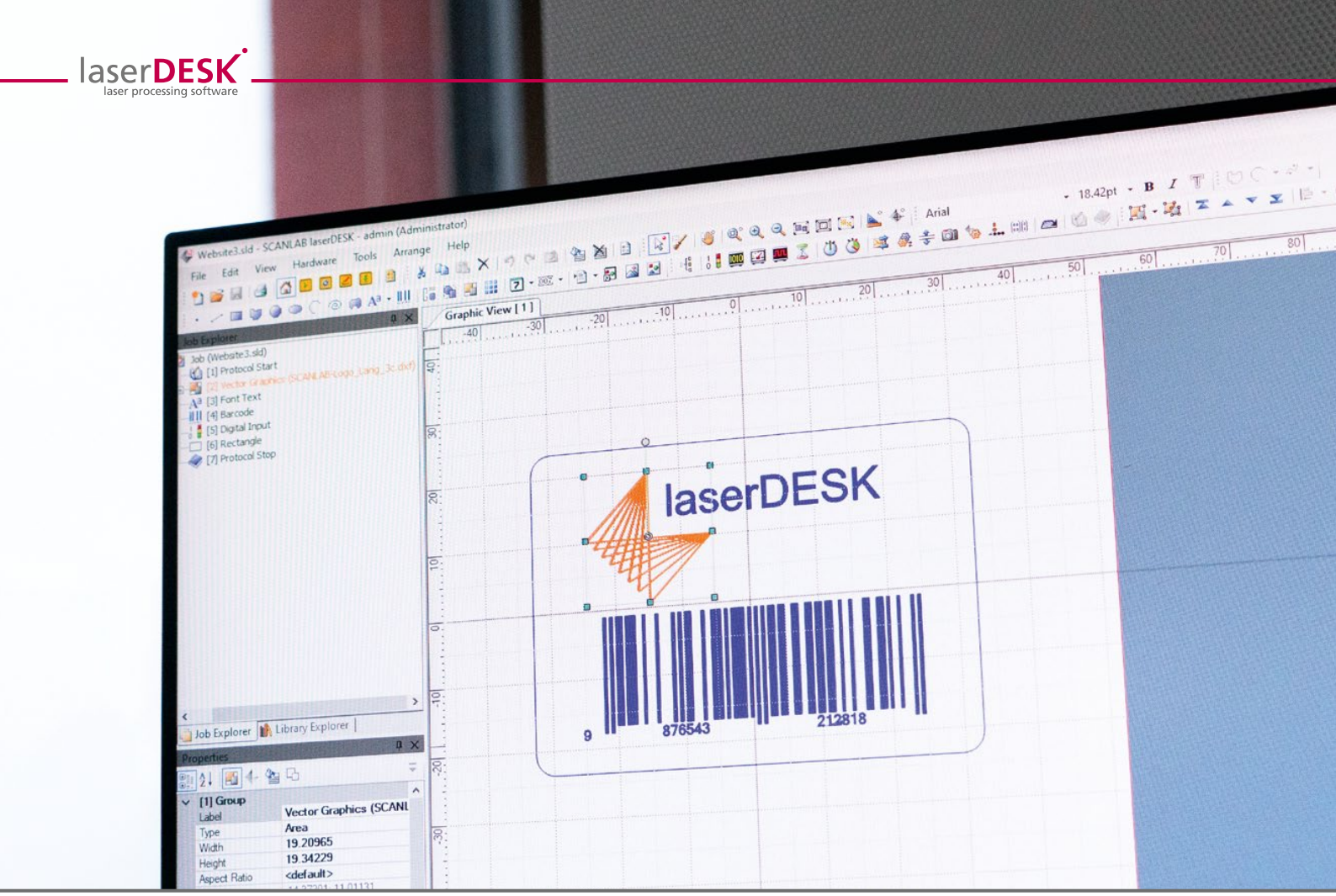
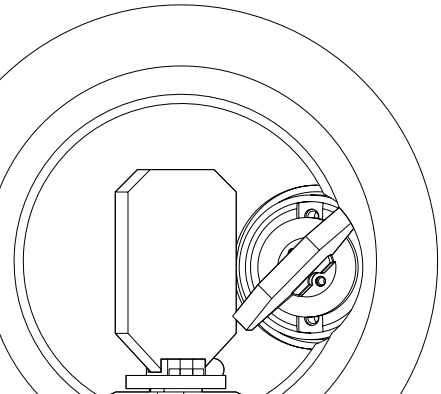


From Process Development to Processing

laserDESK is the program professionals use to set up and perform laser processing. It takes full advantage of the functionality in SCANLAB's newest control boards and scan systems.

laserDESK enables:

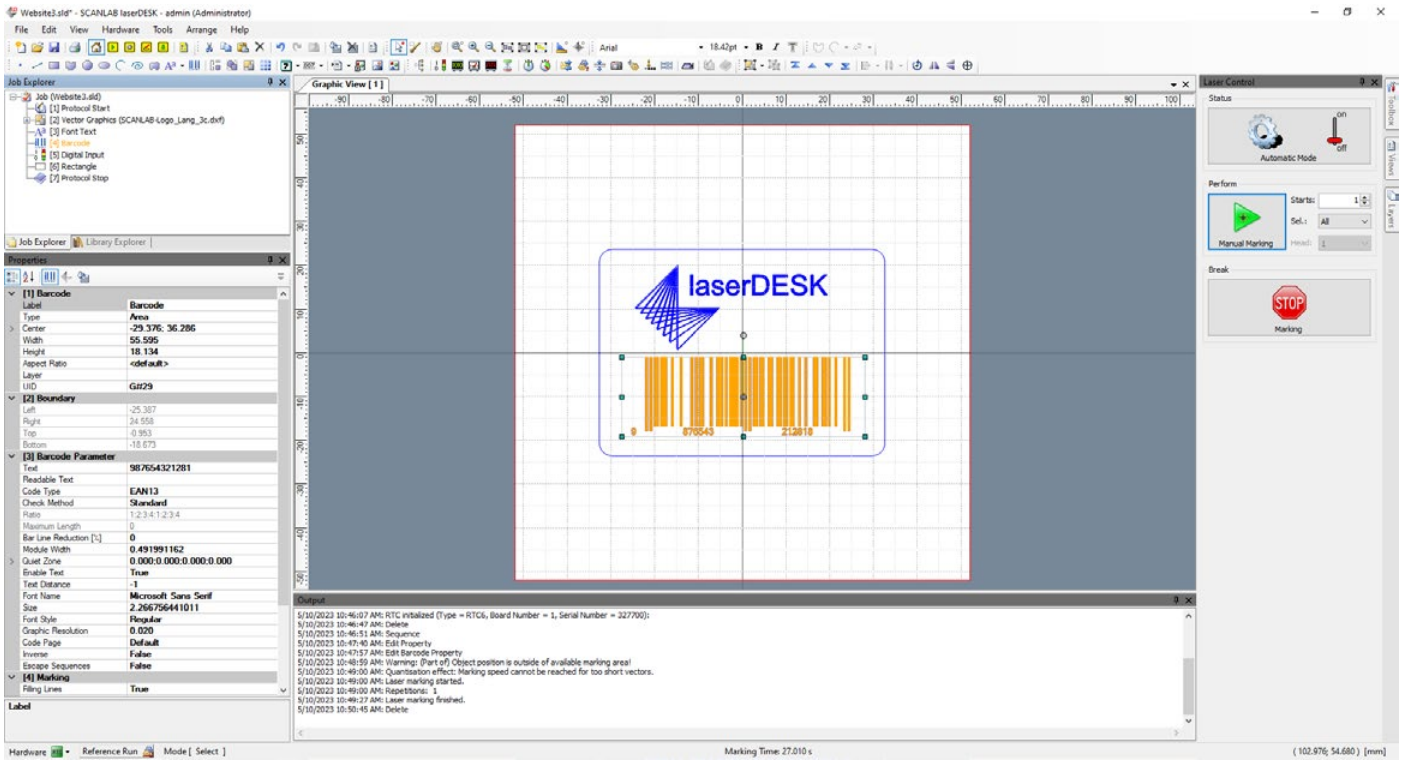
- **Easy setup and execution** of laser processing jobs for diverse applications
- **Professional process development** for laser applications utilizing the numerous functionalities of RTC boards with the SL2-100 interface
- **Series-production safety** via integrated automation and user-privilege capabilities
- an **easier transition** to own RTC programs for the production through logging of the communication
- ***SCAN*ahead Technology** is automatically supported when using RTC6 and excelli*SCAN* systems, the setting of the classical delay parameters becomes needless
- **Integration in diverse manufacturing environments** via support for numerous laser types and axis controllers. A generic interface facilitates usage of any desired axis controllers.
- **Simplified equipment setup and workflow** thanks to modal wizards
- **Quick time-to-market** of innovative projects and processes via unified software for development and series production
- **Optimal integration** of SCANLAB components such as 3D systems or vario*SCAN* II FLEX



SCANLAB
innovators for industry

Operational Flexibility

laserDESK lets you create or execute laser jobs and professionally set up your laser systems. It features an intuitive graphical user interface. Automation solutions are implemented in a variety of ways to accommodate particular system designs or laser DESK helps to switch to custom RTC software.



Graphical Processing

Visualization and Object Editing

- Comprehensive functionality for object editing and creation
- User management with different privilege levels
- Visualization of process sequences, output data and protocolled data

Dialog-based Control

- Wizards for hardware configuration and calibration, e.g. the Parameter Wizard or 3D calibration assistant
- Hardware configuration in separate view
- Interactive dialoges, e.g. for laser and motor control

Sequence Control

- Define the job's process sequence
- Automatic sorting of fillings and graphic sets
- Conditional execution of job versions by hardware signals

Parameter Sets

- Object-independend definitions
- Individually assignable to objects, groups or layers
- Library management

Switchable program profiles

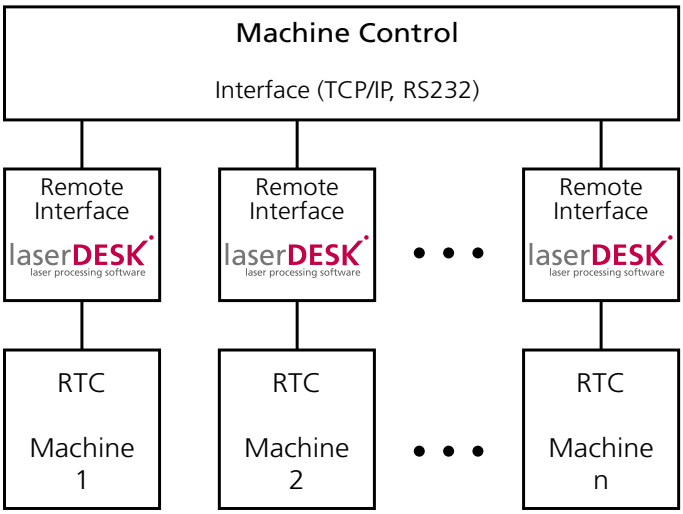
- Creation and direct testing with the design profile
- Projection-based positioning and previewing with the pilot laser profile
- Simple series production with the production profile

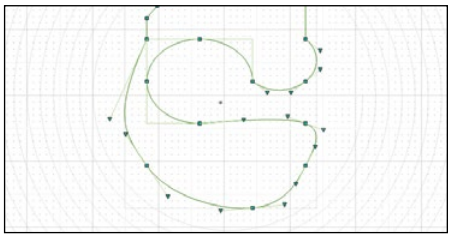
Automated Processing

The programmable remote interface provides countless possibilities for integration into automated manufacturing environments – e.g. within the framework of Industry 4.0. Processes can be flexibly executed. laserDESK's diverse communication options allow integration in production systems as master or slave.

Automation by Remote Interface

- Activation of hardware and laser system
- Loading and execution of jobs and variants
- Updating of text content or vector data
- System-status monitoring during execution
- Integration of external sensors into the processing sequence





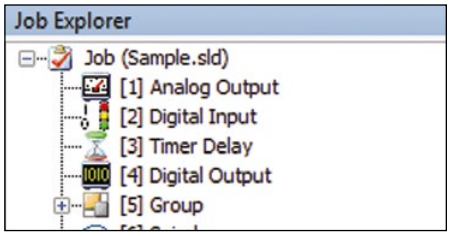
Markable Objects

In addition to point and line objects, complex marking objects such as graphic paths or 3D spirals are available. For creation, you can use Bézier curves or circle segments, which will be automatically prepared for laser processing. Those marking objects can be previewed graphically prior to execution. All objects are easily created, modified or positioned with the mouse or via direct input of coordinates.



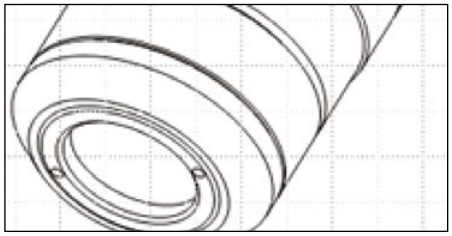
Typography and Numerals

All TrueType fonts are available for text marking. Coding algorithms are integrated for single-line typefaces, outputting barcodes or 2D codes. At runtime, the content of text objects can be automatically sequenced and loaded, or individually assigned by remote control.



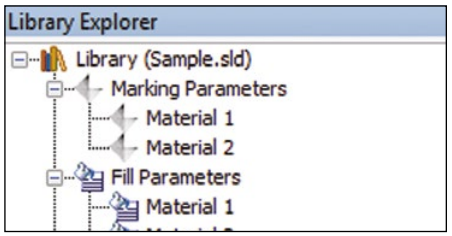
Safety and Control Elements

Analog and digital inputs and outputs of the RTC boards are fully integrated. This facilitates implementation of safety circuits and allows signals for initialization and monitoring of specialized laser types during job execution. Additionally, control signals can be outputted or queried during job processing.



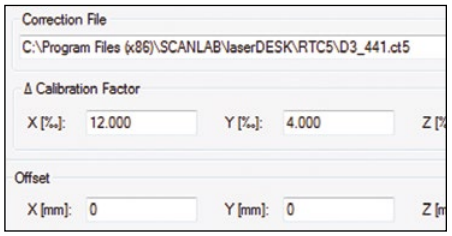
File Import

Import lets you load image files for bitmap processing and vector files for pre-defined 2D shapes or 3D object structures. During import, vector data can be sorted and collected. These objects are scalable, rotatable and positionable. Vector data can also be post-processed at the point level. Stl files can be imported and split into layers for 2.5D processes (3D printing, deep engraving). After import, these layers are individually parameterizable.



Parameter Sets

All object parameters can be easily edited in a clearly-structured properties list. Here, separate data sets are defined for object, text, fill and bitmap parameters. These parameters can be assigned individually to each object or managed collectively via the library. You can easily assign parameters collectively to objects in groups or layers.



Positioning Corrections

SCANLAB correction files ensure correctly scaled object processing by the scan system. Positioning corrections are globally defined in the job via offset, scaling and rotation. The integrated pilot-laser profile lets you visually place marking positions relative to the workpiece. With the remote interface coordinate transformations can be applied during execution.

*SCAN*ahead Technology

The laserDESK software can be used together with the combination of SCANLAB's excelli*SCAN* scan head and RTC6 PCI Express Board. In order to fully utilize the new features of the *SCAN*ahead technology, the laserDESK software is extended by some additional functions.

Spot Distance Control (SDC)

laserDESK supports the SDC option for enhanced **speed-dependent laser control** in combination with excelli*SCAN* scan heads and RTC6 control boards. When used with pulse-on-demand capable laser systems, a constant pulse distance can be ensured along any contour.

Protocol Function

In conjunction with digital-servo scan systems of the intelli*SCAN* and excelli*SCAN* product families, laserDESK can query the traversed trajectory or any signal of the scan head after processing and display it graphically. This enables tuning of marking parameters independently of contour fidelity (also in simulations without actual marking) or downstream quality control.

UltraFastPixelMode (UFPM)

laserDESK also supports RTC6 control boards with the activated UFPM option. With the UltraFastPixelMode feature, pixel frequencies up to 3.2 MHz are achievable.

3D Calibration Wizard

The 3D Calibration Wizard greatly simplifies the time-consuming calibration of 2D and 3D laser scan systems. A dialog wizard fully guides the user through the complex calibration process, resulting in an individualized, specific
3D correction file with which the system is optimally calibrated.

Generic Motor Control

laserDESK provides an interface for usage of any desired motors during job execution.

Standalone functionality

laserDESK supports the RTC6 Ethernet board with standalone mode: Predefined laser jobs can be stored in flash memory and started by a system controller.

Support and Service

Comprehensive English-language laserDESK documentation is provided as context-sensitive help. Responsive customer support is offered for laserDESK and SCANLAB regularly posts software updates on its website.

Hardware Requirements

- PC with Windows OS 10 or higher (.NET 4.5)
- USB port for dongle
- 64-Bit Version
- Supported RTC boards (only standard and premium edition): RTC6, RTC6 Ethernet (also in Standalone mode), RTC5

Features of the Version 1.6

	Standard	Premium	Office*
Markable objects	●	●	●
Typography	○	●	●
Graphical editing	●	●	●
Fillings	●	●	●
Laser support	●	●	n. a.
Control elements	●	●	●
Variants	●	●	●
Pilot laser mode	●	●	n. a.
Privilege settings	●	●	●
Marking on the fly	●	●	n. a.
Layers	○	●	●
Wizard-based control	●	●	n. a.
Protocol function	●	●	n. a.
Sky-Writing	●	●	●
2nd scan head	●	●	n. a.
Remote interface	-	●	●
Tiling	-	●	●
Speed-dependent laser control	-	●	○
*SCAN*ahead technology	-	●	○
UltraFastPixelMode (UFPM)	●	●	●
Layer sections via stl files	-	●	●
Power alteration along a marking	-	●	●
Dashed-line marking	-	●	n.a.
3D Calibration Wizard	●	●	n.a.
RTC communication logging	-	●	n.a.
Working volumes	2,5D	3D	3D
Languages	de, en, ru, zh		

*) The Office Edition is executable without RTC board and serves exclusively to create and store jobs

- ● enabled
- \- not enabled
- ○ limited use
- n.a. not applicable, because hardware isn't addressable

Test laserDESK now!

Software download: www.scanlab.de/downloads
(Can also be tested without dongle in demo mode.)

Demo Video:

www.laserDESK.info

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

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