



ZEEP architecten Invests in OpenBIM

SOLIBRI MODEL CHECKER PROVIDES VALUE IN INTEGRATED DESIGN

ZEEP architecten has invested heavily in OpenBIM and an integrated design process. The result is better productivity, quality and customer satisfaction.

A collaboration between three cooperating disciplines: architect, engineer and installation consultant addresses a small project in Zwolle, Netherlands in a different way than usual: their working method is called 'integrated design'. ZEEP architecten from Amersfoort, Netherlands has compiled the design team for this project, which contains 26 new houses.

ZEEP architecten, winner of the 2010 Dutch contest 'How Smart Is Your BIM', can be seen as one of the forerunners in the use of BIM in the design process. The architectural firm has 22 employees and is continually searching for innovative and sustainable concepts, developments, initiatives and collaborations using the Building Information Model.

Working Together

Director architect Ronald van Aggelen is delighted to talk about the new developments: *"It is increasingly important to share information with other partners in the building process. Not only does*

that reduce failure costs caused by poor communication, it also optimizes our internal processes. By using a BIM model and the exchange of transparent, unambiguous data we are forcing ourselves to the limits to get the best from the model."

"Specifically for this project we are working with Vericon (consultant for building structures), an experienced Tekla user and Veccins3d (installation consultant), a company which works with DDS-CAD. We agreed to collaborate in BIM and to monitor the quality of the provided information by an independent check on modelling- and design errors."

Solibri as a unifying factor

Over one year ago ZEEP architecten purchased Solibri Model Checker from Kubus architectural solutions, their BIM-partner and ArchiCAD-distributor. After a test phase, they concluded that Solibri can be used on various projects: internal, small projects and bigger projects in which collaboration is needed. Van Aggelen says Solibri is the 'unifying factor'. He continues: *"Solibri works*



Rendering of the project

Aggelen; his blue eyes and a proof of concept. *“Construction partners are - almost by nature - wary of each other. This has to be overcome and we have come a long way with our partners on this level. Although I often can be trusted on my blue eyes, my decisions are, since working with Solibri, better founded”*. All partners are aware of the benefits of doing business this way. Van Aggelen speaks of a breakthrough in the AEC-industry.

Workflow

The starting point in exchanging information between the various construction partners is IFC. All IFC-data supplied is stored in an IFC-server where Solibri is used as a shell. Solibri monitors the check on the quality of both incoming and outgoing IFC files.

Solibri Model Checker has a central function and:

- controls the technical quality of the IFC model;
- regulates the coordination between different disciplines;

- provides the overall control of the building.

Traditional contractor and principal

The new construction project in Zwolle is in collaboration with a traditional working contractor. The principal usually works as well in the traditional manner because, as stated earlier, all parties have confidence in working this way. The vision and approach of ZEEP architecten have truly earned that both the client and the contractor will become convinced of this new way of working. Van Aggelen gives an example: *“We are able, by the use of Solibri, to answer any question about the building in approximately 10% of the time we normally spend. Think of detecting an amount of square meters frames of a particular type. The quantity takeoff of Solibri really proved a practical tool.”*

The design is now ready for construction, marketing materials are made and the construction docu-

ments will be manufactured regarding the specifications of the contractor, directly from ArchiCAD. As a bonus, the contractor receives directly unsolicited information such as quantity surveys and costing data.

The ultimate goal of van Aggelen is providing an ‘as-build model’ of a house in the project. *“Certainly we strive for an optimal improvement of our processes for which this project lends itself perfectly. And thanks to our new way of working, we even have spare time!”*