

# PERFORMANCE HIGHLIGHTS

## ALLPLAN ENGINEERING BUILDING

**Allplan Engineering Building** (Allplan Engineering Building) is a powerful BIM planning tool for Structural Engineering that supports the entire planning process throughout engineering and construction companies. The particular strength of the software lies in the three-dimensional modeling and reinforcement of buildings. This allows the construction to be carried out in advance so that errors and conflicts can be identified and corrected during the planning phase. Common interfaces exist for collaboration with planning partners. Together with SCIA Engineer, an integrated structural design solution is offered.

### DIGITAL BUILDING MODEL

A digital building model unlocks endless possibilities. In addition to building plans, you can also generate isometric and exploded drawings to illustrate complex details, resulting in fewer queries and detail drawings. A combination of shell entities, openings, reinforcement, fixtures, and tendons, allows you to visualise the construction process of intelligent structural models, enabling early detection of conflicts and collisions. The BIM method offers considerable benefits with respect to changes and adjustments to the original planning. Plans update automatically when changes are made to the model, reducing errors and saves you time.

### EFFICIENT KEY PLANNING

Based on the structurally underlying span direction, select the respective mark symbol, confirm the mark designation, and place it at the desired point. With that, the preparations for the structural calculation are complete.

### COMPONENT-ORIENTED GENERAL ARRANGEMENT DRAWING

**Allplan Engineering Building** provides all components for reinforcement detailing (e.g., walls, slabs, downstand beams, columns, stairs) and object planning (e.g., windows, doors, roofs). Corbel columns, sleeve foundations, and girders are also offered for structures in frame construction. Siemens' worldwide leading modeling kernel Parasolid® from Siemens PLM software is used for general modeling tasks. Quantities are compliant with German building regulations and are virtually prepared as a side product of the general arrangement drawing.

### TOP-LEVEL REINFORCEMENT PLANNING

**Allplan Engineering Building** provides a comprehensive portfolio for reinforcement planning: from steel bars (with screwed coupler systems from Ancon TT, Ancotech Baron C, Armaturis Hérison and Firsty, Dextra Bartec and Rolltec, Erico Lenton, ReidBar and SAH SAS 500/550 and 670/800), to reinforcement meshes (including bent-up meshes, spacers, BAMTEC reinforcement carpets) to schemas labeled conforming to standards, and clear bending schedules. This functionality is completed with catalogs with fixtures by Halfen, Peikko, Philipp, and Schöckas in addition to parametric objects (PythonParts). Construction projects with complex geometry (e.g. double curvatures and variable cross-sections) show in particular, that **Allplan Engineering Building** was designed for intuitive, interactive general arrangement drawings and reinforcement planning.

The interaction of component-oriented general arrangements drawing, automatic edge detections, predefined reinforcement groups, and the comprehensive control possibilities via handles ensure high practicality. Depending on the purpose, you work in plan, isometric view, views or sections as appropriate and create a three-dimensional model. Changes to shell entities or reinforcement are updated in all layouts automatically and free from conflicts. After importing the results of the Finite Elements calculation, you can use the reinforcement contours or vectors as a basis for individual reinforcement, automatic area reinforcement, BAMTEC reinforcement carpets, or punching shear checks with Halfen fixtures.

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## ROUND-TRIP ENGINEERING: COMBINATION OF CAD AND STRUCTURAL ANALYSIS

Many offices still use CAD and structural analysis software, but when integrating with one another, accuracy of data is compromised. The data must be additionally entered in the structural analysis software missing the ease of use in CAD systems. Using **Allplan Engineering Building**, you can transfer the components to a full design/structural model in SCIA Engineer and other compatible systems.

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## SMOOTH DATA EXCHANGE

Seamless exchange of data is critical to day-to-day planning. **Allplan Engineering Building** supports the common CAD formats, such as DWG, DXF, and DGN. Furthermore, drawings can be comfortably imported and exported as two-dimensional PDF documents to other CAD systems. Regardless of the CAD system used, correct layout view, scale and layer are maintained. Full design models or details can be provided to planning partners, construction managers, or clients in a very clear form as a three-dimensional PDF file. Free Adobe Reader is required only for interactive viewing. Using the IFC2x3 and IFC4 interface, you can also exchange intelligent design models and reinforcements with planning partners not working with Allplan solutions. Interfaces to 3D modeling tools, such as Rhinoceros 3D and SketchUp, and the visualization software CINEMA 4D are available to complement the offering.

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## LANGUAGES

English

**Product offerings differ and are dependent upon region.**

**Current system requirements can be found at [allplan.com/info/sysinfo](http://allplan.com/info/sysinfo)**

