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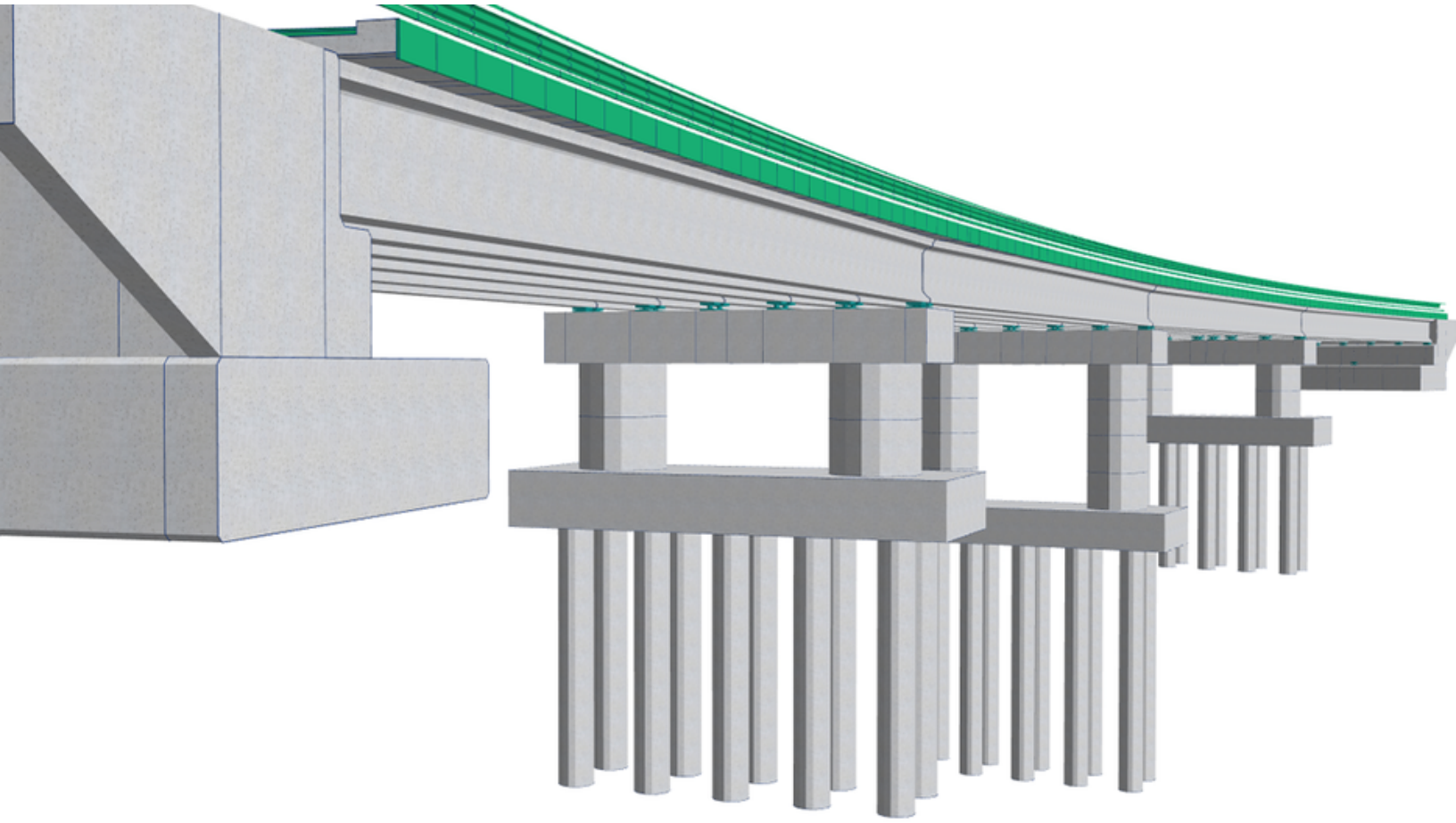

A dedicated modeling solution for generating an exact geometry easily and quickly

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Allplan Bridge 2022: The Evolution in Modeling for Precast Girder Bridges

Munich, October 8, 2021 – ALLPLAN, the global provider of BIM solutions for the AEC industry, today announced the availability of **Allplan Bridge 2022**. Allplan Bridge is the world's first BIM software that enables bridge engineers to work from the creation of a parametric 4D model to structural analysis, reinforcement design and detailing with one single solution. The new version introduces a new modeling approach to easily and quickly **create accurate geometry for precast girder bridges**. Further new features include the US norm AASHTO LRFD9 design and code checking as well as the integration of IFC4.3 for better interoperability and optimized BIM workflows.

Dr. Detlef Schneider, CEO of ALLPLAN, said: *"Allplan Bridge's set of powerful features and its user-friendly interface make it the most efficient BIM software for bridge design on the market. With the new modeling approach for precast girder bridges and its enhanced tools for optimized BIM workflows, Allplan Bridge lets engineers focus on what they do best: design and build attractive and safe bridges."*

"Allplan Bridge 2022 continues to grow with its unique BIM workflow for parametric modeling, analysis, design and detailing. The new version builds on previous releases and introduces specific workflows for the design of precast girder bridges, which is one of the most common bridge types around the world. This marks an important milestone in terms of innovation, because Allplan Bridge now offers a unique solution for 3D modeling of precast girder bridges," adds Gregor Strekelj, Product Manager Infrastructure at ALLPLAN.

Many improvements in Allplan Bridge 2022 are based on customer feedback. For example, Ko-Biro, one of the leading consulting engineering companies in the field of designing bridges in Slovenia, has been testing the latest beta version, especially the new workflow for precast girder bridges. Aljosa Klobucar, bridge engineer and co-owner of Ko-Biro is convinced: *"The new modeling workflow actually allows us to generate 3D BIM and detailing models of precast girder bridges in no time. Especially due to the usage of 3D templates and the new element type link girder. With this 3D modeling approach, usage of the BIM method can now be applicable for these types of bridges."*

New in Allplan Bridge 2022

Specialized Solution for Precast Girder Bridges

The new modeling approach is specifically tailored for **precast and steel girder bridges**. The straightforward definition speeds up the modeling process and allows users to generate an accurate model with ease. Several new features have been implemented to enable this workflow and there are many additional new features that not only simplify this workflow but can be used more broadly. For example, the precast girder can be generated by using the new element type "Link Girder".

Parametric Modular Modeling

To optimize the modeling process even further, not only for precast girder bridges but for any bridge type with repeated bridge elements, the new version of Allplan Bridge enables users to **create and use parametric 3D templates**. This way, repetitive bridge elements – such as straight precast girders – have to be defined only once and then placed parametrically as many times as necessary. This speeds up not only the modeling alone but also the process of implementing changes.

AASHTO LRFD 9 integrated

The **integrated version of AASHTO LRFD 9** covers strength limit states, service limit states, and fatigue limit state of reinforced and prestressed sections, with checks of detailing rules for designed reinforcement. This provides comprehensive design and code-checking of concrete bridges based on a sectional approach. The overall process takes over previously calculated internal forces based on the construction schedule and considering creep and shrinkage calculations based on AASHTO functions. They are applied to a section with time-dependent material and cross-sectional properties. This means that concrete hardening in time is considered as well as the state of the section.

Code-based design and checks to Euro norm extended

The **Eurocode design and checks** were extended with the brittle failure check based on the reduction of prestressing force method and detailing checks of soft and prestressing reinforcement. The tasks for ULS and SLS situations were merged into one common task, optimizing design processes.

IFC4.3 for enhanced project collaboration

For the use of the openBIM method a neutral data format is required, which plays a decisive role in the BIM workflow. **IFC4.3 for infrastructure** has been added to the latest version of Allplan Bridge. The IFC4.3 schema enhances the previous structure of products and product types to better explain the classification of a specific domain. In the domain of bridges, bridge type and bridge part type are used with enhanced object types to represent respective bridge elements, such as abutment, pier, deck, foundation, superstructure, substructure and many more.

This new schema is supported by both Allplan Engineering and Allplan. It allows the bridge structure to be more easily broken down. Further, it includes descriptions for object type, geometry, and materials. All this improves the quality of the IFC model and results in smoother BIM coordination and collaboration in bridge projects between all involved parties.

Availability:

Allplan Bridge 2022 as well as the free 30-day trial version are now available for download.

About the Nemetschek Group

The Nemetschek Group is a pioneer for digital transformation in the AEC/O industry. With its intelligent software solutions, it covers the entire lifecycle of building and infrastructure projects and guides its customers into the future of digitalization. As one of the leading corporate groups worldwide in this sector, the Nemetschek Group increases quality in the building process and improves the digital workflow of all those involved in the building process. Customers can design, build and manage buildings more efficiently, sustainably and resource-saving. The focus is on the use of open standards (OPEN BIM). The portfolio also includes digital solutions for visualization, 3D modeling, and animation. The innovative products of the 15 brands of the Nemetschek Group in the four customer-oriented segments are used by approximately six million users worldwide. Founded by Prof. Georg Nemetschek in 1963, the Nemetschek Group today employs more than 3,000 experts.

Publicly listed since 1999 and quoted on the MDAX and TecDAX, the company achieved revenue amounting to EUR 596.9 million and an EBITDA of EUR 172.3 million in 2020.

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