

# THE MOST IMPORTANT INNOVATIONS



*Building Information Modeling, 1zu1 Ioeffelholz, Lindau, Germany*

Interdisciplinary cooperation is becoming more and more significant in the context of the BIM working method. Designers therefore need software solutions that support their interdisciplinary work. Allplan Architecture 2017 offers you unique possibilities for modeling coordination, in conjunction with the cloud-based, open BIM platform, bim+. Several innovations in the field of modeling have simplified the production and modification of 3D solids. They have made the production of views and sections quicker and easier than ever before. Finally, we have also satisfied a large number of customer wishes and made several detailed improvements. Allplan is the best tool for your everyday work – both today and in the future.

## ALLPLAN SETS NEW STANDARDS IN THE AREA OF COOPERATION

One central challenge involved in working with the BIM method is to allocate the various tasks clearly to all the project participants and then to track them. The task management should be as quick and as convenient as possible for both you and your design partners. For this purpose, the **Task Board** was introduced in Allplan 2017. The Task Board is directly connected to the open BIM platform, bim+. With bim+, you can collate, view, analyze, and share model data from Allplan and other OpenBIM solutions. The BIM Coordinator may, for example, detect unclear situations or design errors thanks to a visual check or using the **bim+ Collision Manager** and then allocate each problem to a specific editor. During the interaction

between bim+ and Allplan, any new to-dos are immediately displayed on both sides. When the task is complete, the status is set to “Done” and the modified model is uploaded to bim+ again. All the project participants then immediately have access to the new design status.

bim+ and the Allplan Task Board make it possible for interdisciplinary teams to communicate in real time. Linking specific tasks to objects makes it easier to exchange information and accelerates the coordination process. All the users have an overview of their open tasks at all times. Moreover, the fact that all identified problems and their solutions are documented provides even greater transparency.

The **Workgroup Online** function of the Allplan Workgroup Manager makes it possible to work together on the Allplan model regardless of your location. In the process, Allplan project data is exchanged via the Internet. A new compression process was introduced now to reduce the transfer time for large volumes of data: the data volume and so the transfer duration were reduced by 75 percent on average. In certain cases, even up to 90 percent. In this way, you can work on your projects online much quicker.

To ensure a problem-free data transfer between design partners, Allplan provides a large number of different interfaces that are constantly being upgraded and updated. In the 2017 version, the focus is on the exchange of 3D volume and

surface data (NURBS), which is important for BIM projects. You can now also exchange free-form geometries without polygonization in the following formats: **AutoCAD DWG/DXF**, **MicroStation DGN (Import)** and **Rhino**. In addition, it is also possible to export BIM models in the **IFC4** format. These optimizations support the interaction with other software products and improve the data quality involved in information transfers.

### EXCELLENT DEGREE OF CONVENIENCE FOR MODELING AND CREATING DESIGNS

Due to the integrated parasolid modeling kernel, a large number of new options are now available to you. As a result, **3D solids without any previous polygonization can be modified simply and precisely**. The system allows the editing of random points, straight or curved edges and the surfaces of 3D elements. In addition, the user-friendliness and workflows in the 3D modeling have been optimized.

The parasolid-based **3D solids can now be converted into user-defined free-form components (quantity solids)**. These user-defined components can be modified in flexible and simple ways with the usual modifications such as Boolean operations or point modification. It is even possible to easily define and adjust the outline presentation.

Thanks to the **new filter function for partial images**, the building model is now even easier to handle. You can activate the entire 3D model in an animation window and hide the partial images that you do not need in the outline presentation. The outline then only shows the stories that you would actually like to see. In this way, you can

gain an overview of the entire building in the animation view, without several partial images being superimposed on each other in the outline and becoming unclear.

With the **revised functions for producing views and sections**, the generation of designs is now more convenient and quicker than ever before. Tools palettes allow you to control the presentation parameters directly and intuitively. The system updates the derived designs automatically after any modifications to the building model. Manually added elements such as dimension lines or texts are retained. In this way, you can ensure that your designs always match the building model. In addition, the calculation of the sections is up to 50 percent faster.

### SEVERAL IMPROVEMENTS AND CUSTOMER WISHES IMPLEMENTED

The existing **SmartPart library** with parametric objects has been supplemented with predefined bands of windows. Moreover, there are adjustments and implemented customer wishes in the range of existing objects: The "window sill" object is now more flexible and can be modified using handles. The range of door cutouts and the possibilities for fitting roller blinds has also been extended considerably.

There is another option for gaining access to parametric objects: with the integrated **Allplan Python API programming interface**. You write Python scripts, with which you can add new functions and objects to Allplan. The Python-Parts produced in this way have a separate user interface with properties palettes, handles and individual work processes. They can also be modified later with just a few clicks. In addition to

producing parametric objects and variants, you can also automate recurring work steps with this interface.

To make your orientation easier and to speed up the workflow when working with steel profiles, the **Steel Profile library** was restructured, updated and supplemented with lacking profiles.

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## YOUR BENEFITS AT A GLANCE

- ➔ Benefit from innovations that promote optimized, interdisciplinary cooperation – from the new Task Board with its connection to bim+ through the accelerated data transfer with Workgroup Online and even the new and optimized interfaces in the Volume Data Transfer area.
- ➔ Experience for yourself the height of comfort in your modeling and design generation: With the parasolid modeling kernel, you will find several new possibilities for 3D modeling. The revised functions for sections and views make

design generation faster than ever before. The new filter function for partial images also simplifies the handling of the building model.

- ➔ Many improvements and implemented customer wishes make your everyday work much easier: from new SmartParts through to the updated Steel Profile library.