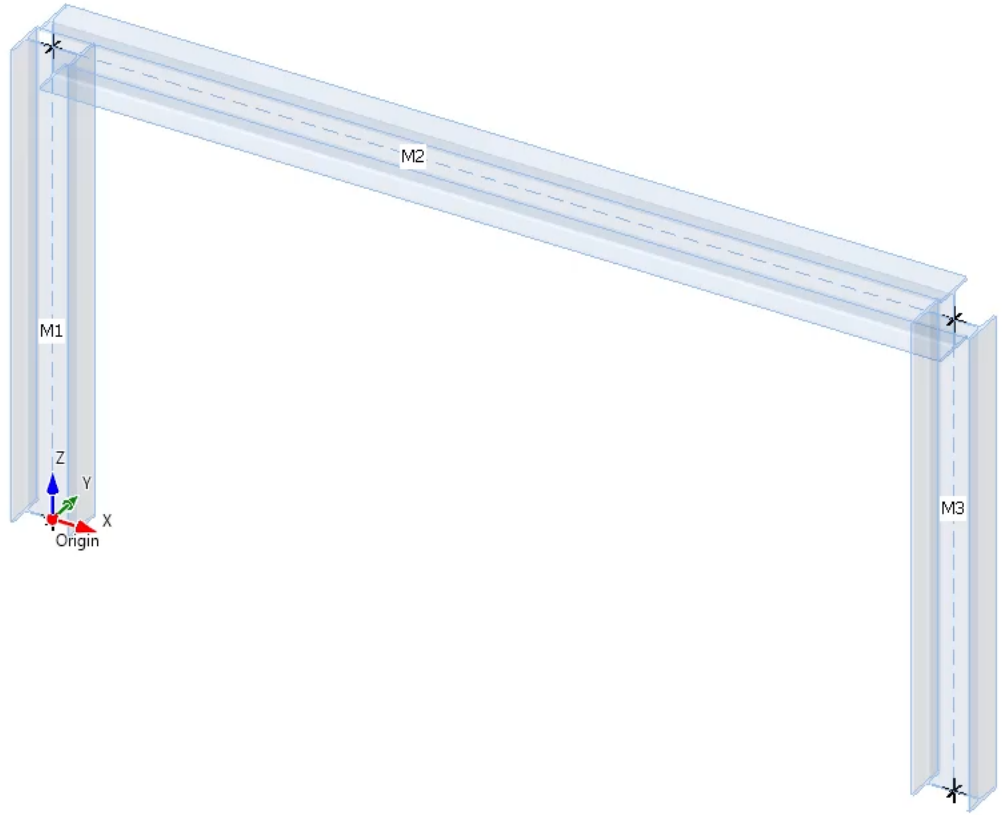
Project settings — Options

Nodes Members — Labels

Linear analysis — Calculate

Reactions Internal forces Deformations — My / uz / Extreme — 1D results

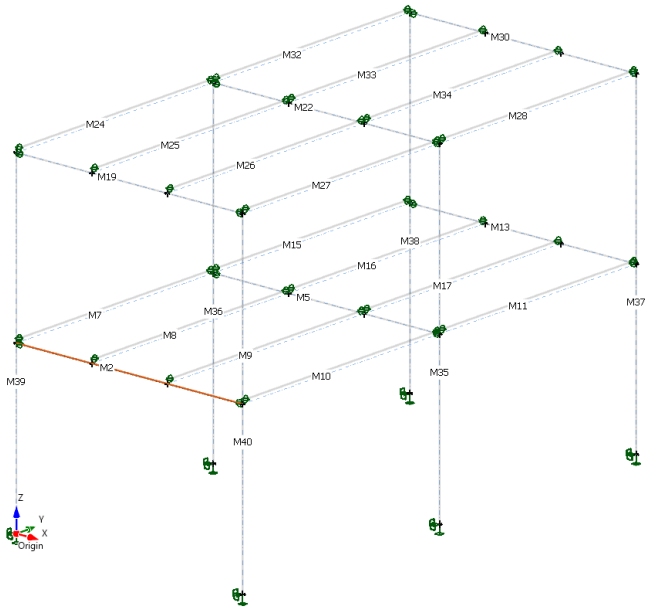
Member Node Load case Line load Point load Combination — New

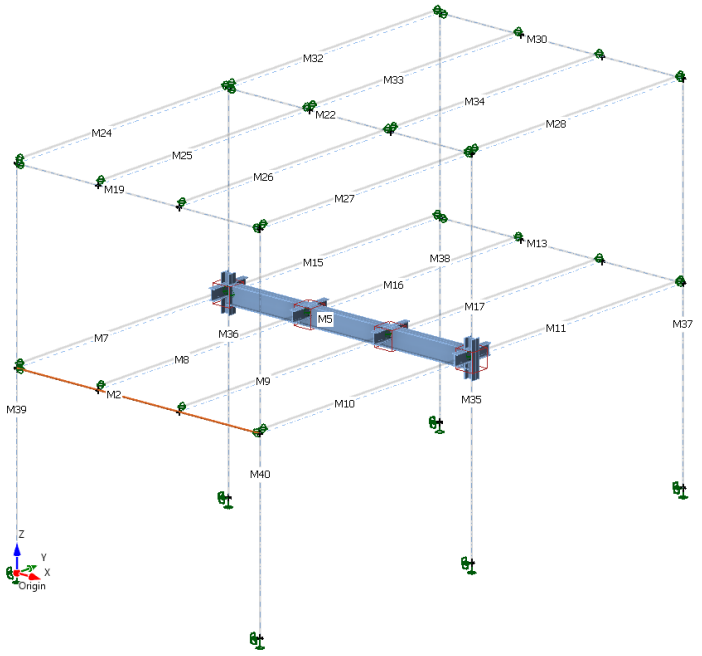


- Members
  - M1
  - M2
  - M3
- Nodes
- Load and Combinations
  - Load cases

Step 2: Selection of CBFEM Members, Connection design and Material Nonlinear Analysis (MNA)

Selection of CBFEM Members





CBFEM members and **stubs** of adjacent 1D members are modelled by **shell elements**

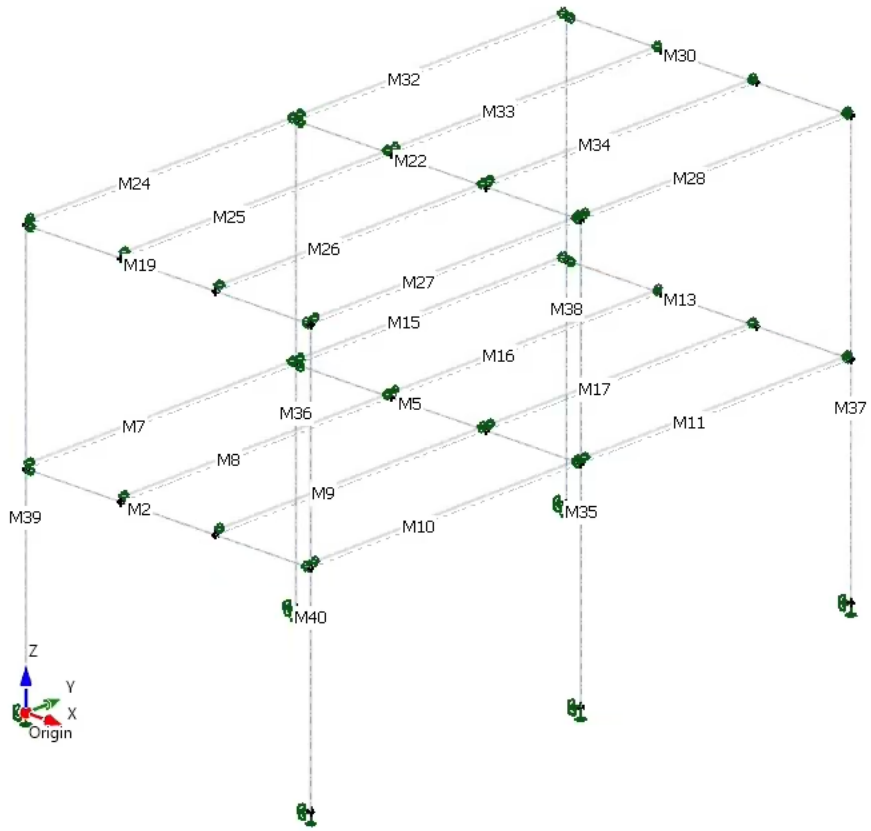


Selected **operations** can be added on **CBFEM members**

Undo Redo Save | Project settings | Members Connection Plates | Calculate Strain check | Reactions Internal forces Vz Extreme | Load case Line load Point load Combination CBFEM member Operation

Data | Options | Labels | MNA | 1D results | New

Linear calculation ✓ 100.0 %



M2
M7
M9
M10
M11
M13
M15
M16
M17
M8
M19
M24
M25
M26
M27
M28
M30
M32
M33
M34
M37
M38
M39
M40
M36
M22
M35
M5

Load and Combinations
Load cases
LC1 Self weight
LC2 Pernament Load
LC3 Live load

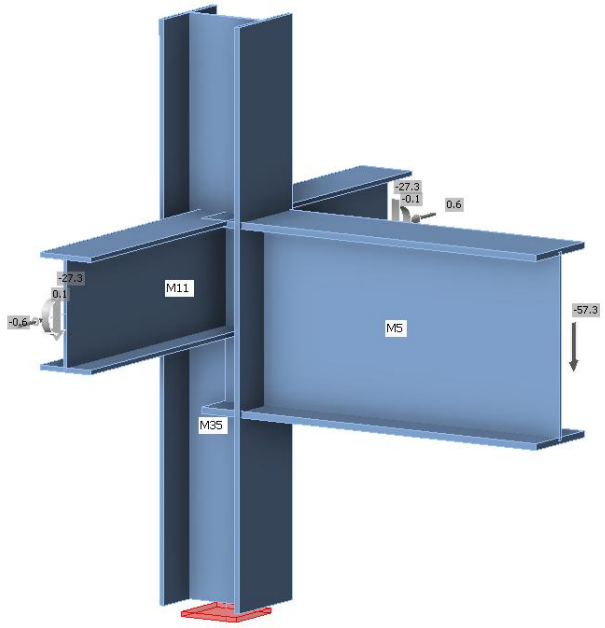
Combinations (1) ×
Copy Delete

Properties
Check type: ULS
Combination rule: 1.35*LC1 Self weight + 1.35*LC2 Pernament Load + 1.5*LC3 L

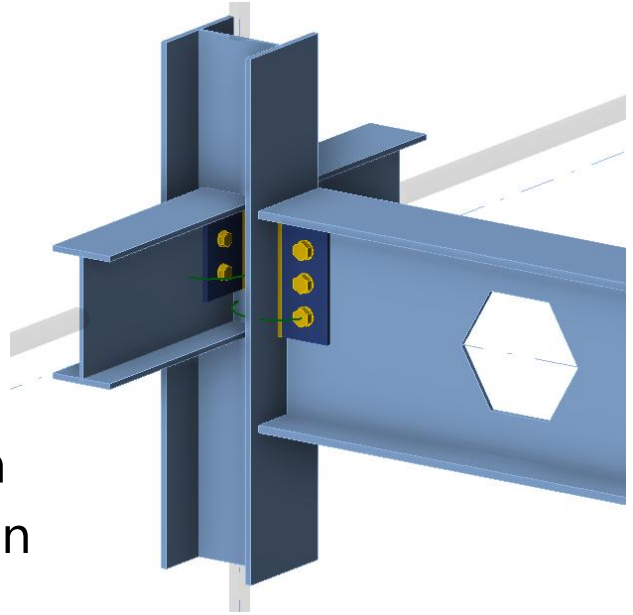
	Load case	Coefficient [-]
>	LC1 Self weight	1.35
	LC2 Pernament Load	1.35
	LC3 Live load	1.50

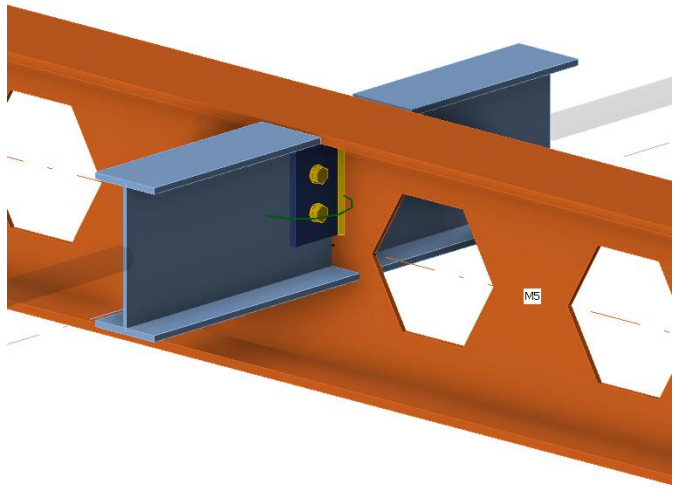
Step 2: Material Nonlinear Analysis (MNA)

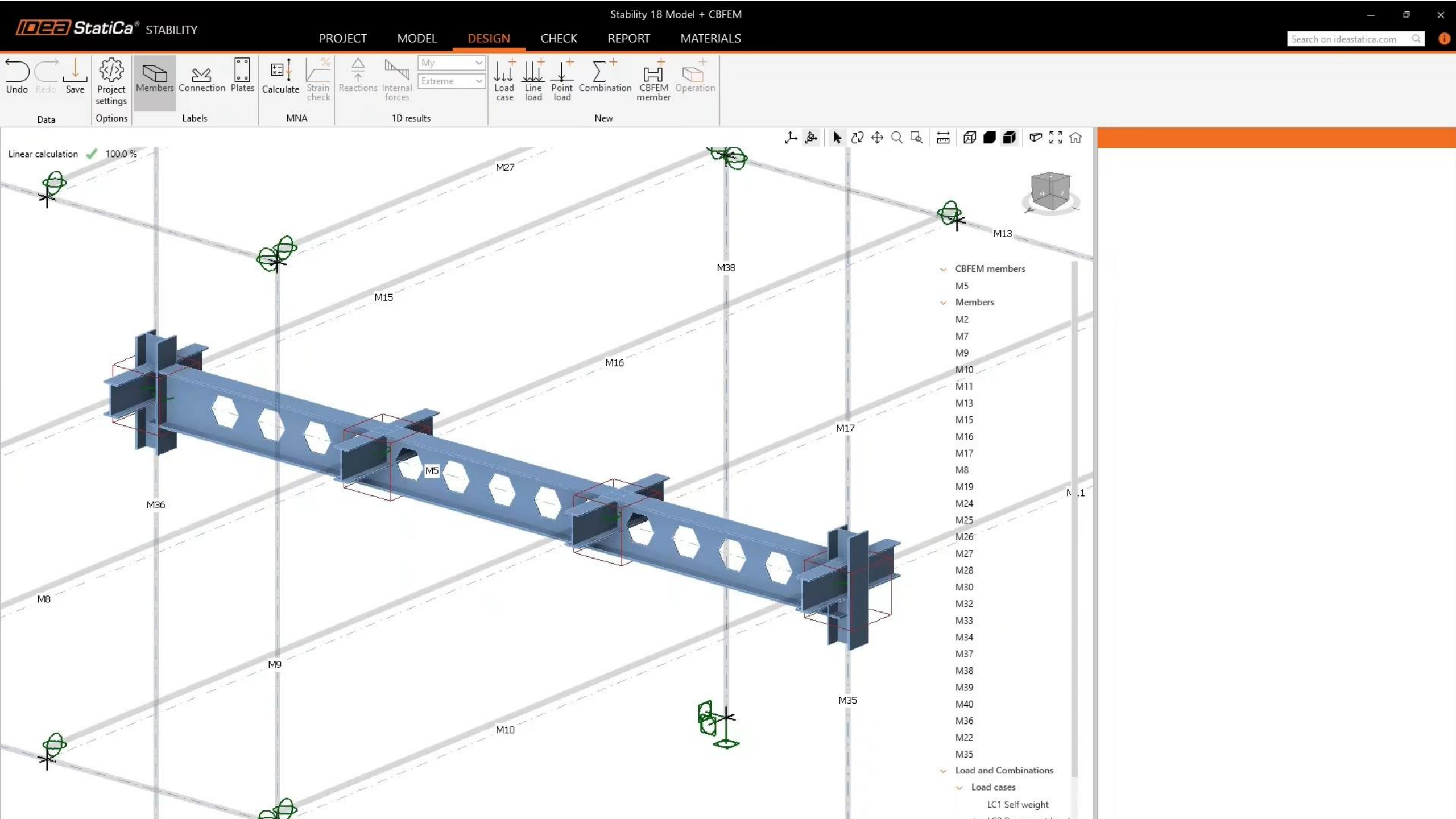
Selection of CBFEM Members → **Connection design**



Design in Connection app

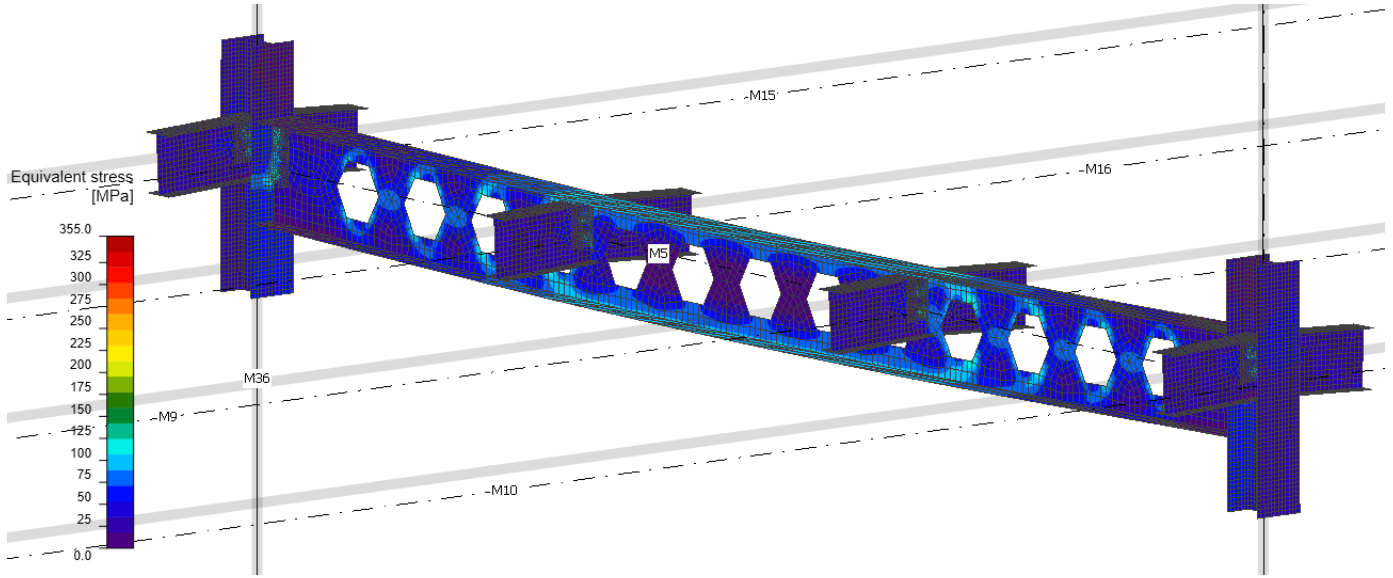





IDEA StatiCa STABILITY
Stability 18 Model + CBFEM
PROJECT
MODEL
DESIGN
CHECK
REPORT
MATERIALS
Search on ideastatica.com
Undo
Redo
Save
Data
Project settings
Options
Members
Connection
Plates
Labels
Calculate
Strain check
MNA
Reactions
Internal forces
My
Extreme
1D results
Load case
Line load
Point load
Combination
CBFEM member
Operation
New
Linear calculation
100.0 %
M27
M38
M13
M15
M16
M17
M5
M36
M8
M9
M10
M35
CBFEM members
M5
Members
M2
M7
M9
M10
M11
M13
M15
M16
M17
M8
M19
M24
M25
M26
M27
M28
M30
M32
M33
M34
M37
M38
M39
M40
M36
M22
M35
Load and Combinations
Load cases
LC1 Self weight

Step 2: Material Nonlinear Analysis (MNA)

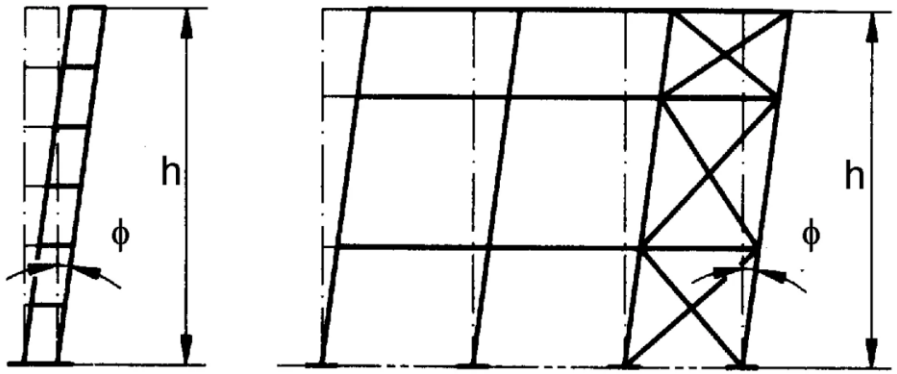
Selection of CBFEM Members → Connection design → **MNA Calculation**



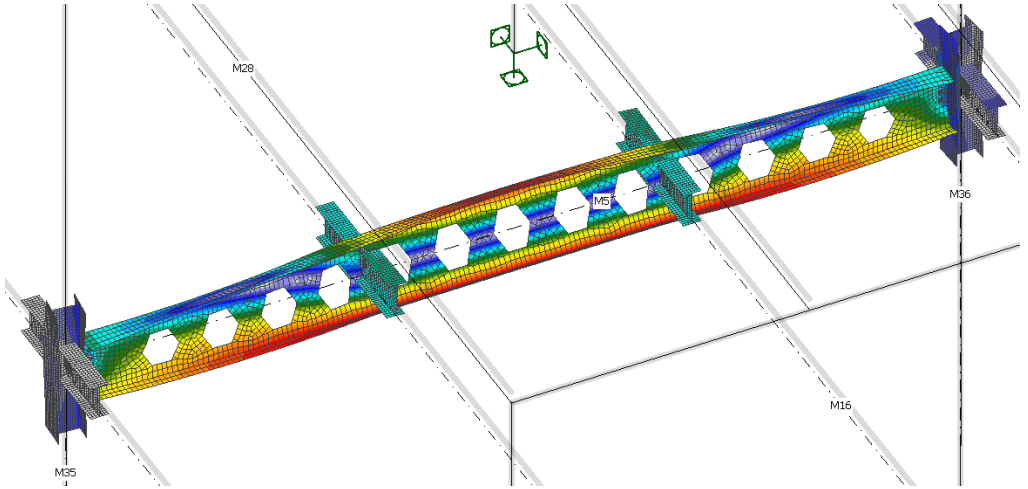
MNA	✓	100.0 %
MNA Plates	✓	0.0 < 5.0 %

STEP 3: LBA + DEFINITION OF IMPERFECTIONS

1. Global imperfections of the structure

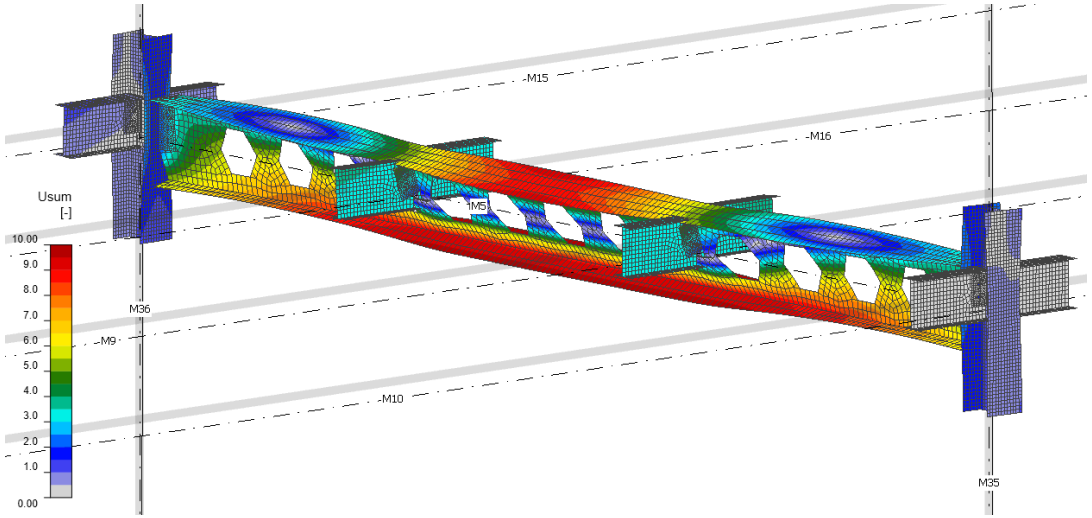


2. Local imperfections of members



Step 3: LBA + Definition of imperfections

LBA Calculation



Loads	Shape	Factor
CO1	1	10.09
	2	13.22
	3	13.24
	4	13.63
	5	13.71
	6	14.16

The lowest **critical load factor**

$\alpha_{cr} \geq 10$ for elastic design

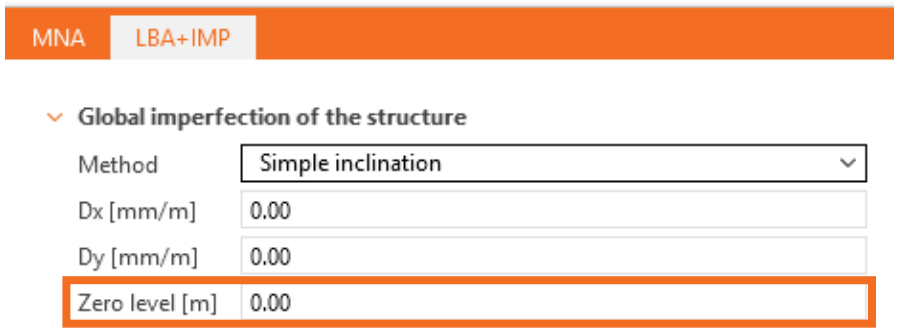
$\alpha_{cr} \geq 15$ for plastic design

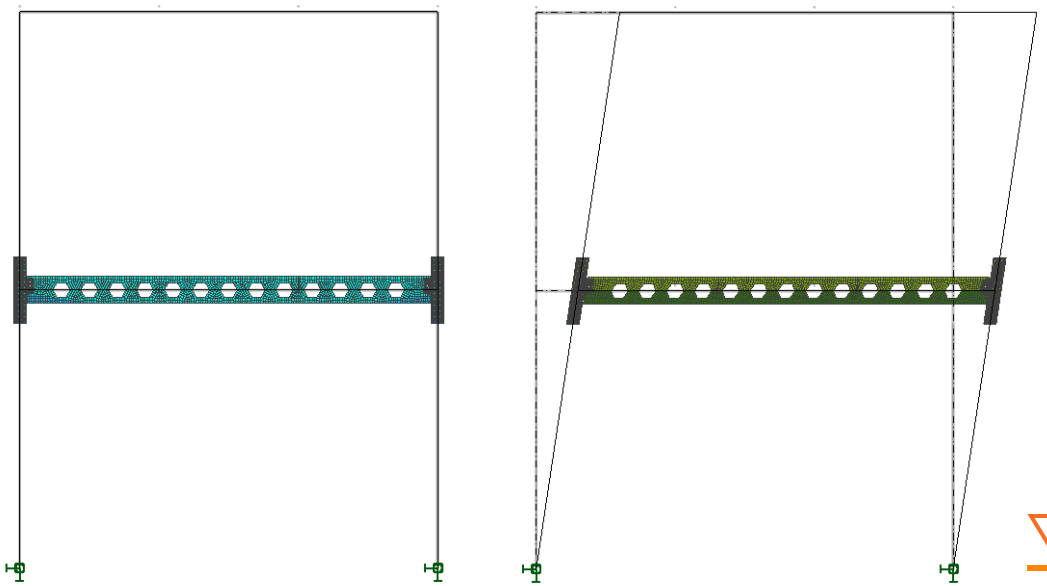
Second order effects may be **neglected.**

Step 3: LBA + Definition of imperfections

LBA Calculation → Definition of **Global (sway) Imperfections**

Define the global imperfection using the „**Simple inclination**“





Step 3: LBA + Definition of imperfections

LBA Calculation → Definition of **Global Imperfections**

Or based on **"Buckling shape"** obtained from LBA

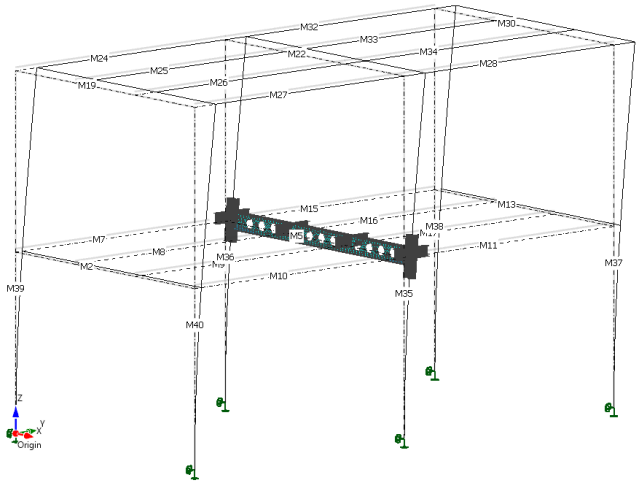
Global imperfection of the structure

Method: Buckling shape

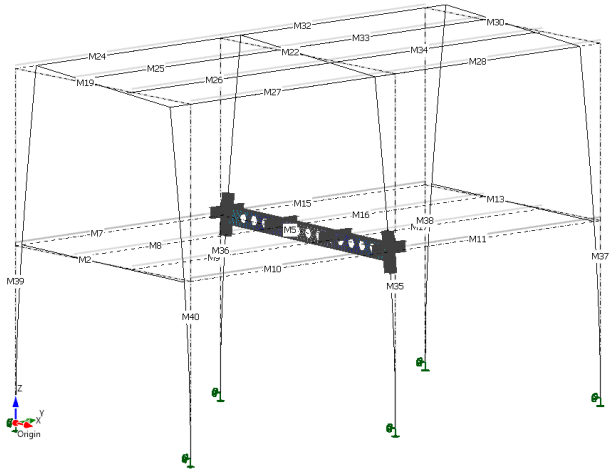
Buckling shape imperfection amplitude [mm]: 0

Loads	Shape	Factor	Relevance [%]	Weight [-1, 1]
CO1	1	1.21	98.3	
	2	1.26	52.2	
	3	2.64	29.3	
	4	5.71	0.8	
	5	8.09	3.0	
	6	8.17	1.9	

1st buckling shape



2nd buckling shape



Step 3: LBA + Definition of imperfections

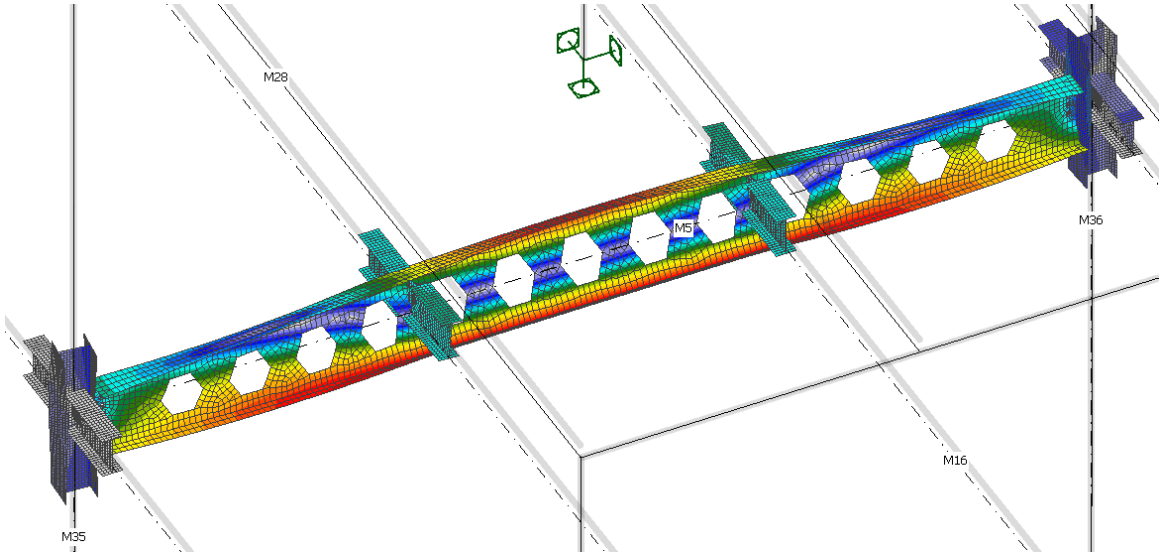
LBA Calculation → Definition of **Global Imperfections** → Definition of **Member Imperfections**

Member imperfections based on **"Buckling shape"** obtained from constrained LBA

Member imperfection

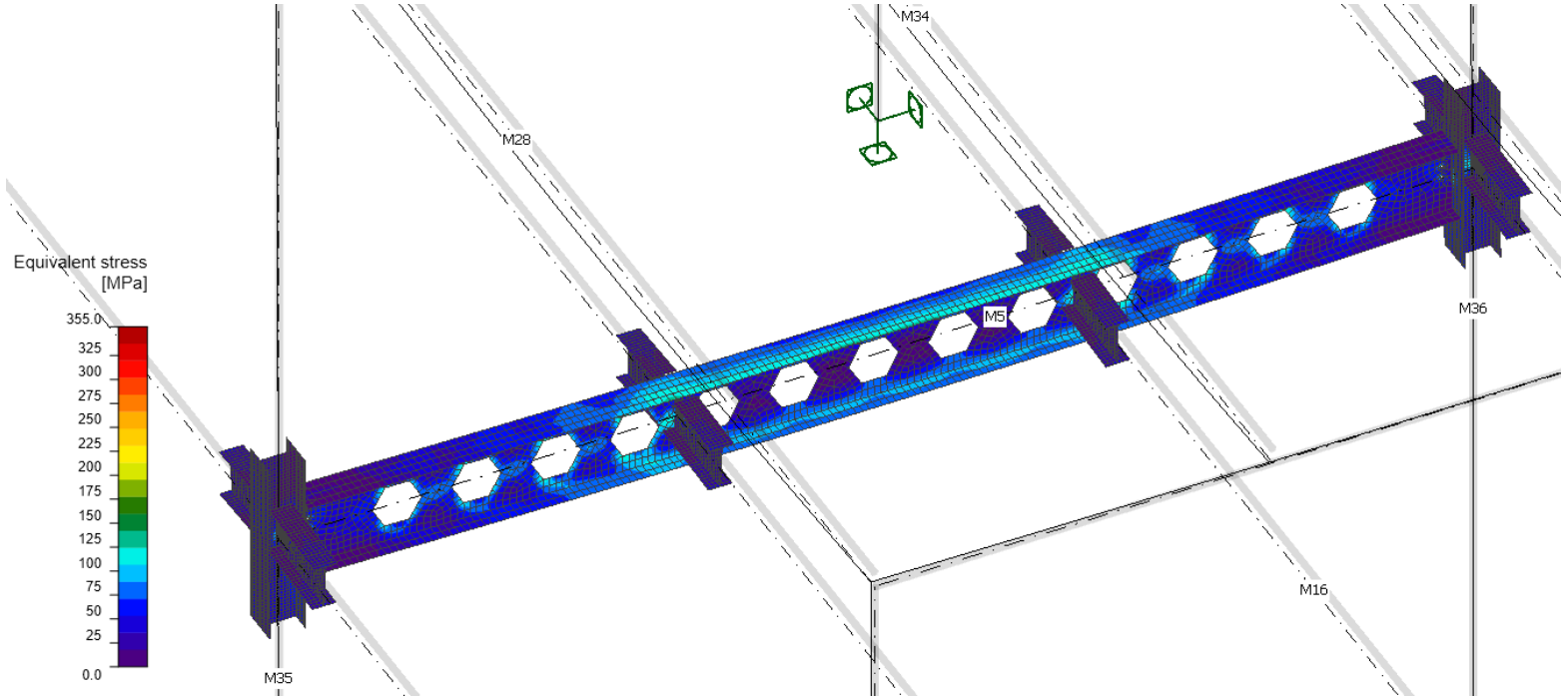
Buckling shape imperfection amplitude [mm] 12

Loads	Shape	Factor	Relevance [%]	Weight [-1, 1]
CO1	1	10.09	4.0	1.00
	2	13.22	24.9	
	3	13.24	24.7	
	4	13.63	1.6	
	5	13.71	14.7	
	6	14.16	23.6	



Step 4: GMNIA + Stress and Strain checks

Check of all members and all plates in connections for **maximal plastic strain.**



MNA	✓	100.0 %
MNA Plates	✓	0.0 < 5.0 %
LBA		1.21
GMNIA	✓	100.0 %
GMNIA Plates	✓	0.0 < 5.0 %
Rotation	✓	1.2 < 17.2 °

Note: Currently the bolts and welds in connections are not included in the checks.

IDEA StatiCa Stability

Launched in version 26.1

26.1

Now

Available in **Steel, Complete, Enterprise**

Time-limited offer

27.0

Next version

Available in **Complete, Enterprise**

Steel: open models and check results

From April 2027: modelling disabled in Steel

Member

Current app

Remains available in version 26.1

Supported till release of 27.1 (October 2027)

Try Stability on your projects

1

Hard to model?

Tried Member on a project that was hard to model? Give it a go in **Stability**

Free for 6 months for Steel and Complete users

2

Have a tricky scenario?

Send it to us and we'll show you how to solve it

Your feedback helps us shape the app

Send your model to **stability@ideastatica.com**

Scan for more info

Support center: Stability

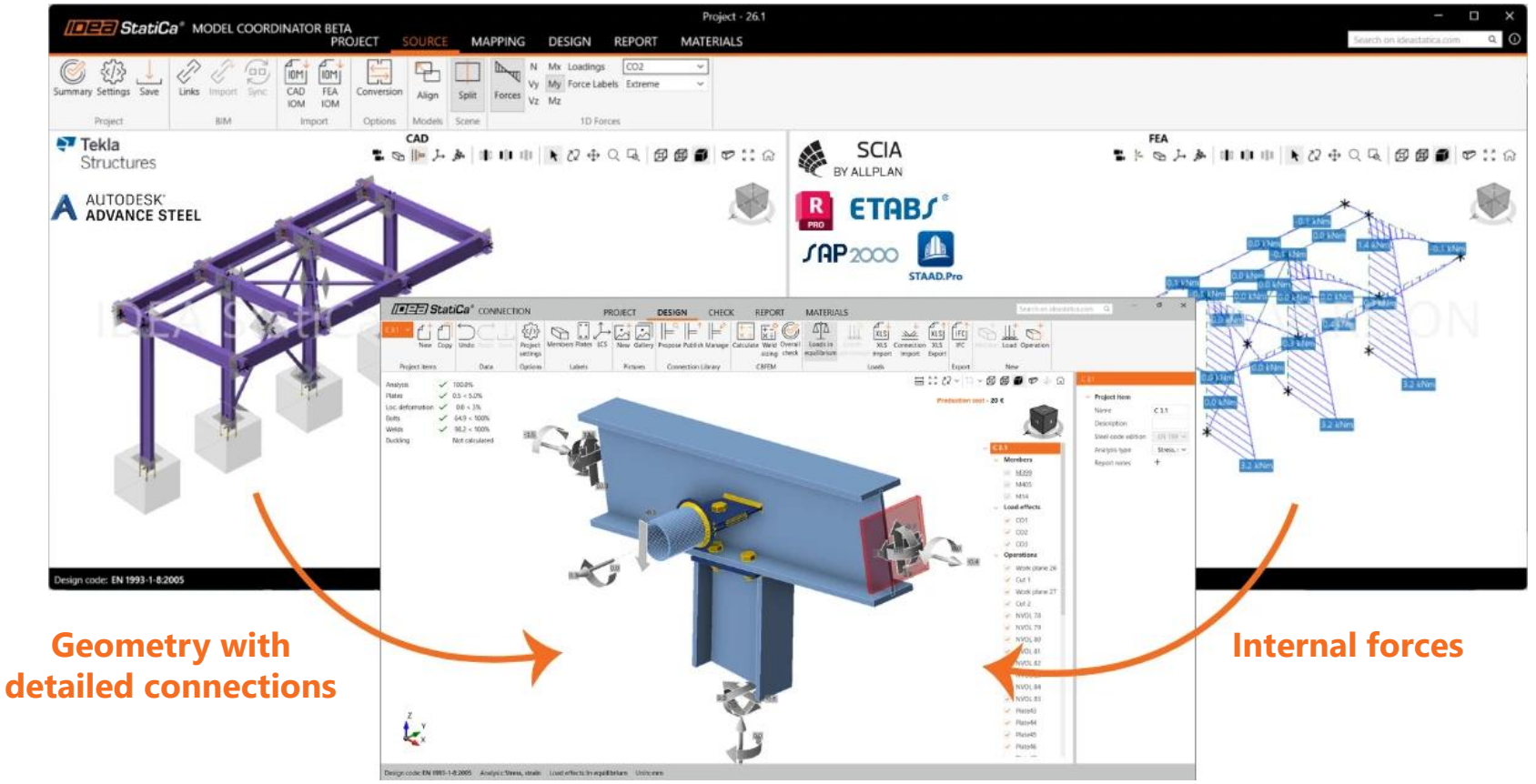
v26.1

IDEA StatiCa®

BIM and Checkbot

Model Coordinator (BETA)

- Imports FEA and CAD models
- Matches members between the two models
- Code-check of connections
- It is a functionality in the Checkbot app



Why combining models is difficult?

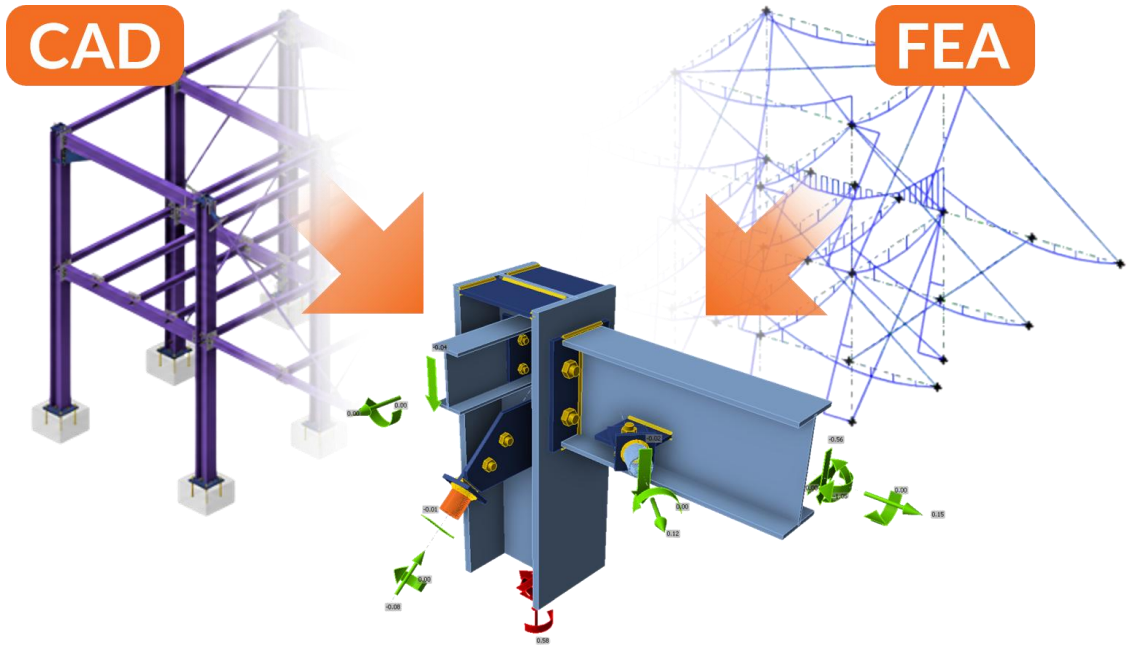
→ Two models of the same structure are rarely the same

→ Members sit in different positions

→ Additional eccentricities

→ Materials and cross-sections don't match

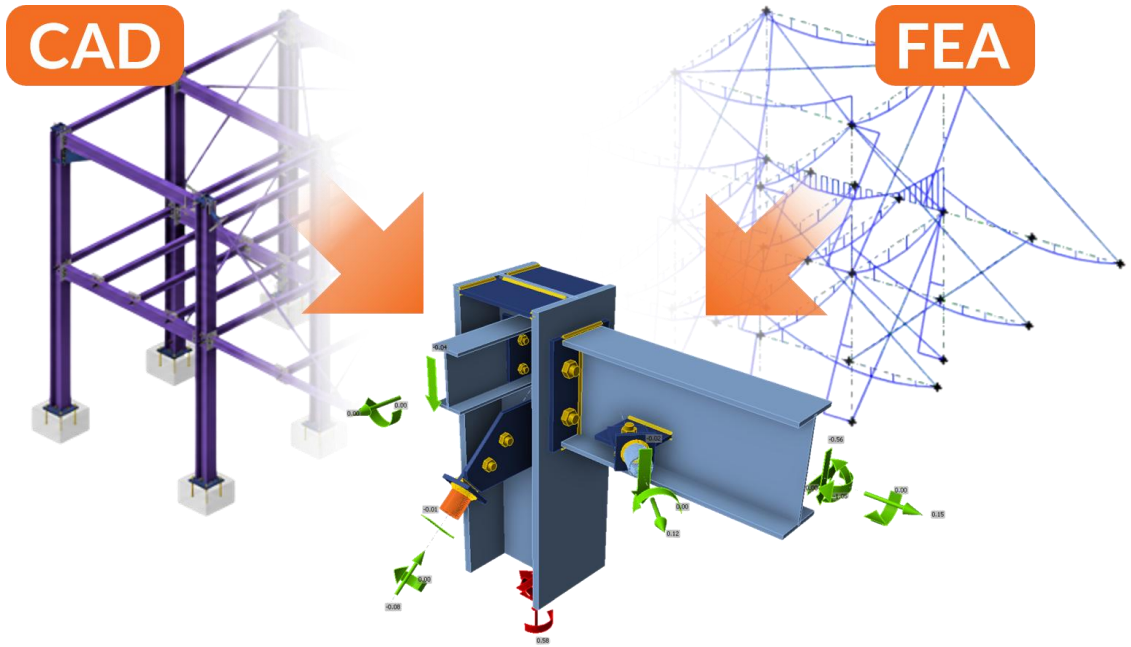
→ Modelling mistakes slip in



Comparing models by eye takes hours.

Model Coordinator (BETA)

- ✓ Model coordinator **understands** both independent models
- ✓ Tracks **changes** and keeps models **synchronized**
- ✓ **Generates** one common calculation **report** for all connections



Model coordination workflow

1

Import

Start data from CAD and FEA model

2

Align and map

Align models, pair members

3

Merge and analyze

Merge connections, code-check

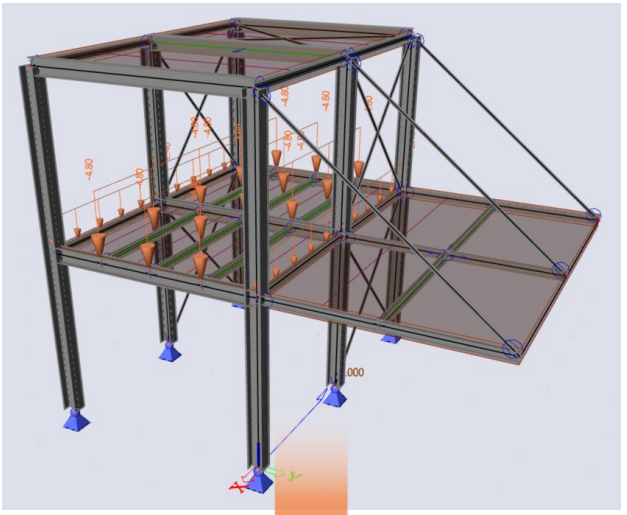
4

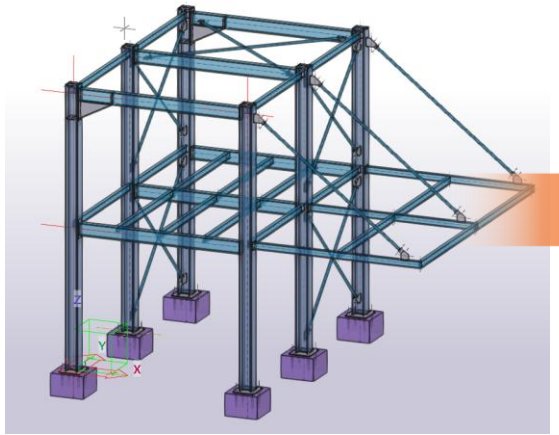
Report and sync

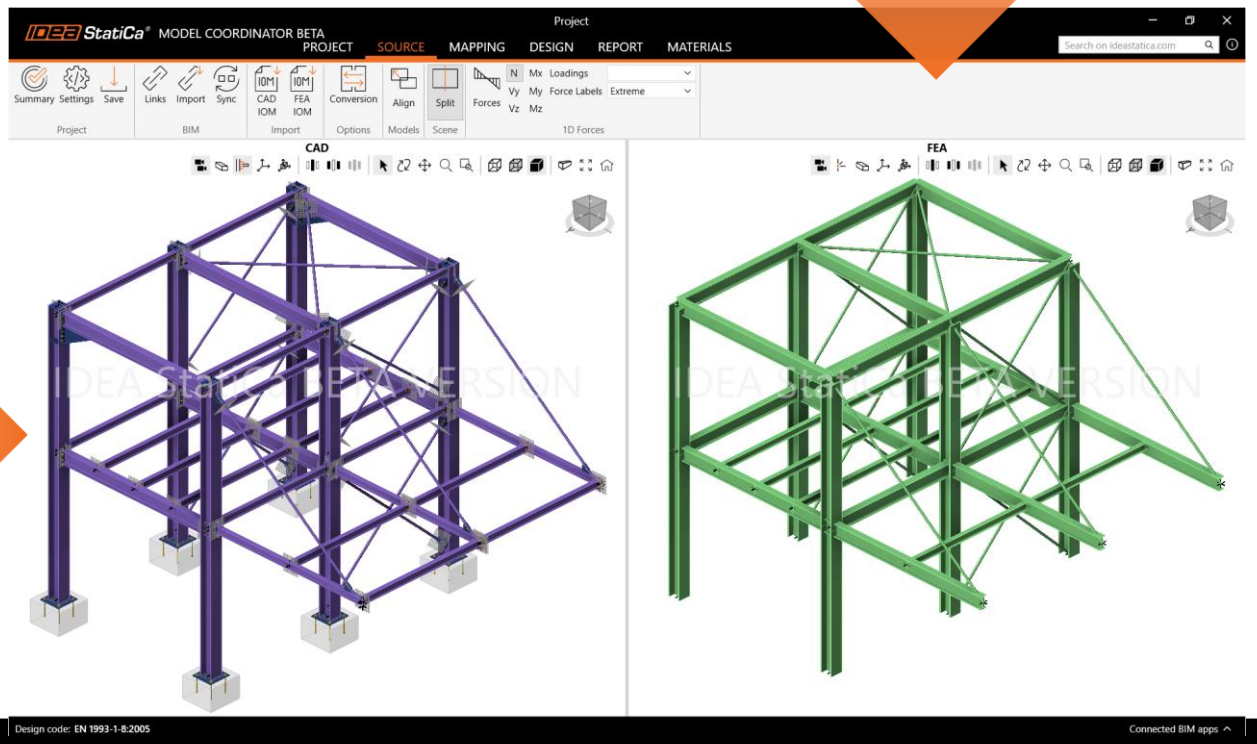
Generate report, sync the models

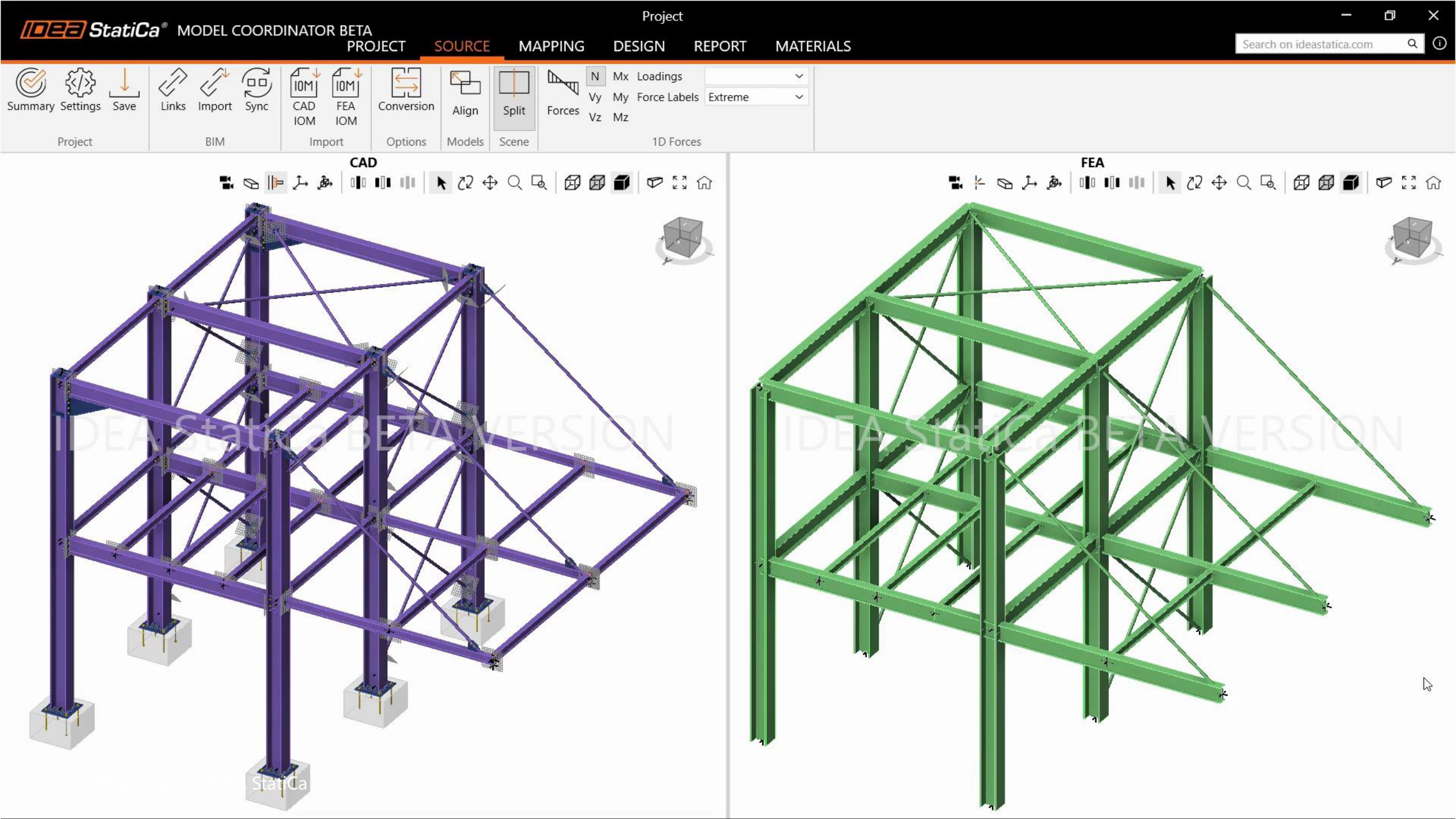
Step 1: Import

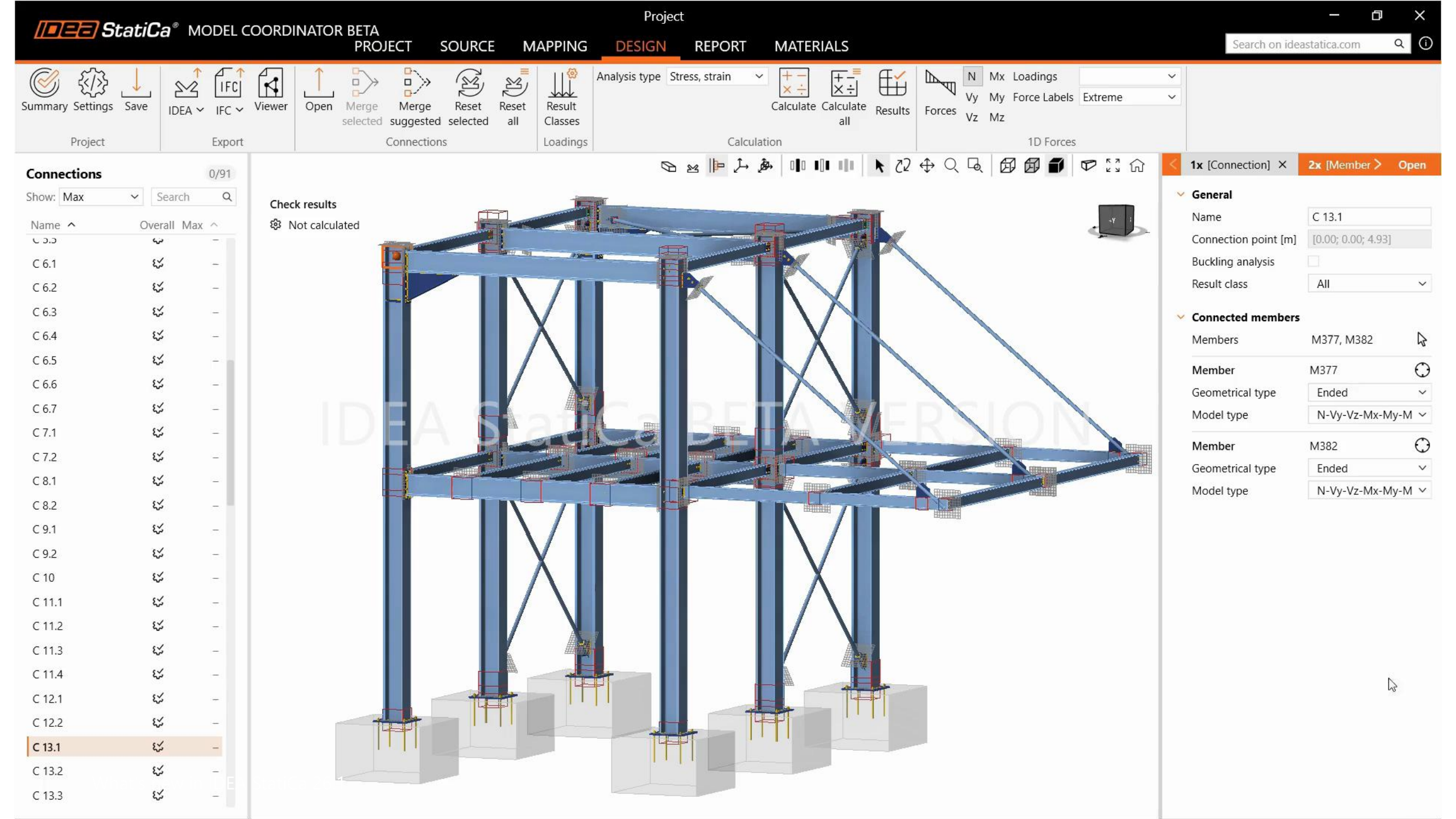
- Create a new project
- Run Checkbot command from CAD and FEA
- Both models land side by side








Project
IDEA StatiCa MODEL COORDINATOR BETA
PROJECT
SOURCE
MAPPING
DESIGN
REPORT
MATERIALS
Search on ideastatica.com
Summary
Settings
Save
Project
Links
Import
Sync
BIM
CAD IOM
FEA IOM
Import
Conversion
Options
Align
Models
Split
Scene
Forces
N
Vy
Vz
Mx
My
Mz
Loadings
Force Labels
Extreme
1D Forces
CAD
FEA
IDEA StatiCa BETA VERSION
IDEA StatiCa BETA VERSION


IDEA StatiCa® MODEL COORDINATOR BETA
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MATERIALS
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Summary
Settings
Save
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IFC
Viewer
Export
Open
Merge selected
Merge suggested
Reset selected
Reset all
Connections
Result Classes
Loadings
Analysis type
Stress, strain
Calculate
Calculate all
Results
Calculation
Forces
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Vy
Vz
Mx
My
Mz
Loadings
Force Labels
Extreme
1D Forces
Connections
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Show:
Max
Search
Name
Overall
Max
C 6.1
C 6.2
C 6.3
C 6.4
C 6.5
C 6.6
C 6.7
C 7.1
C 7.2
C 8.1
C 8.2
C 9.1
C 9.2
C 10
C 11.1
C 11.2
C 11.3
C 11.4
C 12.1
C 12.2
C 13.1
C 13.2
C 13.3
Check results
Not calculated
IDEA StatiCa BETA VERSION
1x [Connection]
2x [Member
Open
General
Name
C 13.1
Connection point [m]
[0.00; 0.00; 4.93]
Buckling analysis
Result class
All
Connected members
Members
M377, M382
Member
M377
Geometrical type
Ended
Model type
N-Vy-Vz-Mx-My-M
Member
M382
Geometrical type
Ended
Model type
N-Vy-Vz-Mx-My-M

Summary Settings Save — Project
Generate Print Preview Word PDF — Report view
Brief One page Detailed — Report type

Report

Search in Connections

- [x] Project data
- [ ] Software information
- [x] Connections 2/33
  - [ ] Calculated only

Name	Utilization
C 1.1	–
C 2.5	–
C 3.1	–
C 4.1	–
C 5.1	–
C 6.1	–
C 7.1	–
C 8.1	–
C 9.1	–
C 10	–
C 11.1	–
C 12.1	–
C 13.3	95%
C 14.1	–
C 15.3	–
C 17.1	–
C 18.1	–

- [ ] Theoretical background

No report to preview. Select connections and generate a report.

Now in beta: try it and tell us

Model Coordinator (BETA) in Checkbot: combine FEA and CAD models

1 **Import**

The CAD model with the connection geometry and the FEA model with the internal forces

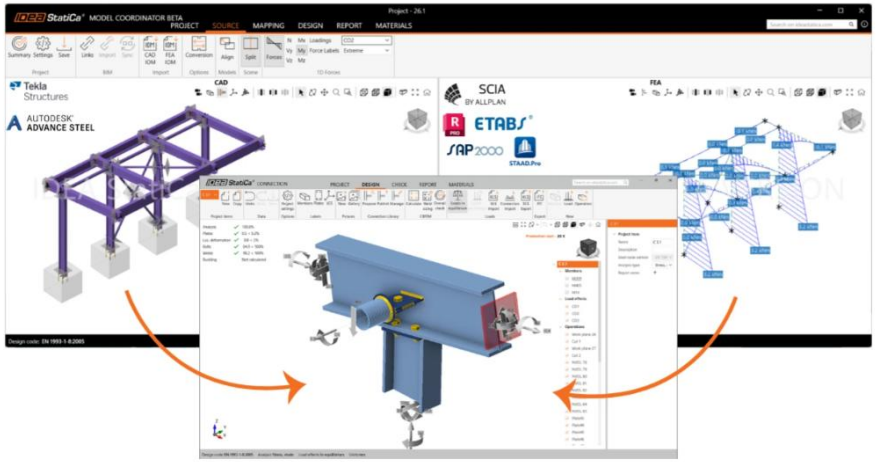
2 **Map**

Each CAD member is paired with its FEA member, so the forces reach the connections

3 **Perform analys**

Just utilise CBFEM engineer to receive code-checks

Try it and tell us what you think



Steel | Connection design | Knowledge base | Checkbot | EN (Eurocode)

Model Coordinator (BETA): Combine FEA and CAD models

Scan for more info

Support center: Model Coordinator (BETA)

Try Model coordinator on your projects

1

Do you have both models?

Align them with Checkbot: Model Coordinator

2

Get it in touch with us

Reach out to us to recieve guidance.

Your feedback helps us shape the app

Reach out to us at **checkbot@ideastatica.com**

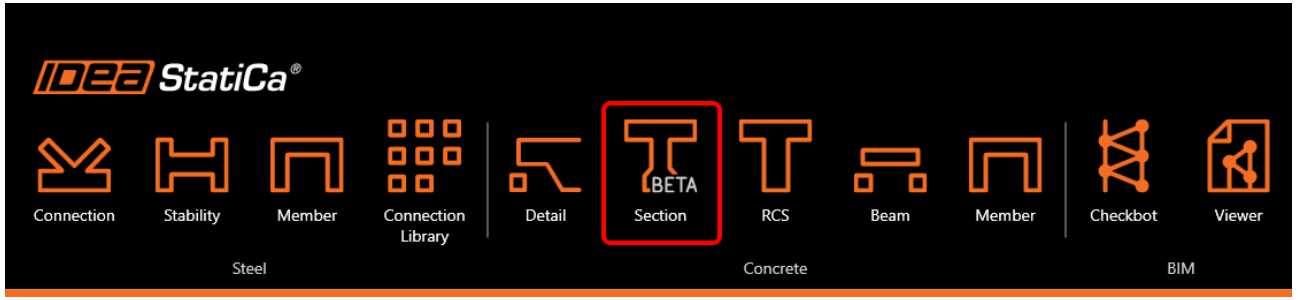
v26.1

IDEA StatiCa®

Solving reinforced concrete sections

Solve your reinforced sections

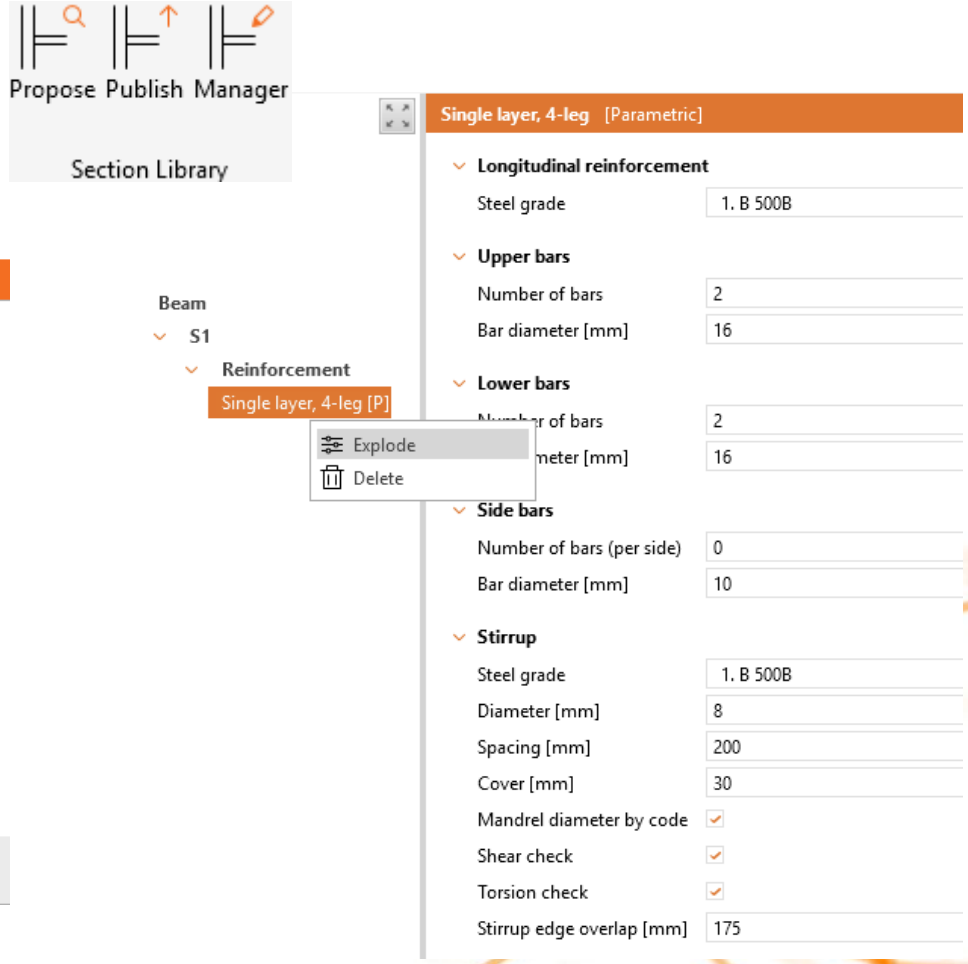
- Complete ULS and SLS checks
- Advanced fire analysis
- Based on New generation of EN

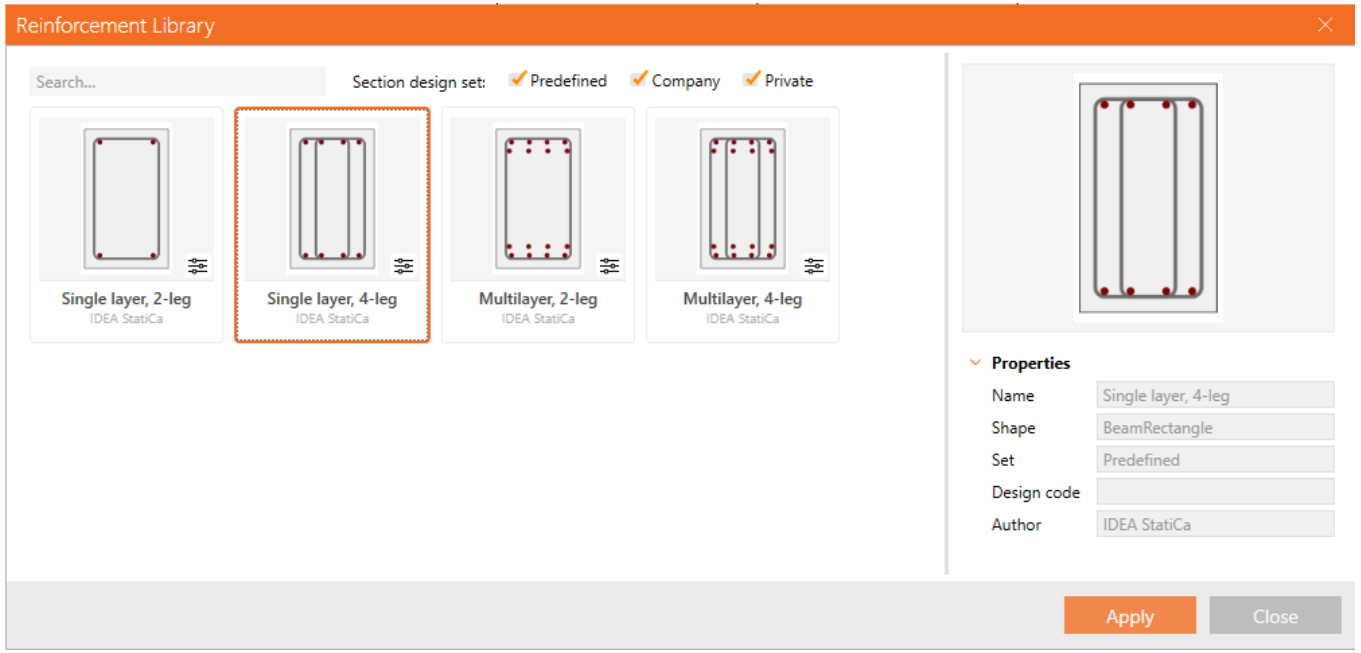




Parametric reinforcement editor

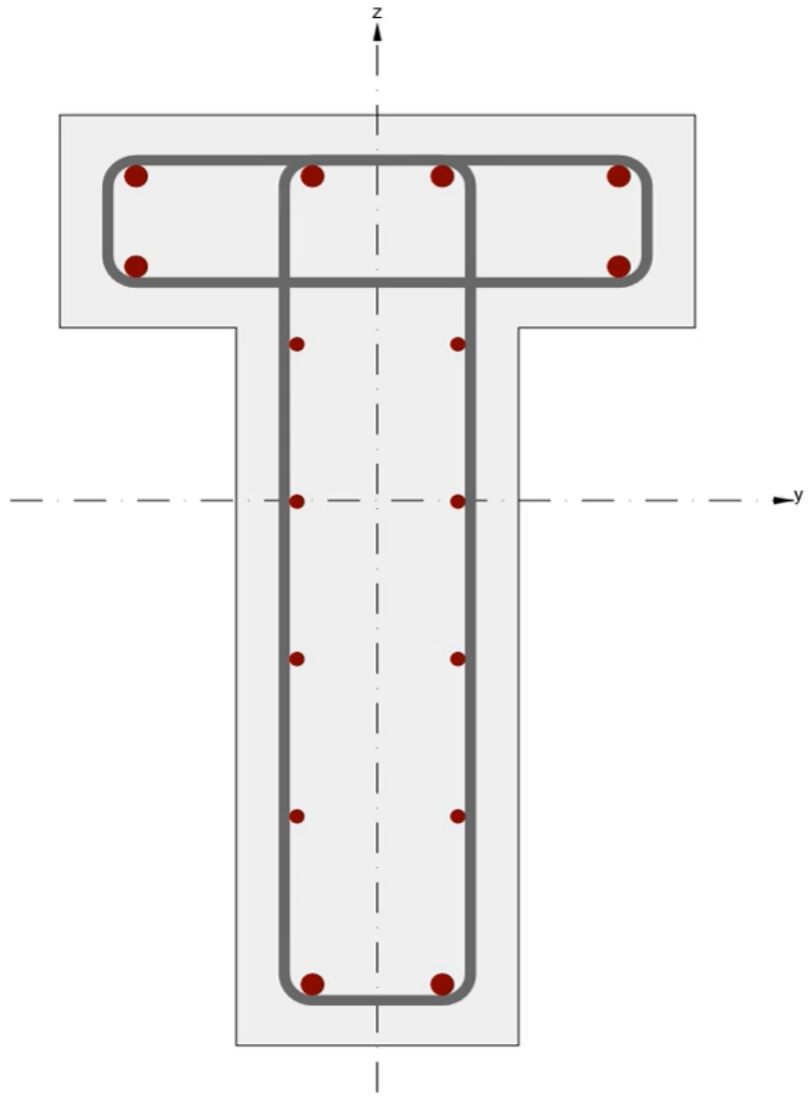
- Reinforcement from cloud parametric templates





Undo Redo Save | Edges names | Rebar numbers | Dimension lines | New Gallery | Settings Calculate | Section Load effect Rebar | Propose Publish Manager

Data | Labels | Pictures | Calculation | New | Reinforcement Library



- Beam
  - S1
    - Load effects
      - LE1
    - Reinforcement
      - Upper layer
      - Lower layer
      - Flange underside layer
      - Side layers
      - Side layers
      - Web stirrup
      - Flange stirrup

S1 [Section]

Cross-section | Section properties | Section settings | Calculation control

Cross-section type

Type: 1. T Shape 600, 450 (C25/30)

General

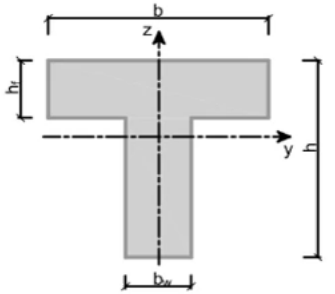
Name: T Shape 600, 450

Geometry

h [mm]	700
b [mm]	450
bw [mm]	200
hf [mm]	160

Material

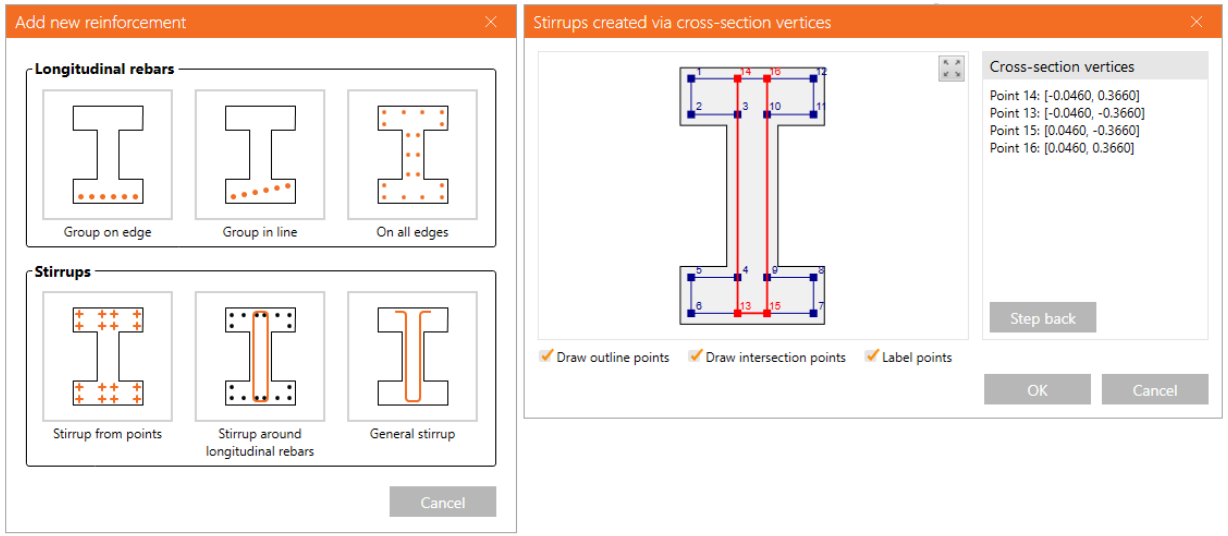
Concrete: C25/30

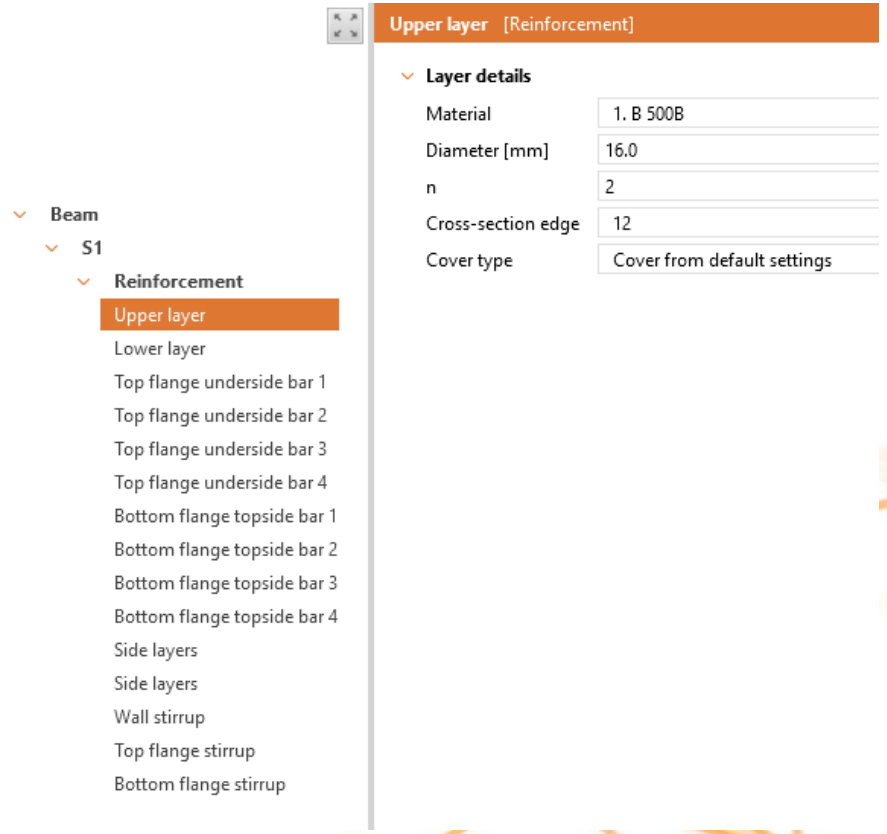


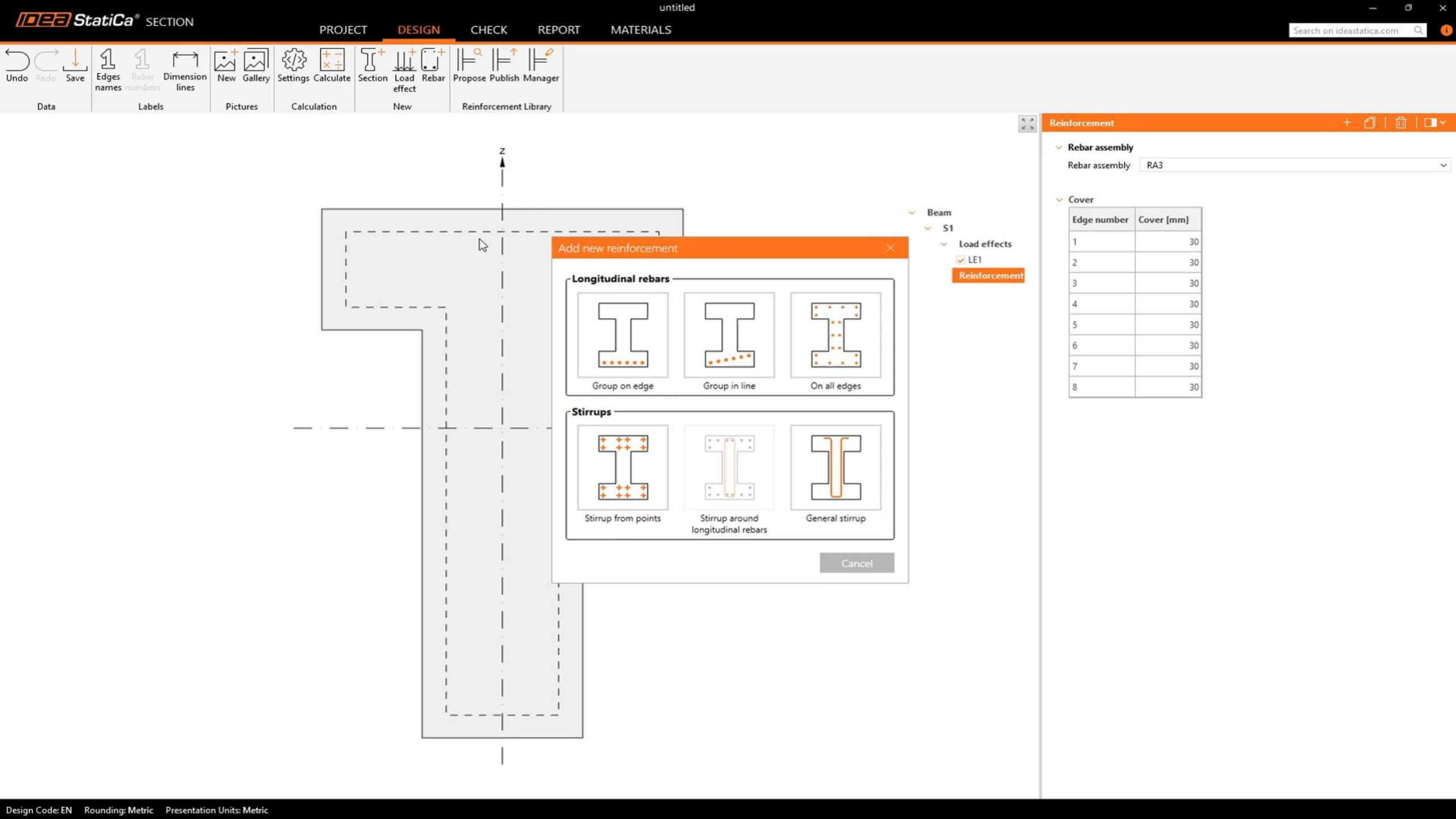
Parametric reinforcement editor

Concrete

- Define the reinforcement bar by bar



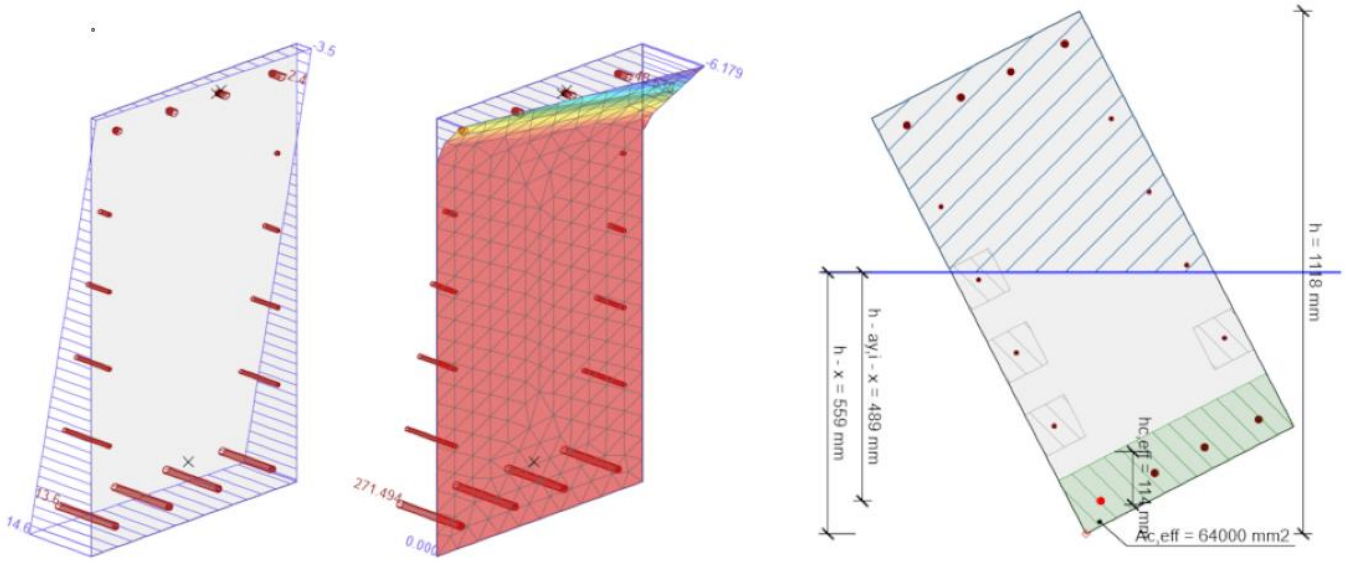



untitled
IDEA StatiCa SECTION
PROJECT
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REPORT
MATERIALS
Search on ideastatica.com
Undo
Redo
Save
Data
Edges names
Rebar numbers
Dimension lines
Labels
New
Gallery
Pictures
Settings
Calculate
Calculation
Section
Load effect
Rebar
New
Propose
Publish
Manager
Reinforcement Library
Z
Add new reinforcement
Longitudinal rebars
Group on edge
Group in line
On all edges
Stirrups
Stirrup from points
Stirrup around longitudinal rebars
General stirrup
Cancel
Beam
S1
Load effects
LE1
Reinforcement
Reinforcement
Rebar assembly
Rebar assembly
RA3
Cover
Edge number
Cover [mm]
1 30
2 30
3 30
4 30
5 30
6 30
7 30
8 30
Design Code: EN
Rounding: Metric
Presentation Units: Metric

Serviceability checks

Concrete

- Stress limitation and Crack width



Crack spacing

	Stiffness	c [mm]	k_{fl} [-]	k_b [-]	Φ [mm]	$\rho_{p,eff}$ [%]	$s_{r,m,cal}$ [mm]
−	LongTerm	40	0.69	1.00	16	1.38	171

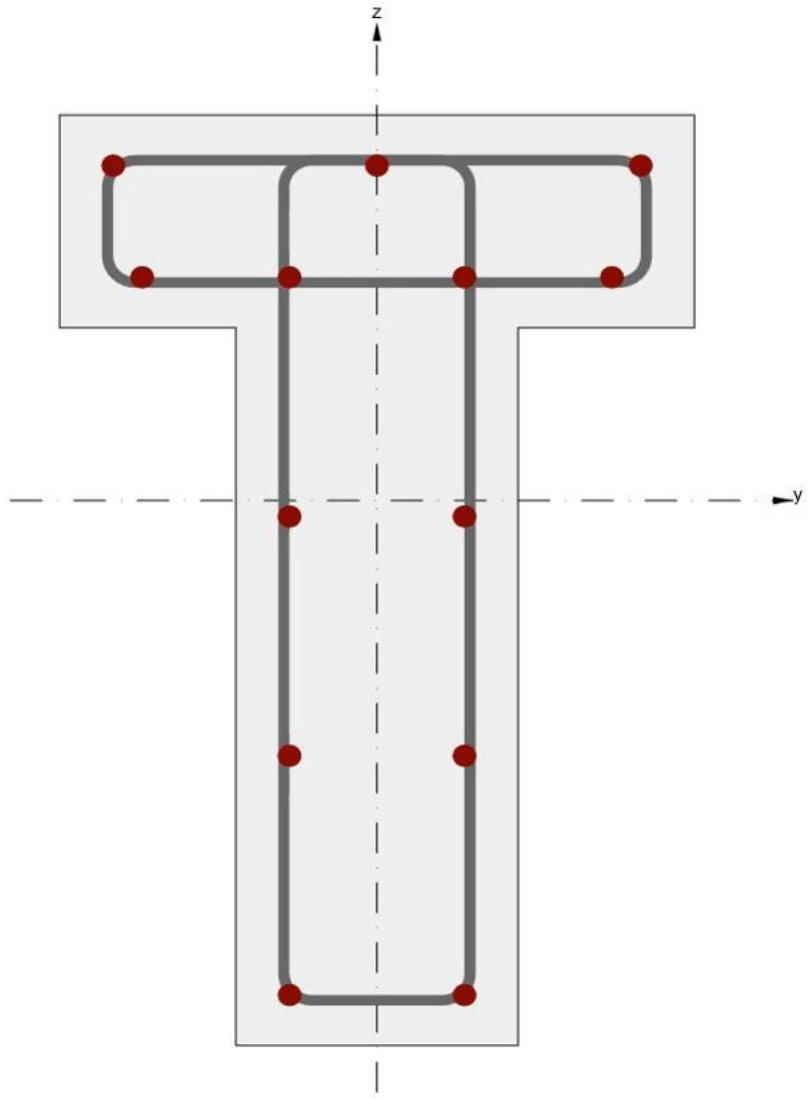
The mean final crack spacing according to EN 1992-1-1:2023, cl. 9.2.3 (6).

$$s_{r,m,cal} = 1,5 \cdot c + \frac{k_{fl} \cdot k_b}{7,2} \cdot \frac{\phi}{\rho_{p,eff}} = 171 \text{ mm} \leq \frac{1,3}{k_w}(h - x) = 292 \text{ mm}$$

Where

$c = 40$ mm	– clear cover of the bar
$k_{fl} = \frac{1}{2}\left(1 + \frac{h - x - h_{c,eff}}{h - x}\right) = 0.69$	– coefficient for type of loading (axial versus flexure)
$h = 450$ mm	– depth of a cross-section
$x = 225$ mm	– depth of the neutral axis at the serviceability limit state
$h_{c,eff} = 140$ mm	– height of the effective concrete area around reinforcement in tension
$k_b = 1.00$	– coefficient for bond conditions
$k_w = 1.00$	– factor converting the mean crack width into a calculated crack width
$\phi = 16$ mm	– bar diameter
$\rho_{p,eff} = \frac{A_s}{A_{c,eff}} = 1.38$	– tensile reinforcement ratio
$A_s = 603$ mm^2	– effective area of tensile reinforcement
$A_{c,eff} = 43760$ mm^2	– effective concrete area around reinforcement in tension

Undo Redo Save — Data
Edges names, Rebar numbers, Dimension lines — Labels
New, Gallery — Pictures
Settings, Calculate — Calculation
Section, Load effect, Rebar — New
Propose, Publish, Manager — Reinforcement Library



- Beam
  - S1
    - Load effects
      - LE1
    - Reinforcement
      - Layer 1
      - Layer 2
      - Layer 3
      - Layer 4
      - Layer 5
      - Stirrup 1
      - Stirrup 2

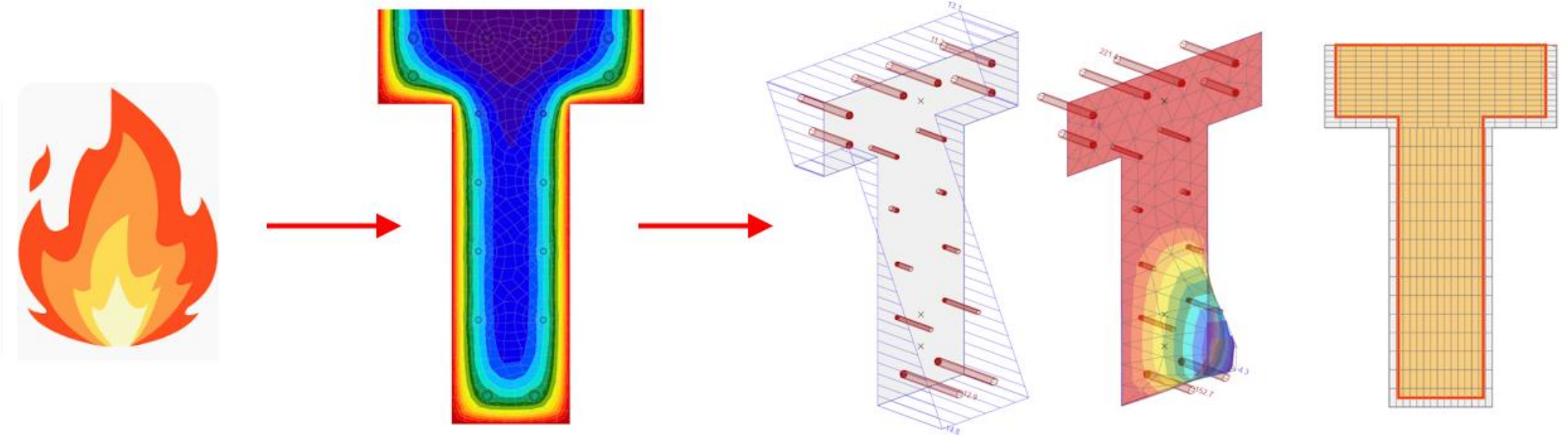
LE1 [Load effect]

Internal forces

Combination type	Use	N [kN]	V_y [kN]	V_z [kN]	T [kNm]	M_y [kNm]	M_z [kNm]
Fundamental	✓	0.0	10.0	30.0	0.0	-160.0	0.0
Accidental		0.0	0.0	0.0	0.0	0.0	0.0
Characteristic	✓	0.0	7.0	50.0	0.0	-130.0	0.0
Quasi-permanent	✓	0.0	4.0	10.0	0.0	-110.0	0.0

Thermal analysis for RC sections

- See how the section behaves under different thermal conditions



IDEA StatiCa®

Version 26.1.0.4701 Update

Connection | Stability | Member | Connection Library | Detail | Section (BETA) | RCS | Beam | Member | Checkbot | Viewer | Import | BIM links | Preferences | Project settings | License

Steel | Concrete | BIM | Settings

Try our new Section BETA app in 26.0 Read more

Open

OR

bdbgb
DETAIL

anchoring123
DETAIL

ORSI_Konin_slup35x40
DETAIL

Konin_slup35x40
DETAIL

Mxy max
RCS

Prestressed saddle beam with LTB
BEAM

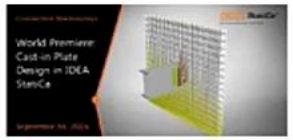
Muro empotrado IDEA
DETAIL

section_general_test_v2
SEC

section_general_test
SEC

pila_base

News



Connection Wednesdays – World Premiere: Cast-in Plate Design in IDEA StatiCa

Cast-in plates are a common but notoriously challenging part of structural design. Engineers need to transfer forces safely between steel and concrete...

WEBINAR



Why membra

In my previou
connections d

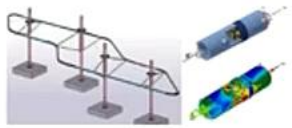
BLOG POST



Residential bu

Atypical struct
beyond tradit

CASE STUDY



Precision pipe connections for landmark pergola in Vienna

The Seestadt Pergola in Vienna stands out for its elegant, curved geometry, but for the engineers, it posed a serious structural challenge. Designing moment-...

CASE STUDY



Faster, more accurate steel design

Perform the structural design of any steel connection, anchoring, or member, in minutes

GENERAL



Concrete code-checks made simple

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Software Copyright © 2010-2026
www.ideastatica.com

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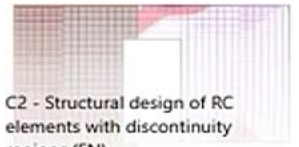
Videos
Watch short videos, tutorials or reviews at any time.

rning



C1 - Structural design of reinforced concrete sections (EN)

START COURSE



C2 - Structural design of RC elements with discontinuity regions (EN)

START COURSE



C3 - Structural design of prestressed elements with discontinuity regions (EN)

START COURSE



S1 - Essentials of steel connection design (EN)

START COURSE



S2 - Advanced topics in steel connection design (EN)

START COURSE



S3 - Structural design of stability-sensitive members (EN)

START COURSE

Need help?

We want to hear from you

1

Eurocode 2027

Do you expect the new Eurocode to affect your work in 2027?

2

Thermal analysis

Does thermal analysis concern you?

Tell us in the chat!

Scan for more info

Support center:
Section (BETA)

Summary of what's new

1

Anchoring

Equations, reinforcement workflow, model changes, CA code

2

Connections and API

Manufacturing operations via API, Grasshopper, measurement, instant prediction, Eurocode

3

Member stability

Buckling length, SLS checks, GMNIA, LBA, MNA

4

FEA and CAD synchronisation

Find discrepancies, avoid remodelling

5

Reinforced sections

New Eurocode, thermal analysis

Which of the presented things will you try?

A	**Reinforcement templates in anchoring**
B	**Prompt modelling in Connection**
C	**Determining the buckling factors in Stability**
D	**Syncing FEA and CAD models in Checkbot**
E	**Thermal analysis acc. to the new Eurocode in Section**

Vote now in the poll

v26.1

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Q&A

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