Visual support for manual assembling

Fully automated wiring

Quality inspection

Prewire

Place bridges

Manual marking of the terminal strip

Automatic marking of the terminal strip

Marking type: thermal transfer

Marking type: laser

Snap on components

Cut the DIN rail to length

Drill holes in the DIN rail

Cut the DIN rail to length

Drill holes in the DIN rail

Digital Product Description

BOMs

Shop drawings

Assembly data

NC data

Wiring information

Machine interfaces
Digital data is becoming a focus of product development and production. The EPLAN Data Portal provides product data allowing the creation of a virtual prototype. This prototype represents the switchgear digitally and provides the information for the product lifecycle.

Standardised Data Provision – EPLAN Data Portal
A web-based service to provide process compatible product data for engineering, materials management and production.

Virtual Prototyping – EPLAN Pro Panel
Virtual product development of a switchgear in 3D. Digital representation and provision of the final product data compatible to the downstream processes along the product lifecycle.

Digital Production Integration – AutomationML and eCl@ss
Manufacturing integration via machine interfaces and generally applicable product data based on AutomationML and eCl@ss - keyword “product memory”

No theory – established practice: Automation technologies become more important in manufacturing of panel building. At this station, real scenarios of automated machining of components are presented.

Digital up to machine
The virtual prototype provides all necessary data for production integration.

Digital Production Integration
Mechanical processing
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A continuous virtual engineering is a prerequisite for Industrie 4.0.

Eplan, Rittal and Phoenix Contact present the complete integration of digital data into product development and production in 3 dimensions.

• vertical over business processes
• horizontal along the value-added-chain
• temporary over the product lifecycle

"From the Top Floor to the Shop Floor" – this simple formula describes the joint commitment of the three leading solution providers in Engineering, in control cabinet system- and automation technology “Smart Engineering and Production 4.0” shows the continuous, automated process starting from the digital article through engineering to production.

Digital Article
A digital description of the article is a prerequisite for Industrie 4.0. Relevant article features such as the characteristics of the cable entry with regard to its position and applied type of connection will be described in a digital and standardized way.

Derivation of production-relevant article characteristics
The article data is saved in eCl@ss format and is available for further processing via a standardized interface.

Data provision for different applications
Aside from its use in engineering tools, the standardized data can also be used in customer-specific eShops or catalogs.