### Case Study KK-CAD Services



Kai Keser

- CEO of KK-CAD Services www.kk-cad.services
- KK-CAD Services offers design services for planning offices. With specialization in Mechanical, Electrical and Plumbing (MEP), they support highly complex projects in data centers as well as in the pharma and semiconductor industry.

# The **Project**

- Creation of a highly accurate 3D-model of a 4100m² technical floor, forming an integral part of an industrial facility.
- The scan data was provided by the client via NavVis-IVION. The modeling was carried out using Autodesk Revit®.
- Part of the facility were highly complex piping networks that had to be precisely represented by the 3D model.

# The Challenge

The very large data volume made processing in Autodesk Revit® impossible. Common solution strategies came with long loading times, complex handling, and an increased risk of errors.

- The sparse representation of Revit's point cloud close-up views complicates modeling with high precision.
- The time needed to download, preprocess and convert data would severely endanger the deadline.
- Elevated risk of errors combined with rising strain on the project team throughout the project execution.

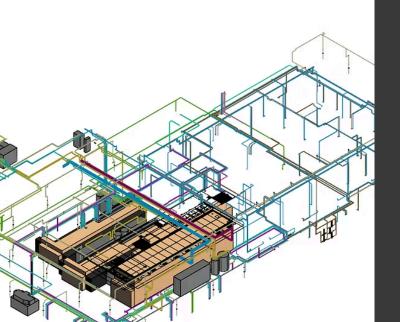




#### The Solution

Due to KK-CAD's high quality standards and the tight project schedule, the Qbitec for Revit plugin was used for the first time. The software could be seamlessly integrated into the ongoing workflow without long training and immediately improved the existing workflows. Scan data could be streamed directly from the cloud into Revit, eliminating downloads and preprocessing entirely.

Handling the data became much easier: there were no size limits, relevant areas could be quickly shown or hidden, and the practical X-Ray mode made pipes and other hidden elements visible, greatly simplifying MEP planning. Panorama photos could be directly embedded into the model, and display parameters such as point size and transparency could be flexibly adjusted to the situation.





With Qbitec, everything worked seamlessly from day one. Features like X-Ray or the integration of panoramic images save us enormous amounts of time and effort. And when I share ideas for improve-ments, they are directly taken into account in Qbitec's development - that's far from a given.

#### The Result

With Qbitec, KK-CAD Services was able to execute the project approximately 20% faster than planned. Improvements in modeling as well as in early detection of potential inconsistencies contributed to increased efficiency and ensured the high quality required. Loading times and preprocessing were reduced almost to zero. Even large point cloud areas could be smoothly handled in Revit at any time, noticeably boosting productivity.

Working in the complex environment became much clearer, and all key information was easily visible. The BIM model was thus delivered on time and at the highest quality - with significantly less stress for the modelers.

Particularly noteworthy was Qbitec's fast and personal support, always responding competently to questions and suggestions.

This successful combination of powerful software and dedicated service convinced KK-CAD Services and provides real added value in the execution of complex projects.



