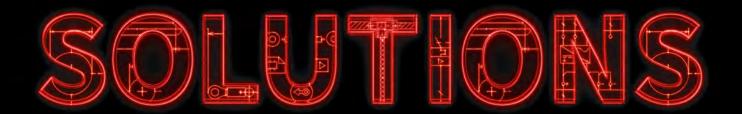


efficient engineering.

**EPLAN Solutions:** 

# Our Solutions for Your Engineering.





PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT

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#### EPLAN – efficient engineering

## Your Strong Partner – Around the World

EPLAN offers engineering software and services in the fields of electrical engineering, automation and mechatronics. We develop one of the world's leading software solutions for machine, plant and control cabinet engineering and construction. EPLAN is also your ideal partner to simplify challenging engineering processes. Standardised and customised ERP and PLM/PDM interfaces guarantee data consistency for your entire value chain.

Working with EPLAN means unlimited communication across all engineering disciplines. Regardless of the size of the company, our customers are able to utilise their expertise more effectively and more efficiently. EPLAN wants to continue growing with you, our customers and partners, and advances integration and automation in engineering under the motto "efficient engineering".

EPLAN was founded in 1984 and is a member of the Friedhelm Loh Group. The family-owned company has 18 production facilities and 80 international subsidiaries worldwide.

#### Find out more at: www.eplan-efficient-engineering.com

\* "Efficient engineering requires a standardised and error-free database. With the EPLAN Data Portal, you have access to a vast number of high-quality device and component data from an ever-growing pool of manufacturers. It's reliable and free of charge - easily accessible through your browser."

Hauke Niehus, Hea	of Cloud Business EPLAN	
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These and additional manufacturers can be found in EPLAN Data Portal. You can look at an up-to-date overview at www.eplandataportal.com/preview.

#### Your Tools – EPLAN Solutions

Consistent digital data lays the foundation for efficient The connection to the cloud allows you to access EPLAN engineering. The EPLAN Platform combines EPLAN's Projects and valuable manufacturer data securely, anysolutions and forms the basis for the expert systems that where and at any time. you use to create your projects. This allows you to work on your projects in an interdisciplinary manner and have In addition to the connection of individual solutions, EPLAN the optimal solution for every type of application. The EPLAN Solutions also offer you comprehensive methodical while our interfaces enable bidirectional data exchange support through to automatic schematics creation. with ERP and PDM systems. By connecting to mechanical

You'll benefit from full compatibility: data from upstream processes can be used seamlessly in your current work steps and enhanced for downstream steps.



#### **Expansions and Modules for All Needs**

No matter to what extend you currently work with the EPLAN Solutions in your company and which requirements must be met in the future: EPLAN's flexible add-on concept means that expansions can easily be realised in all process directions customised with an individual focus on your tasks.

Your EPLAN representative will be happy to provide you with a comprehensive overview of the current expansion modules.

Talk to us - we're here for you!

also offers you an integrated framework for your daily work, processes, you broaden your opportunities for mechatronic engineering solutions. You can also transfer EPLAN Project data to other software environments and continue working seamlessly with it there.



# **EPLAN** at a Glance: **Our Solutions for Your Engineering**



Companies from a variety of industries profit from EPLAN Engineering Configuration.

#### **EPLAN Engineering Configuration (EEC)**

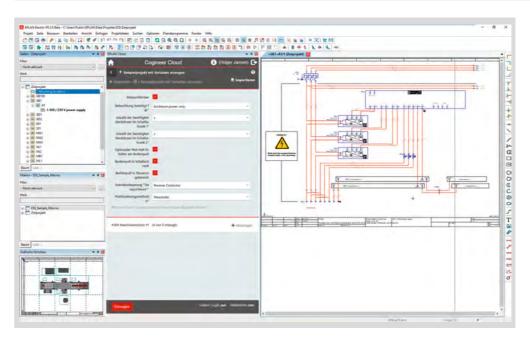
EPLAN Engineering Configuration (EEC) allows you to map your product portfolio in a modular system with interdisciplinary functional units. This stable foundation makes the EEC your tool for designing and applying configuration interfaces and for automatically generating documentation. This interdisciplinary working method integrates sales, order processing, mechanical engineering, electrical engineering and controls engineering as well as manufacturing and documentation. Commissioning and maintenance of your products become easier with the use of standardised and thus familiar structures.

#### Your Added Value

• You'll benefit from the automated re-use of data through a simple product structure and the creation of modular systems.

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- You'll save time and money, and optimise your documentation quality.
- The duration of your projects will be considerably reduced - including the time your company needs for manufacturing and delivery.
- Individual parameters ensure a large variety of data so that you can also respond to specific customer requirements.
- EEC integrates seamlessly into current system structures and enables integrated workflows.



#### **EPLAN Cogineer**

EPLAN Cogineer offers you a quick way to get into the full potential of your engineering and greatly increase the quality of your electrical and fluid-power documentation. You can use your existing circuit templates to set up a macro library and automatically create schematics with just a mouse click. You'll also benefit from innovative methods with added value in engineering without a long implementation period - in all industries and at companies of all sizes.

**EPLAN** Cogineer lets you lay the foundation for automatic schematics creation with a simple click.

### **Frequently Asked Questions**

#### How does EPLAN Cogineer support me in increasing the quality of my projects?

EPLAN Cogineer is based on the standardised re-utilisation of EPLAN macros. Once correctly created, there will be no further copy-and-paste errors, saving both time and money.

#### Do I need a lot of background knowledge to be able to work in EPLAN Cogineer?

You don't need to be an EPLAN expert to be able to generate schematics according to your customers' requirements - the basic training is quick and easy. Knowledge of any higher programming languages isn't necessary either.

#### Will I already see benefits during the implementation of EPLAN Cogineer?

Yes, because with EPLAN Cogineer you have the possibility to move step by step into automating your schematics creation.





#### **EPLAN** Preplanning

EPLAN Preplanning enables you to capture engineering data from the very start of the preplanning phase. This can include, for example, the actuators and sensors for a plant, machine or building. You can import data from external sources as well as graphically design plant or machine overviews and process and instrumentation diagrams (P&ID). This enables you to quickly generate initial data sheets or specifications for materials procurement. You can also access the data collected and enhanced in EPLAN Preplanning for downstream engineering design phases.

#### **EPLAN Fluid**

EPLAN Fluid is your engineering tool for designing and automatically documenting the schematics for fluid-power systems with hydraulics, pneumatics, cooling and lubrication requirements. The direct connection to the EPLAN Platform further allows you to design in other engineering disciplines concurrently. You get your design and manufacturing documentation from a single source.

#### Good to Know

- EPLAN Fluid creates fluid power designs according to the latest standard ISO 1219 or IEC 81346 through a mechatronic approach.
- Thanks to the macro technology, you can store standards and know-how within the system and re-use them.

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**ENGINEERING-SOFTWARE** 

IMPLEMENTATION

#### Your Added Value



- You can keep an eye on all the plant, machine and/or building data in a clearly structured format at all times.
- Everyone working on the project has easy access to all the engineering data collected early in the process - for the entire duration of the project.
- Graphically layout the basic information such as signal data, piping data or wiring data beforehand for better orientation within the project.
- By using EPLAN Preplanning in the proposal phase and including the resulting native data transfer, you shorten your development times.



Rely on fluid power plans designed to current standards. Photo: Festo



> EPLAN standardises and automates your engineering: step by step, you enhance your project data using our solutions. This also allows you to comprehensively optimise downstream processes.

Dieter Pesch, Senior Vice President Product Management and Development EPLAN



#### **EPLAN Pro Panel**

EPLAN Pro Panel Professional lets you design and build control cabinets, switchgear systems and power distribution systems for energy supply, all in 3D. This allows you to tackle a number of various engineering tasks in just one software program, from the creation of electrotechnical schematics to the design of the 3D assembly layout to the virtual routing of connections. Furthermore, EPLAN Pro Panel also gives you an integrated optimisation of manufacturing processes for control cabinet and switchgear engineering; you get a wide range of manufacturing data and information automatically, from component labelling to supporting the manual wiring process.

#### In short:

EPLAN Pro Panel Professional creates a stable foundation for automating and industrialising your control cabinet manufacturing process.

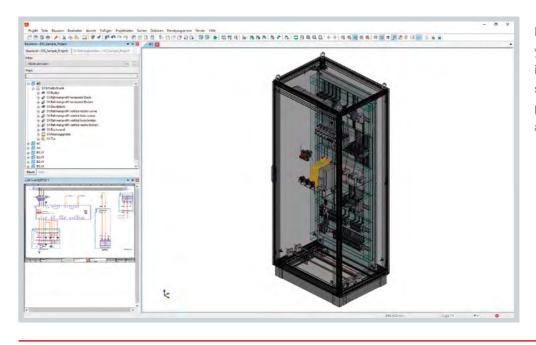
#### **EPLAN Electric P8**

EPLAN Electric P8 supports your electrical controls design for machines and plants in a consistent, integrated and fast engineering system. The software supports a variety of engineering methods, from manual creation to standardised, template-based work. Once captured in the schematics, the project data forms the foundation for the automated creation of machine and plant documentation. EPLAN Electric P8 automatically creates detailed reports for you as an integral part of the project documentation - continuously upon request or cumulatively after project completion. This allows you to supply all the necessary engineering information to downstream process steps, from integrated design to manufacturing, commissioning, maintenance and service.

#### Your Added Value



- Auto-connecting allows you to logically connect schematics symbols in no time at all.
- Select between graphic, logical or deviceoriented design approaches to support different working processes.
- Reports such as terminal diagrams, wiring diagrams or bill of materials are generated automatically.
- Features for processing bulk data like "search" and replace" and "edit in Excel" accelerate your designing while increasing quality.



#### Your Added Value



- From schematics creation to assembly layout to production integration, you can solve everything with one software package.
- You provide order data and comprehensive manufacturing documents to achieve automated control cabinet manufacturing.
- You shorten throughput times and costs at a targeted level of quality.
- You work profitably, from an individual project in batch size 1 all the way to volume production.

By using EPLAN Pro Panel, you can design control cabinets, including the wiring, switchgear systems and power distribution systems, and all in 3D.





Wire harnesses easily and precisely planned in 3D: EPLAN Harness proD makes it possible.

#### **EPLAN Harness proD**

Use EPLAN Harness proD for the efficient design and documentation of cabling and wire harnesses in 3D and 2D. The software lets you automate typical workflows for wiring and wire harness design, from the transfer of EPLAN Platform connection information to intuitive routing to the creation of manufacturing documentation. The software is open to MCAD systems and can be seamlessly integrated into existing system landscapes. The wiring and wire harness design doesn't depend on the availability of a mechanical prototype. You can add the relevant electrical information to the digital twin during the engineering process.

#### Your Added Value



- The intuitive 3D environment makes development for cabling and wire harnesses easier for you.
- The necessary manufacturing documentation, including the nailboard layout and wiring diagrams, can be automatically deduced, saving you time and increasing the quality of your documentation.
- You can easily define the routing paths and the automatic routing of wires and cables.

#### **EPLAN Smart Wiring**

EPLAN Smart Wiring is your virtual assistant for manual wiring in control cabinet manufacturing. From the connecting point to the exact routing path, the software provides the wiring technician with all the necessary information in digital form – even in 3D as needed. You may determine whether the displayed installation connections are to be wired individually or in a fixed sequence, and you can record the wiring using the traffic light principle. If you need to reassure yourself, you can pull up the electrical schematics and double-check - starting from each individual connection. You can pass on any irregularities directly to the design department via e-mail. Providing project data on a central server makes it possible to produce many identical control cabinets in parallel or to work together with several wiring technicians.



Always in sync: last-minute changes to schematics made in EPLAN Pro Panel are automatically updated in EPLAN Smart Wiring for further processing. This means your schematics are always up to date without any extra work.

#### Your Added Value



- As a wiring technician, you receive detailed, step-by-step instructions for easy implementation.
- Wiring can be completed even without schematics, which are stored in the assistant.
- Assembly layout, equipment, connections, connection types and routing paths are displayed in an understandable way.
- For last-minute changes, you can run an automatic project comparison to help avoid mistakes.
- Status information facilitates project handovers between various employees and allows you to monitor the project.



#### **EPLAN Data Portal**

The EPLAN Data Portal gives you direct online access to the high-quality product catalogues of numerous component manufacturers. All of the solutions anchored in the EPLAN Platform have equal access to this web service. The simple transfer of the available component data into EPLAN documentation via drag and drop reduces the effort required in design engineering and increases the quality of the machine and plant documentation. The time you save with the EPLAN Data Portal at the beginning of the design phase continues to have an effect all the way through to commissioning: the representation of a device in different system layouts is always based on a single source, meaning that schematics can be read and interpreted much faster.

#### Your Added Value



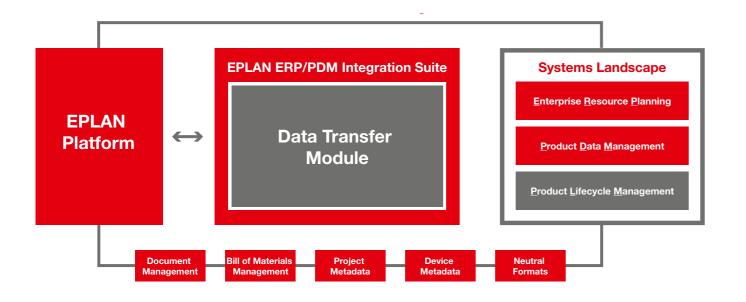
- Quickly and easily find standardised, intelligent and internationally valid device data.
- Minimise the effort needed for maintaining component data.
- Benefit from significant time savings in design engineering as compared to manually creating designs.
- Significantly improve the quality of your documentation.

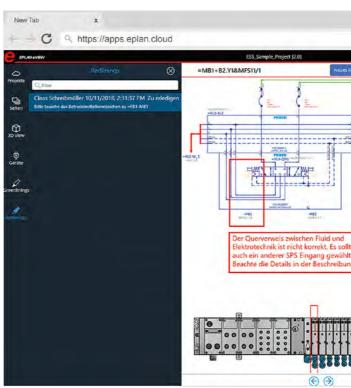
#### Syngineer

The Syngineer cloud solution provides interdisciplinary collaboration during the engineering process. Syngineer provides you with an additional navigator for your familiar EPLAN working environment and networks you with your co-workers from the mechanical design engineering and the PLC software programming department. This allows everyone to exchange engineering information directly. You can access Syngineer outside of CAD/CAE systems via smartphone, tablet or PC just by using your internet browser.

#### **EPLAN ERP/PDM Integration Suite**

Consistent data flows ensure transparency in the product development process. The EPLAN Integration Suite, as the name implies, creates integrations into existing ERP, PDM and PLM system landscapes, allowing you to optimise your work processes from schematics to master data. The fast and customised provision of data takes place in a bidirectional exchange with the systems without ever having to leave your working environment within the EPLAN Platform.





EPLAN eVIEW enables a continuous redlining workflow between engineering and downstream processes such as manufacturing and maintenance. Project data is available in the cloud at all times.

#### **EPLAN eVIEW**

With EPLAN eVIEW, the EPLAN Project goes into the cloud for you. This means that the data generated and enhanced in the EPLAN Platform is available and transparent for all project stakeholders along the entire value chain – from engineering to manufacturing and assembly through to service and maintenance. EPLAN eVIEW allows you to view and comment on changes using an internet browser from any location. The software easily and intuitively leads you through the redlining process with which you can view and comment on changes to the project. This makes communication and collaboration easy: across projects, across disciplines and across companies. It further allows you to securely and transparently communicate with different departments, suppliers and service providers. And it's all paperless, with data directly from the cloud.

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ENGINEERING SOFTWARE

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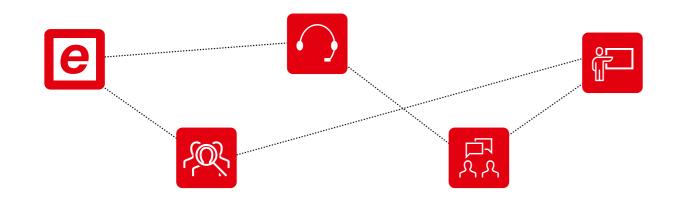
#### Good to Know

- EPLAN eVIEW allows access to specific EPLAN Project data status at any time.
- Clearly definable access rights ensure data security.
- A continuous redlining process supports communication between the engineering team and on-site commissioning and service team.
- Cloud to Cloud: EPLAN eVIEW can also be connected to other in-house cloud solutions.



# We're here for you!

EPLAN offers you comprehensive services beyond our software. We're looking forward to supporting you!



#### **Software Service**

EPLAN Software Service ensures that your EPLAN software is always up to date. We directly implement new technology trends and integrate them into our applications for you. The EPLAN Global Support Team is there for you around the world and will quickly and easily find the right solution to your problem. Your company can determine the scope of our support services depending on your individual needs from basic support to 24/7 service.

#### **Customer Solution**

We develop software solutions for you that are specifically tailored to your needs, from functional enhancements to integration into other system landscapes such as PLM, ERP, PLC to applications that you need to map your processes. Our experienced software specialists work with you to define possible solutions and suitable technologies, and individually coordinate the development steps with you. This gives you an overview of the current development status and the costs incurred, and enables you to actively control them.

#### Support

Drawing a blank? No problem: EPLAN Support is there for you and offers you professional support in your daily work. The EPLAN Solution Center is an online support system for EPLAN Software Service customers, where you can create your enquiry tickets directly in the software. Thanks to the integrated Knowledge Center with FAQs in a variety of different languages, you immediately receive initial suggestions for solutions after submitting your enquiry. And when things get really tricky, our experts are also available to you by telephone or e-mail.

#### Consulting

Our experienced EPLAN consultants will help you to ideally utilise the EPLAN Solutions in your everyday work and introduce new engineering methods. They can also unlock enormous potential for implementing integrated work processes in your company by working with you. We offer customised consulting services for all project planning phases from start to implementation, so that you can benefit from all the added value our solutions offer. Take the next step towards greater efficiency by working with our EPLAN consultants.

\*"If you want to increase your efficiency in engineering, you are in very good hands with us. We offer you training and consulting concepts that are customised to your requirements and that help you to achieve optimum productivity with our EPLAN Solutions.

Bernd Schewior, Senior Vice President Professional Services EPLAN

#### Training

As an EPLAN expert, you can ensure that everything runs smoothly in your engineering department. We support you with our expertise and comprehensive practical experience. The EPLAN Training Academy is your contact for all qualification questions relating to engineering. For example, you can train to become an EPLAN Certified Engineer (ECE) and benefit from our wide range of training courses. We're happy to advise you!





Source: EPLAN Academy



**GLOBAL SUPPORT** 



### efficient engineering.

- Process Consulting
- Engineering Software
- Implementation
- Global Support

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