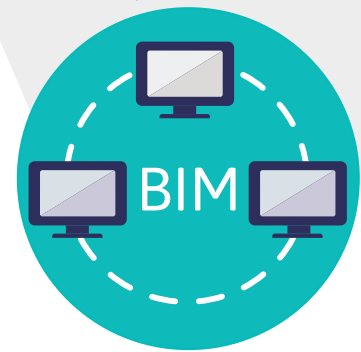


STREAMLINED USABILITY



ADVANCED MATERIAL DESIGN



EXTENDED BIM LINKS

SCIA Engineer 18 moves the software to the next level in terms of usability, material design and interoperability. We have enhanced usability with streamlined basic operations and more automatic workflows, improved integration into BIM workflows with upgraded Revit and Tekla links and added new design capabilities for advanced materials and construction systems.

More than ever before, we engaged our users in developing and testing SCIA Engineer 18 - from selecting three top favourite enhancements to reviewing and testing some of the new functionalities as part the SCIA Insider program.

SCIA Engineer 18 brings you:

- **Enhanced usability with streamlined workflows** for more effective work and faster learning of the software
- **Advanced materials and floor systems** expanding the array of possibilities for multi-material design (steel fibre reinforced concrete, autodesign of composite floors, support for structural glass add-on...)
- **Extended information flow in BIM** with upgraded roundtrip links to Revit and Tekla Structures

ENHANCED USABILITY WITH STREAMLINED WORKFLOWS

Whether you are an experienced user or new to SCIA Engineer, the simplified workflows, default settings and other usability improvements will help you get started on new projects fast, make your work more efficient and save you time.

New default functionality settings to help you start a new project fast

- Commonly used functionalities are enabled by default
- Individual functionalities have been regrouped and resorted to reflect the most frequent scenarios

Automation along the whole workflow saves you time

- A default cross-section is available for each material selected in the project
- A self-weight load case is created automatically, allowing the users to directly verify their model by calculating the response to the self-weight
- Code-based combinations are generated automatically in accordance with the selected building code
- Nonlinear combinations can be easily and directly derived from an existing linear envelope combination.

Optimised tree-menus and direct access to learning materials

- The SCIA Engineer tree-menu has been modified in terms of both look and behaviour to provide easier access to individual functions.
- The Project Manager, which opens at the start of SCIA Engineer, now offers direct access to numerous learning materials: learning videos, step-by-step tutorials accompanied by their sample project.

New 3D navigation control

- Simpler and more flexible view/pan/zoom controls
- Direct access in the 3D window to minimize mouse travels
- One click "zoom-all" and "perspective view"
- Precise navigation to all sides and corners of the project

Different colours for point, line and surface loads

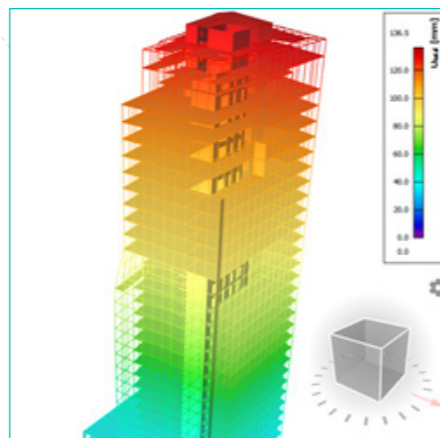
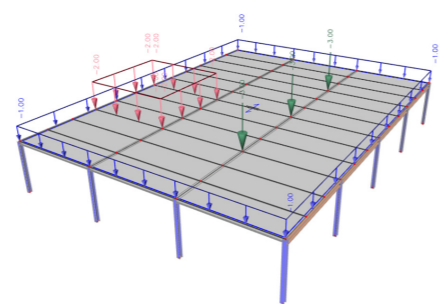
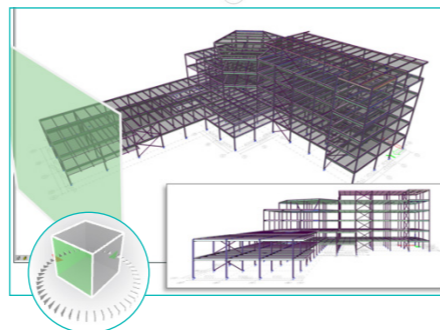
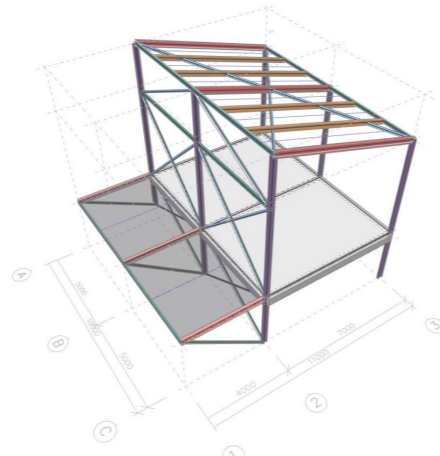
- This enhancement enables you to easily differentiate the types of loads in a model: point loads, line loads and surface loads, by assigning a specific colour.

Simplified buckling settings

- All inputs related to spans, buckling and deflections have been consolidated in one place
- Immediate graphical response to changes in buckling settings
- Effective input using buckling groups

Faster and clearer overview of the results

- Extended integration strips on 2D members
- Much faster, simplified visualisation of deformations
- Export of results to an XML file
- Adjustable limits for checks of 1D members
- Transparent determination of support eccentricity



ADVANCED MATERIALS AND FLOOR SYSTEMS

Ready to deliver economical, clearly documented designs for new materials and floor systems? The new extensions to concrete and composite design will help you. Moreover, SCIA Engineer is the first 3D structural analysis software to provide an integrated solution for steel fibre reinforced concrete design.

Autodesign and unique reporting in composite design

- Use of steel beams with large openings based on an SCI publication
- Automatic design of studs and cross-sections
- Result labels summarising the design on a plan view
- Camber design
- Detailed and transparent reporting

The new steel fibre reinforced concrete design solution

- Support of Bekaert's Dramix® steel fibres
- Automatic calculation of the steel fibre dosage
- ULS and SLS checks: capacity, shear, crack width, stress limitation
- Advanced material and geometrical nonlinear analysis
- Ability to expand the built-in material library by other steel fibres

SIA 262:2013

- Calculation of internal forces
- ULS design of 2D members
- ULS and SLS checks
- Section checks
- Detailing provision

Extended capabilities of punching shear design

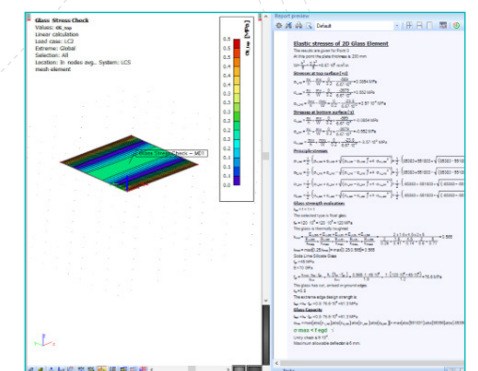
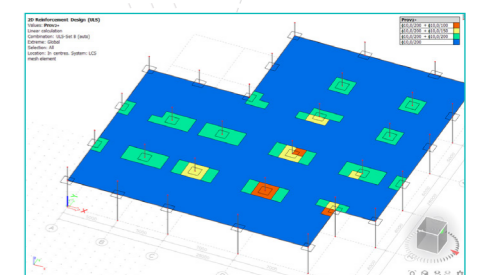
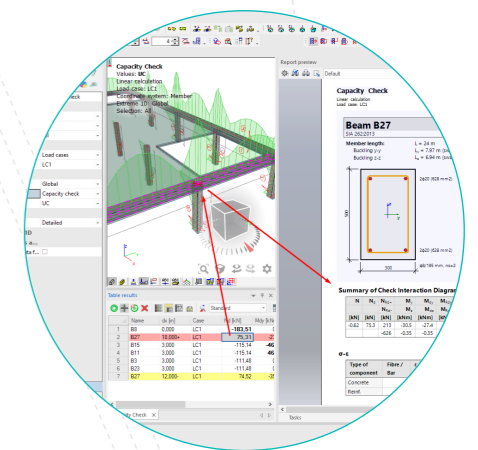
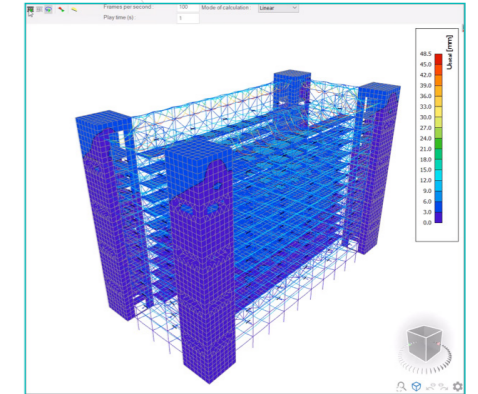
- Punching shear design can be performed using the user-reinforcement
- Punching shear design is compatible with nonlinear combinations
- Concrete stress is taken into account while evaluating VRd,c

Improvements in design of concrete structures

- New default settings reflect the most frequent scenarios and speed up the workflow
- The extended library of manufactured steel reinforcement meshes allows users to incorporate those from their preferred supplier
- The optimised memory management makes the concrete design more robust and stable even for very large models

Links to structural glass and foundation applications/add-ons

- Integrated design of structural glass elements using a module developed by ALLBIM NET SPRL company,
- Link to the external FD+ application for the design of foundation pads developed by FRILLO Software GmbH.



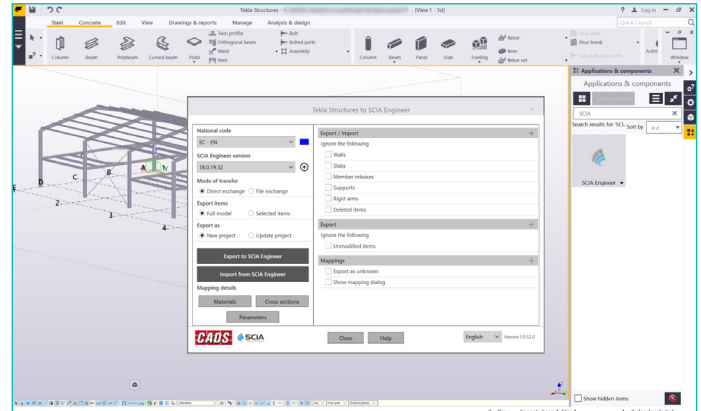
SCIA Engineer 18

EXTENDED INFORMATION FLOW IN BIM

The upgraded Revit and Tekla links now boast an extended information support to bridge the gap to concrete and steel detailing.

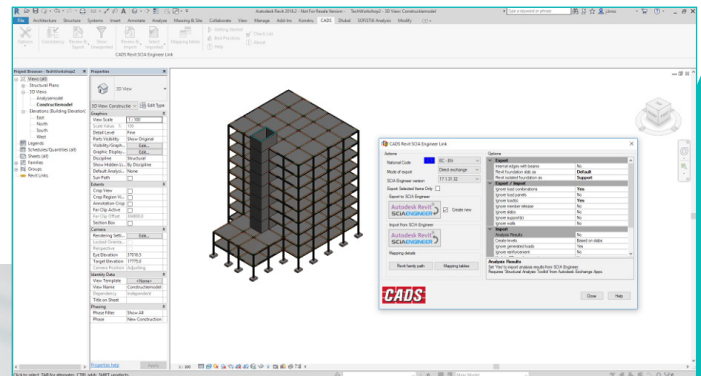
Tekla Structures

- Bi-directional exchange of data enabling users to smoothly follow the BIM workflow from the architect's concept (Tekla Structures) to analysis and code design (SCIA Engineer) to final detailing (Tekla Structures)
- Improved material and cross-section mapping
- Support for complex beams such as curves, polylines
- Export of end reactions to support the detailing of connections in Tekla Structures



Revit

- Export of reinforcement for 1D and 2D members
- Export of load panels
- Support of storeys
- Mapping improvements



**INTERESTED IN SCIA ENGINEER 18?
CONTACT US TODAY.**

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For a complete list of all our international agencies and partners, please visit our website



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