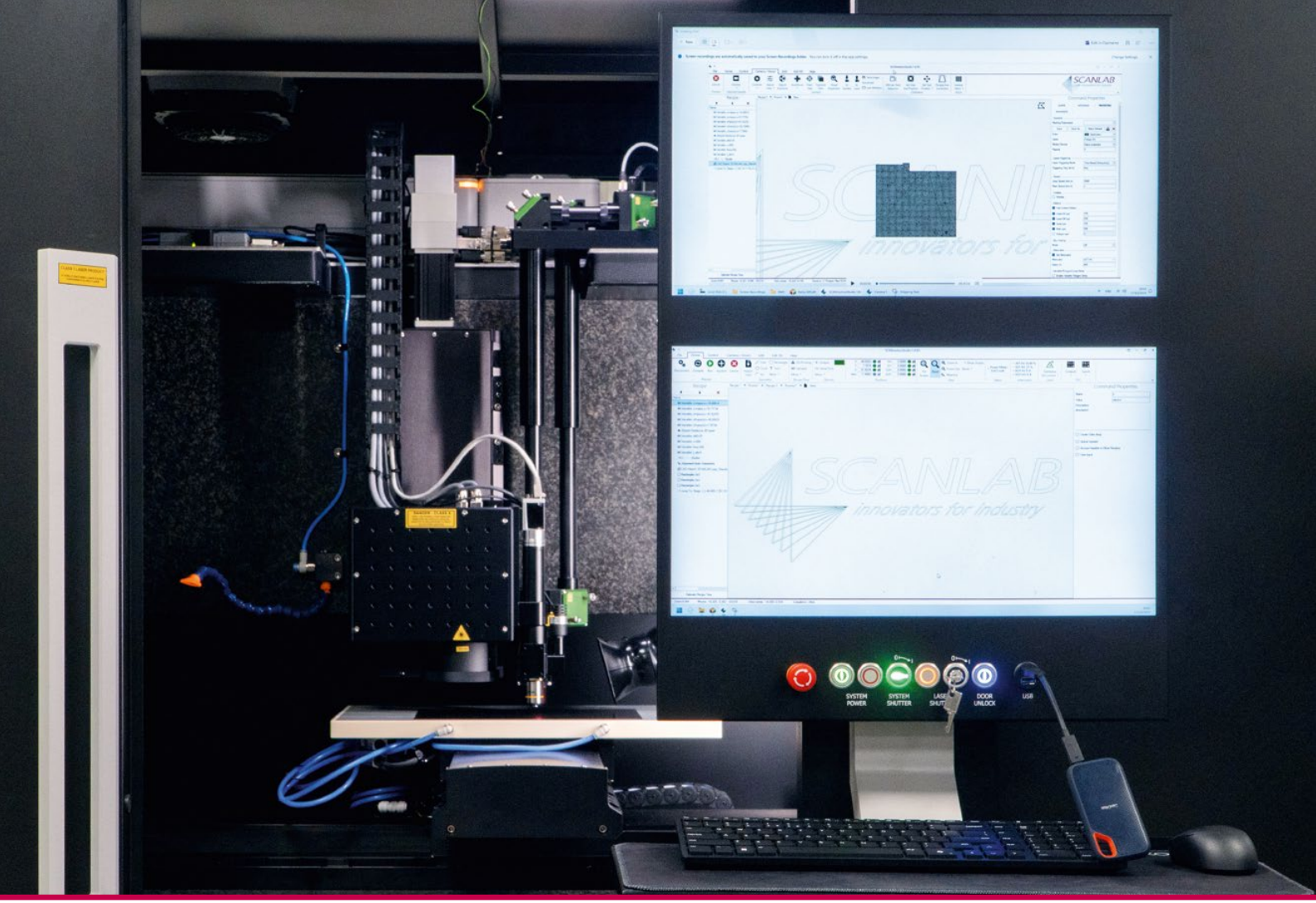


*SCAN*motionStudio

The powerful software for laser processing

- Comprehensive laser control and flexible process customization
- Intuitive user interface and easy access to powerful functions, ideal for beginners and experts
- Real-time monitoring of processes for quality assurance and troubleshooting

SCANLAB
innovators for industry

Realize complex processes...

...without any programming!

RTC Board

Data analysis & optimization

Comprehensive tools for data recording and simulation make it easier for you to analyze and optimize laser processes. Real-time monitoring of system parameters during execution helps to identify and react to critical conditions.

Camera

Machine Vision

*SCAN*motionStudio supports the integration of industrial cameras for the automatic recognition of features and component positions. This ensures simpler process control and greater accuracy in production.

Control Center and Software

CAD import and design

*SCAN*motionStudio allows you to import and edit complex 2D and 3D geometries. With the 3D slicing function, you can divide STL files into layers and prepare them optimally for 3D printing or deep engraving

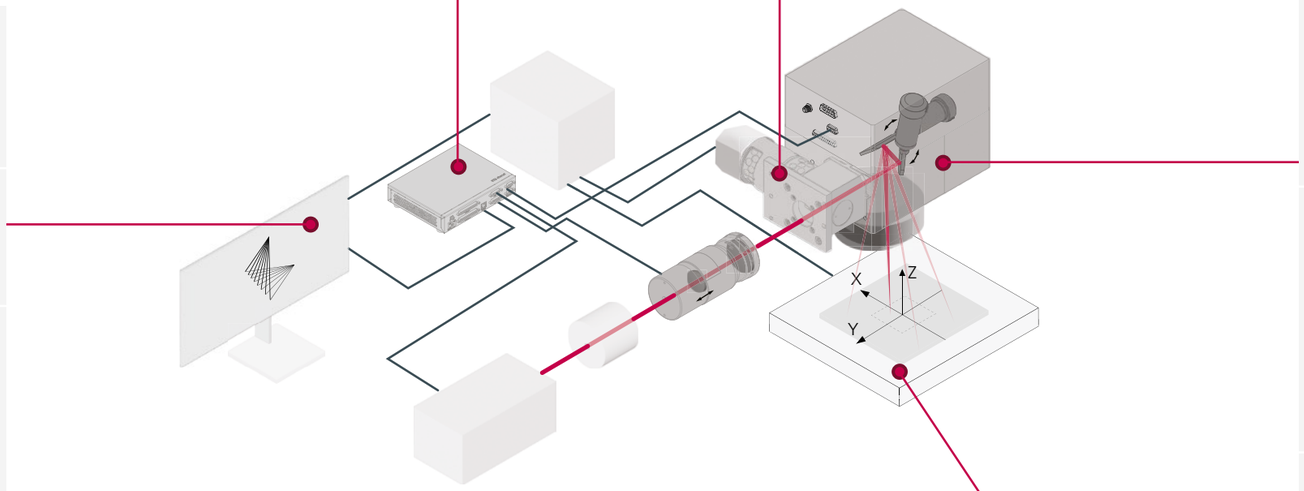
Flexibility in laser process definition

Define individual laser parameters and hatching patterns to test and optimize the ideal processing strategy for different materials and applications.

Automation and interfaces

*SCAN*motionStudio offers extensive automation functions, including dynamic data import and flexible process definition through variables and logical functions.

Support for fieldbus, serial interfaces, digital I/Os and a remote interface (API) helps you integrate the software seamlessly into industrial environments.



Scan System Control

***SCAN*ahead technology**

The *SCAN*ahead control, available in systems of the excelli*SCAN*- and intelli*SCAN* IV family, ensures greater dynamics and precise synchronization of the laser control. Functions such as Spot Distance Control and extended Sky Writing options enable even more precise editing.

***SCAN*motionControl & XL SCAN**

*SCAN*motionControl calculates the optimal trajectories based on the physical limits of the scan system. By simulating and analysing the trajectory, you can optimize process parameters before the first laser marking.

XL *SCAN* increases the processing area almost infinitely by perfectly synchronizing the control of the galvanometer scanner and mechanical axes. This means that stitching errors no longer occur.

Calibration tools

The integrated tools guide you through the initial calibration of the laser system and support fully automated calibration routines in combination with machine vision to continuously achieve the highest accuracy.

More about *SCAN*motionStudio in the video:

Stage and Axis Controller

Synchronized control of Scan Systems und axes

*SCAN*motionStudio allows synchronized control of galvanometer scanners and mechanical axes. Functions such as MOF (Marking on the Fly) and Stitch + Scan enable the seamless processing of larger surfaces. For the processing of highly complex 3D surfaces, the control of 5-axis systems can be synchronized with the control of a galvanometer scanner in *SCAN*motionStudio.

Editions and Extensions

***SCAN*motionStudio LITE**

- All basic functions for the development and control of 2D laser processes
- For users who concentrate on standard applications such as engraving, marking or simple material processing

***SCAN*motionStudio PRO**

- Simultaneous control of scanners and mechanical axes
- Offers additional setting options and flexibility for the laser and process parameters
- Enables the complete automation of processes
- For users who develop and optimize more complex processes

Optional modules for extension

3D module for additive manufacturing

complements the **LITE** Edition (included in PRO Edition):

- Import of complex 3D models
- Fast slicing of large objects
- Repairing faulty STL files

Multi-head module

complements the **PRO** Edition:

- Control of several laser scan systems simultaneously
- Automatic distribution of the vectors of a laser job to the available heads (efficient load balancing)
- Takes laser smoke interaction into account

Machine Vision (MV) for the integration of industrial cameras:

MV LITE

- Automatic detection of the laser focus
- For manual alignment of the laser marking on the workpiece

MV PRO

- Automatic feature recognition and alignment, also „on the fly“
- Image stitching
- Fully automatic image field calibration

Which edition contains which Features?

Download the feature overview!

Test *SCAN*motionStudio

Contact us for a test license!

SCANLAB GmbH · Siemensstr. 2a · 82178 Puchheim · Germany
Tel. +49 89 800 746-0 · info@scanlab.de · www.scanlab.de

SCANLAB America, Inc. · 596 Herrons Ferry Rd, Suite 208, Rock Hill, SC 29730 · USA
Tel. +1 833 722-6872 · info@scanlab-america.com · www.scanlab-america.com

SCANLAB innovators for industry

11/2026 Information is subject to change without notice.
Product photos are non-binding and may show customized features.