

Release notes IDEA StatiCa 26.1

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CONCRETE DESIGN

Detail 3D and 2D

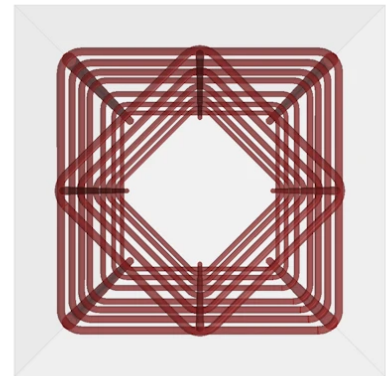
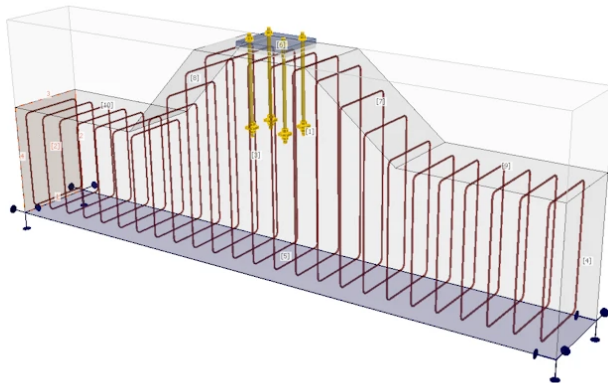
Anchoring in reinforced concrete with minimum limitations

With release 26.1, **anchoring design reaches a major milestone: a complete set of capabilities, covering all the standard steel-to-concrete connections.** Explore the latest improvements and put them to work in your next project.

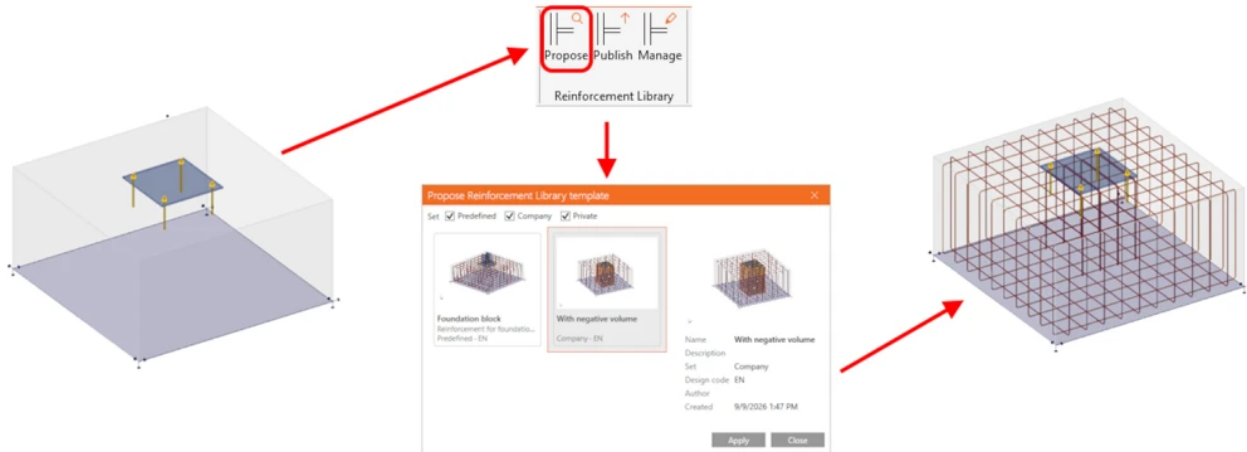
Reinforcement Design in 3D Detail and Reinforcement Templates

Reinforcement design has been improved to be more intuitive. Also, advanced options have been added to facilitate the modeling of complex details. Such as referencing reinforcement to a negative volume or a working plane. Options to set up **closed stirrups** or **irregular spacing**, and more.

[See the full range of modeling options.](#)



Learn more in the knowledge base article.



Detail 3D features fully expanded, equation-based result presentation for anchor code checks, eliminating the "black box" approach and replacing standalone numerical outputs. Every row in the anchor check table can be expanded to display the exact mathematical formula, substituted project values, intermediate calculations, and precise code references. This transparency extends directly into the generated reports, allowing engineers, reviewers, and checking agencies to easily verify the complete derivation of anchor resistance—including tension, shear, bending, and their interaction—without needing to manually cross-reference external theoretical backgrounds.

See the dedicated article for details on the results.

	Anchor	NEd [kN]	VEd [kN]	MEd [kNm]	NRd,s [kN]	VRd,s [kN]	MRd,s [kNm]	Utt [%]	Uts [%]	Utb [%]	Utt,s [%]	Uttb [%]
[-]	AN4	50.1	7.5	0.1	83.7	50.2	-	59.8	15.0	-	38.0	-

Tensile resistance of the anchor (EN 1992-4:2018, cl. 7.2.1.3)

$$N_{Rd,s} = \frac{A_s \cdot f_{uk}}{\gamma_{Ms}} = 83.7 \text{ kN} \geq N_{Ed} = 50.1 \text{ kN}$$

Where:

- $A_s = 157 \text{ mm}^2$ – tensile stress area of the anchor
- $f_{uk} = 800.0 \text{ MPa}$ – minimum tensile strength of the anchor
- $\gamma_{Ms} = 1.2 \cdot \frac{f_{uk}}{f_{yk}} = 1.50 \geq 1.40$ – partial safety factor for steel in tension (Table 4.1)
- $f_{yk} = 640.0 \text{ MPa}$ – minimum yield strength of the anchor

Shear resistance of the anchor (EN 1992-4:2018, cl. 7.2.2.3.1)

$$k_s \cdot A_c \cdot f_{ctk}$$

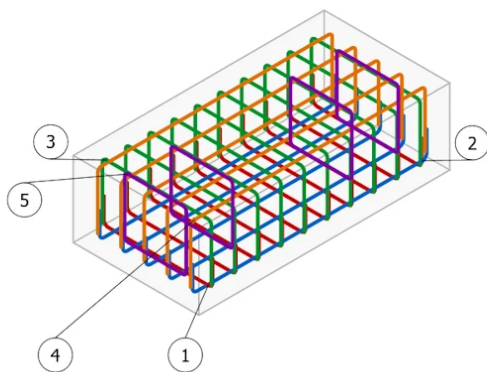
Bill of materials as part of the report

Detail 3D's report comes with a full bill of materials, making the output far more usable for everyday practice – total weight, an itemized bar scheme with shapes and dimensions... No more manual quantity take-offs in a spreadsheet. The scheme can also be exported straight to DXF for CAD, so it's ready to hand off to others.

[Learn more in the knowledge base article.](#)

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	

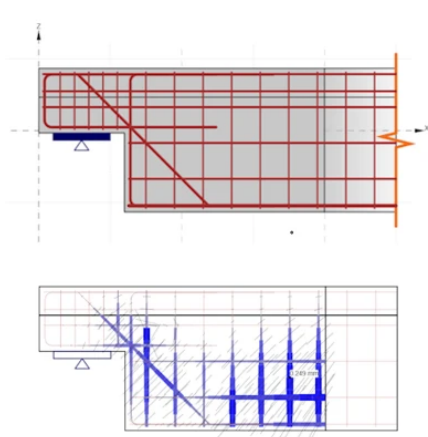
Overview table

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		

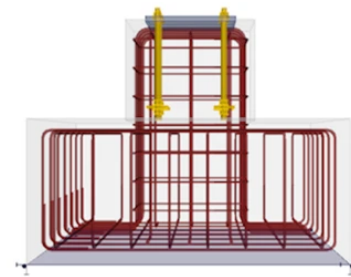
Canadian code CSA A23.3:24 in Detail

Version 26.0 introduces native support for CSA A23.3:24 in Detail across both 2D and 3D models, removing the need to approximate Canadian projects under ACI 318. The implementation provides a complete, code-aligned workflow—including full 3D anchor verification per CSA A23.3 Annex D and CSA S16—supported by dedicated templates and a material database containing CSA concrete grades, CSA G30.18 bar sizes (10M, 15M, etc.), and Canadian detailing rules. All strength, serviceability, and anchoring checks follow the familiar interface, delivering fully verifiable reports tailored directly to Canadian engineering practice.

More details are provided in the Theoretical Background section under the CSA chapter separately for [2D](#) and [3D solutions](#).



CSA A23.3:24 In Detail



Tensile resistance of the anchor (CSA A23.3:24, cl. D.6.1.2)

$$N_{ser} = \phi_s \cdot A_{se,N} \cdot f_{uta} \cdot R_N = 115.5 \text{ kN} \geq N_{fa} = 51.4 \text{ kN}$$

Dutch national annex

Next to the Canadian code, a new Dutch national annex (NEN-EN 1991-2+C1:2015/NB: 2019 nl) has been implemented in the RCS and Beam apps.

General improvements

This release brings a significantly improved user experience in Detail. Input and check output tables across both Detail 2D and 3D are now fully compatible with Excel, enabling seamless two-way copy-pasting, multi-cell selection, and multi-edit. Engineers can easily bring in complex load sets or export results to custom spreadsheets for verification without manual retyping.

Additionally, Detail 3D introduces dimension lines directly in the model for clearer geometry definition, along with updates to the numerical model that enhance overall calculation stability and accuracy.

Section **BETA** – An application for the new Eurocodes generation

Reinforcement editor

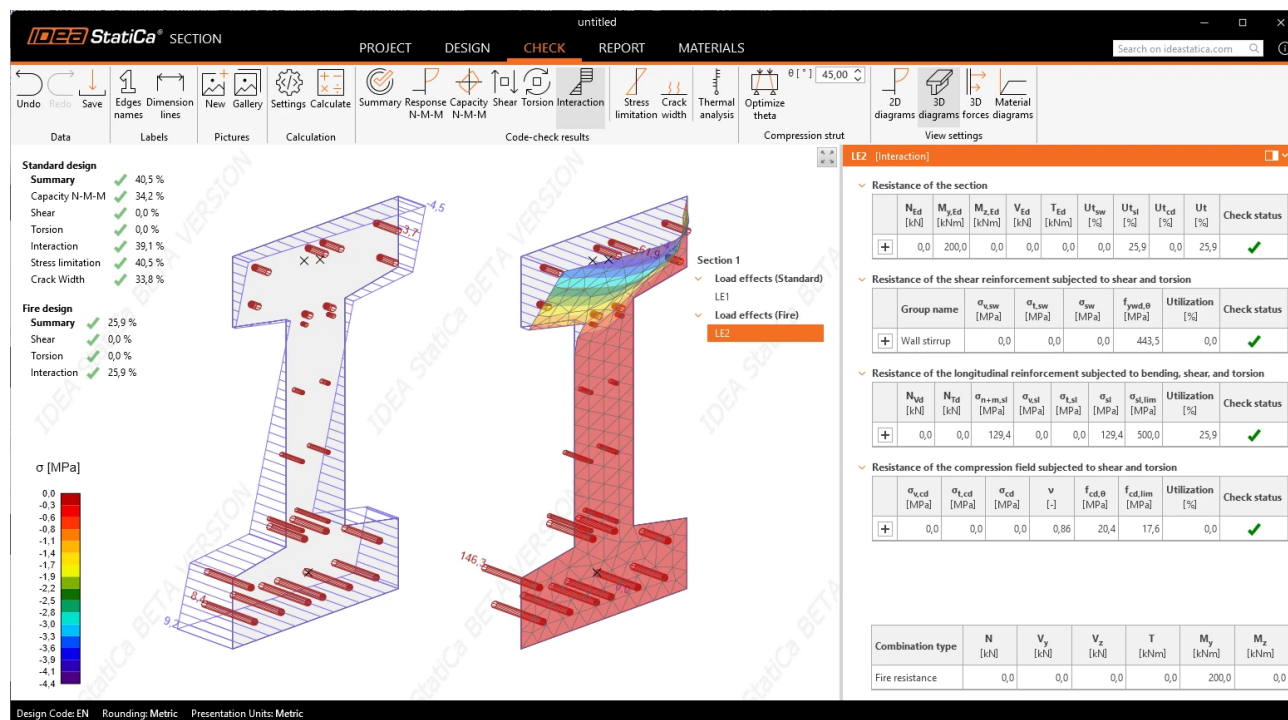
The editor is rebuilt as a general reinforcement modeler inside the application UI, where reinforcement is a tree entity with its own data view. Bars and stirrups are defined with commands that match real detailing practice. Cloud templates, parameters, and shared rebar assemblies help when reusing.

SLS checks

Serviceability code checks according to EN 1992-1-1:2023. Stress limitation checks limit stress in concrete and reinforcement for the characteristic and quasi-permanent combinations, per Chapter 9. Creep is built into the concrete material diagram itself, and the cracked or uncracked state is evaluated by the check, not declared by the user. Crack width verifies the calculated crack width against its limit on the cracked section, with the effective tension area determined automatically per Figure 9.3 and re-resolved whenever the section or layout changes.

Fire/Thermal Analysis

The Section app calculates the **temperature field in a reinforced concrete cross-section**, reduces material properties accordingly, and delivers fire design checks per EN 1992-1-2:2023, within the same application and workflow as the ambient-temperature checks. Instead of a conservative yes/no from a table, engineers get a real utilization, meaning leaner new designs and, in refurbishment, existing members that pass without strengthening.



STEEL DESIGN

Stability-sensitive steel structures

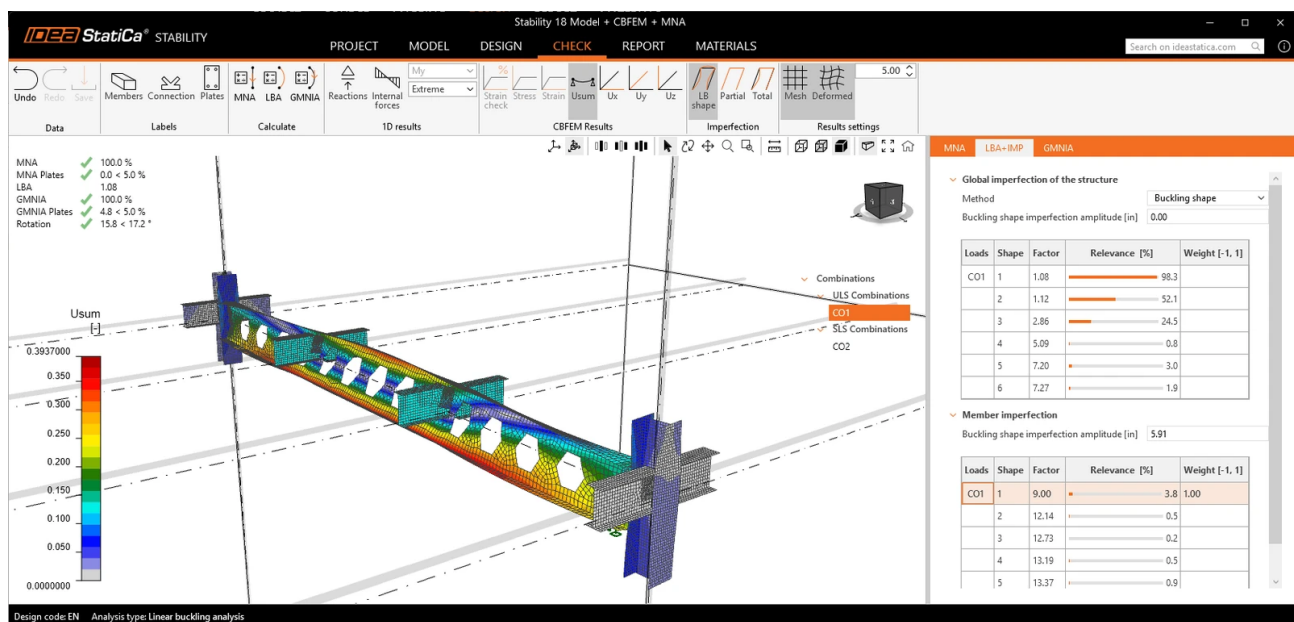
The new **Stability app** brings structural modeling, connection design, and advanced stability analysis into a single workflow, helping engineers assess steel members and substructures where buckling governs the design.

Quick modeling: Create structural models with connected members, supports, loads, and realistic boundary conditions to capture the behavior of the entire substructure.

Connection design and analysis: Design and check steel connections using CBFEM, accounting for their stiffness and influence on the overall structural stability.

Linear Buckling Analysis (LBA): Identify critical load factors and buckling modes to understand potential instability and select the most critical shapes for further analysis.

GMNIA: Perform advanced nonlinear analysis with geometric imperfections, second-order effects, and material nonlinearity to verify structural resistance and stability.



All within a single application, from modeling to final report.

[Explore the dedicated article to learn more.](#)

Steel Connection design

2nd generation of Eurocode

Checks of bolts, welds, and their detailing are covered for the [new EC3 generation 1993-1-8:2024](#). This allows the engineer to verify the project against both editions to see exactly what the new generation changes entail.

The new EC generation becomes valid for projects in 2027, but IDEA users can be ready well in advance and be sure which designs will meet the new requirements.

Regional improvements

AISC code users open the wizard with US-specific templates — including complex connections. The focus is on the default bolt assembly and imperial rounding.

Applications localized for Korea and Vietnam.

[Find out more here.](#)

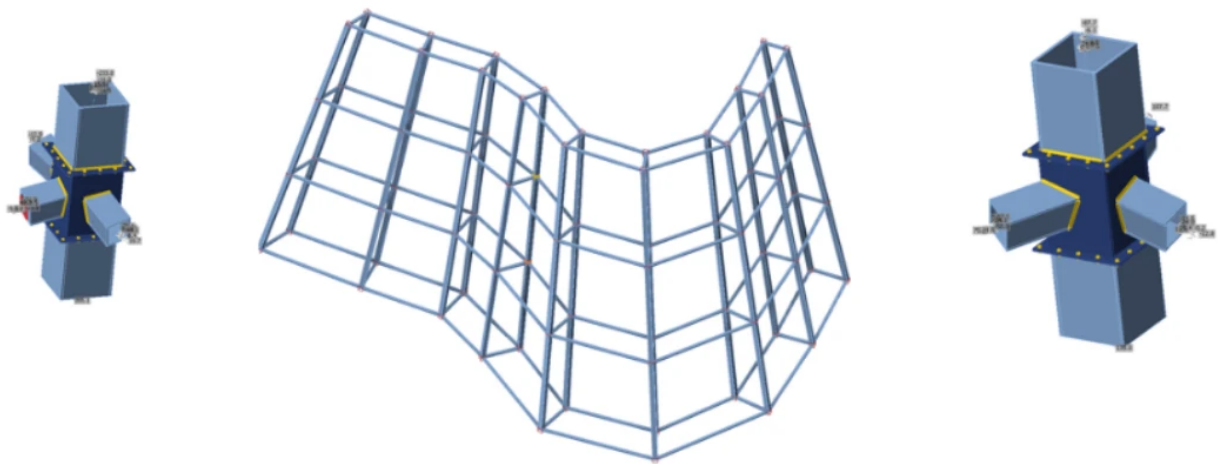
Automation with Connection API

Improvements to the IDEA StatiCa Connection API bring full automation for creating and calculating connections without ever opening the desktop application. Users can now build adjustable **design parameters directly through code and link them to model properties**, such as **plate dimensions** or **bolt positions**, easily turning any connection into a reusable template.

The calculation process is no longer a cryptic operation without feedback. Users **can track calculation progress for individual load cases in real time, cancel an ongoing run at any time, and run analysis on selected critical load cases rather than evaluating the entire list**. Complex joints with dozens of load cases can now be tested in seconds on a single load effect before launching a complete run.

The new interface also allows a complete joint design to be authored entirely from scratch. Built using thirteen fundamental operations—such as plates, cuts, fastener grids, welds, and work planes—automated scripts can combine these basic building blocks to create virtually any real-world connection detail, from base plates to end plates or splices, without any manual modeling in the user interface.

[See the dedicated part on GitHub.](#)



Parametric Templates

In the latest release, UX improvements to parametric template authoring make creating and using connection templates faster, smoother, and far less error-prone. Instead of relying on memorized syntax or hidden tooltips, template authors in the Developer tab can now write **expressions with IntelliSense-style auto-completion**, link model properties with clear inline context, select bolt assemblies directly via an integrated fastener picker, and organize parameters into named, collapsible groups.

[See the article for specific improvements.](#)

Grasshopper

In version 26.1, the Grasshopper plugin enables the complete creation, design, and calculation of a steel connection directly within Rhino and Grasshopper, removing the need to manually set up a model in the desktop application. The toolkit expands with 22 new components—bringing the total to 137—to fully align the plugin with the Connection REST API.

Instead of starting from a pre-made file saved on disk, we can build the entire model, including member geometry, load effects, and materials, from scratch within a single parametric definition. The plugin also introduces the ability to query the active design code's material library directly inside Grasshopper, allowing users to select valid material names without guessing or cross-referencing the desktop interface. Once calculated, finished connections can be saved as reusable templates or exported as raw result data for custom post-processing.

[Read more about the Grasshopper plugin here.](#)

Enterprise installer including links

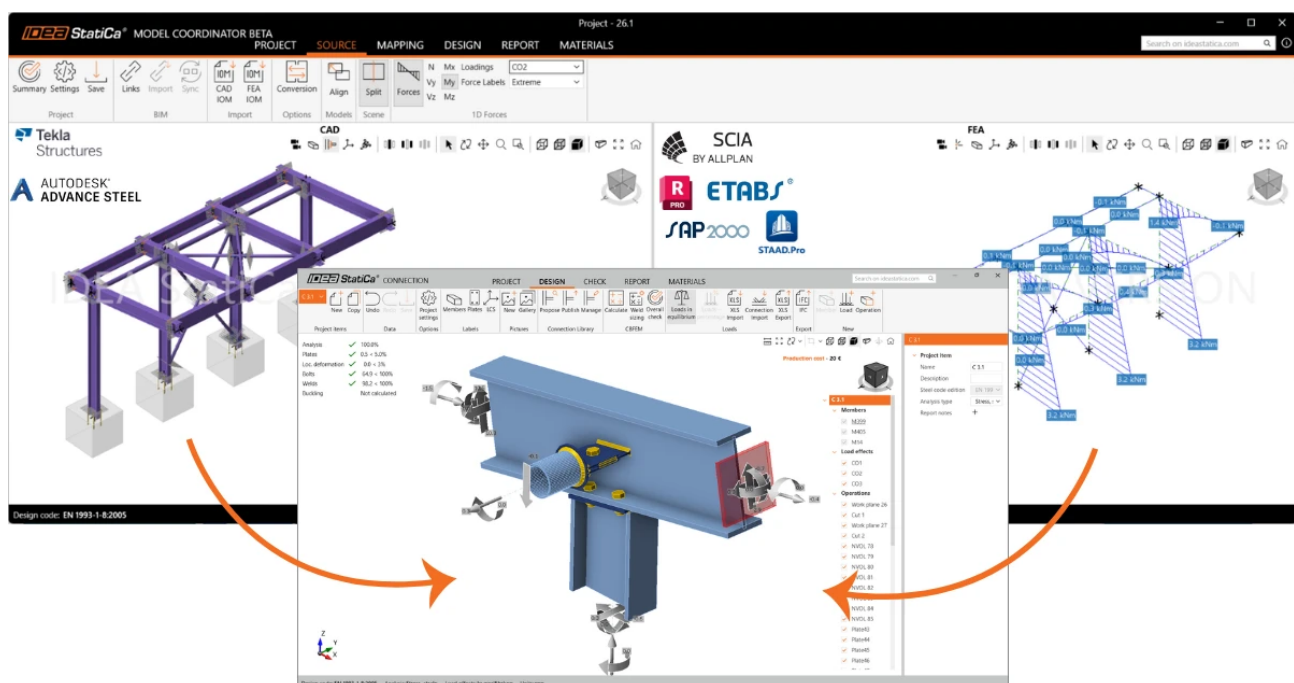
The updated enterprise deployment framework enables IT administrators to silently roll out IDEA StatiCa and all required BIM links using a single elevated installation process. Configured via a central file rather than a user interface, this file-based approach eliminates background setup hangs, removes the need for local admin rights on user workstations, and ensures standardized, repeatable software deployment across global fleets via tools like Microsoft Intune or internal company app stores.

BIM AND CHECKBOT

Model Coordinator **BETA**

Model Coordinator (BETA) is a new tool in IDEA StatiCa Checkbot that lets you import an FEA model and a CAD model of the same structure together. It automatically matches members between the two models and transfers internal forces from the FEA model into the CAD-based connections, so you can design and code-check directly in IDEA StatiCa Connection without transferring forces by hand.

[Learn more about Model Coordinator \(BETA\).](#)



Opening a Checkbot project multiple times is blocked

Version 26.1 resolves potential data clashes or corruption previously caused by accidental multi-session use when working with Checkbot projects.

Application tracks this automatically, and if the appropriate Checkbot project is already running, IDEA StatiCa switches to the existing instance instead of attempting to open it again.

Faster imports

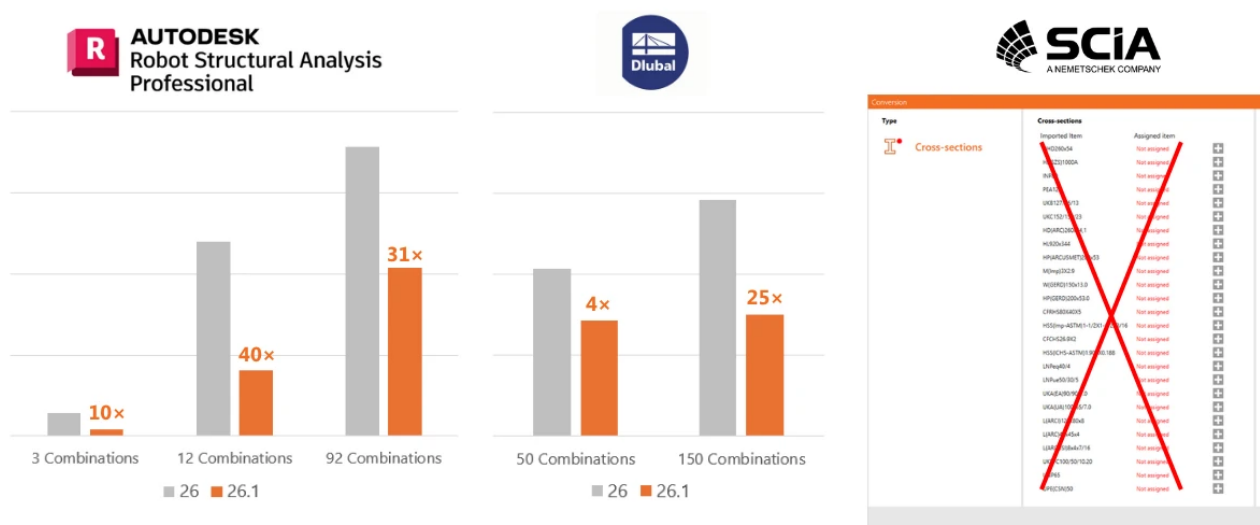
We continue improving import speed across BIM links.

For **Autodesk Robot**, reading results was slow when a model had many load cases and combinations. We reduced the number of API calls used to read results, making imports more than 10× faster.

We also released a new Dlubal API-based **BIM link for RFEM6/RSTAB9**, replacing the previous web service (SOAP) connection. Thanks to the new API, imports and synchronizations are now more than 4× faster.

[Learn more in the tutorial.](#)

BIM link for SCIA engineer has been improved. We extended the list of automatically mapped cross-sections to reduce mapping effort needed after import.



MIDAS GEN NX – BIM link improvements

The BIM link for MIDAS GEN and CIVIL NX can now distinguish between ULS and SLS combinations.

[Learn more in the tutorial.](#)

Updated BIM links with FEA and CAD apps

We have updated the BIM links to match the latest versions of the connected 3rd-party FEA and CAD software. BIM links are also continuously updated with each subsequent IDEA StatiCa patch.

[See the up-to-date list.](#)

IDEA StatiCa – Steel 26.1

Application	Supported	In development	Obsolete
Advance Design	2026, 2027	-	2025
Advance Steel	2026, 2027	-	2025
AxisVM	X7.3, X8.1	-	-
ETABS	22, 23	-	-
MIDAS Civil	2024, 2025	-	-
MIDAS Civil NX	2025, 2026	-	2024
MIDAS GEN	2024, 2026	-	-
MIDAS GEN NX	2026	-	-
RAM Structural System	24, 25	-	-
Revit	2026, 2027	-	2025
RFEM / RSTAB	5.41 / 8.41, 6.14 / 9.14, 6.15 / 9.15	-	5.40 / 8.40, 6.12 / 9.12, 6.13 / 9.13
Rhino/Grasshopper	7, 8	-	-
Robot Structural Analysis	2026, 2027	-	2025
SAP2000	26, 27	-	-
SCIA Engineer	25, 26	-	-
SDS2	2026, 2026-1	-	-
STAAD.Pro	2025, 2026	-	2024
Tekla Structures	2025, 2026	-	-

IDEA StatiCa – Concrete 26.1

Application	Supported	In development	Obsolete
Advance Design	2026, 2027	-	2025
AxisVM	X7.3, X8.1	-	-
ETABS	22, 23	-	-
MIDAS Civil	2024, 2025	-	-
MIDAS GEN	2024, 2026	-	-
RFEM / RSTAB	5.41 / 8.41, 6.14 / 9.14, 6.15 / 9.15	-	5.40 / 8.40, 6.12 / 9.12, 6.13 / 9.13
Robot Structural Analysis	2026, 2027	-	2025
SAP2000	26, 27	-	-
SCIA Engineer	25, 26	-	-