

- when it has to be **right** 

# **Release Notes**

Product Leica ScanStation P40, P30, P16, P20, P15

Date 7<sup>th</sup> January 2016

From Hans Tüxsen



# Release Notes Leica ScanStation P40, P30, P16, P20 & P15 Firmware v2.50



These Release Notes contain important information about the new Leica ScanStation P40/P30/P16/P20/P15 firmware v2.50.

The new firmware can be obtained from your local Leica Selling Unit or Dealer, or can be downloaded from the Leica myWorld portal.



The firmware is license protected and can only be loaded onto instruments with a valid CCP maintenance contract.

Firmware Version	FW File	Maintenance Date
2.50.627	Pxx_2.50.627.fw	01 Dec 2015

This firmware can be loaded to all scanners with maintenance expiry date on or after 01 Dec 2015.

If the CCP contract has expired, then please contact your local Leica Representative to learn about Customer Care Packages (CCPs) that include firmware maintenance so that you can benefit from the latest firmware improvements.



# WHAT's NEW

The new firmware can be installed on any Leica ScanStation P40/P30/P16/P20/P15 scanner, provided that a valid maintenance contract is available for the instrument.

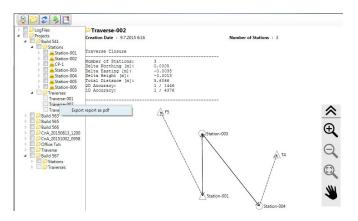
# 1. Traverse Application

A complete new Traverse Application has been developed to support the most common workflow done by surveyors, the establishment of a control point network and the direct registration of point clouds. The scanning and imaging tasks are seamlessly integrated into the traverse workflow, closure and adjustment reports can be generated directly in the field.



# 2. Traverse Report

Integrated Traverse Report generator in the Data Copy Tool. Context menu (right mouse button) for exporting the Traverse Report as a PDF file. The new version of the Data Copy Tool can be downloaded from the Leica myWorld portal.



### 3. Station ID Template

In Setup Configuration it is now possible to define a Prefix for automatically generated Station ID's (Standard Setup). This new feature is very useful in big projects, the user can configure the automatically generated Station ID's to avoid that he ends up several times with identical ID's



# 4. Target ID Template

A Target ID template for automatic generation of Target ID's can now be configured in the new Target ID Configuration panel. This new panel can be accessed via the function key Shift F2 from the Target Definition panel.

08:49:36 Scan	Carget Definition			08:50:41 Config	t ID Configuration	
Target Def Target Li				Target ID Prefi	 Target-	
Target ID:	Target-001	•	1	L		
Target Type:	6" with Offset	•	1			
Target Height:		0.0000	m			
Pick from:	Video Image	•	]			
Ready				Ready		
Conf		_	Quit	Cont		

# 5. Black & White 3" Target

A Black & White 3" Target has been added to the predefined list of targets on the ScanStation P30 / P40. When selected the new 3" Target Symbol will be displayed in the Icon bar.

Target Def Target Li	Target Definition		
Target ID:	Target-001	•	]
Target Type:	B/W Target 3"	•	]
Target Height:		0.0000	m
Pick from:	Video Image	•	

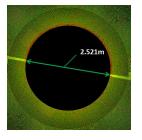
# 6. Internal Camera in Face I and Face II

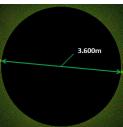
A new symbol to change the face of the internal camera has been added to all camera screens. This can be very useful when for example a target has to be picked from the video image but it is not possible to access the display because it is too close to a wall or there is a steep slope at the same side of the display or the sun shines directly on the display, which makes it hard to read. In such cases simply select the **III** symbol to turn the camera into Face II.



### 7. Increased vertical Field of View

The vertical Field of View has been increased by 10 degrees. It is now possible to capture data from +90 degrees down to -55 degrees. This means that the obstructed area below the scanner is now only 70 degrees compared to 90 degrees in previous versions. For a scanner that is setup on a tripod at 1.8m height the diameter of the obstructed area below the scanner is reduced from 3.60m to 2.52m. This is a huge advantage for many applications like plant surveys, mobile mapping and others.





# 8. Project overview sketch

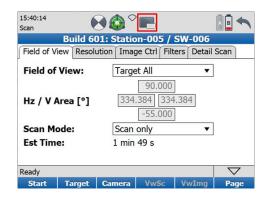
A project overview sketch has been added to the Data Management component of the firmware. All measured Targets and Stations of the project are displayed, this gives the user a quick overview of the project data.

# 16:16:43 Manage Project Data Station Traverse Plot Station-004 St

### 9. Access to Manage Project Data

Access to the Manage Project Data panel is now possible

directly from the Scan Parameter panel via the symbol in the Status bar.



# 10. Edit Target Height and Target ID

A new function to edit the Target ID and the Target Height directly in the field has been implemented in the Data Management component.

12:51:41 Scan	⊗⊗°⊫				
Edit Target Results					
Target ID:	Target-004	▼.			
Target Height:		0.0000 m			
Northing:		0.1148 m			
Easting:		-3.1174 m			
Height:		-0.0519 m			
Distance:		3.1200 m			
Store Prev	Next				

## 11. Seek Tool in Scan Viewer

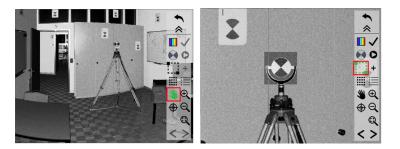
The Seek function has been added to the Scan Viewer



# 12. Improved Pan and Fence functionality

The usability of the Pan 💙 and

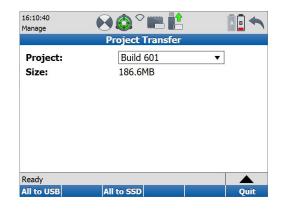
Fence functions has been greatly improved.



# 13. Transfer Projects

Two new options to transfer projects have been added

- Transfer all projects to USB
- Transfer all projects to SSD



### 14. Check & Adjust Report

A Check & Adjust Report Generator has been developed. After the Check & Adjust procedure has been completed a report about the angular accuracy of the scanner can be generated. The Check & Adjust Report Generator can be downloaded from the Leica myWorld portal.



### 15. Remote Control via the CS20

Remote control of the Pxx scanner via the new Leica CS20 handheld device is now possible. A step by step operating instruction how to establish a remote connection to a Pxx Scanner via the Leica CS20 Controller can be found in the document **Pxx RemoteControl via CS20.pdf** which can be downloaded from the myWorld portal.



## 16. SDK extensions

The functionality of the SDK for 2D profiling and 3D scanning applications has been extended:

- Access to transformation parameters
- Access to filtered points
- Export of polar coordinates in addition to Cartesian coordinates
- Access to Compensator flag for every scan line
- User definable Baud Rate of Synchronization Port
- Deactivate Compensator during 2D profiling applications
- Automatic initialization in case of 2D profiling streaming only applications
- Access to Face I and Face II target results

# FIRMWARE INSTALLATION

- The new firmware v2.50 can be installed on any ScanStation P40/P30/P16/P20/P15 scanner with a valid CCP contract, independent of any previous firmware version.
- Firmware v2.50 requires Cyclone v9.1.3 or higher