

# PERFORMANCE HIGHLIGHTS

## ALLPLAN 2021

Allplan 2021 is the most powerful BIM solution offered by ALLPLAN, which supports the complete planning process in architectural offices, engineering offices and throughout construction companies. The software offers a consistent solution for model creation, visualization, quantity determination, as well as general arrangement drawings and reinforcement planning. This allows the construction to be carried out in advance so that errors and conflicts can be identified and corrected during the planning phase. Together with Allplan Bimplus, a cloud-based BIM platform, central model storage, visualization, and coordination across offices and disciplines becomes reality. Common interfaces exist for collaboration with planning partners. Together with SCIA Engineer, an integrated structural design solution is offered.

### CUSTOMIZABLE USER INTERFACE

With Allplan 2021 you can configure your user interface and workspace individually: plans, views, and perspective views can be opened in parallel windows, and even on different screens, at the same time. The user interface of Allplan 2021 is arranged role- and task-specifically. As result, the user can always maintain an overview despite the large scope of functions.

### DIGITAL BUILDING MODEL

A digital building model unlocks endless possibilities. Not only can you derive plans, sections, views or details for the different planning phases, but also visualizations as well as complex area and quantity analysis for building permits, cost determination and tenders. By combining building elements, finish, openings, reinforcement, fixtures, and possibly tendons into an intelligent building model, you can simulate the construction process in advance, enabling early detection of conflicts and collisions. The BIM method offers particular benefits with respect to changes and adjustments to the original planning. All changes are applied once and then transferred automatically to all layouts, reducing the risk of errors and saves you time.

### INTUITIVE MODELING

Based on the Parasolid® technology from Siemens PLM software, Allplan 2021 offers endless possibilities in the area of 3D modeling: enabling more freedom when creating volume and surface models with higher precision and performance. In addition to the extended scope of functions, you profit from a better graphic quality in the modeling window and significantly quicker calculations of Boolean operations and other 3D modeling sequences.

### REALISTIC TERRAIN MODEL

You can easily create realistic digital terrain models. A digital terrain model forms the basis for drafts, layout views, earthwork calculations and their visualization. Reference point coordinates can be imported and exported in a variety of formats, in addition to UTM and Gauss-Krüger coordinates. Slopes can be created with constant or variable inclinations. Meshing points to form triangles or contour lines can be selected for views.

## RELIABLE QUANTITY DETERMINATION

Determine the quantities of all components within a short time and use them for cost determination and TAI. Quantity determination is easily comprehensible, including calculation method and illustrating graphics. The determined areas and quantities can be printed in the form of appealing reports, saved as PDF or Excel file, or transferred to a suitable TAI software such as NEVARIS for cost determination and tender.

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## HIGH-QUALITY VISUALIZATION

Real Time rendering enables enhanced visualization of the structure within seconds. With visual feedback you can review various sites, views, camera settings, materials and sky light settings. With CineRender (from MAXON) integrated in Allplan 2021, high-resolution rendering is achievable, further enhanced by create tracking shots and shadow studies to complete the offering.

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## COMPONENT-ORIENTED GENERAL ARRANGEMENT DRAWING

Allplan 2021 provides all components for reinforcements planning (e.g., walls, slabs, 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. A special bridge and civil engineering modeler is available for planning engineering structures.

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## TOP-LEVEL REINFORCEMENT PLANNING

Allplan 2021 provides a comprehensive portfolio for reinforcement planning: from steel bars and coupler systems, to reinforcement meshes, to schemas labeled conforming to standards, and clear bending schedules. This functionality is completed with catalogs and fixtures in addition to parametric objects (PythonParts) Construction projects with complex geometry (e.g., double curvatures and variable cross-sections) show in particular, that Allplan 2021 is perfectly suited for intuitive, interactive general arrangement drawings and reinforcement planning. The interaction of component-oriented general arrangement 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 the 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 entered in the structural analysis software missing the usual ease of use. Using Allplan 2021, you can transfer the components to SCIA Engineer for full structural analysis and design and other compatible systems.

## SMOOTH DATA EXCHANGE

DXF, DWG, DGN, or IFC: Allplan 2021 offers various exchange options. Data exchange with Rhinoceros 3D, SketchUp, CINEMA 4D, Google Earth, or Lumion is available to complement the offering. Layouts in PDF make efficient communications easier – even 3D models can be inserted into PDF and viewed by any user using Adobe Reader.

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## LANGUAGES

German, English, Bulgarian, Chinese, French, Greek, Dutch, Italian, Japanese, Croatian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Czech, Turkish, Hungarian, Vietnamese.

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

