

3D Calibration Wizard

New dialog-driven software for easy calibration of laser scan systems.



3D Calibration Wizard

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Simplified Calibration of Scan Systems

3D Calibration Wizard is a new, dialog-driven tool that vastly simplifies the formerly highly complicated calibration of 3-axis scan systems. An intelligent assistant guides users through the entire complex calibration procedure.

This results in generation of an individualized specific 3D correction file (.ct5) for the overall system, and thus provides users with optimally calibrated equipment in terms of positioning accuracy and focal variation.

Comprehensive Error Correction

- Z-axis focal position adjustment
- Laser alignment tilt errors
- Scan-head-specific errors (e.g. barrel- or pincushion distortion, galvo non-linearity)
- Stretch factors
- 3D volume focal variation (Adjustment of ABC coefficients)

3D Calibration Wizard Benefits

- Software-based step-by-step workflow guidance for the full calibration procedure
- Much less effort required to implement a calibration routine
- Easy to use: SCANLAB furnishes recommended marking parameters in a separate system-specific configuration file
- Defined course of action reduces sources of error
- Usable for all 3-axis scan systems with varioSCAN
- Compatible with RTC5 and RTC6 control boards

Key Features

- Dialog-driven assistant system
- Enables full calibration of scan systems
- Supports diverse 2D and 3D configurations

Workflow of the Software-Based Calibration Method

Just a few steps produce an optimized correction file, and thus a fully calibrated scan system.

Steps 1 - 3: Preparatory Tasks for Calibration:

- Start 3D Calibration Wizard and select configuration
- Adjust system settings load the system-specific SCANLAB configuration file (.xml) and the correction file (.ct5)
- Check your system's relevant mechanical distances

Step 4: Mechanical Tasks

• Adjust the Z-axis focal position

Steps 5 - 8: Calibration Tasks

- Tilt correction
- XY plane correction
- Stretch factor correction
- ABC correction



* individual steps can be skipped



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