CORPORATE NEWS

**Allplan Bridge 2023 - Shaping Bridges in a Better Way**

***A new Era in Free Parametric Modeling enables even more Efficient Design of Everyday Bridges and Infrastructure***

Munich, October 13, 2022 - ALLPLAN, provider of BIM solutions for the AEC industry, presents its BIM software for bridge engineering **Allplan Bridge 2023**. The new version introduces a new **free parametric modeling** approach that enables the parametric modeling of an entire bridge or its sub elements, and other infrastructure, freely in 3D space. Further important **product enhancements** are the extensions of the national annexes as well as improved collaboration with Allplan Engineering, 2D diagrams, nonlinear temperature load, external tendons, fatigue check, and many more.

After only four years, Allplan Bridge is already a market leading global BIM solution with users in 40 countries and across five continents. Many leading international civil engineering and specialist bridge engineering consultancies have already adopted the software and it has been used on projects of all sizes and types – from the everyday highway bridge to complex urban metro developments or on landmark projects such as within the world’s longest suspension bridge.

Allplan Bridge is changing bridge and infrastructure design philosophy and the demand for digitalization of bridges which is underlined by ever increasing use case testimonials and numerous satisfied clients such as the Portuguese Engineering and Architecture Consulting and Design Group QUADRANTE. José Rolo Duarte, Operations Director Transports from QUADRANTE confirms: *“The move to doing projects in BIM has required a mindset shift for our infrastructure team, not just in terms of the process, but also being open to change and flexibly adapting to a new way of working. However, with Allplan Bridge, we have made a significant leap forward in this area.”*

The new Allplan Bridge 2023 further supports this development as Gregor Strekelj, Product Manager Infrastructure at ALLPLAN, says: “*With version 2023, a new era in parametric bridge modeling is now here,* *enabling the parametric modeling of an entire bridge or its sub elements freely in 3D space using volumetric primitives and Boolean operations. This is also a more generally applicable parametric modeling technique which can be used in a much wider sense for modeling various infrastructure requirements”.*

**What else is new in Allplan Bridge 2023?**

**Easily design to key national standards**  
Development of the latest code-based design module has been focused on the introduction of the first 3 national annexes and their specifics. The implementation of the latest valid version of national annexes is now available for Germany (DIN EN), France (NF EN), and Spain (UNE EN). All limit states are now covered by annex-specific limit values or methods and are also referenced in the reports.

**Designing more durable bridges**Fatigue check, based on the damage accumulation method, was added to the list of code checking features for Eurocode users. This feature provides the possibility to prove the safety of the engineer´s design for fatigue to the end of the design working life. The traffic loads can be input at different times to enable the change of traffic intensity or type. On each date, the “master task” is created that can contain multiple subtasks, each representing one vehicle type acting from this time on, a corresponding combination of internal forces, and a number of cycles per annum.

**One analytical model for static and dynamic analysis**Allplan Bridge uses the multi-mode Response Spectrum Method for evaluating the effects of seismic loading. With Allplan Bridge 2023 it is possible to reduce the torsional stiffness in the form of a user defined factor for selected bridge elements. The reduced stiffness is used only for the modal analysis enabling only one calculational model, for static and dynamic calculations.

**Powerful templating and data exchange**The best way to improve productivity is to automate repetitive tasks. Instead of repetitively modeling similar objects, one standard object could be created and used multiple times. This should not be limited to modeling only but rather applicable to the entire design process. All of this is possible by combining templating with parametric modeling. This is because a set of variables that influence the parametric model can be linked with the template’s input for an automated workflow

**Improved collaboration with Allplan Engineering**  
When it comes to the organization of data, every user likes to organize their data in such a way that it is most sensible to them. In Allplan Bridge 2023 this is accomplished using the “Custom tree.” In Allplan this is achieved using the drawing files. For visualizations, reinforcement modeling, detailing and drawing production the model from Allplan Bridge is not only transferred but also linked. In the new version a further “link” is established between the “custom-tree” in Allplan Bridge and the “drawing files” in Allplan, empowering controlled data transfer and improving the update process.

**Optimized performance for smoother change management**  
The free parametric modeling approach follows the main product philosophy, namely that all the modeling elements are connected parametrically. This is true not only for the new prism elements but also for all the Boolean operations that are possible. To allow for smooth management of changes, also for larger and more complex structures, in Allplan Bridge the complete geometry calculation now uses a new and more advanced calculation procedure – “dependency tree-based solver”. This algorithm generates a tree of dependencies between individual objects such that only the part of the model which is affected by the implemented change is recalculated.

**Clearly communicate structural behavior**   
In Allplan Bridge it is possible to display the results of structural analysis, and reinforcement design in the form of tables and 3D diagrams. In the new version the results can be visualized also in form of 2D diagrams which provide an easy and concise presentation of results and clear communication of structural behavior.

**Availability**Allplan Bridge 2023 as well as the free 30-day trial version are now available for download.

**To learn more about the latest release and many further features, visit:** <https://www.allplan.com/bridge2023>

**Press Images:**

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| **Ein Bild, das Text enthält.  Automatisch generierte Beschreibung** |  |
| *Allplan Bridge 2023 introduces with free parametric modeling a new modeling method. It enables the parametric modeling of an entire bridge or its sub elements freely in 3D space. Copyright: ALLPLAN.* | *The collaboration between Allplan Bridge and Allplan Engineering has been improved by providing a “link” between the “custom-tree” in Allplan Bridge and the “drawing files” in Allplan. Copyright: ALLPLAN.* |

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**About ALLPLAN**

As a global provider of BIM solutions for the AEC industry, ALLPLAN covers the entire planning and construction process from initial design to execution planning for the construction site and precast design, in line with the motto "Design to Build". Thanks to lean workflows, users create planning documents of the highest quality and detail. In the process, ALLPLAN supports interdisciplinary collaboration on projects in building construction and infrastructure engineering with integrated cloud technology. Over 600 employees worldwide continue the company's success story with passion. ALLPLAN, headquartered in Munich, is part of the Nemetschek Group, the pioneer for digital transformation in the construction industry.

**Further information:** [www.allplan.com](http://www.allplan.com)