

New SPECTRO3-Scope Windows® user interface for the SPECTRO-3 series

The **SPECTRO3-Scope software** was developed specifically for the parameterisation and data monitoring of color sensors of the **SPECTRO-3 series**.

The software allows the selection of different illumination modes such as AC (modulated light), DC (constant light), Pulse (pulsed operation) or OFF (self-luminous object). In case of AC, DC, or PULSE mode the brightness of the light source can be set. In all four modes the gain of the color detector can be set in 8 stages.

The software furthermore allows the setting of a trigger type (external trigger, self-triggering, or continuous), the selection of various color evaluation methods x,y,INT, SiM (evaluation acc. to L*a*b*) and L*u*v* in case of self-luminous objects, and color modes (BEST HIT, FIRST HIT, MINIMAL DISTANCE, COL5).

With the color modes the current object color is compared with up to 31 references (that can be taught by the user) according to different criteria. Supposedly the most efficient and mostly used mode is the BEST HIT mode, which first selects the possible references from the stored color references (selection of candidates) and then performs an exact comparison with the candidate. The SPECTRO-3 sensor then selects the candidate that is closest to the current object color. Parameterisation furthermore is facilitated by extensive data monitoring, displaying both the raw data, the detected reference color, and the calculated values such as SiM, L*u*v*, xyINT in graphical and numerical form. Operation is further facilitated by a data recorder, a calibration function, and by teaching not only to single objects, but to a series of objects of the "same" color. The possibility of forming color groups that allows the combination of several taught colors on one switching output, also is worth mentioning.

