

Allplan BIM 2008 Engineering

An over view of the most important innovations in this Version

Innovations:

- Function, properties and assistant palettes as new dialog elements
- Direct alignment and modification of components and reinforcements through handles
- New Object Snap and Track Tracing functions
- Support for the formats of the future IFC 2x3 and PDF as well as for traditional formats DWG/DXF 2007 and DGN V8
- New components, such as foundations, installation components, as well as three- and four-point canopies
- Plane manager and building structure
- Improved design and layout functions, such as expanded dialog boxes for lines, polyline tool, circles, text objects, freeform layout windows, collision-free lettering.
- Associative views and keys, as well as easy updates and changes with an update mechanism
- Expanded reinforcement functions, such as ring reinforcement and spiral reinforcement, new reinforcement groups
- Expanded manufacturer's catalogs (collaboration with BAMTEC, Erico-Lenton, Halfen-Deha, Peikko, Schöck, Stahlwerk Annahütte)
- Integrated structural design – (Round-Trip Engineering)

The benefits for you:

- Improved organization, a more intuitive workflow and optimized work processes
- Simplified design
- Simplified collaboration and communication among colleagues and with planning partners, site managers and clients
- Convenient creation and management of an intelligent building model
- Improved plan design and legibility and time savings
- Integrated workflow within a model, as well as enhanced security as a result of consistent planning documents
- Workflow facilitation and significant time savings
- More efficient planning and increased planning security
- More productivity and increased convenience during the data transfer process, elimination of typical sources of errors

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The most important innovations in this Version

Ergonomics

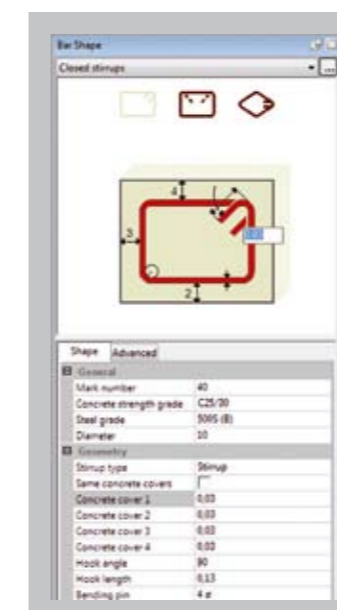
Allplan ergonomics continues to improve with each successive new version. In order to achieve this development goal in the long term, function, properties and assistant palettes were introduced as new dialog elements in Allplan BIM 2008.

The **function palette** integrates and clearly arranges the existing CAD Navigator and its corresponding toolbars "Create", "Create II" and "Modify".

The **properties palette** unifies dialogs with different designs into a single dialog element that always has the same design. All parameters can be entered clearly in a table format. The quick input function further accelerates and simplifies the program. This function can be configured individually and only the most important parameters are shown.

The **assistant palette** makes it noticeably faster and easier to work with pre-defined content.

You can now use **handles** for numerous settings and modifications without the need for special commands or dialogs. This makes working with the program substantially more intuitive. In addition, fewer commands are needed, which increases clarity and transparency. The new **Object Snap** and **Track Tracing** functions make the design process more comfortable. The workflow remains uninterrupted, and it is now possible to create geometrically demanding designs without time-consuming construction lines.



Clarity and consistency with the new properties palette

Interoperability

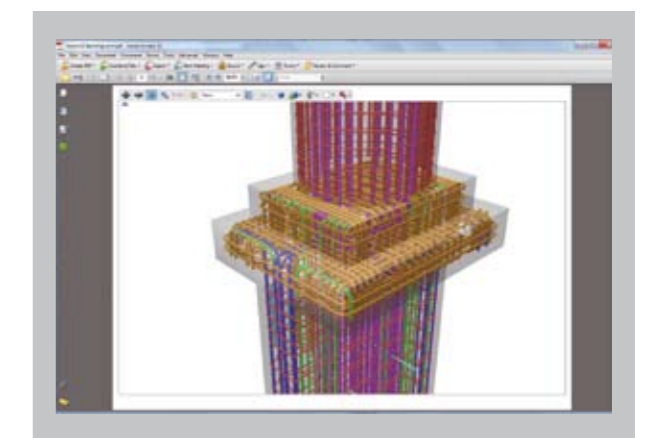
Allplan BIM 2008 runs on **Windows Vista** and supports commonly used formats such as **DWG/DXF 2007** and **DGN V8**.

In addition, we support the future oriented formats **IFC 2x3** and **PDF** to facilitate communication among offices with planning partners and clients that are not using Allplan.

Collaboration with other Allplan users is noticeably optimized using the resources inherent in the Allplan formats **NDW** and **NPL**.

Allplan uses the original Adobe libraries for the **import and export of PDF** files. This means that 2D PDF files can be imported and exported comfortably with drag & drop. Independent of the CAD system, the software retains the correct layout, scale and layers in the process.

In addition, it is possible to import and export 3D PDF files. The software thus provides complete building models or details in a very vivid format. In order to view the files, the planning partner or client only requires a copy of Adobe Reader, which is available free of charge.



Interactive 3D reinforcement detail in Adobe Reader, which is available free of charge

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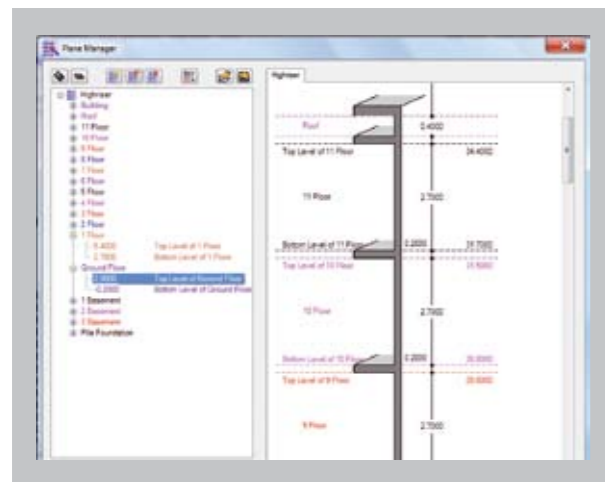
The most important innovations in this Version

Intelligent Building Model

The introduction of new components, such as **foundations** and **installation components** and **three- and four-point canopies** complete the scope of commands for the easy creation of an intelligent building model. Moreover, it is now possible to define walls, beams, supports and foundations with custom cross-sections.

With the assistance of the **plane manager**, you can set up projects with storeys, floors, structure and file splitting with just a few clicks.

The **building structure** which is based on the plane manager provides a functional data structure that corresponds to the structure of the building. Sections, views and lists can be derived easily eliminating the need for a time-consuming manual creation process.



Plane manager for the administration of stories and levels

Design and Layout

Design and layout are among the most frequently used CAD functions. Accordingly, many improvements were implemented in this area, from a complete revision of **dimensioning** and **extended dialog boxes for lines, the polyline tool, circles, and text objects** with beginning and end symbols, to support for **freeform layout windows**. **Automatic arrangement of labels** constitutes a very practical improvement, as it avoids collisions and dimension overlaps.

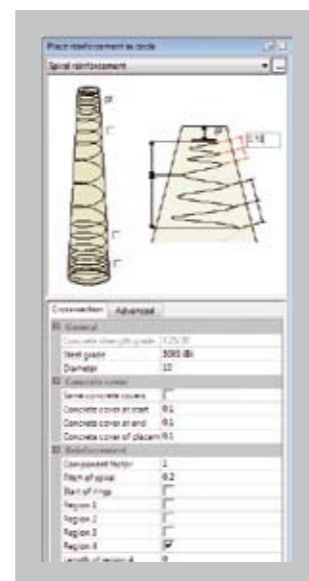
Integrated Workflow

The new **associative views** enable a consistent workflow from the initial architectural draft to the completed reinforcement drawing. Architecture, shell and reinforcement planning takes place in a shared model from which the different plans are derived. The interim step of copying to the shell view that was necessary in the past is completely omitted. This means that all changes made to architecture components, shell objects and reinforcement are immediately tracked into all plans automatically.

Associative keys, whose contents are updated automatically, round out these new developments.

Advanced Reinforcement Functions

Ring reinforcement and **spiral reinforcement** are completely new developments. These functions make it substantially easier to reinforce ring-shaped foundations, walls, ceilings or engineering structures, such as digestion towers, silos, water reservoirs or wind power stations. In the process, significant value was placed on taking practical requirements into account. For example, length and rise can be limited by reinforcement bars to ensure transportability. In addition, all segments of a reinforcement ring can be forced to have a unified length, so that the number of marks remains limited to their minimum number. Every parameter modification, such as the number of reinforcement layers, is updated immediately in the 3D reinforcement model. A result of this direct visual feedback is effects become apparent immediately, and erroneous entries or faulty operations are avoided.



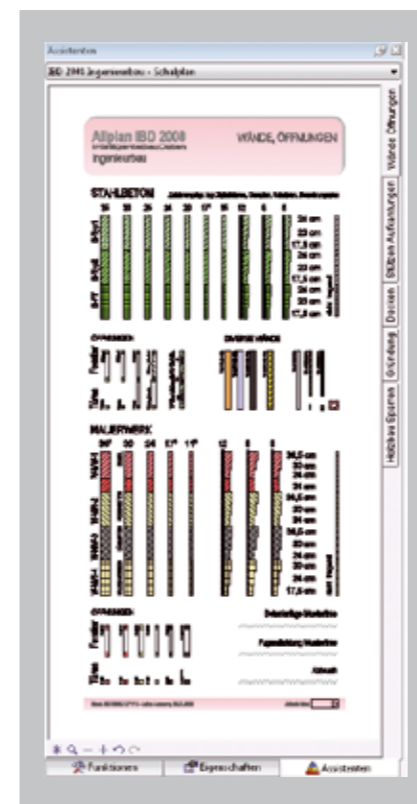
Properties palette for spiral reinforcement

New reinforcement groups have been added, for example girders and supports with support recesses for one- and two-sided consoles with horizontal or haunched designs, as well as joint tapes.

Manufacturer's Data and Content

In order to guarantee a high level of practicality, Nemetschek collaborates with industry partners. Until now, fixtures by Halfen-Deha and reinforcement carpets by BAMTEC were available in Allplan. Fixtures by **Schöck** (incl. lugs) and **Peikko** (incl. wall shoes, beam shoes and column shoes) have been added. Allplan catalogs and special functions for planning with rebar splice systems by **Erico-Lenton** and **Stahlwerk Annahütte** have been integrated. This reduces planning expenditures, and allows the number of units to be determined efficiently and collision tests to be performed. Naturally, **cross-section catalogs** have also been maintained, for example, with respect to new standard stock meshes and new stock meshes or spacers.

Allplan IBD and similar products are available in Germany, Austria, Switzerland and Italy.

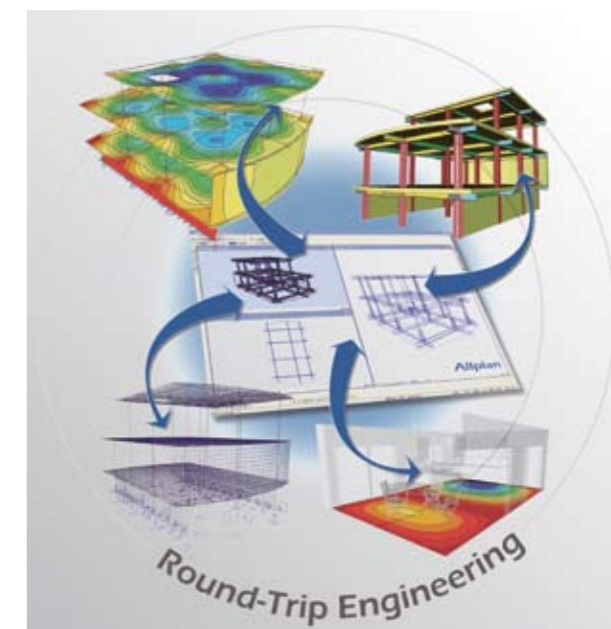


Assistant palette with Allplan IBD Engineering

Round-Trip Engineering

Many offices still use CAD and structural engineering 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 systems.

With Allplan BIM 2008, individual components can be transferred to the structural analysis programs by Friedrich + Lochner. Even a complete building model can be transferred to the SCIA.ESA PT structural analysis software. The software then automates the process of creating a structural analysis system from the components. The high-performance update mechanism in SCIA.ESA PT deserves a special mention; this mechanism displays changes in the CAD planning process in an organized format. **Round-Trip Engineering** makes working in an engineering firm more efficient and convenient, improves organization, and eliminates sources of error.



Additional Information

Detailed information about the current version of the innovative 3D design software Allplan BIM 2008 is also available on the Internet at www.2008.allplan.com.