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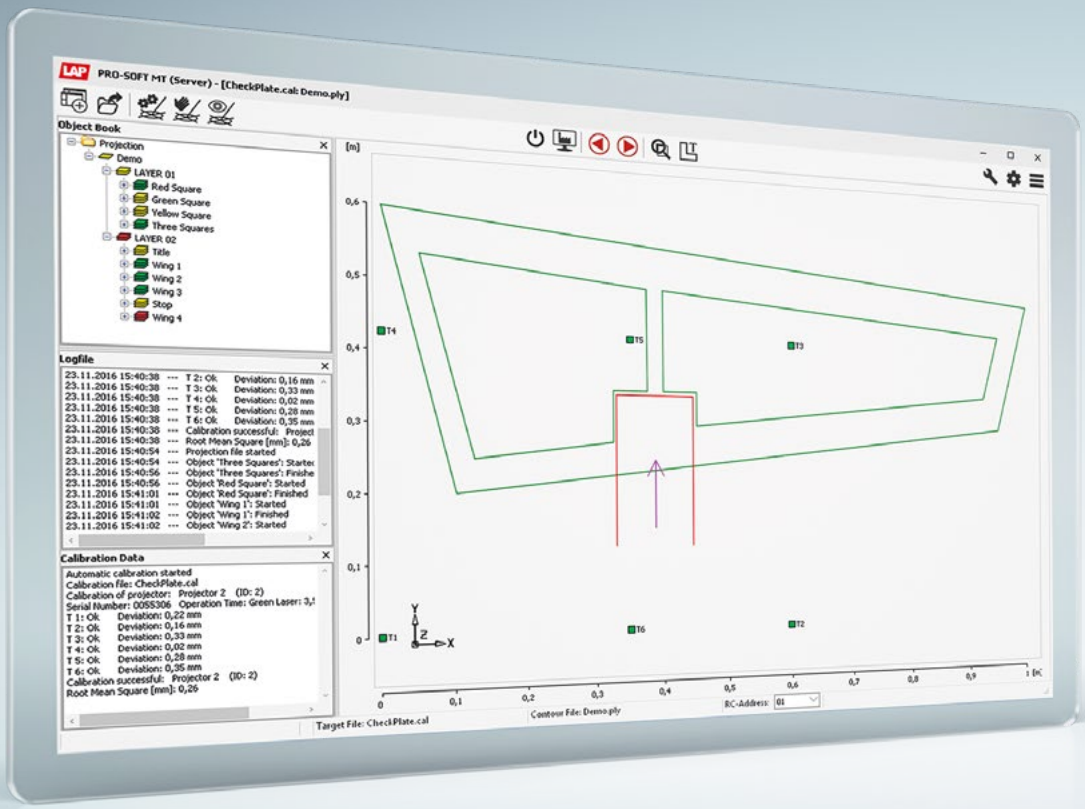


PRO-SOFT

Operating software for CAD-PRO laser projection systems

Simply Precise

Whether for composite manufacturing or for the precast concrete industry – LAP offers the right software variant for each application.

A software tailored to your needs

Customized configuration, optimized workflows

PRO-SOFT is the user-friendly operating environment for your CAD-PRO laser projection system. With a single platform, you can organize your daily work routine easily and efficiently. The software supports you from work preparation and managing projections, all the way through to documentation and quality assurance.

- → *Export your CAD data into common exchange formats.*
- → *Manage all projection steps with a click of the mouse or remote control.*
- → *Streamline your production processes through optimized workflows.*

User-friendly

All screen tools are designed for ease of use and intuitive operation: The main projection control and calibration functions are centrally arranged and displayed with clear symbols.

Efficient

Operators are safely guided through all projection steps with easy-to-follow instructions. This lets production staff focus on the essentials. Training time for new employees is reduced to a minimum.

Flexible

PRO-SOFT supports all common data formats used in the industry, such as DXF, IGES, HPGL as well as LPD and PLY. We also provide import modules for STEP and CATIA.

Application-specific

LAP provides four different software variants optimized for industry-specific requirements. Learn more about our PRO-SOFT MT, ST, UT and TP.

More information about PRO-SOFT software

Just a few steps

From CAD data to laser projection

PRO-SOFT provides operators and administrators with all the core functions needed to operate your CAD-PRO laser projection system in a well structured manner. Manage your tasks with a single software program: from importing CAD data to calibration, performing projections, and editing projection files, to saving images and generating reports.

Work preparation

Creating projection files

Create projection files based on your CAD data from common CAD programs. For quick and straightforward projection file creation you can also use the Rhino 3D-plugin or simple Excel spreadsheets via CSV import.

Creating the calibration file

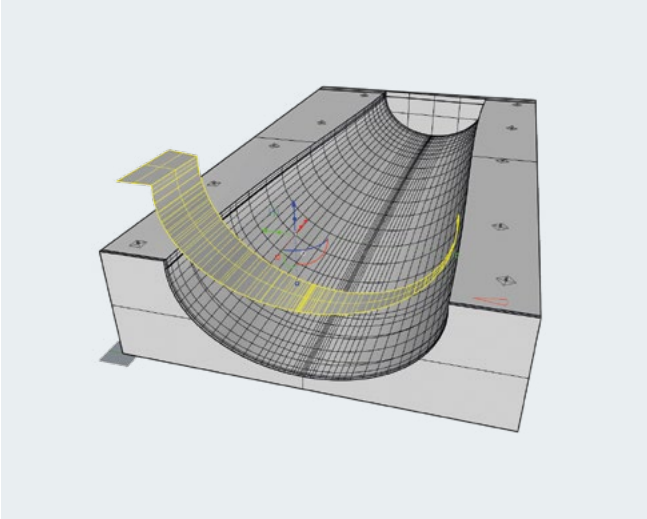
PRO-SOFT generally requires a calibration file for each projection surface. Calibration files are created and edited using the user-friendly text editor. Basic calibration establishes the mapping between the laser projector and the targets. After initial basic calibration, the laser projection system is ready to start. Moreover, automatic and manual calibration can be performed anytime during the production process.

Simulation

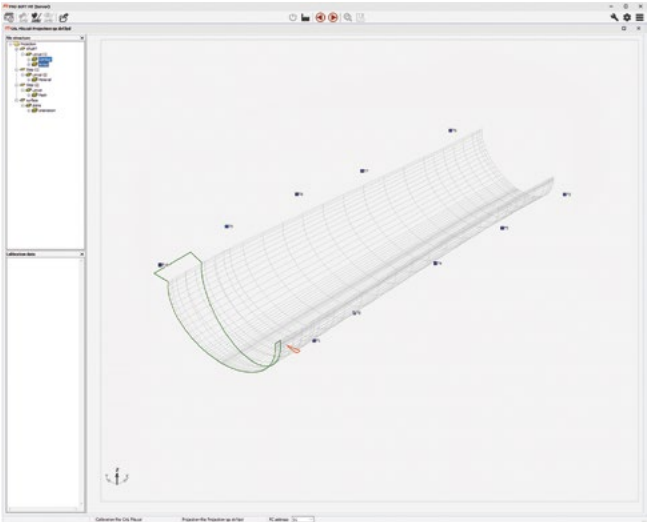
Testing and simulating

In test mode, calibration and projection files without linked hardware can be loaded and displayed in the projection window. This makes it possible to test the complexity and structure of projection files. The simulation mode requires an operational laser projector. Its purpose is to check the projection and simulate a production process in advance.

PRO-SOFT adapts flexibly to your requirements. Simulation, documentation and quality assurance are additional options, if you require a higher level of process safety.



Create CAD data and export the files into common exchange formats



Open projection files quickly and easily in the PRO-SOFT software

Production

Performing projections

Simply open the projection files in the PRO-SOFT software and off you go. In production mode, operators can conveniently work off the files by following a step-by-step procedure, switch forth or perform projections in any order.

Documentation

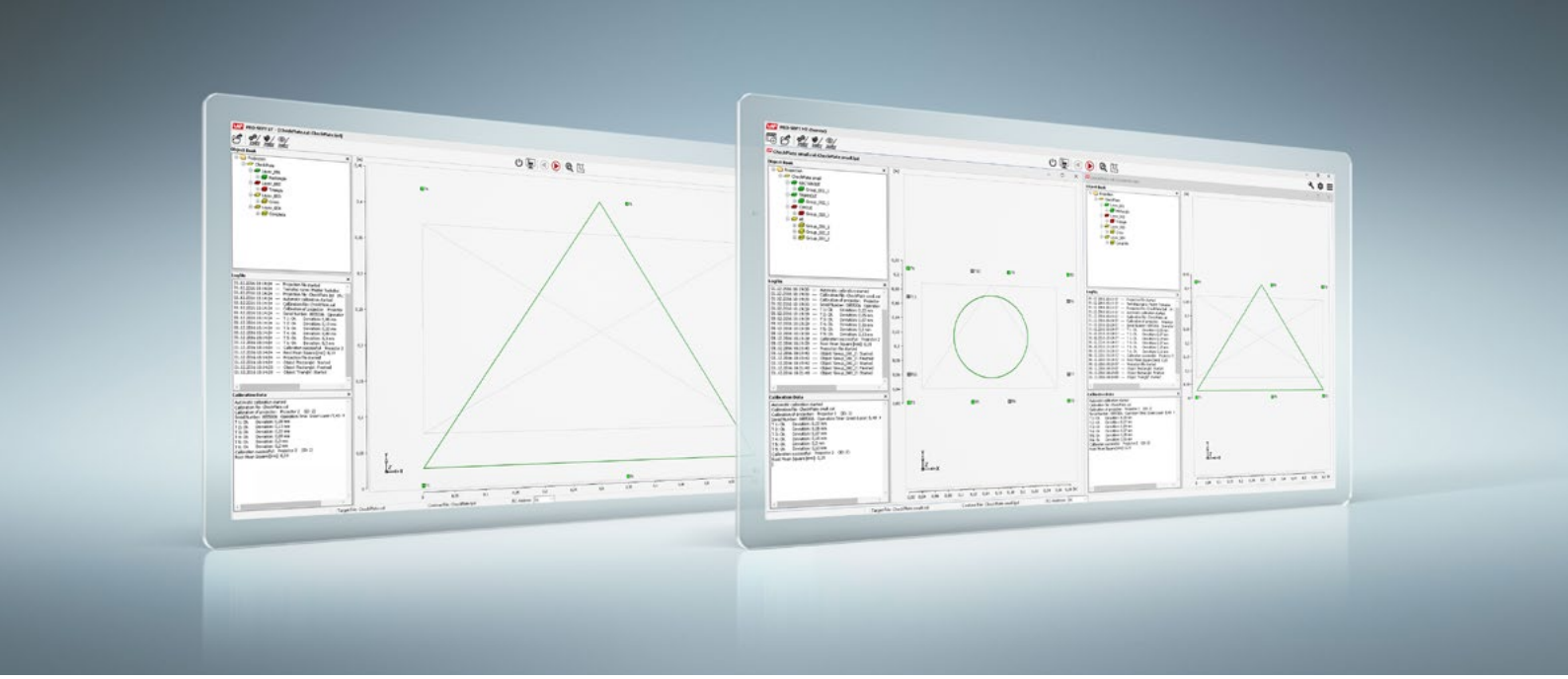
Displaying process information

Production managers can gain important production-relevant data from the software. PRO-SOFT provides a service module for logging, storing and printing extensive operating data. With just a few mouse clicks, the report generator prepares user-specific site reports, documents system statuses, and displays order-based production details.

Quality assurance

Saving camera images

PRO-SOFT supports all functions of LAP's DTEC-PRO camera system. It is an ideal add-on to further enhance process reliability. Live camera images of each projection step can be captured and stored in a data base for subsequent documentation and quality assurance.



For 3D surfaces

PRO-SOFT MT/ST

For projections on objects of any shape, PRO-SOFT ST and PRO-SOFT MT are the right choice. The Single Task (ST) version is intended for work processes that require only one instance of the software. If you want to manage several independent work processes from one PC, PRO-SOFT Multi Task (MT) allows you to start several instances of the software to perform multiple tasks in parallel.

Special features

- Projections possible in arbitrarily oriented coordinate systems
- Integrated editor to adjust and optimize projection files, e.g. text and color parameters, order and name of the projection steps
- Two different working procedures supported:
  - Calibration and projection are performed by the user.
  - The administrator defines all planned work steps in advance via the Process Control.

Supported file formats

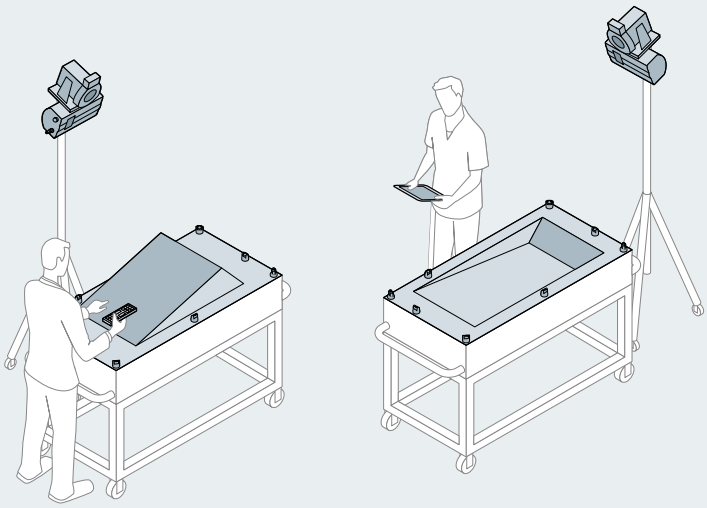
- LPD, PLY, IGES, DXF, CSV
- Optional STEP and CATIA import modules
- Others on request

Typical applications are layup processes in composite manufacturing

Maximum flexibility

Client/server architecture

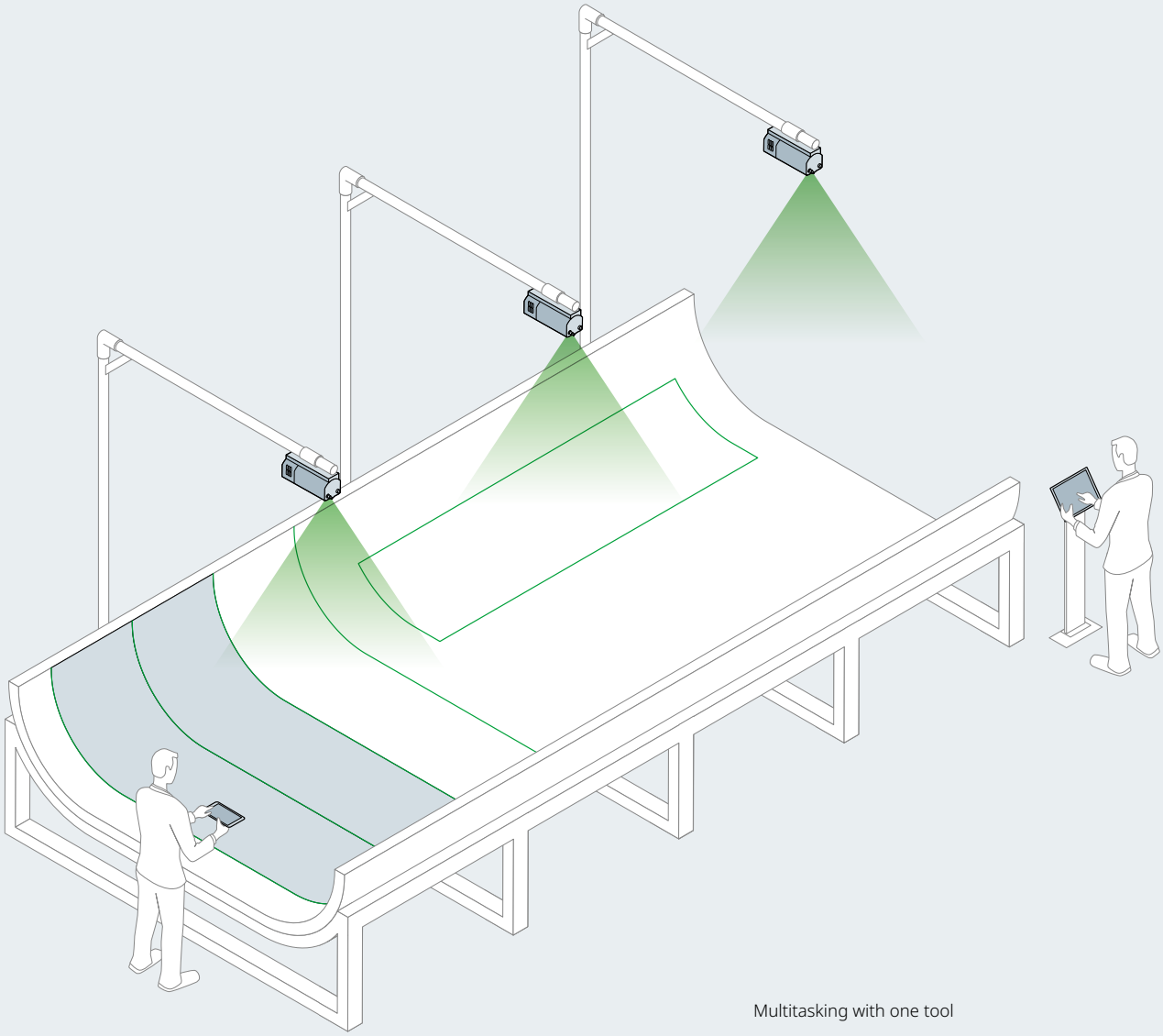
The client/server function of PRO-SOFT MT offers a high degree of flexibility when configuring the system. Several client computers can be connected to the PRO-SOFT server. This allows different operating concepts to be implemented for controlling the laser projection system via PC and portable devices such as tablets or handhelds.



Multitasking with multiple tools

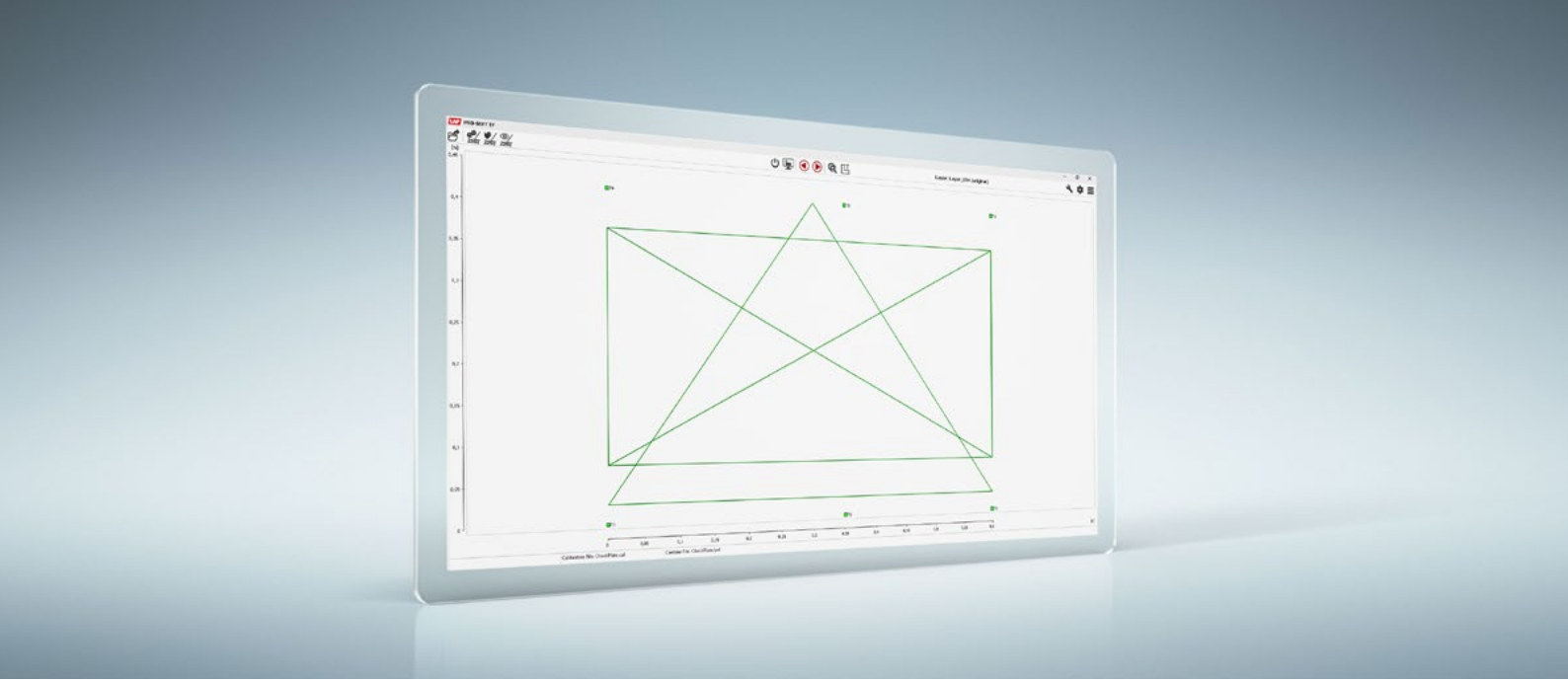
Multitasking

The PRO-SOFT MT software allows you to work with a single- or multiple-head system on several tools simultaneously and independently of one other. In addition, with multitasking several workgroups can work on one large tool at the same time and separately from one other. Each workgroup works in the PRO-SOFT MT software in its own task window and with its own remote control. The task can be run on various computers, ensuring higher process efficiency in your production.



Multitasking with one tool

Multitasking helps utilize the system even more efficiently. One team does not have to wait for the next team.



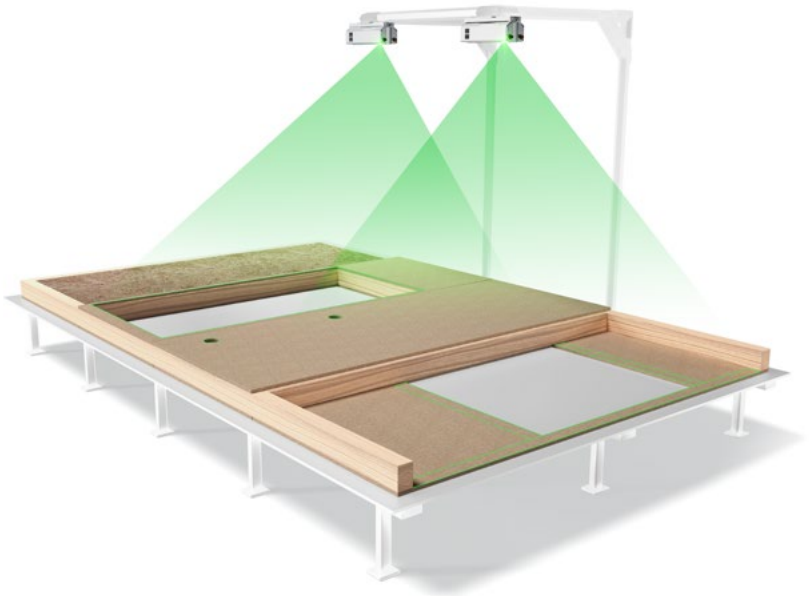
For plane surfaces with height coordinates

PRO-SOFT TP

PRO-SOFT TP is the standard software for all works on a plane surface in combination with height coordinates. The height level of the projection (Z-coordinates) can be changed manually. For recurrent height values, you can easily create buttons in the tool bar. Typical applications: wood and stone processing industries, prefab homes production, roof truss production and the precast concrete parts industry.

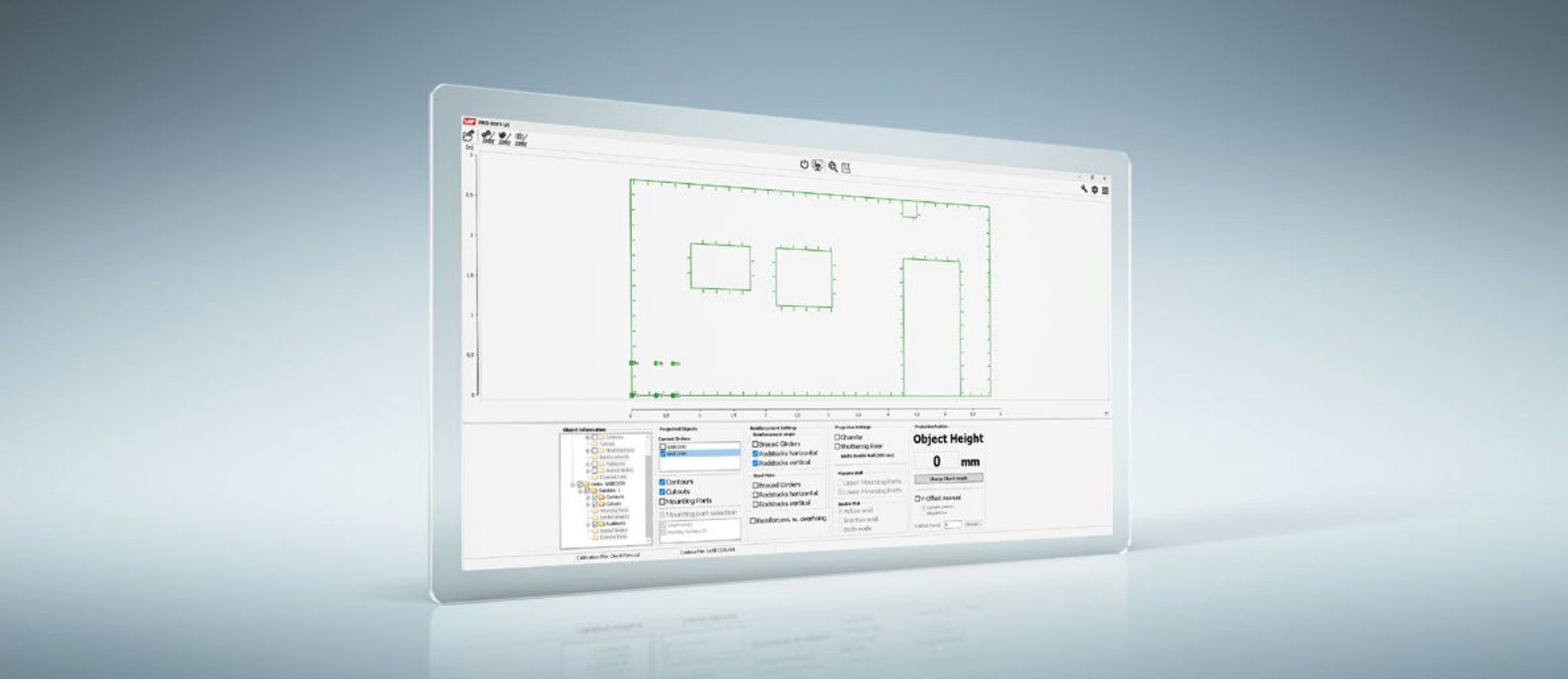
Special features

- Comprehensive options to adjust the projection in position and orientation
- Configurable for projections in different work zones (Multi Table)
- Touchscreen support



Supported file formats

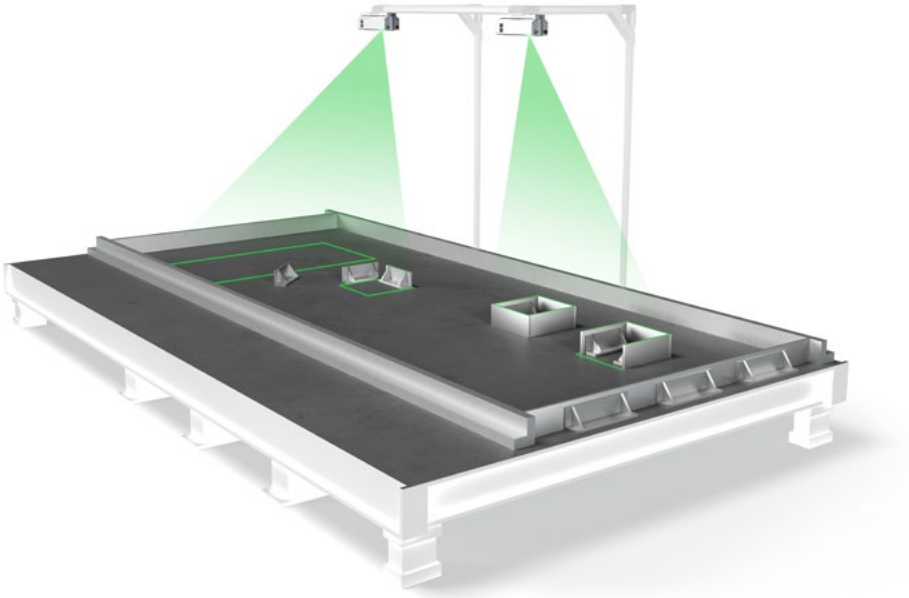
- DXF, IGES, HPGL, LPD, CSV
- STEP as an optional import module
- Other plotter and data formats on request



With Unitechnik interface for concrete parts

PRO-SOFT UT

This software has been optimized for users in the precast concrete industry. You can import and display data in Unitechnik format. Unitechnik controls are displayed in the lower part of the screen. The software supports the production of double-wall and massive wall elements. Positions of reinforcements also can be shown.



Special features

- Full operation via remote control with no need for a PC station nearby
- Extensive capabilities to define the projection height of e.g. mounting parts
- Reference projection for semiautomatic alignment of projections in factories without pallet centering (position correction)

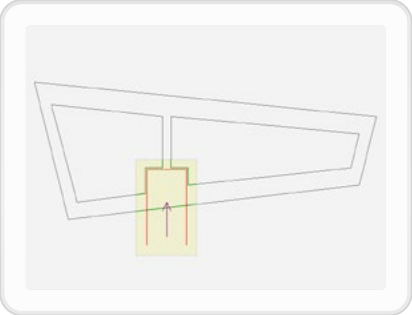
Supported file formats

- Unitechnik 4.0–7.0
- UXML
- Compatible with all major master computer systems from Unitechnik, RIB SAA, Progress

The user-friendly PRO-SOFT

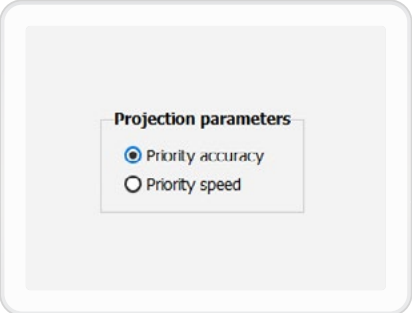
Optimizing settings for increased productivity

PRO-SOFT offers a range of functions for optimizing projections, the user interface and operation of the software. Optimizing the software settings increases productivity and ease of use in the production process. What's more, the user interface can be individually configured to the user's requirements. You can set up different screen views and various optional displays.



Viewport

The Viewport function allows you to project sections (viewports) of complex projection files. With this function, only the part of the projection file that is relevant for production is projected. In the projection window you can drag a frame around the desired area via mouse click. Irrelevant parts of the projection are hidden. This can increase projection quality.

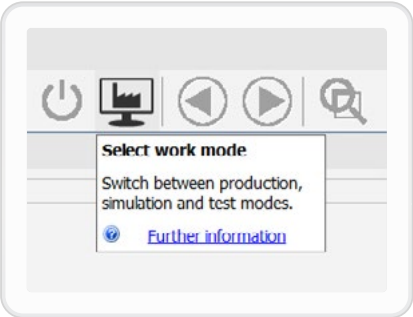


Projection accuracy or speed

At the factory, the laser projector is set to project contours with a high degree of accuracy. For some applications, high speed is more important than a high degree of accuracy. The laser projector can then project with a reduced degree of accuracy at a higher speed. As a result, the laser projection is perceived as more pleasant by the human eye.

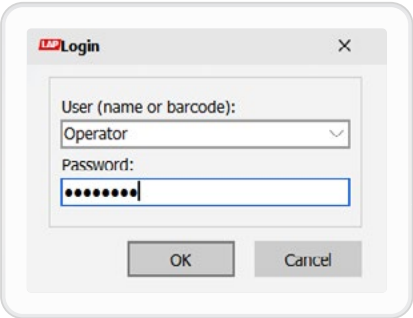
Projecting a menu

An alternative to controlling the laser projector via the computer is operation via remote control and a projected menu. The software can project the menu, for example, right next to the projection surface or on a wall on the opposite side of the room. You can operate the software from any position and do not need to access the PRO-SOFT computer for each work step.



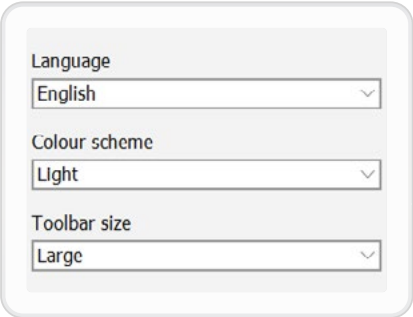
Embedded help

The context-sensitive help function offers short explanations and links to the requested topic in the manual. This allows the operator to directly call up the appropriate chapter for the current work step. The embedded help is also available in the PRO-SOFT Configuration.



User management

User management prevents unauthorized people from operating the projection system or changing the configuration. The software therefore provides the possibility to define the rights of users. User management can be used flexibly, making it possible e.g. to secure access to the software settings through a password-protected administrator account.



Additional settings

PRO-SOFT can operate in metric or imperial units. You can switch unit selection in a running system; no restart is required. You can also choose between a light or dark background, large or small toolbar buttons, and up to 12 languages.

Optional modules

DTEC-PRO camera functions

PRO-SOFT supports all functions of LAP's DTEC-PRO camera system: from automatic calibration to visual process control as well as the capture and storage of camera images for quality assurance.

STEP and CATIA import

Optional import modules allow the direct handling of data in STEP and CATIA format. Converting data to other formats is not necessary.

Interfaces

The most important functions of the laser projection system can be controlled from the outside, such as by PLC, using a TCP/IP interface. As an option you can also use the open API interface to control the laser projectors directly from your software environment.

Service

Regular maintenance protects your investment goods by increasing your product's service life and reducing risk of failure. Our service contracts range from regular inspection to the complete cost coverage in case of malfunction.

More information about SAFEGUARD-PRO

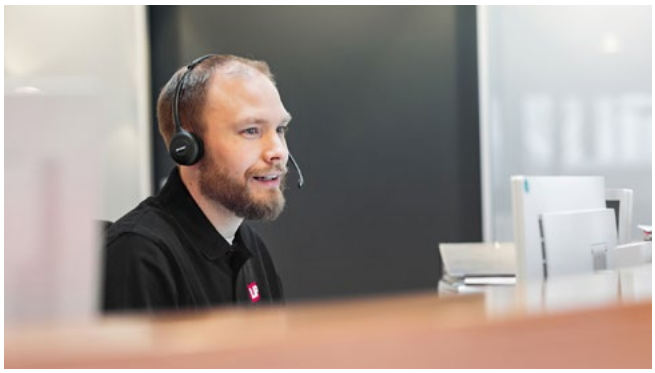
About us

LAP is one of the world's leading suppliers of systems that increase quality and efficiency through laser projection, laser measurement, and other processes. Every year, LAP supplies 15,000 units to customers in industries as diverse as radiation therapy, steel production, and composite processing. LAP employs 300 people at locations in Europe, America, and Asia.

90+
Partners

300
Employees

7
Locations



Quality

We work to uniform standards and with certified processes. For us, "Made in Germany" means the highest precision in manufacturing and quality inspection of each device. For our customers, this means planning and process certainty.

All our worldwide locations use a quality management system according to EN ISO 13485 or EN ISO 9001. Our products have all the necessary approvals and registrations almost everywhere in the world.

Service

We ensure the maximum availability of your equipment so you can concentrate on your core process. Wherever you need us, our certified service technicians are quickly on site in any time zone. We support you from installation and commissioning, through user training, up to maintenance, repair, or unit replacement.

Our efficient logistics ensure the fast availability of spare parts worldwide. For technical questions and support, our helpdesk is at your disposal by telephone, via e-mail, or remote diagnosis.

More about our global QM system

made in Germany

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