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EXPERT INTERVIEW

THE POTENTIAL OF VIRTUAL ELECTRICAL PLANNING

Three questions for Dipl.-Ing. (FH) Thomas Nieborg, Product Information Manager at Wieland Electric

Mr. Nieborg, Building Information Modeling (BIM) is becoming increasingly important in the construction industry - what role does electrical engineering play in this?

Building Information Modeling is a forward-looking planning approach that makes it possible to combine all relevant building data into a single digital model. By making object and location information readily available to key construction stakeholders, the involved trades can adapt their specialized planning accordingly and identify potential conflicts before the construction process begins. This virtually eliminates delays and extra costs caused by uncoordinated planning among the individual trades. Of course, this also applies to electrical engineering, take cable routes as an example, utilizing the BIM method in early planning stages can identify potential cable routing conflicts in advance. In addition, the Electrical Planner can readily access the necessary data for a network calculation, which is crucial in the early stages of construction planning.

Which tools can be used to provide optimum support for electrical planners?

In fact, until now, there has been no digital tool that enables precise planning and visualization of pipes. We are changing this with utilizing the Building Solutions Designer (BSD), which we will be presenting at Light + Building 2024 in Frankfurt. The entire pluggable cable infrastructure can be digitally displayed and planned in the software on



the basis of a building model. Thanks to the internationally standardized IFC export format, we also ensure that the model can be imported into other BIM software, enriched with all relevant information such as article numbers and lengths of the individual pipes. If you have already configured the electrical components for a specific application using our Building Solutions Configurator, you can also transfer this data to the Building Solutions Designer and generate a 3D model from it.

For which areas of the construction industry is this planning method particularly relevant?

The current focus is certainly on all areas that have to do with pre-assembly. Precise planning plays a particularly important role in serial or modular construction, and this is of course where the electrical trade comes into play. If one module is to be placed next to another and connected electrically, the electrical connections must be situated in the correct positions for it to work. The BIM planning method is therefore already much more widespread in serial construction than in traditional construction. However, the potential of 3D planning can be utilized in all areas, especially as this method contributes to greater efficiency, precision and consistency throughout the entire construction process. Whether modular or classic, optimized planning, visualization, and analysis - including of the electrical infrastructure - along with improved collaboration among the trades involved in the construction, can help prevent errors promptly, saving both time and money.



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IMAGEMATERIAL



Dipl.-Ing. (FH) Thomas Nieborg, Product Information Manager at Wieland Electric, is an expert in pluggable, decentralized building installations and is very familiar with developments in the field of BIM. (Image: Wieland Electric).



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ABOUT WIELAND ELECTRIC

Wieland Electric, founded in Bamberg in 1910, is the inventor of safe electrical connection technology. Today, the family-owned company is one of the leading suppliers of safety and automation technology and has been the global market leader in the field of pluggable electrical installations for building technology for over 30 years.

Wieland Electric assists customers with on-site support all over the world as a capable service partner and solution provider. This is possible thanks to around 1,700 employees and subsidiaries as well as sales organizations in over 70 countries. In addition to Wieland Electric GmbH, STOCKO Contact GmbH & Co. KG has belonged to Wieland Holding since 1998.

The company's core industries include mechanical engineering, wind power, intralogistics and HVAC, as well as building and lighting technology. The broad portfolio includes components, products, and solutions for electrical installation, connection technology, power distribution, safety technology, and the control cabinet. In addition, Wieland Electric offers an extensive service and training program. With cross-industry experience, a great product diversity and numerous service offerings, the company has consistently developed from a component supplier to a solution provider in recent years.