

One system 4 connection technologies

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PHOENIX CONTACT

Innovation in Interface

Phoenix Contact is the leader when it comes to electric and electronic automation technology. The spectrum of products ranges from the modular terminal block to interface technology, connection systems for PCBs, devices and solutions for surge protection, and INTERBUS, the fieldbus system. These solutions are characteristic of the Phoenix Contact product range.

Global Player within close reach of the customer

Products and services from Phoenix Contact are in great demand on an international scale. We are present wherever our customers need us: throughout Europe, America and Asia. 40 sales branches and 30 sales representatives. As a "Global Player" we offer competent advice and a prompt delivery service.





No matter whether you choose

- Screw connection
- Spring-cage connection
- Direct insertion connection,

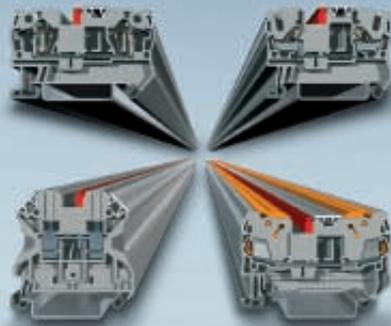
or

- Insulation displacement

there is a comprehensive range of products.

We are there as partners to help you in planning and implementing your individual installation concept.

Professional planning software for project planning, and a powerful terminal strip marking system round off our comprehensive modern range.



UT Universal Terminal Screw connection

Page 12

ST Spring Terminal Spring-cage connection

Page 22

DT Direct Terminal Direct plug-in connection

Page 34

QT Quickon Terminal Insulation displacement

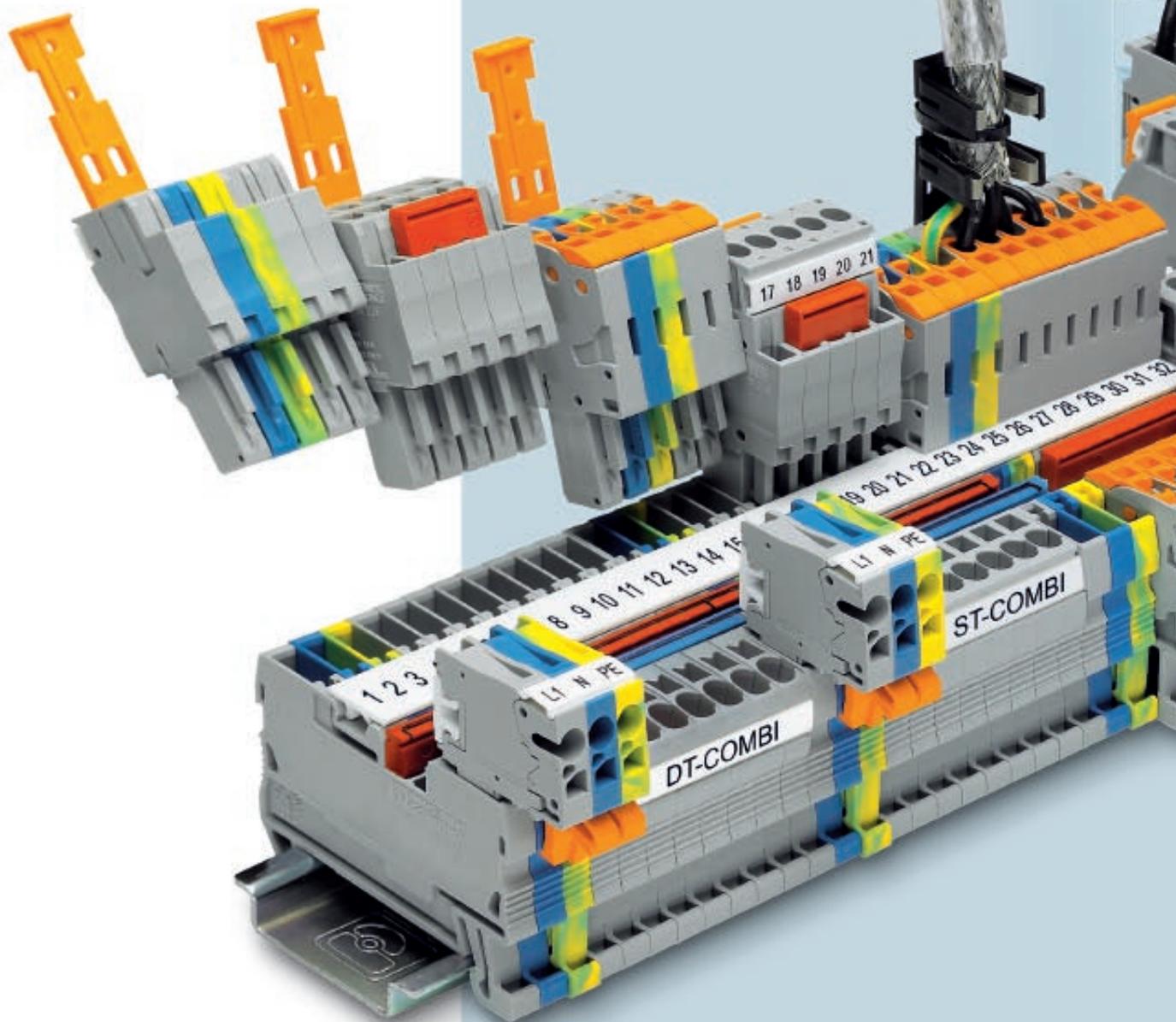
Page 40

Software and machines

Page 48

CLIPLINE complete – 4 connection technologies, one system

With CLIPLINE complete, the unique modular terminal block system from Phoenix Contact, the user has a choice of whichever connection method they prefer - screw, spring-cage or insulation displacement. All connection technologies can be combined using the same range of accessories.





UT screw connection system
Universal in every application. This screw connection system features a multi-conductor connection and maximum contact forces. The screw connection system is known and accepted throughout the world and can be used in any application.



ST spring-cage connection system
The proven connection system for vibration-sensitive applications. The spring cage always exerts a constant force on the conductor regardless of operator actions. Wiring is simple and is performed via the space-saving front connection.



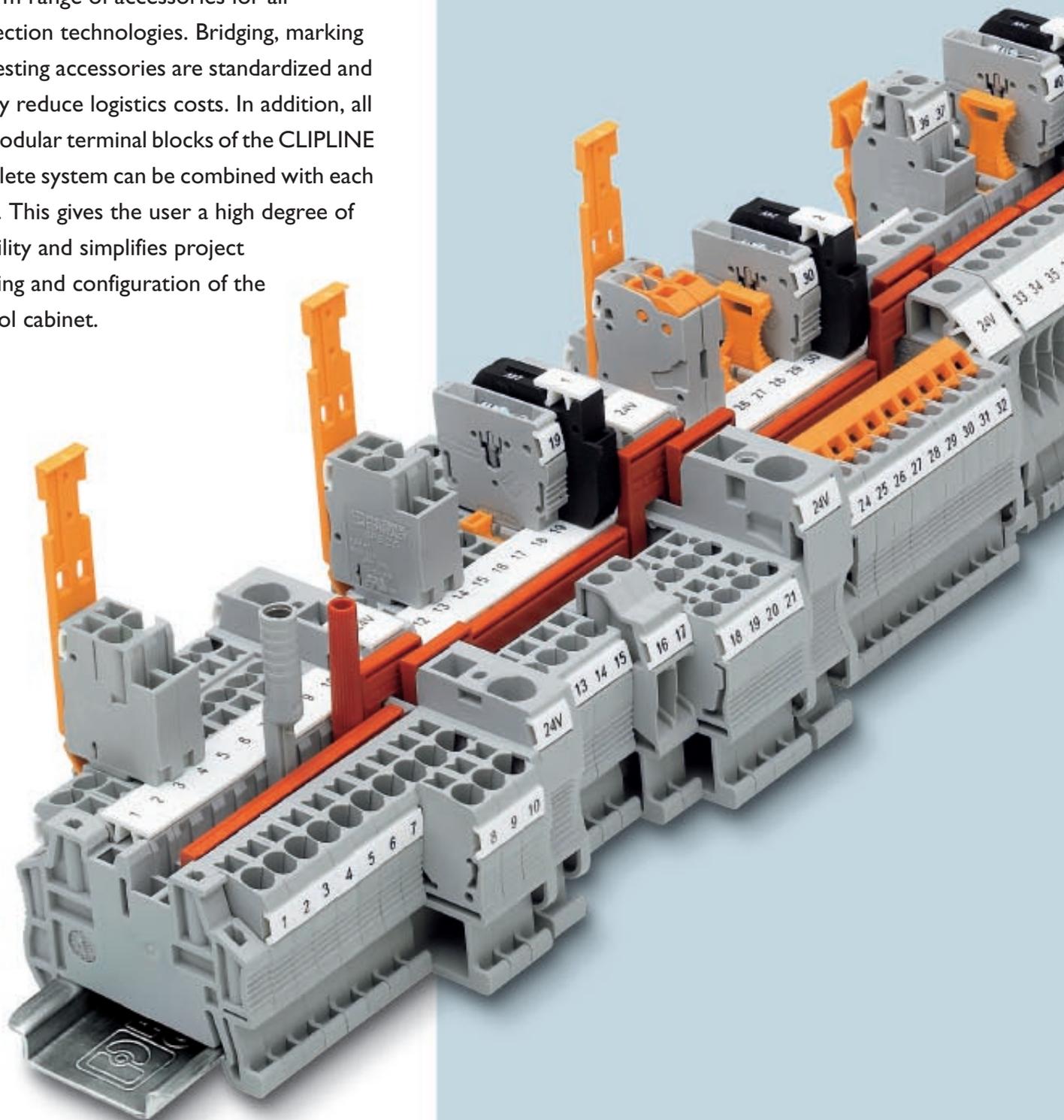
DT direct insertion connection system
Simply insert solid conductors directly into the terminal block. A screwdriver is only required for releasing the conductor. The direct insertion method offers an advantage in very restricted and narrow wiring spaces.

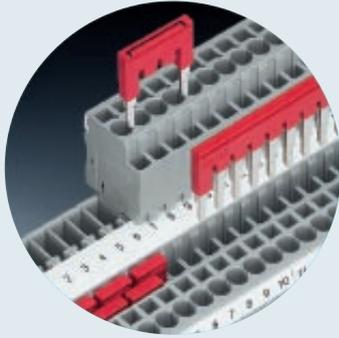


QT insulation displacement system
Connect the conductor without stripping. The fast connection system represents a drastic 60% reduction in wiring time. The conductor is connected simply, reliably and fast with just one turn of a standard screwdriver.

CLIPLINE complete – The same accessories for all connection systems

The CLIPLINE complete system offers a uniform range of accessories for all connection technologies. Bridging, marking and testing accessories are standardized and greatly reduce logistics costs. In addition, all the modular terminal blocks of the CLIPLINE complete system can be combined with each other. This gives the user a high degree of flexibility and simplifies project planning and configuration of the control cabinet.





Flexible plug-in bridge system

One plug-in bridge for all connection systems. The terminal blocks of the CLIPLINE complete system have two bridge shafts for fast and effective power distribution. These are arranged in line over all the terminal blocks, thus permitting the connection systems to be combined. All the bridging tasks can be performed in minimum time using the 2 to 50-position plug-in bridges. For example, reducing bridges can be used to connect a 10 mm² UT 10 screw terminal block to a 2.5 mm² ST 2,5 spring-cage terminal block.

Multifunctional disconnect zone

All the disconnect terminal blocks of the CLIPLINE complete system feature a standardized disconnect zone. Various function plugs are available for use in the disconnect terminal blocks. Isolating connectors are used for simple disconnection.

The fuse connectors are designed for the use of glass fuse inserts. The patented component connectors make it possible to mount components fast, without reversed polarity and without the need for soldering.

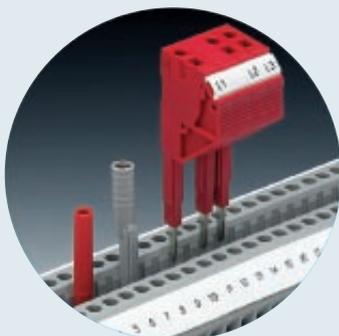
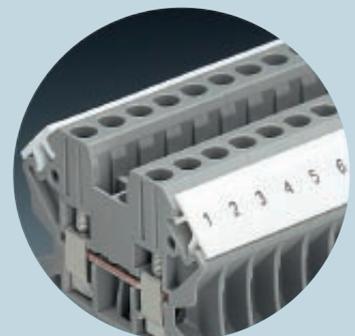


Pluggable connection solutions

The new COMBI plug-in system is also a part of CLIPLINE complete. The connectors are available in all four connection systems and can be combined with all the base terminal blocks via the standardized plug-in zone. The nominal data of up to 32 A and 800 V (IEC) have made a signal and power wiring system possible. The contact system complies with the most severe demands regarding vibration and is designed to be touch-proof both in the terminal block and in the plug. Optional snap-on accessories are available including snap-lock fittings, strain relief and shield connection.

Large-area marking

All the termination points of the terminal blocks in the CLIPLINE complete system have a large area available for marking. This is a necessity when it comes to wiring, startups and facilitates identification during testing and maintenance work. Snap-on large-area marker carriers are available as an option for group and terminal strip marking.



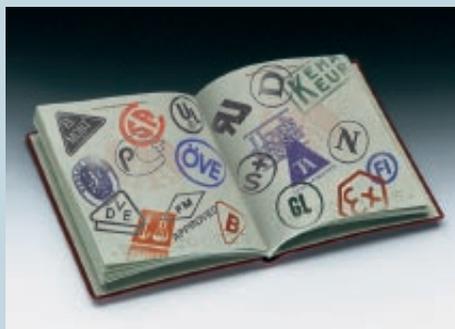
Standardized test system

Extensive test accessories are available for the CLIPLINE complete system. All test plugs make contact in the easily accessible bridge shaft. A 2.3 mm Ø test plug is available for individual measuring conductors. More complex testing tasks can be implemented using modular test plugs. Customized test adapters can be assembled using the appropriate spacers and are thus perfect for use in test bays.

CLIPLINE complete – Quality for every application

International approvals

Phoenix Contact modular terminal blocks have been tested and certified for numerous approvals, both national and international. This is verified by the proven use of Phoenix Contact modular terminal blocks a million times over around the globe.



Vibration and shock-proof

The modular terminal blocks of all connection systems guarantee the highest contact reliability. The terminal blocks have been tested in accordance with the EN 50155 railway standard and are suitable for use in safety-relevant applications in which vibration stressing occurs.



EN 50155

Explosion protection / Fire protection



The highest level of safety is standard thanks to routine testing of standard terminal blocks in accordance with the ATEX-100a guideline. The standard Phoenix Contact modular terminal blocks are approved and certified for use in potentially explosive areas. Maximum safety, even with respect to insulation material, is guaranteed. High-quality polyamide 6.6 is used for the insulation housings of the modular terminal blocks in the CLIPLINE complete system. This highly durable insulation material is non-flammable and fulfills the highest requirements of classification V0 in accordance with UL 94.

Maximum reliability requirements for elevator construction

Elevators and escalators demand a high degree of reliability. They are usually installed when a building is under construction and must operate reliably and safely for decades. These stringent requirements also apply to the electrical equipment of elevators and escalators. In addition, the equipment is expected to be space-saving and maintenance-friendly in design. Phoenix Contact modular terminal blocks more than meet these requirements and have already proven themselves in the field of elevator construction a million times over throughout the years – for example, ThyssenKrupp escalators (see photo).



Highest quality requirements for the chemical industry



Chemical processing makes high demands on the safety of electrical equipment. In this industry, explosive mixtures cannot be allowed. The standard modular terminal blocks of the CLIPLINE complete system are approved for use in the potentially explosive areas. Phoenix Contact modular terminal blocks have the relevant mark of conformity and are used in systems from leading manufacturers, such as Bayer AG.

Highest safety requirements for railway applications



Rail vehicles are automatically subjected to vibrations and therefore require extremely high standards of quality and reliability for the electrical connections. The modular terminal blocks in rail vehicles must therefore be tested for use in this application.

All the modular terminal blocks of the CLIPLINE complete system are tested in accordance with the standard for railway applications. They are used by reputable manufacturers in the field of track-bound transport systems, such as Siemens Transportation Systems.

Control cabinet design made easy

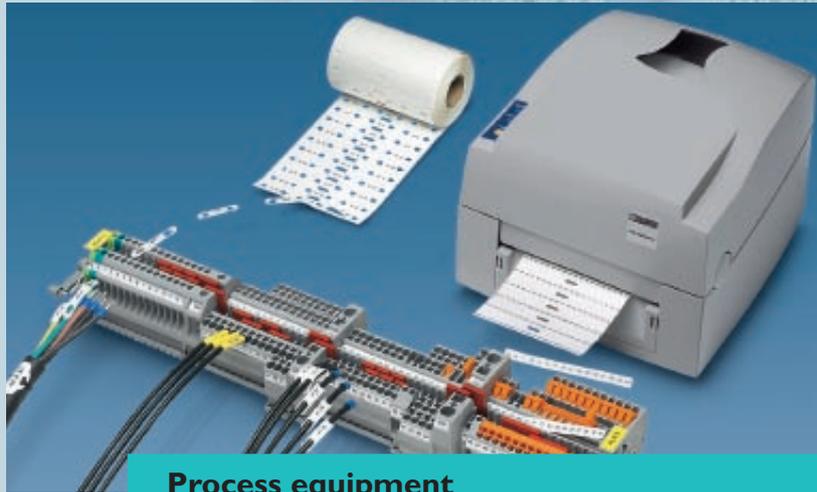
Phoenix Contact makes a wide range of services for cost savings available in their role as partner for control cabinet design. From the project planning of terminal strips to marking of conductors, our aim is to work with our customers, to increase their competitive advantage. State-of-the-art distribution centers are available in all the key world markets and guarantee close-to-the-market and close-to-the-customer services.



Service

Fully equipped DIN rails designed in CLIP PROJECT can be ordered direct. These terminal strips can be delivered fully assembled, complete with markings and accessories.

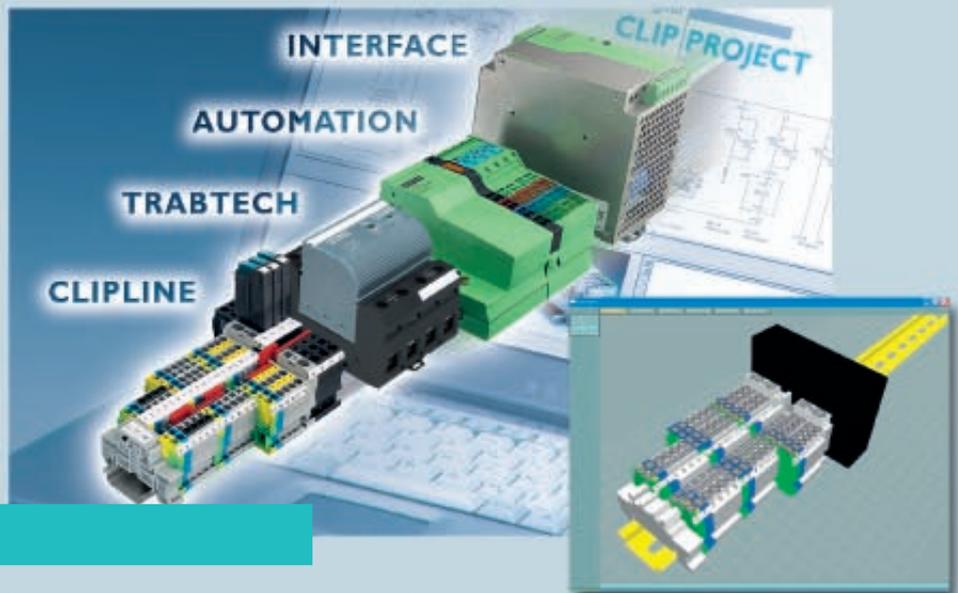
This just-in-time supply of tested control cabinet rails reduces surplus stock and inventory costs.



Process equipment

Phoenix Contact offers a professional series of cutting, crimping and marking tools for complete control cabinet wiring. The marking data generated in the project planning systems is read into the

CLIP PROJECT and CMS-MARK-WIN software. Then they are automatically processed for production, sorted and transferred to output devices, such as plotters or printers.



Engineering software

The planning software CLIP PROJECT can be used universally due to the data exchange with EPLAN, WORD, EXCEL and the labeling system CMS-MARK-WIN. An XML and CSV interface is available for other systems.

Graphics are displayed 2 and 3-dimensionally in realtime and can be exported to the vector formats dxf, dwg and dxb.

From EPLAN and other CAE systems, CLIP PROJECT generates fully assembled DIN rails and supplements the necessary accessories automatically at the click of a mouse.