

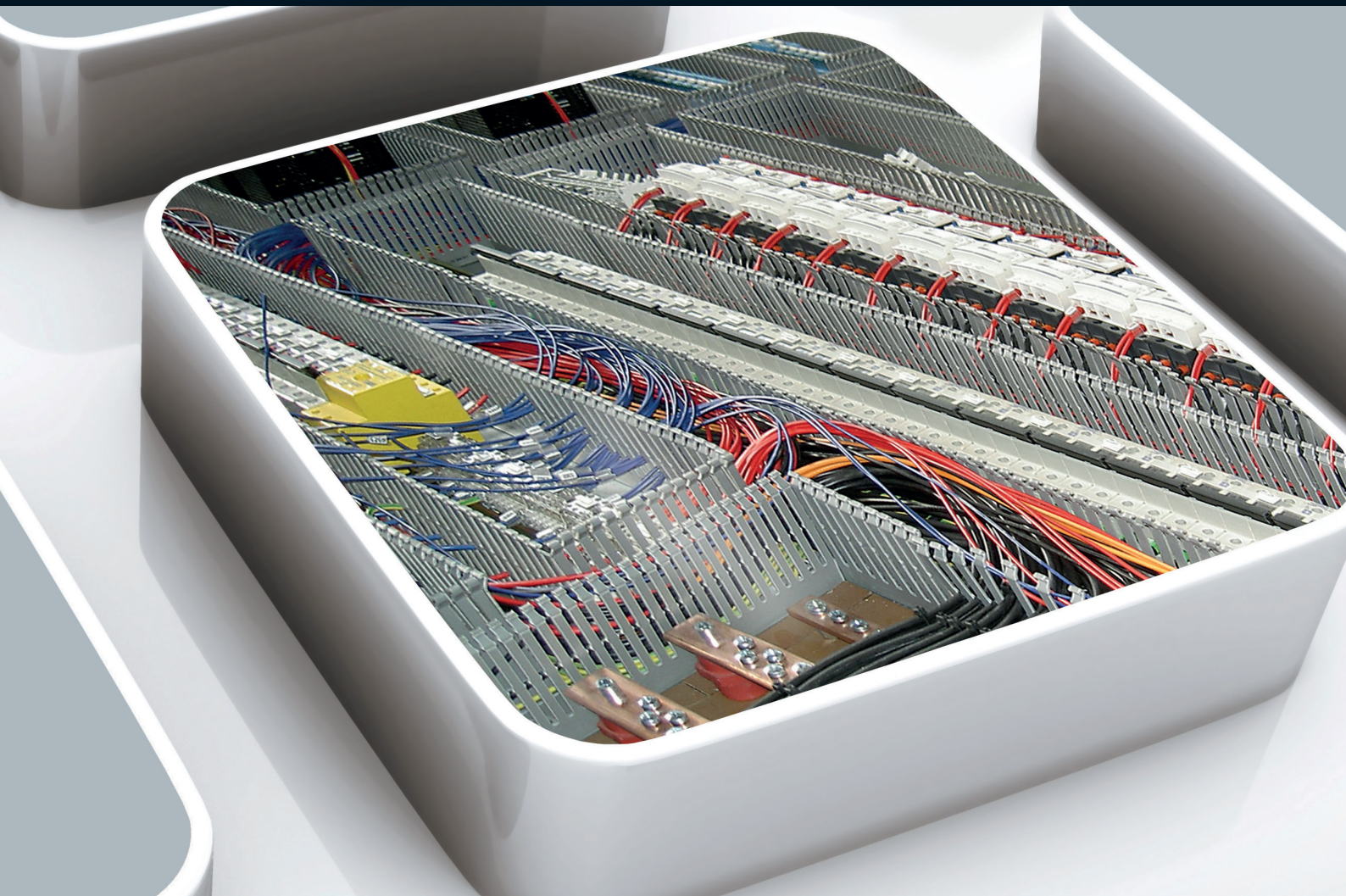
# EPLAN

efficient engineering.



## EPLAN Pro Panel

# Virtual control cabinet engineering



PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT

FRIEDHELM LOH GROUP



## EPLAN Software & Service

We advise companies on the optimisation of their engineering processes, develop software-based engineering solutions for mechatronics and implement customised CAD, ERP, PDM and PLM interfaces to accelerate your interdisciplinary product creation process. This means that you can work more efficiently and shorten your time to market. Comprehensive services such as consultancy on variants management and configuration, process advice relating to standardisation, automation and integration, implementations, training courses and support services are all part of our offering. Our software products and services are of the highest quality and are constantly being optimised and further developed. This is how we secure our customers' technological advantage and investment for the long term.

EPLAN Pro Panel

# Virtual control cabinet engineering in 3D

## High-performance: EPLAN Pro Panel

With EPLAN Pro Panel, you can design and construct control cabinets, switchgear systems and flexible flow dividing systems for energy supply in 3D. The software features include 3D mounting layout, virtual 3D wiring and the design, modification and adjustment of copper rails. Other functionalities relate to production integration: All project reports, drawings and unfolds relating to production and mounting, including the data required for machine control, can be generated directly from EPLAN Pro Panel – both for the machining of enclosure components or copper rails and for the control of machines and service concepts for cable and wire fabrication. Innovative bundling technologies are also supported.

### Thus you benefit from:

- Data consistency and compatibility
- Free choice of engineering approach and method
- Parallelisation of development processes
- Consistent revision service
- Reduction of time to market and costs

## Standardised operating methods and deep integration

The EPLAN Platform is setting the pace in engineering: it feeds all EPLAN systems from a standardised database. In addition, the platform provides the basic functions that you can use equally in control cabinet and switchgear engineering or in electrical, PCT and fluid power engineering. Depending on the product variant, you have a standardised graphical editor, common rights management, full viewer functions, cross-system translation functions and centralised revision control.\*



## Simply 'hand data on'

The openness and continuity contained in the EPLAN solutions ensures genuine benefits in the day-to-day engineering process. Manual synchronisation between programs, consistency checks, redundant data generation and duplicated data entry are all things of the past. The result: consistent project documentation – always up-to-date and just as built.

## EPLAN Data Portal

The EPLAN Data Portal is a global web service for high quality device data. Numerous leading component manufacturers provide online access to commercial, technical, process-oriented and corresponding graphics data in standardised EPLAN format. With direct access from the EPLAN Platform, the designer can access an ever-increasing pool of qualified parts data online. This largely puts an end to the time-consuming process of producing parts data manually, reducing configuration time at the same time as increasing the quality of machine and plant documentation.



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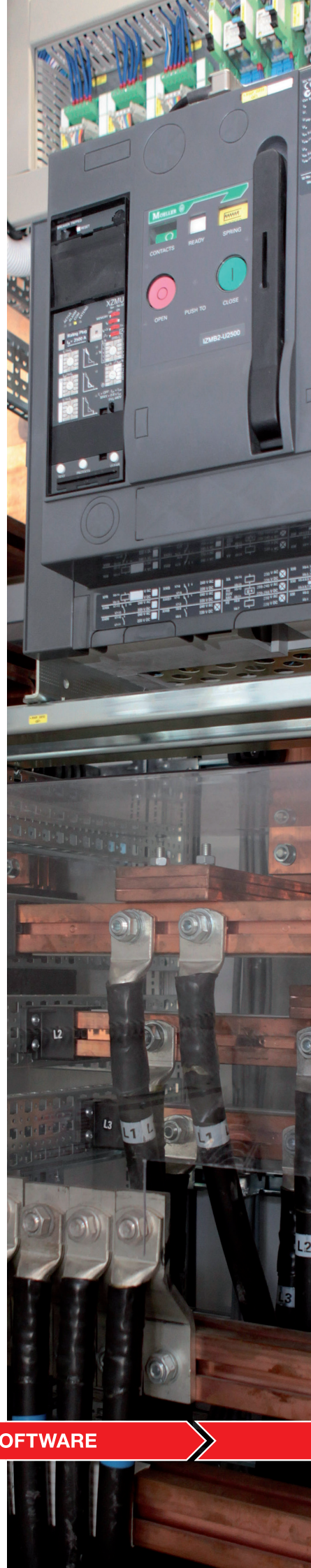
# Innovative 3D mounting layout and wiring

## Free choice of workflow approach and engineering method

EPLAN Pro Panel is flexible. You can decide your own individual approach, whether it is based on equipment and connection lists, on circuit diagrams and fluid plans, directly on the mounting panel in the 3D mounting layout or in line with the construction of busbar systems and flexible power distributors. All the relevant components can be simply entered and positioned on the mounting panel. With the innovative eTouch technology, you can position devices and components in 3D just as precisely and simply as in 2D.

## Optimum dimensioning and planning reliability

The virtual 3D model of the control cabinet or switchgear system supports the process of optimum dimensioning and perfect use of space. Integrated planning aids such as collision testing, online connection display or incorporation of manufacturer specifications for installation guidelines, minimum clearances, material properties and bending radii allow quick and optimum positioning and installation. Error detection and other aspects of consistent quality control are predefined at the development phase and switched off at an early stage – planning reliability built in.



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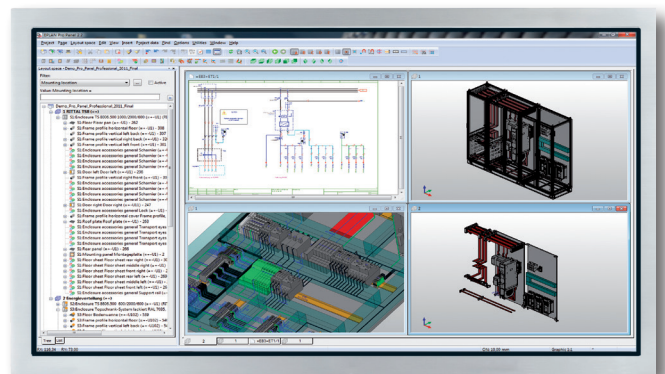
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## Virtual wiring

For perfect wiring of control systems, EPLAN Pro Panel utilises the 3D mounting layout and the schematic. Based on a combination of the exact position of the component in the mounting layout and the connection information from the schematic, the control cabinet can be wired virtually. At the touch of a button, the system works out the optimum conductor and cable routing tracks and all the resulting connection lengths. The result of the optimised wiring can then be used to optimise the schematic.



## EPLAN Pro Panel Copper

Measure, cut to length, bend, fit and connect: copper rails are a decisive factor in the planning of energy distributors. The copper extension module allows individual busbar systems and flexible flow dividers, including the copper rails that are to be bent and the relevant connections to them, to be configured and adapted to the installation situation. All the necessary data on drill holes, punching, bending angles and radii is provided in the form of drawings and machine data for NC-based production – the new dimension in design, production and mounting.

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# Data consistency is key

## Virtual prototype – basis for all data and information

The virtual prototype of the control cabinet or switchgear system defines every detail of the technical implementation of the end product. The 3D model provides all the relevant data for the subsequent processes – for material logistics, production integration, mounting of components and function test on the end product.

EPLAN Pro Panel provides a range of different information. Bills of materials and order lists, production drawings, unfolds, installation drawings and guidelines, data to control NC machines, e.g. for mounting panels and enclosure components, to support bending machines when producing copper rails and data for wiring and cable fabrication.

## High-level automation

All the information is available at the earliest possible opportunity – long before the first component is ordered and coordinated. And what if something needs to be changed? Then all the reports, bills of materials, order lists, drawings and data for machine production are updated automatically or at the touch of a button. Last-minute changes? No problem!



# Benefits at a glance

## EPLAN Pro Panel Professional – an extra dimension makes the difference

- Free choice of engineering approach, workflow and method
- EPLAN eTouch – mounting layout in 3D as simple as in 2D
- Planning aids for optimum dimensioning and use of space
- Virtual wiring with routing and length calculations
- Construction of copper rails – cutting to length, bending and connecting included
- Provision of documents for materials logistics and production
- Control of machine tools
- Provision of data for mechanical wire and cable fabrication

### Benefit from:

#### Time saving

- Up to 75 % time saving on wiring
- Up to 50 % time saving on layout and mounting
- Up to 50 % increased overall productivity

#### Significant improvement in quality

- Built-in manufacturer know-how on components and accessories
- Consideration of manufacturer guidelines
- Early verification and consistency checks
- Optimum dimensioning and use of space
- Tailored data provision for production and mounting

#### Sustained reduction of costs

- Consistency in engineering thanks to compatible data and systems
- Early error recognition in product development phase
- Error avoidance by elimination of data conversion and reengineering
- Consistent revision service from engineering through to production

## International standards, consistent localisation

The EPLAN Platform supports international standards such as IEC, NFPA, GOST and GB. Its consistent Unicode compatibility means that the software can provide project documentation in all languages based on your individual translation databases – whether you need a Chinese mounting layout plan or a bill of materials in Russian. The software itself is available in 17 languages.

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- Process consulting
- Engineering software
- Implementation
- Global support



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