TECH SOFT 3D

Tech Soft 3D Case Study: RIB Software

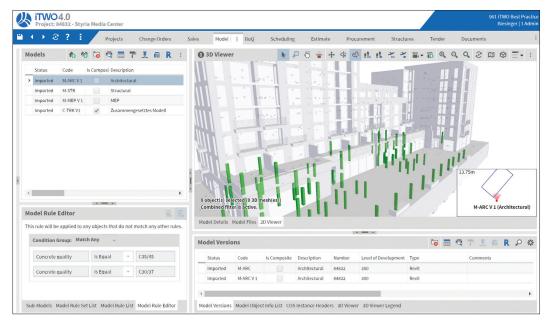## HOOPS helps take RIB's iTWO construction management solution to the cloud

> "What is interesting for RIB is that we are not limited to any discipline, we focus on everything. "The HOOPS Web Platform support ensures that regardless of the data our clients are trying to consume, we can support the visualization because we have HOOPS behind us."
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> **Steffan Rabe, Director of Development, RIB Software**

The Challenge

Since its founding in 1961, RIB Software SE has been a pioneer in construction innovation, exploring and bringing in new thinking, new working methods, and new technologies to enhance construction productivity. Headquartered in Germany, the company serves nearly 15,000 customers around the world.

"As an innovator in the construction business, our goal is to develop and offer cutting edge technologies to construction enterprises across various industries," explained Martin Biesinger, Developer at RIB. "We want to transform the construction industry into one of the most advanced industries in the 21st century through the seamless integration of virtual planning and physical construction execution."

In 2009, RIB released the initial version of its flagship RIB iTWO offering, which enables the virtual execution, planning, and control of projects as well as the simulation of production and maintenance processes. RIB iTWO joins groups from all disciplines in the construction phase – from design, scheduling, and project management, to controlling and finance – into a single environment.

"Our clients often have large amounts of data coming from a variety of design applications and product data management (PDM) systems," said Steffan Rabe, Director of Development at RIB. "Whether it's traditional 2D drawings or 3D CAD design information coming from an application like Revit, it is critical for our clients to have the ability to accurately view and interpret the data, regardless of its origin."

RIB
running together

Fast, High Quality Visualization of Massive Model Rendering on the Cloud

Not content to stand still, RIB aimed to continue innovating and looked to the next challenge: the increased demand for access to data in real time, on any device. This had been a challenge for RIB and much of the construction industry given the complexity, size, and various types of data involved in the projects. The company recognized the value a cloud platform could offer in this area.

"In 2015, we decided to jump to the cloud," said Rabe. "Because of our good history of partnering with Tech Soft 3D for our desktop solution , we looked to them for solutions to support our iTWO application on the cloud."

Tech Soft 3D began a massive model viewing project to determine if their vision of web visualization could support the high demands coming from the construction industry. RIB pushed the limits of the technology by pro-viding large building models as a benchmark for Tech Soft 3D. The HOOPS Web Platform proved to be capable of visualizing entire buildings in a dynamic online environment and was their first choice for powering their new web client.

Leveraging these Tech Soft 3D components allowed the launch of iTWO 4.0 – the world's first cloud-based 5D BIM enterprise platform. iTWO 4.0 platform integrates the 3D BIM model with project schedule (4th D) and cost (5th D) for design-to-delivery management, realizing end-toend digital planning and physical construction in one cloud-based integrated platform.

HOOPS performs a number of behind the scenes functions to make RIB's 5D BIM enterprise platform run smoothly.

"One of the biggest challenges for us is that many of our customers are using a Citrix environment with a terminal server – and his-torically, most people have taken an attitude of 'forget the 3D,'" said Biesinger. "Because HOOPS Web Platform has a lot of optimizations in addition to server side rendering, this enables users to continue working while their design is loaded. The ability for our clients to view huge models in the Citrix environment has been a big step forward for us."

"What is interesting for RIB is that we are not limited to any discipline – which is to say, we don't just focus on mechanical data, we focus on everything," said Rabe. "HOOPS Web Platform support ensures that regardless of the data our clients are trying to consume, we can support the visualization because we have HOOPS behind us."

Industry:

- Construction Planning

Challenge:

- Visualize massive construction assemblies on the web from a variety of sources

- Manage 2D drawings, 3D CAD data, and PDM information in a single environment

- Unlock 3D data from customers' Citrix environments

Solutions:

- HOOPS Web Platform lever-ages the power of proven 3D technologies for web application development

Results:

- Enable fast visualization of even the largest 3D CAD construction assemblies via the browser

- Provide instant access to critical PDM building data in one place, side by side with design informa-tion, saving customers valuable time

- Allow server side rendering for access to 3D and CNC data in Citrix