

COMPANY

GOLDBECK GmbH

LOCATION

Bielefeld, Germany

SOFTWARE

Autodesk® BIM 360 Glue™
 Autodesk® Revit® Architecture
 Autodesk® Revit® Structure
 Autodesk® Revit® MEP

We can now minimise information losses substantially using BIM. All those involved in a project can access the same building information model and add to it in the course of the project. This enables design and building processes to run simultaneously. Design steps that were previously completely separate are now closely interlinked using BIM.

—Mark Jäckel
 Revit Project Manager
 GOLDBECK GmbH

BIM Collaboration in the cloud

GOLDBECK sets the benchmark when it comes to its BIM solutions and cloud services



Project visualisation – office building with warehouse.

Since 1969, GOLDBECK has been designing, building and managing complete solutions for commercial and local authority building projects. Its range of services centres on industrial and logistics buildings, offices and car parks. The company also designs schools, sports halls and solar facilities. Before a tailored concept for a complete building project is produced, countless details must be considered – choice of premises, customer-specific project design, extension planning and a consideration of costs over the entire lifecycle of the building. Economic efficiency, quality and speed are key requirements. GOLDBECK relies on Building Information Modelling (BIM) solutions from Autodesk to meet these customer requirements and successfully implement building projects, from the concept, design and creation, right through to building management. In the future, project co-ordination will be carried out in a cloud computing environment with Autodesk® BIM 360 Glue™.

3D Design

GOLDBECK has around 3300 employees working at 29 sites in Germany and 10 sites across Europe. BIM is hugely important for the collaboration of all those involved with the project. BIM is a digital design concept linking up all processes and data relating to the lifecycle of a building. Everything revolves around a virtual, digital 3D model of the

planned building on the computer, which, as a central information hub, provides all those involved in the project with the necessary data and links it all together. Projects can be planned in detail, the look of the future building can be accurately visualised, and factors such as costs, design processes and environmental influences can be better understood. BIM does not consider any single aspect on its own. Instead, all factors in a building project are weighed up in relation to one another and options are tested. This helps all those involved to find the best solution in a cost-effective and consistent process.

GOLDBECK primarily uses Autodesk® Revit software technology. The solution has been specially developed for BIM and allows users considerable latitude, from initial concept exploration right through to detailed design and documentation.

GOLDBECK's switchover to Revit has resulted in a fundamental change in the work methods of general planners. "We can now minimise information losses substantially using BIM," says Mark Jäckel, Revit Project Manager at Goldbeck GmbH. "All those involved with a project can access the same building information model and add to it in the course of the project. This means that design steps that were previously completely separate are now closely interlinked using BIM." The project workflow has improved significantly through application of the Autodesk solution.

Cloud computing has arrived in the building industry. CPU-intensive tasks can be moved to the cloud.

"We offer our customers holistic solutions from a single source. Revit makes it easier for us to maintain an overview of the wealth of individual information for a project. This prevents planning errors and, at the same time, gives us control of all deadlines and costs," explains Jäckel. The graphical options of the Autodesk solution are another positive aspect. "Presentation alternatives are helpful for customer communication. Particularly when it comes to clarifying designs," says Jäckel. However the main advantage of the Revit workflow for the company is that it eliminates the information loss when you traditionally exchange data between various systems. The BIM solution for the integrated design, analysis and documentation of building systems supports all phases of a building project, from the initial concept right through to completion.

Cloud visualisation

Cloud computing has arrived in the building industry. CPU-intensive tasks can be moved to the cloud so that renderings can be produced in the least possible time and the computer can meanwhile be used for other tasks without any limitations. GOLDBECK also uses cloud computing services: "Using the cloud, we can create our visualisations without having to involve anyone else," says Jäckel. "Previously, we only rendered selected projects. But now, we render every project in a cloud computing environment, because it is extremely simple and we are impressed by the improved quality."

Autodesk BIM 360 Glue: Cross-trade and regional collaboration

GOLDBECK is convinced that it can improve project Coordination still further using cloud computing. During building projects, not only do different disciplines work together, but also those involved are often in different regions. Coordinating architects, structural engineers and building services engineers is a challenge. Without regular coordination, there is a delay in detecting clashes, meaning that errors can only be rectified later, resulting in considerable costs and labour. Autodesk BIM 360 Glue is a cloud-



Architects and engineers collaborate online with Autodesk BIM 360 Glue.

Images courtesy of Goldbeck GmbH.

Autodesk, BIM 360 Glue and Revit are registered trademarks or trademarks of Autodesk, Inc. in the USA and/or other countries. All other brand names, product names or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document. © 2013 Autodesk, Inc. All rights reserved.

based solution for building and infrastructure projects, which enables easier access to project models and data for all those involved. This cloud service reverses the process:

Rather than data going to the planners, those involved with the building project access the data by uploading the various models for the individual trades to the cloud, where they are linked together. All project stakeholders have constant access to the data. They can upload their data to the cloud independently, check for clashes at any time and find solutions. If someone involved with the project makes a change, all updated BIM and CAD data becomes immediately available to everyone. A project can be coordinated at any time and from anywhere. Global project management and collaboration of multi-disciplinary workflows is improved through central project access. A special feature of Autodesk BIM 360 Glue is the mark-up function.

With conventional work methods, the planner designs an image to clarify a problem, copies the problematic section of the design and describes it. With Autodesk BIM 360 Glue, a critical point can be marked up directly on the model and a text description can be added. A link to the mark-up function notifies stakeholders of the problem by email, and they can then provide online feedback. Autodesk BIM 360 Glue also recognises more than 50 different file formats, making collaboration much easier. With Autodesk BIM 360 Glue and Autodesk BIM solutions, the workflow is clearly optimised.

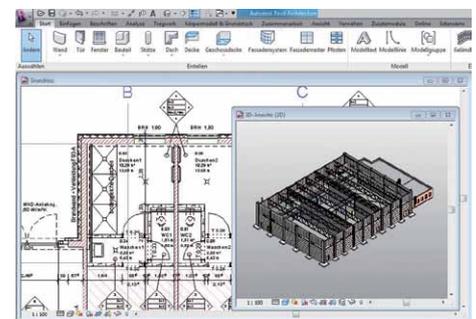
Project control using cloud computing

GOLDBECK is currently using Autodesk BIM 360 Glue to build an office with an order volume of EUR 19 million. Several companies are involved in realising the five-storey office building with a warehouse and a gross floor area of approx. 13,000 square metres of office space.

The GOLDBECK team is spread across various regions. "With Autodesk BIM 360 Glue, we can improve the quality of communication significantly. Models and data can be integrated from several formats, and they can be checked and communicated to all those involved in the project," says Jäckel. "From design right through to construction, we have not only 2D plan printouts, but also a three-dimensional online solution, which we can use for optimum collaboration at all times. This gives us a high level of project control."

Design and co-ordination errors mean time and budgetary losses. With Autodesk BIM 360 Glue, we can ensure a high level of project control. This is a decisive competitive advantage for us.

—Mark Jäckel
Revit Project Manager
GOLDBECK GmbH



Architecture model in Revit.

Model access from mobile devices

With the mobile application from Autodesk BIM 360 Glue, mobile devices can be used to access the model in the cloud environment from anywhere – the office, directly on the construction site or in a meeting with the client, who can then see how the project is progressing. The app also enables design discussions. For example, the architect who is designing a hospital and wants to involve the clinic employees in the planning process can use BIM 360 Glue to help the team visualise the interior and exterior of the building in 3D.

Jäckel is convinced that cloud computing is the future: "Cloud computing is a trend that will catch on."