



All precast elements of the Rütihof industrial park in Switzerland were detailed, designed and produced by BFU in only 9 months

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Allplan in practice

BIM IN PRACTICE ON THE RÜTIHOF PROJECT

ALLPLAN PRECAST ENABLES EFFICIENT COLLABORATION

The Rütihof project is a perfect example of the implementation of the openBIM concept. From the very beginning, the two project partners, Beton-Fertigteil-Union (BFU) and METHABAU, relied on BIM. After a short familiarization phase, the results were very positive.

BFU was responsible for the design, detailing, and production of the precast elements. The Swiss company METHABAU acted as the main contractor, taking over the project development, the complete design in 3D and BIM, the execution planning, as well as the construction services. The key to their joint success is efficient collaboration between all parties involved in the construction project – and this is where openBIM comes in.

SMOOTH INFORMATION FLOWS

Previously, the time-consuming design process involved METHABAU drafting the paper plans in 2D and submitting them to BFU. Then, BFU would draw the shop drawings and send them back to METHABAU for checking. This time-consuming and error-prone process is now a thing of the past: today, data exchange is optimized via IFC. With the help of the IFC-Assistant and the MEP-Assistant, BFU was able to quickly implement the elements in Allplan Precast and thus obtained high-quality production plans and shop drawings. Allplan Precast is characterized by the highly automated design and production of slabs and walls.



Image left: Precast elements enable climbing in all Olympic disciplines
© METHABAU

Image top right: Truck docking station
© METHABAU

Image bottom right: BFU production hall
© BFU

MODELLING IN RECORD TIME

Thanks to the automated workflows in Allplan Precast, significant time savings in design and detailing could be achieved. By means of IFC, openBIM – essentially, software-independent data exchange – is integrated and made a reality. From the beginning of a construction project to its completion, all relevant data and models are collected and are available at any time for all participants with the status. openBIM thereby enables uniform standards for design, construction, and management.

Furthermore, the common BIM model considerably reduces the effort required to coordinate works. Thanks to standardized workflows and templates, all parties involved gain more clarity. Any collisions and modeling errors are reliably detected when the specialist models are merged. Allplan Precast for the highly automated design and production of slabs and wall supports openBIM and offers flexible design in 2D and 3D at the highest level. The unique automated shop drawing technology provides both the clarity and vividness of the 3D model and the simplicity of the 2D plan.

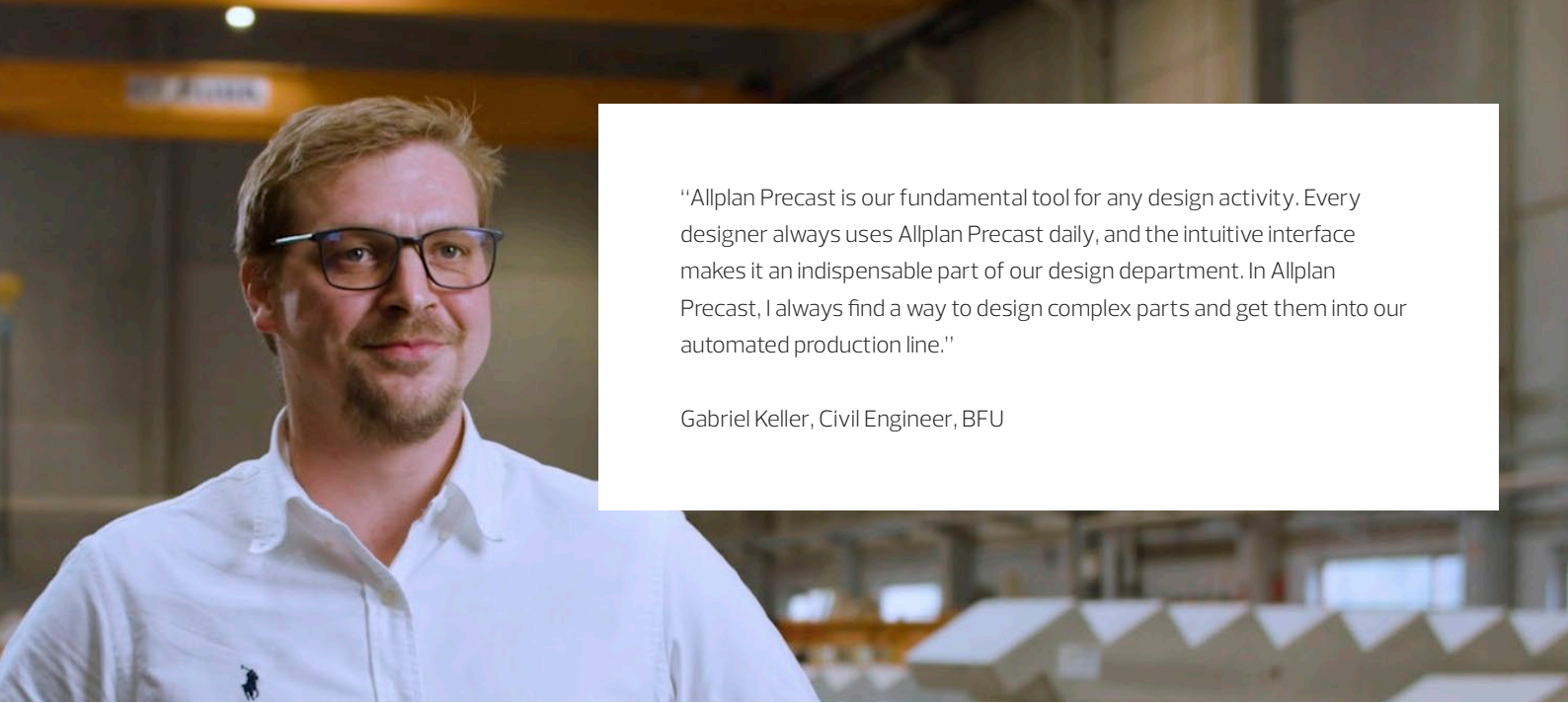
BFU RELIES ON ALLPLAN PRECAST

The efficiency gains provided by the automated shop drawing technology are one of the many reasons why BFU has long relied on Allplan Precast. The software was also used for the design and detailing of the precast elements for the Rütihof commercial building. Within just nine months, BFU designed and produced all precast elements on time and with the highest quality.

PROJECT INFORMATION AT A GLANCE

- > Focus: Precast construction
 - > Precast design software: Allplan Precast
 - > Precast design: BFU
 - > Construction period: June 2019 – March 2020
 - > Produced precast elements: 10,000m² of slabs
 - > Produced precast elements: 1,100m² of walls
 - > Number of stair elements: ca. 50
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More information on the project can be found in the video „Why BFU relies on Allplan Precast in terms of BIM“ – [Click here](#)



"Allplan Precast is our fundamental tool for any design activity. Every designer always uses Allplan Precast daily, and the intuitive interface makes it an indispensable part of our design department. In Allplan Precast, I always find a way to design complex parts and get them into our automated production line."

Gabriel Keller, Civil Engineer, BFU

BETON-FERTIGTEIL-UNION GMBH & CO. KG

BFU is a medium-sized company and manufactures a wide range of precast concrete parts. The product portfolio ranges from walls and slabs to structural precast elements such as balconies, stairs, or facades. With architectural concrete, BFU offers the option to color precast concrete parts on request. Recently, a single-occupancy micro-

house made of precast elements has been added to the product range. As a manufacturer of precast concrete parts, BFU differentiates itself with a strong combination of innovative building ideas and outstanding quality. The company headquarters is located in the Black Forest in Baden-Württemberg, Germany.

ABOUT THE COMPANY

ALLPLAN is a global provider of BIM design software for the AEC industry. True to our "Design to Build" claim, we cover the entire process from the first concept to final detailed design for the construction site and for prefabrication. Allplan users create deliverables of the highest quality and level of detail thanks to lean workflows. ALLPLAN offers powerful integrated cloud technology to

support interdisciplinary collaboration on building and civil engineering projects. Around the world over 500 dedicated employees continue to write the ALLPLAN success story. Headquartered in Munich, Germany, ALLPLAN is part of the Nemetschek Group which is a pioneer for digital transformation in the construction sector.

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