

Allplan BIM 2008 Architecture Package



The Interdisciplinary CAD Design Solution for Architects

The Allplan architecture package is the complete solution for discerning architects and designers and contains comprehensive functionality for general 2D designing, 3D modeling, layout, visualization and data exchange. Unlike with traditional CAD systems, you do not need additional programs for layout and visualization. Quantity takeoff is already integrated and can be used for construction cost planning together with a tendering, awards and billing (TAI) system.

Component-oriented Building Planning

Allplan building planning enables a digital building model to be efficiently created. This serves as the basis for visualization and accurate building cost planning.

- ▶ Building model from intelligent architecture components (e.g. walls with multiple construction layers, curved walls, foundations, corner windows, window sills, installation masonry)
- ▶ Entry and editing of components in plan view, isometric view or in an animation window
- ▶ Animated preview when entering components
- ▶ Moving and changing of door and window openings easily with the mouse using handles
- ▶ Parametric design of windows, doors and planar façades
- ▶ Parametric design of standard and custom stair types taking account of regulations



Westend campus, Johann-Wolfgang-Goethe University in Frankfurt/Main, Architects pmp, Munich

- ▶ Design of all roof types (e.g. pitched roof, gambrel roof, barrel roof), dormers and complex "roofscapes" including skylights
- ▶ Comfortable tools for filtering and finding architectural components
- ▶ Associative, architecture-specific dimension blocks created automatically

Flexible Building Structure

User-driven wizards permit customized Allplan data structures.

- ▶ Visual storey manager:
Free assignment of height information
- ▶ Building structure for intuitive mapping of construction groups and organizational building units

Highlights

- ▶ Wide range of functionality - from 2D design and construction to object oriented building elements
- ▶ Intuitive creation and organization of virtual building model (i.e. Building structure)
- ▶ Versatile parametric designer for special 3D components (i.e. railings, fences)
- ▶ Simplified communication with clients with PDF-Import/Export of 3D models
- ▶ Supports traditional exchange formats (DWG, DXF, DGN)
- ▶ Design2Cost with wizard-based Input
- ▶ CAD-supported Quantity take-off awarded the TÜV Süd certification
- ▶ IFC Interface 2 x 3

- ▶ Semi-automated conversions for views, sections and lists from the component-oriented model

Modeling of Windows, Doors and Façades

You can design windows, doors and complete façades to scale with Allplan with user-defined definition of the LOD (level of detailing).

- ▶ Highly parameterized modeling
- ▶ Scale-dependent or drawing type - dependent representation
- ▶ Fixed variant planning with wizards through façade element exchange
- ▶ Extensive list reports
- ▶ Creation of example catalog system

Modeling of Railings and Fences

You can create linear, evenly subdivided building elements quickly and easily in Allplan.

- ▶ Highly-parameterized modeling of all types of protective elements
- ▶ Ideal for creating, processing and analyzing railings, fences, barriers, cornices etc.

Skeleton Constructions

Allplan provides you with effective support for designing skeleton constructions for roofs, ceilings and walls.

- ▶ Modifiable rafter positioning
- ▶ Timber beamed ceiling
- ▶ Mapping of rod-shaped systems for wood and steel construction
- ▶ With standard profiles
- ▶ With custom profiles

VOB-Compliant Quantity Takeoff

Using Allplan components you can quickly perform quantity takeoff calculations and based on the results, you can generate extensive analyses and evaluations. If you also use a tendering, awards and billing system such as Allplan BCM Building Costs (formerly Allright), you also benefit from added speed.

- ▶ Graphically supported, traceable quantity takeoff in accordance with VOB
- ▶ Dynamic, freely configurable reports on documents for reliable layout creation and maintenance (ideal supplement to room stamps)
- ▶ Consistent data thanks to common catalog access with Allplan BCM Building Costs
- ▶ Quantity transfer and update to the tendering, awards & billing system
- ▶ Quantity and costs tachometer in Allplan as plausibility check during planning
- ▶ Effective quantity takeoff in connection with Allright (TÜV-certified), so that real quantities can be determined without the details needing to be drawn
- ▶ Ongoing comparison and update of changes in Allplan or Allplan BCM Building Costs
- ▶ Automatic modification of surfaces in Allplan if a position is changed in Allplan BCM Building Costs
- ▶ Identification of quantities from Allplan BCM Building Costs through color display in the Allplan drawings
- ▶ Transfer of quantity takeoffs to TAI system using Allplan BCM Quantities (formerly Alltop) as link to Allplan.

Evaluation of Rooms and Areas

Rooms and their finish specifications are available for analysis at touch of a button.

- ▶ Efficient room creations
- ▶ Area calculations
- ▶ Rapid determination of exact floor areas and contents of rooms and story's of a building in accordance with the latest DIN 277 standard
- ▶ Automatic splitting of floor heights
- ▶ Categorization by occupancy type
- ▶ Individual room labeling
- ▶ Associative room labeling for geometry values and attributes
- ▶ Legend generator to analyze and visualize areas and rooms according to different criteria (e.g. for patterning plans for clients)
- ▶ Lists and schedules including graphics

General Contracting - working in Partnership

Allplan offers a unique platform for integrated planning.

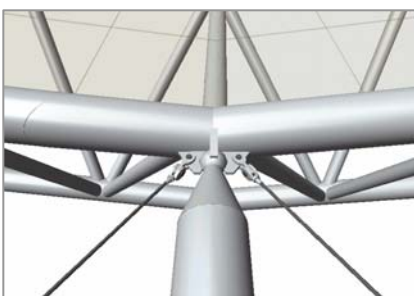
- ▶ Architects, engineers, structural designers, building service providers, facility manager and Pre-cast factories work on the basis of uniform CAD data
- ▶ Same user interface
- ▶ No external data formats
- ▶ Occupancy-specific attributes and evaluations

Ease of Use

In addition to the latest Windows and CAD standards, Allplan provides a wide range of practical methods for entering data so that newcomers will quickly find their way around Allplan.

- ▶ Freely configurable user interface with intuitive palettes

- ▶ Intelligent cursor with user-friendly filter functions and snap tools
- ▶ Drag & drop, Handles and Windows-compliant shortcuts
- ▶ Insertion of images, texts etc. via clipboard
- ▶ Intuitive selection of tools using the right mouse button and visual assistants
- ▶ Copy format tool to quickly copy format properties such as pen, line and color to other elements
- ▶ Workspace can be rotated for optimum ergonomics
- ▶ Repeat and restore of entries, even after you have saved
- ▶ Quick selection of the last thirty commands
- ▶ Support of mouse wheel in all modules (e.g. zooming using the mouse wheel)
- ▶ Step-by-step filtering of elements in any sequence with immediate display of results
- ▶ Reliable modification through display of activated points and ToolTips



- ▶ Express refresh function for fast zooming and moving
- ▶ Insertion and editing of documents from other applications such as Word, Excel etc. (OLE)
- ▶ Single or multiple insertion of documents (drawing file or NDW file) as x-ref (polygonal or x-clipping) on a document

- ▶ Save and load of files using Windows Explorer or innovative Allplan project structure
- ▶ Easy and simple processing of scanned drawings
- ▶ Object manager to prepare and analyze plans for facility management and other tasks
- ▶ Tools such as a calculator and measuring function for exact drawing
- ▶ Symbol catalogs (symbols/smart symbols) for interior design, steel construction etc.
- ▶ Extensive online Help system
- ▶ Optimum support for working with two screens e.g. for large plans

2D Design

When designing in 2D, Allplan leaves nothing to be desired. Even complex shapes can be drawn in an easy and comfortable manner. The intelligent Allplan user-friendly point input functions enable drawing with minimum clicks.

- ▶ Extensive features for 2D design, e.g. parallel and closed polylines, polygons, various input options for circles, ellipses and splines
- ▶ Wide range of colors, line types and line thicknesses
- ▶ Support thanks to practical design aids (calculation of center of gravity for areas, perpendiculars, perpendicular bisectors, tangents, angle bisectors etc.)
- ▶ Practical guides such as dynamic scale grid, special axis grid for buildings, construction lines etc.
- ▶ Flexible modification with delete, move, copy, resize, fold functions etc.
- ▶ Fast drawing of fills, hatching and patterns with automatic outline detection and RGB background colors

- ▶ User-friendly insertion of insulation, waterproofing courses etc. as pattern lines
- ▶ Intelligent positioning for paving stones etc.
- ▶ Text format properties as in MS Word® with fast selection of most recently used fonts (incl. True Type and Chinese, Arabic and other fonts)
- ▶ Associative dimensioning with dimension text position based on configurable rules (e.g. DIN, SIA) and dimension lines routine for finding errors in the plan
- ▶ Resizing of drawing elements with influence area

Custom 3D Modeling

Using Allplan's powerful modeling and sketching tools, you can draft and design intuitively and make any modifications – because after all, ideas rarely emerge at the push of a button.

- ▶ Modeling and sketching in three-dimensional space
- ▶ Powerful modeling tools for creating standard solids, solids of revolution, polyline sweep solid, pyramids and tessellated solids (Boolean operators)
- ▶ Joining of 3D objects
- ▶ Simultaneous working in multiple viewports using 3D crosshairs
- ▶ Associative views and sections
- ▶ Creation of presentations of your design in real time while working in multiple animation windows
- ▶ Intuitive working: merging, slicing and intersecting solids, piercing surfaces
- ▶ User-friendly creation of "custom areas" for three-point and four-point canopies
- ▶ Optional: Direct use of CINEMA 4D modeling tools possible in Allplan



Zeppelinhalle, Student project by Anke Spittel, Jens Müller and Björn Steudte, Weimar

Presentation

The presentation tools are directly integrated in Allplan and allow you to present your design in real time while you draw. You do not need any additional software or interfaces.

- ▶ Several animation windows to display and check models
- ▶ Calculation of high-resolution, photo-realistic images using various rendering methods
- ▶ User-definable surface properties and textures
- ▶ Interactive camera movement in animated mode
- ▶ Mist, seasonal surfaces for spring, summer, fall and winter
- ▶ Shadow calculation, any light sources and lamps
- ▶ Walk-throughs, sun studies, AVI movies
- ▶ Interactive connection to CINEMA 4D
- ▶ Exporting and importing a large number of bitmap formats

Layout and Design

Allplan includes extensive layout and design tools – providing you with innumerable options to present your ideas convincingly: combine drawings, images, graphics and text in no time at all and create outstanding layouts, tables, boards, presentations and much more.

- ▶ Fills with color transition and transparency for making light settings, for example (transition from one color to another, transition can even be defined for transparency)
- ▶ Transparent bitmaps for textures, backgrounds and structures (e.g. take a photo of the floor covering and use it as a pattern)
- ▶ Sequence properties of elements (setting is also taken into account in subsequent printing and plotting operations)
- ▶ Background color freely selected from 16 million colors (even for hatching and patterns)

- ▶ Exact positioning of geo-referenced orthophotos (as TIFF or JPG files) with bitmap area
- ▶ Textures for realistic features in 2D drawings or associative views and sections
- ▶ Blanking for text and dimension text
- ▶ Integrated bitmap editor for refining images in Allplan
- ▶ Automatic alignment and distribution of elements for simple and perfect layout
- ▶ Access to a wide range of textures and current symbols (people, furniture, cars and trees) and smart symbols (e.g. letterboxes, roller blinds, garage door) for visualization and layout

PDF Import and Export

You can easily use PDF format with Allplan for efficient communication with your clients. You can even include animated 3D models in a PDF.

- ▶ Direct creation and export of 2D and 3D PDF files in Allplan without add-ons; appearance, scale and layers are retained
- ▶ Easy import of e.g. manufacturer catalogs or plans as PDF documents using drag & drop
- ▶ Everyone can view files in free-of-charge Adobe Reader, including hiding/showing of layers, measurements, redlines and also rotation and intersection for integrated 3D models

Plot layout, Printing and Plotting

Your advantage in Allplan: The drawing and plot layout are separate work processes. While drawing elements, you do not need to decide how the subsequent printout is to look.

- ▶ User-friendly "what you see is what you get" layout with cropping for extra-large plans
- ▶ Detailed display on plan with "detailing windows" that can have any polygonal form
- ▶ Quick printout with preview
- ▶ RTL grid raster driver for perfect print output for long layout plans
- ▶ Efficient comparison of older and newer plans through automatic comparison
- ▶ Batch plot with Windows driver
- ▶ Storage locations for files can be user-defined as in MS Office
- ▶ Intelligent integration of facility management software
- ▶ Allplan connects architecture and engineering in a single application

Further Information

If you need additional information please contact your local Nemetschek dealer or visit us at our website at: www.2008.allplan.com.

Quick Data Management

Even large data volumes for complex building projects can be processed quickly with Allplan.

- ▶ Building-specific structuring of data using drawing file and layer technology
- ▶ Multi-file system data maintenance enables several files to be loaded and unloaded simultaneously
- ▶ Management of the data quantities so that only the objects currently required are loaded
- ▶ Ongoing optimization in the most important, performance-sensitive areas

Data Exchange

Allplan offers almost unlimited data exchange options.

- ▶ Time-saving interface technology for automated data exchange with high data integrity: e.g. DXF, DWG and DGN
- ▶ The individual settings for each project design partner need only be entered once
- ▶ Simplified, file-based data exchange between Allplan users, even with different versions, using the special Allplan file format NDW