

PERFORMANCE HIGHLIGHTS

ALLPLAN ENGINEERING

Allplan Engineering is a powerful BIM planning tool that supports the entire planning process in engineering and design offices, as well as construction companies. The software's particular strength lies in the three-dimensional general arrangement and reinforcement design. With this, the building construction is carried out in advance, so that discrepancies and conflicts are already visible in the planning phase. All the common interfaces are available to ensure smooth collaboration with planning partners. In conjunction with FRILLO Structural Analysis or SCIA Engineer, you have an integrated solution for structural design.

INTELLIGENT BUILDING MODEL

An intelligent structure model from which you can derive drawings to complex details, isometric or exploded views opens up new possibilities. This leads to fewer queries and fewer detail drawings. By bringing together building objects, including break-throughs, reinforcement, fixtures and – where appropriate – tendons into one intelligent structure model, the designer can go through the construction process, which helps identify discrepancies and collisions at an early stage. The BIM approach is of great benefit of your work, especially when it comes to making changes or adjustments to the original design. All changes are made centrally, i.e. carried out only once and automatically transferred into all drawings. This helps you to avoid errors and save time.

EFFICIENT STRUCTURAL LAYOUT

Based on the predominant structural span direction, you select the appropriate component symbol, confirm the component description and place it in the desired position. After this your preparations for the structural analysis are complete.

COMPONENT-BASED GENERAL ARRANGEMENT DESIGN

Allplan Engineering makes available all the components for the general arrangement design (e.g. walls, slabs, beams, columns, stairs) and object planning (e.g. windows, doors, roofs). Corbels, socket foundations and purlins are also provided. A special bridge and civil engineering modeler is available for the design of structures and earthworks. The program calculates quantities almost automatically with the general arrangement design.

REINFORCEMENT DETAILING AT THE HIGHEST LEVEL

Allplan Engineering has the full repertoire available for reinforcement drawings; bars (with coupler systems from Annahütte, BARTEC and Lenton), standard and custom meshes (including bent-up meshes, spacers and BAMTEC reinforcement carpets) as well as standard-compliant labeled schemes and clearly laid out bending schedules. This functionality is rounded off by catalogs of fixtures from Halfen-Deha, Peikko, Philipp and Schöck as well as parametric CAD objects, the PythonParts. Allplan Engineering was designed from the ground up as free-form, interactive general arrangement and reinforcement design software. This becomes particularly evident during construction projects with complex geometries. The interaction of building component-based general arrangement design, formwork finder technology, predefined reinforcement groups and comprehensive, grip-based control options helps create a high level of practicality. Depending on their suitability, you can work in floor and ceiling plans, isometric views, elevations or sections when creating a spatial model. Changes to the building components or reinforcement are mirrored automatically and consistently in all drawings. After the results of the structural analysis have been imported, you can use the reinforcement contours or vectors as the basis for individual reinforcement, automatic area reinforcement, BAMTEC reinforcement carpets or punching shear designs with Halfen-Deha fixtures.

ROUND-TRIP ENGINEERING: THE INTERATION OF CAD AND STRUCTURAL ANALYSIS

Many offices still use CAD and structural analysis software from different suppliers, which as a rule are not perfectly compatible with one another. Often structural analysis software does not allow the user to input data in the same convenient way as CAD. With Allplan Engineering you can transfer components to Frilo Static or even a complete building model to the structural analysis software Scia Engineer.

SMOOTH DATA EXCHANGE

Smooth data exchange processes are enormously important every day in the design office. Allplan Engineering naturally supports commonly used CAD formats such as DWG, DXF and DGN. In addition, you can quickly and easily import or export drawings produced with other CAD systems as two-dimensional PDF documents. Regardless of the CAD system used, the correct appearance, scales and layers are retained. You can provide planning partners, site managers and clients with details or complete structure models in a readily accessible form as three-dimensional PDF files. The software required to interactively view the documents is the free Adobe Reader. You can also exchange structure models and reinforcement over the IFC interface 2x3 and IFC4 (export) with design partners who do not have to be using Allplan. There are also interfaces to 3D modeling tools such as Rhinoceros 3D and SketchUp, as well as the CINEMA 4D visualization software.

Current system requirements are available at allplan.com/info/sysinfo

