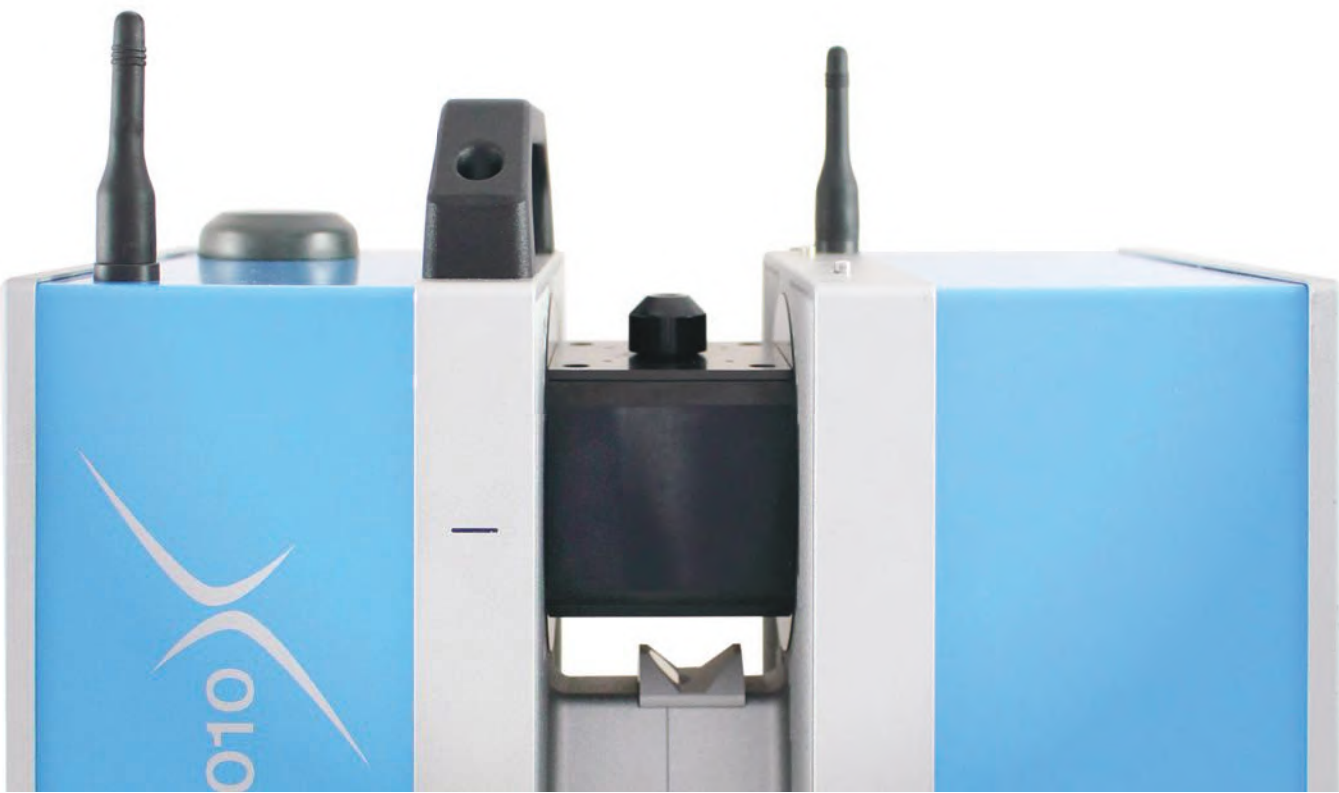




How we build reality



## Z+F IMAGER® 5010X

### Indoor Navigation system and GPS

The Z+F IMAGER® 5010X comes with a unique navigation system which works outdoors and, as an industry-first, also indoors! It will estimate the current position and orientation of the scanner to support the registration algorithm to automatically find the correct solution. The scanner will also track your movements while carrying the device on to the next setup and hence provides position estimation for the registration process.



### Drastically improved WiFi speed and range

Working with the 802.11n-standard and dual antennas, the Z+F IMAGER® 5010X has an increased working range and allows you to communicate and stream scan data quickly to the Scout tablet.



### Range up to 187 meters (approx. 600 ft.)

Due to the wavelength and the approved ranging system, the devices operate within a maximum range of 187 m (approx. 600 ft.).

### High-speed up to 1 million pixel/second

With a maximum measurement rate of 1,016,027 pixel/sec some laser scanners of Zoller + Fröhlich are one of the fastest in the world.

### 320° x 360° field-of-view

The large 320°x 360° field-of-view yields maximum coverage.

### Laser class 1

Most laser scanners of Zoller + Fröhlich are classified "eye-safe" according to laser class 1 requirements.

### HDR i-Cam

The integrated camera works very well in all environments. One focus is to always provide realistic panoramas. To make the workflow as user friendly as possible, the Z+F i-Cam is fully integrated into the Z+F IMAGER® 5010X.

### Flexible

All Z+F laser scanners are 100% stand-alone and the operating temperature is between -10 °C and +45 °C (14°F and 113 °F).

### Upgrade your Scanner to X

Zoller + Fröhlich offers you to upgrade your Z+F IMAGER® 5010C to a Z+F IMAGER® 5010X.

Please contact us to get more information.



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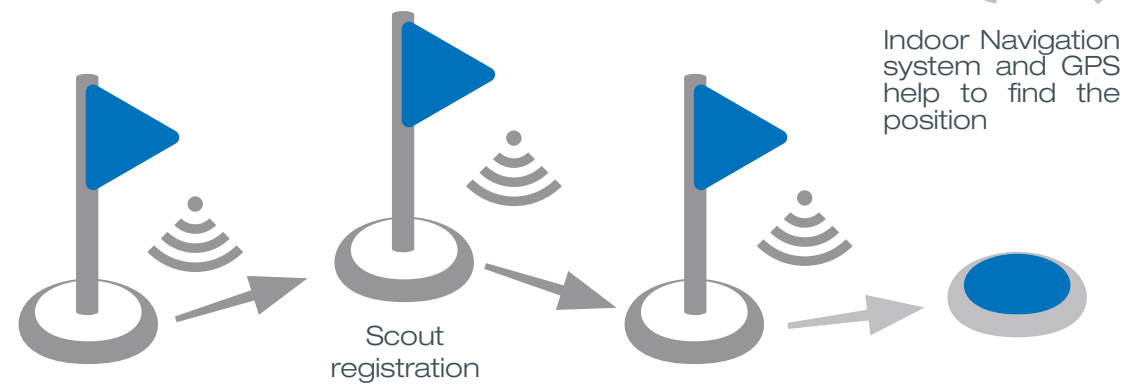
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## The Blue Workflow

with the Z+F IMAGER® 5010X and Z+F LaserControl® Scout



Indoor Navigation system and GPS help to find the position

### On Site



All these steps are possible on site with the Blue Workflow:

- Automatic registration
- Check data quality
- Check target quality
- Find & fill gaps with more scans



### Have peace of mind

Return to the office with a complete dataset

## Z+F LaserControl® Scout

### The X marks the spot

It happens to the best of us at some point. The scanning job is completed, but back at the office, one realizes that some targets were not scanned properly, were moved or simply forgotten to be sub-scanned. In many other cases, registration fails because there is not enough overlap between scanning positions. Whatever the reason is, one struggles to register and finalize the point cloud model back at the office, it is not unusual that additional field work is necessary to complete the project.

Z+F LaserControl® Scout and in addition the new Z+F IMAGER® 5010X will take these worries off your mind. A complete new workflow allows you to be certain to have completed your field work, before heading back to the office.

Until now, cloud-to-cloud based algorithms needed an initial alignment for the registration process to find the correct scan alignment. Together with the new position sensors inside the Z+F IMAGER® 5010X, Z+F LaserControl® Scout will be able to automatically place and register your scan data during your field work - on the fly.

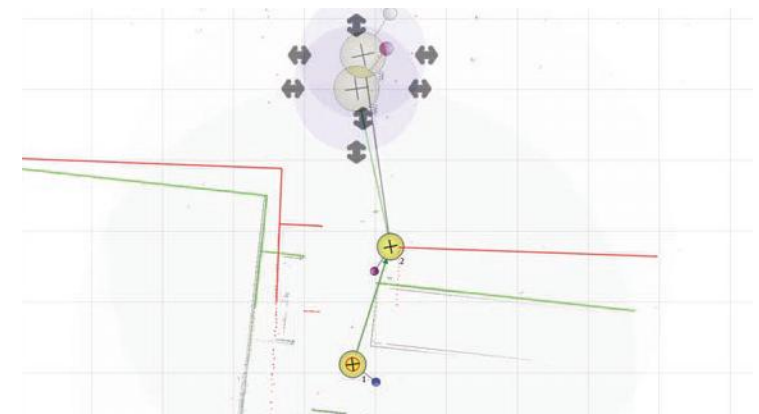


Z+F IMAGER® 5010X

### Automatic registration

Z+F LaserControl® Scout will keep a constant link to the scanner. After a scan is finished, the data is downloaded onto the tablet PC automatically. Once completed, the software immediately attempts a preliminary registration.

Should the automatic process fail, Z+F LaserControl® Scout provides easy tools for manual adjustments by simply dragging the scan into the approximate position. Scout further provides a new tool for complex geometries to manually align scans quickly in 3D.



Automatic registration - on the fly

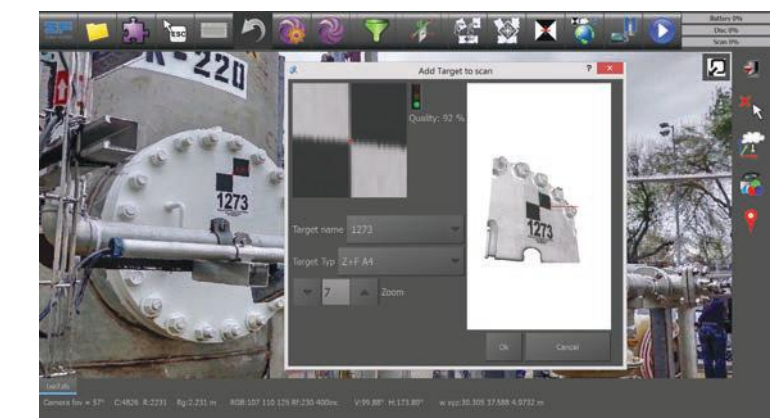
### Registration Guard

One of the most common reasons for frustrations back at the office with cloud-to-cloud based registration algorithms is poor overlap between different scanning positions. Realizing such a problem in the office can be fatal to a project. Hence, Scout will assist you with early detection of these problems in the field already, in order

to fill gaps immediately with additional scans and make sure you return with a complete dataset.

### Fail-safe target workflow

Besides all automatic registration features, targets are still of great importance for some specific workflows. So far, their major down-side has been that they could only be verified in the office, when re-scanning is impossible. Scout allows you to acquire and process scanned targets in the field automatically or manually to guarantee leaving the site with a safe registration.



Fail-safe target workflow

### Brand new look and feel

The new Z+F LaserControl® Scout is well optimized and prepared for Windows® touch tablets. Its intuitive new user-interface is simple to use and has all major tools always at hand for you.

### Stay updated through advanced synchronization

Z+F LaserControl® Scout will automatically synchronize all scan data locally and, after registration, update all scans on the scanner accordingly. Therefore, at any time, the scanner and tablet display the same results.



Remote control and synchronization

### Remote Scanner Control

Free yourself of time pressure to hectically hide from the scanner. Control the instrument and check its status comfortably from a distance.

### Quick insights with detailed top-cuts

Z+F LaserControl® will create a detailed top-view, outlining the features in the scene for easy orientation and verification of the positioning.