



Project: Hospital Frankfurt Höchst, Germany

**wörner traxler richter**  
planungsgesellschaft mbh

## **FIRST EUROPEAN HOSPITAL COMPLIES WITH PASSIVE HOUSE STANDARD USING ALLPLAN**

**“The greatest challenge in the Frankfurt Höchst project was to merge data from various project members to form a central model. This was achieved by combining Allplan Architecture with Allplan Allfa.”**

Architects from the firm of wörner traxler richter used solutions from the ALLPLAN portfolio to design the first hospital which complies with the passive house standard.

By applying Allplan Architecture and Allplan Allfa, they succeeded in acquiring and

integrating simulation data for all trade planners in the architecture model quickly and without loss. This allowed them to simulate the thermal behavior of the hospital over the period of an entire operating year and to optimize the design of the technical building equipment.





## THE SOLUTION

To design the Frankfurt Höchst hospital based on the passive house standard, wörner traxler richter switched its work method over to BIM. The Planners used the Allplan Architecture solution to exchange data bidirectionally with the Allplan Allfa CAFM system.

**“The major advantage for the project was that we were able to run simulations based on the Allplan architecture model and not have to work with a separate simulation model,”** says Dirk Hennings. The facility management system Allplan Allfa compiled and transferred data from several specialist planners to Allplan Architecture. Since Allplan Allfa is web-based, it was no problem to send data over the Internet for integration in the Allfa database.

Special input masks were created for each planning associate. The data acquired in this way was then transferred via the bidirectional interface to Allplan Architecture and integrated in the architecture model. The architects then forwarded the supplemented model to the Ida-ICE simulation software to conduct energy simulations. The results of this energy calculation were then returned to Allplan Architecture for use in the subsequent planning process.

This made it possible to simulate the thermal behavior inside the building over a period of a fictitious year.



# BENEFITS

"By combining Allplan Architecture and Allplan Allfa, we saved a great deal of effort in the Frankfurt Höchst project," explains Dirk Hennings. "Otherwise, we would have had to enter and manage huge amounts of data by hand to achieve a similar result. So the solutions offered by Allplan really saved us a great deal of time and

money." Since the pioneering Frankfurt Höchst project, the Allplan Architecture and Allplan Allfa software programs have become established at wörner traxler richter, as well as with their specialist planners.

## LOSS-FREE DATA EXCHANGE

with specialist planners through the use of Allplan Allfa

Detailed architecture model  
forming the basis for meaningful

## ENERGY SIMULATIONS

## SIMPLE DATA TRANSFER

to the simulation program  
via the IFC interface

"The unique combination of CAD and CAFM from ALLPLAN is a decisive advantage. The two come from a single source. And this is the way to conduct a simulation based on the architecture model – instead of using a simulation model as base."

Dirk Hennings



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## ABOUT THE COMPANY ALLPLAN

ALLPLAN is a leading European vendor of open solutions for BIM (Building Information Modeling). For more than 50 years, the company has supported the AECOM industry with a pioneering software portfolio and is

playing a key role in promoting the digitalization of the building industry: innovative, geared to the requirements of customers – and with best quality "Made in Germany".