

Leica Sprinter

Configurer / Data Loader 1.42

Instructions



Table of Contents:

What's new with the Sprinter Configurer / Data Loader?	2
A. Installation of Sprinter Configurer / Data Loader 1.42	2
B. Driver Installation	3
C. Instrument configuration update / Data Export	8

What's new with the Sprinter Configurer / Data Loader?

1. The Data Loader offers to conveniently download your data from the instrument directly into a Microsoft® Excel™ file or an ASCII file (only for Sprinter150M / Sprinter 250M).
2. Sprinter Configurer allows you to configure the language, the measurement resolution (rounding), the units, the staff position, the measurement average and the default display contrast setting of your instrument.
3. This is accomplished using the simple and economical USB adapter cable provided
4. This saves you the trouble of setting up the RS232 connection and the expense for the Leica Data cable. It allows direct connection to your laptop/PC, without the USB-to-RS232 converter. Three reports are available:
 - Excel™ Data List
 - Excel™ Field Book Report
 - ASCII Data List
5. In addition through the Sprinter Configurer you can update some of the settings of your instrument
6. Sprinter Configurer / Data Loader works for the following Sprinter models:
 - a. Sprinter50: Configurer Only
 - b. Sprinter150: Configurer Only
 - c. Sprinter150M: Configurer + DataLoader
 - d. Sprinter250M: Configurer + DataLoader
7. improvements to previous versions of the DataLoader:
 - a. Multi-Lingual user interface (currently: English, Japanese, German)

A. Installation of Sprinter Configurer / Data Loader 1.42

Please use the installation package provided for installing the Sprinter Configurer / Data Loader 1.42. The installation program will guide you through the installation process. You need to ensure that you have administrator privileges for the installation. You can find the installation package in CD-ROM:\Software\Sprinter_Dataloader.

The installer requires the presence of Microsoft .Net framework 2 (WINDOWS\Microsoft.NET\Framework\v2.0.50727). Depending on your system configuration, the installer first installs the required framework.

Upon successful installation, the Sprinter Configurer / Data Loader 1.42 is stored per default in C:\Program Files\Leica-Geosystems\Sprinter_DataLoader.

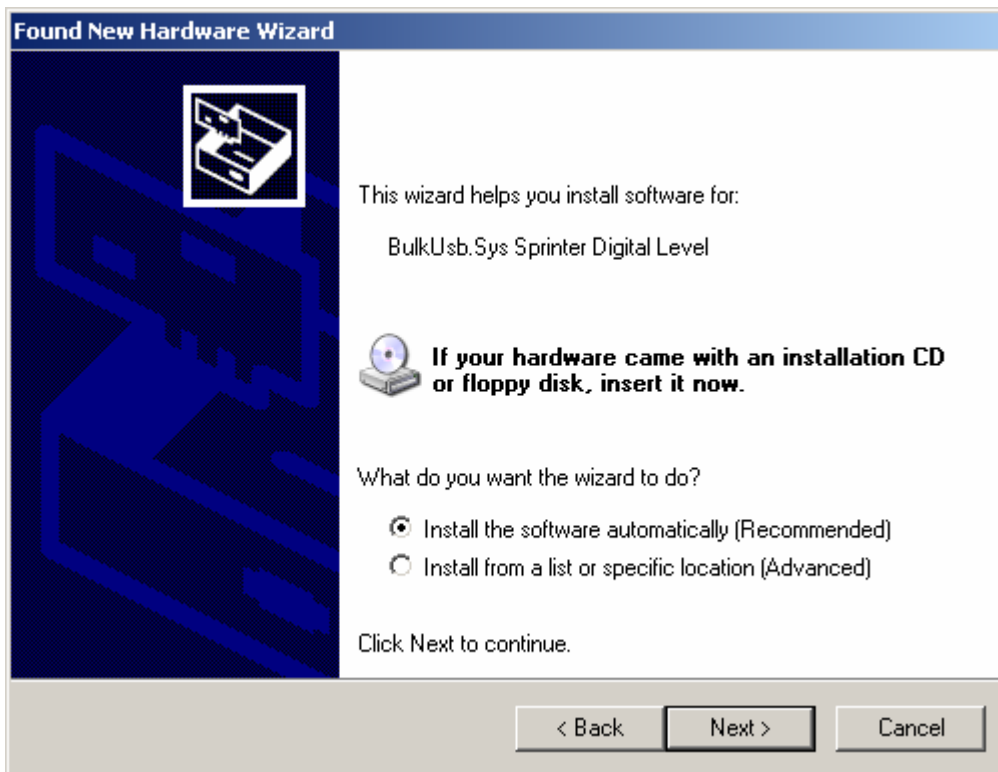
B. Driver Installation

By default, the USB driver is installed upon selection of the complete installation option. There is no need to install the driver separately.

The driver is activated first time when the instrument is powered on. To make the necessary entries in the Operating system the “Found new Hardware Wizard” is started.



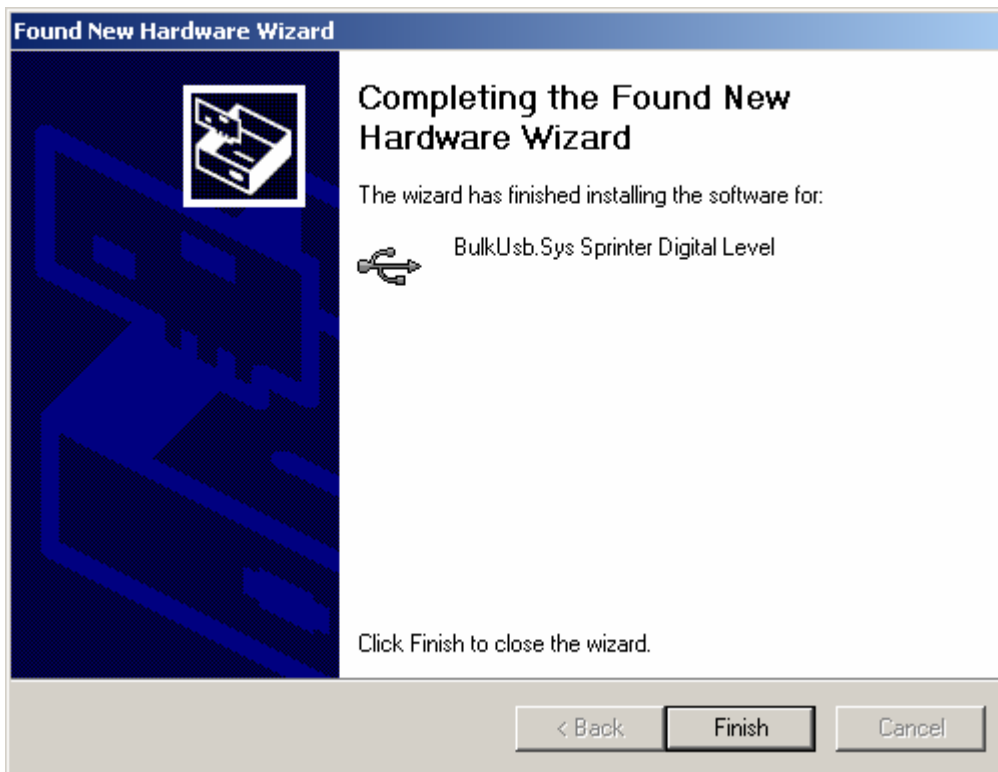
The required driver files are already provided, you don't need to search for them, please click “next”



The system will find the correct driver file and recommends installing the software automatically.



The driver required for sprinter is the standard provided BulkUSB.sys driver provided by Microsoft®. Please press continue to install the driver.



After successful installation, the screen above is displayed.

Something went wrong / is not working

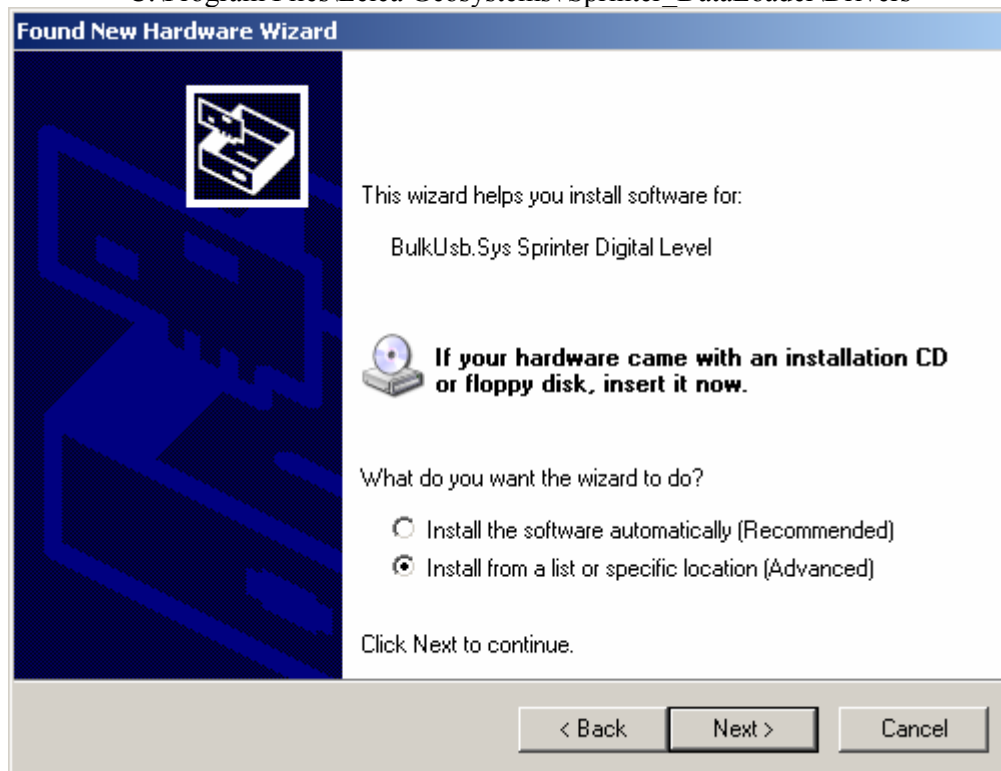
In case something went wrong during the installation, an option is provided to re-load the driver separately, without reloading the whole package. The USB driver installation program is located in (default location):

C:\Program Files\Leica Geosystems\ Sprinter_DataLoader\Drivers

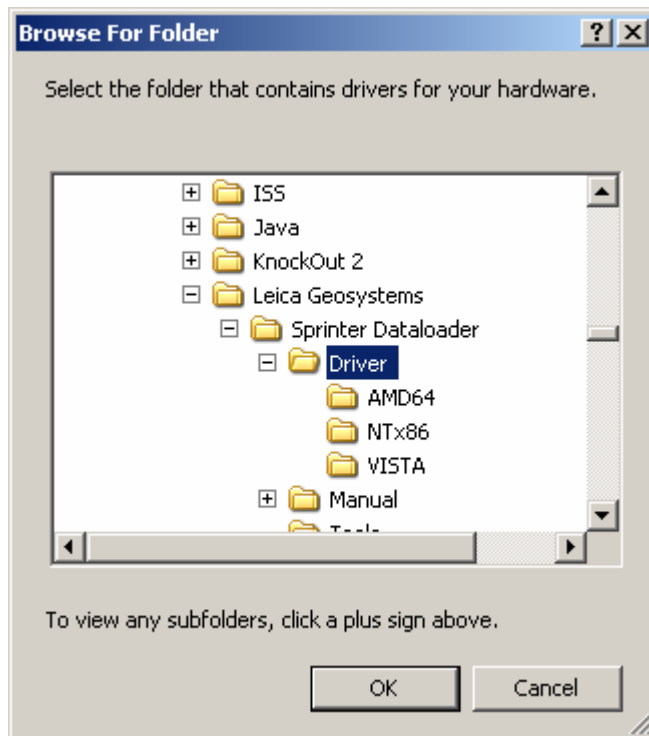
- Installation Requirements:
 - The installation of the driver requires Windows® 98, Windows® 2000, Windows® XP or Windows® Vista as the operating system of your PC.
 - Do NOT switch on the instrument while installing or prior to installation
- Installation of the driver:
 - Please close ALL Applications except Windows® Explorer™. Subsequently select the Setup.exe file. The installation wizard is fixed, no options for you to choose.
 - After successful completion of the installation wizard, the “finish” button is to be activated.
 - In case of Error (manual installation):
 - In case the installation fails, the wizard will inform you of the problem. In case of a failed installation, please verify the presence of the file “bulkusb_sprinter.inf” in the directory “c:\Windows\inf”.
 - If for some reason the file “bulkusb_sprinter.inf” is not present in this directory, copy the file “bulkusb_sprinter.inf” manually from

the provided driver installation package to the directory “c:\windows\inf”. This is a hidden directory. In order to make this directory visible, go to your explorer, menu option [tools], select the entry [folder options]. In the pop up screen, select the tab [view]. In the view tab, search for the entry “hidden files and folders” and then press on the selection option “show hidden files”.

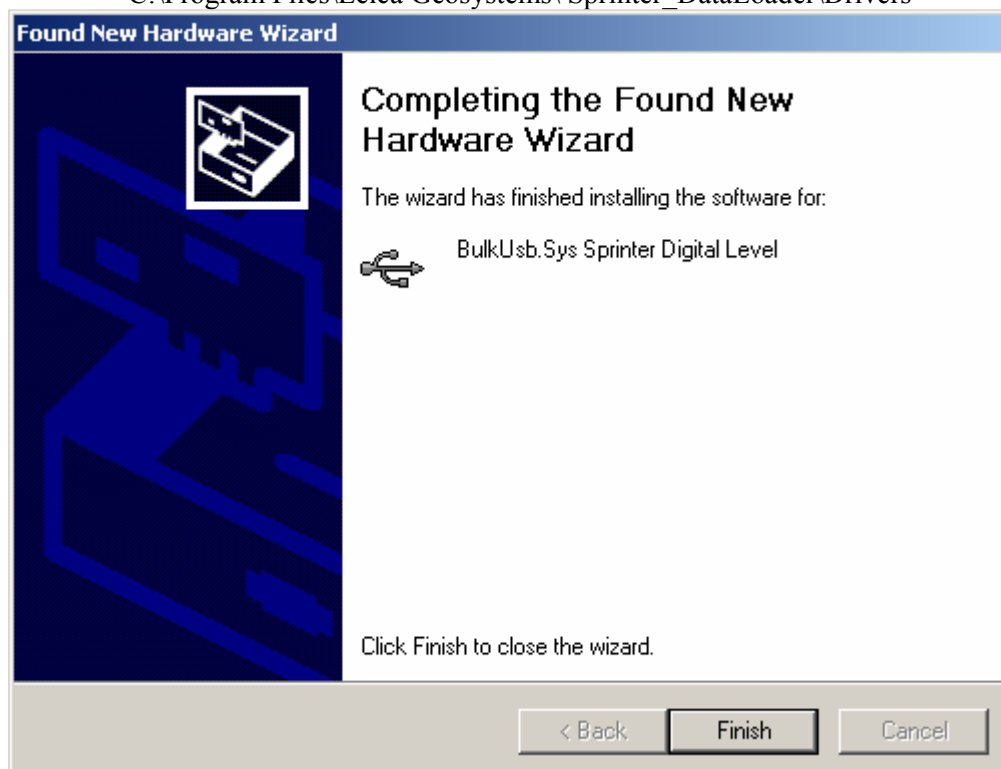
- Also copy the file “bulkusb.sys” provided in the driver directory of the package to the directory “c:\windows\system32\drivers”. Please take note that 3 different driver files have been provided, according to your Windows® operating system
- For recovery: go to the USB arrow (green arrow), select the “sprinter” entry in the USB list, click on properties, and have windows search in the directory “c:\windows\inf”. Windows then should select the file “bulkusb_sprinter.inf” as the closest match and perform the installation.
- In case this also does not work, there is a third option: to point the driver installer manually to the default driver install path:
C:\Program Files\Leica Geosystems\ Sprinter_DataLoader\Drivers



Manual selection of the driver path.



- Please use the browser to go to the driver directory in the default driver install path:
C:\Program Files\Leica Geosystems\ Sprinter_DataLoader\Drivers



After successful installation, the screen above should appear.

C. Instrument configuration update / Data Export

1. **Sprinter Configurer / DataLoader is only compatible with Sprinter Types 50, 150, 150M and 250M. For all other sprinter types the loader will not work.**
2. **For Sprinter 50 /150 / 150M / 250M there is no longer a “Warranty Void” sticker on the telephone jack connector inside the battery compartment.**
3. **The DataLoader is only available for Sprinter 150M / 250M**
4. Plug in the USB cable into the telephone jack on the instrument a USB port on your PC / Notebook. The connector is located inside the battery compartment. You need to remove the battery container to insert the USB cable. You can not operate the instrument from the batteries while having the USB cable connected.
5. Switch ON the instrument. If a warning message “USB device not recognised” appears on the PC, Power the instrument OFF and ON again until the USB is properly connected.
(The instrument will show the USB icon in the Icon bar and sounds an alarm to indicate the successful USB connection at the device).

During the operation, NEVER unplug the USB cable or switch OFF the instrument unless prompted to do so.

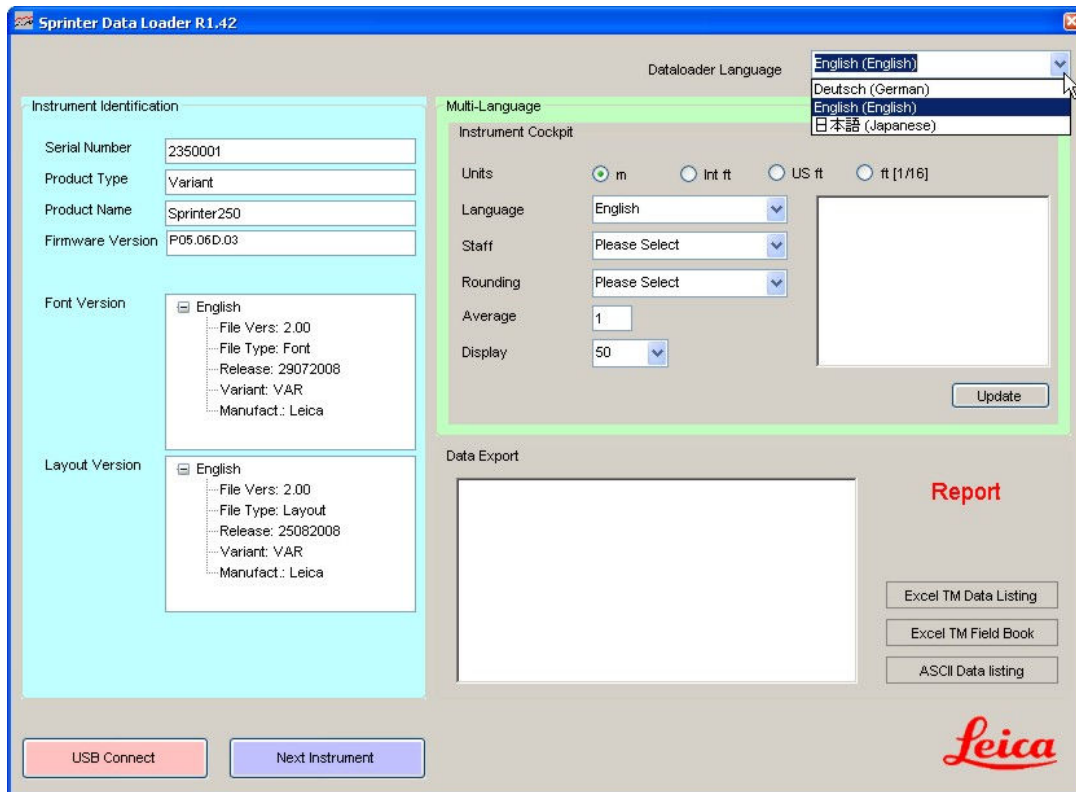
4. Upon successful USB connection to the instrument, click on 'Sprinter Data Loader' icon, you should see the screen below. During opening of the Dataloader, the selected translation is loaded from the Excel file in the application folder. Loading of the excel file is dynamic. Upon the next loading of the applications, changes will be

The screenshot shows the 'Sprinter Data Loader R1.42' application window. The interface is divided into several sections:

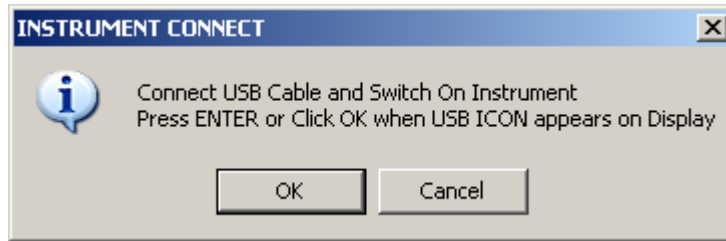
- Instrument Identification:** A light blue sidebar on the left containing input fields for 'Serial Number', 'Product Type', 'Product Name', 'Firmware Version', 'Font Version', and 'Layout Version'.
- Dataloader Language:** A dropdown menu at the top right set to 'English (English)'.
- Multi-Language / Instrument Cockpit:** A green-bordered section containing:
 - Units:** Radio buttons for 'm' (selected), 'Int ft', 'US ft', and 'ft [1/16]'.
 - Language:** A dropdown menu.
 - Staff:** A dropdown menu with 'Please Select'.
 - Rounding:** A dropdown menu with 'Please Select'.
 - Average:** A text input field with the value '1'.
 - Display:** A dropdown menu with the value '50'.
 - Update:** A button at the bottom right of this section.
- Data Export:** A large empty white box.
- Report:** A red heading above three buttons: 'Excel TM Data Listing', 'Excel TM Field Book', and 'ASCII Data listing'.
- Bottom Bar:** Contains a 'USB Connect' button (pink), a 'Next Instrument' button (blue), and the 'Leica' logo.

reflected.

To change the language selection, please use the language selector as indicated below:



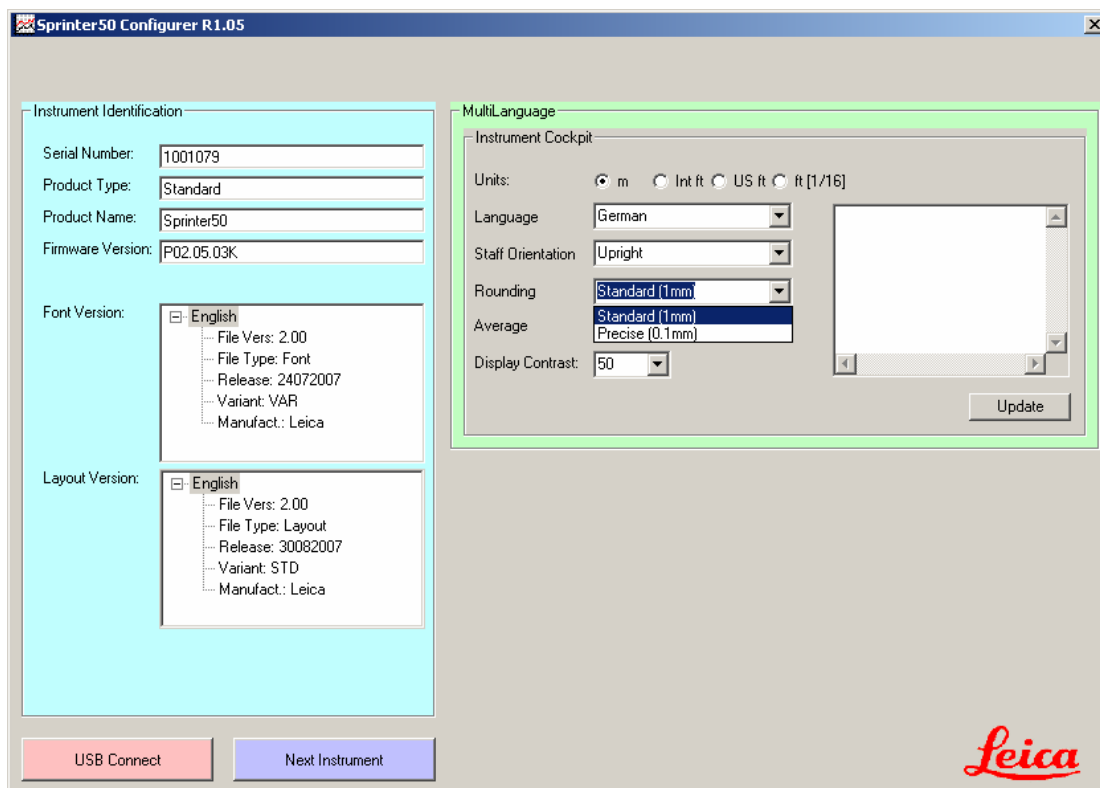
Please press the USB-Connect button, to connect PC to instrument. The following message appears, click on OK



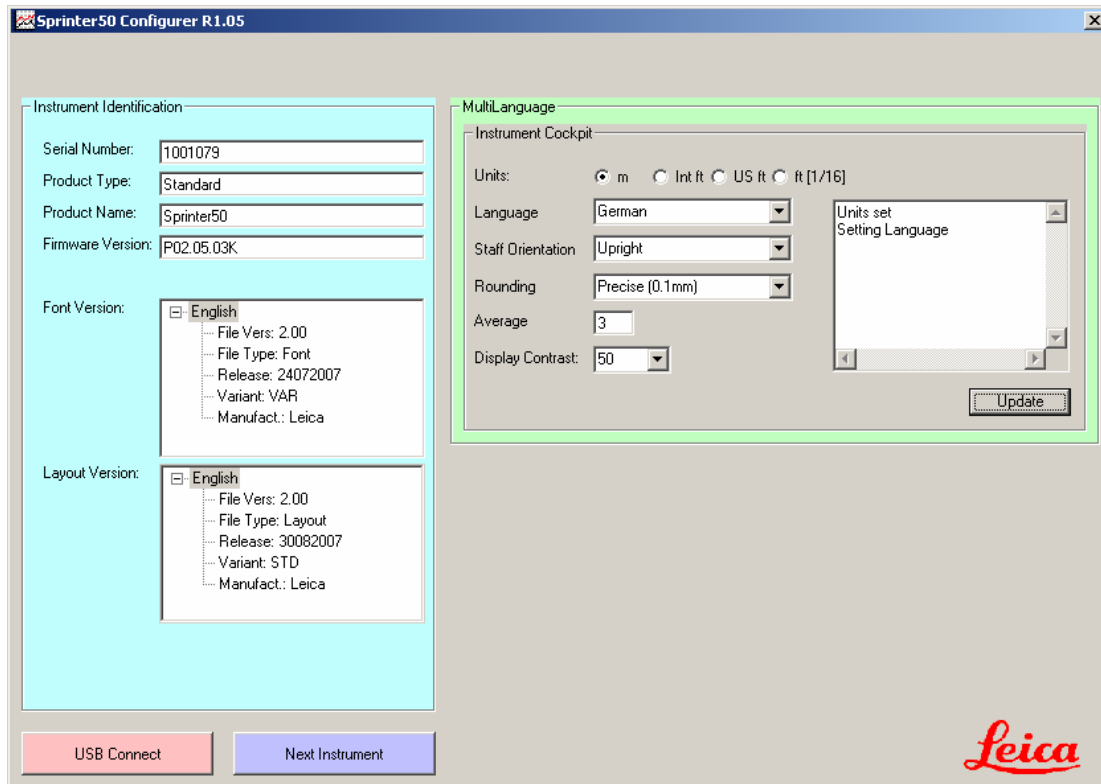
5. After successful connection to your PC, some of settings are transferred to your instrument. The Sprinter Configurer allows you:
- Change the units (m, int. ft., us. ft., ft 1/16)
 - Change the language setting (from 29 languages on board)
 - Change the staff orientation (automatic recognition, upright or inverted)
 - Change the rounding precision (standard 1mm, precise 0.1mm)
 - Change the number of measurements taken at each point (the average result is reported only)
 - Change the display contrast: adjustment range from 10% to 90%

For Sprinter150M and Sprinter250M, the data stored in the memory of the instrument can be directly transferred to your PC with 3 different report formats:

- Data List in Excel™,
 - Data formatted as a Field Book in Excel,
 - Data List as an ASCII .txt file
6. For modification of the instrument settings, please change the setting that you want to change and press the **“Update”** button.



The updates are sent to the instrument. Please allow for some time. The log function on the right keeps you informed of the progress. **Please do not switch off the instrument during the updating.**



Upon completion of the updating, the following message is shown:



7. When you are connecting a Sprinter150M or a Sprinter250M, the Data Export window automatically is enabled.

For exporting your measurement data to your PC, three options are provided

1. **Excel™ Data Listing: tabular data list**
2. **Excel™ Field Book™: field book report similar to the ASCII output over RS232**
3. **ASCII Data Listing, tabulated data listing in ASCII format (.txt file)**

Sprinter Data Loader R1.10

Instrument Identification

Serial Number: 1234567

Product Type: Variant

Product Name: Sprinter250

Firmware Version: P02.05.03T

Font Version:

- English
 - File Vers: 2.00
 - File Type: Font
 - Release: 11122007
 - Variant: VAR
 - Manufact.: Leica

Layout Version:

- English
 - File Vers: 2.00
 - File Type: Layout
 - Release: 09012008
 - Variant: VAR
 - Manufact.: Leica

MultiLanguage

Instrument Cockpit

Units: ☒ m ☐ Int ft ☐ US ft ☐ ft [1/16]

Language: English

Staff: Upright

Rounding: Standard (1mm)

Average: 2

Display Contrast: 80

Update

Data Export

Report

EXCEL™ Data Listing

EXCEL™ Field - Book

ASCII Data Listing

USB Connect

Next Instrument

Leica

Sprinter	Data	Listing	Report									Delta Height dH
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	MeasType	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
BF												
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	Meas- Type	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
1	1	1.2871	29.968	Upright	-	B	1	-0.0389				
2	2	1.3241	29.978	Upright	-	F	1	-0.0759				-0.0370
3	2	1.3173	29.963	Upright	-	B	1	-0.0759				
4	3	1.3543	29.973	Upright	-	F	1	-0.1129				-0.0370
5	3	1.3137	29.967	Upright	-	B	1	-0.1129				
6	4	1.3507	29.981	Upright	-	F	1	-0.1499				-0.0370
7	4	1.3108	29.966	Upright	-	B	1	-0.1499				
8	5	1.3478	29.975	Upright	-	F	1	-0.1869				-0.0370
9	5	1.3071	29.966	Upright	-	B	1	-0.1869				
10	6	1.3442	29.977	Upright	-	F	1	-0.2239				-0.0371
Ht/Dist												
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	Meas- Type	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
121	TILT1	1.2611	29.979	Upright	-		0	0.0000				
122	TILT2	1.5440	29.963	Upright	-		0	0.0000				
123	TILT3	2.0796	29.960	Upright	-		0	0.0000				
124	TILT4	2.3039	29.971	Upright	-		0	0.0000				
125	TILT5	1.2495	29.963	Upright	-		0	0.0000				
126	TILT6	0.9370	29.949	Upright	-		0	0.0000				
127	TILT7	0.6258	29.954	Upright	-		0	0.0000				
128	TILT8	0.1581	29.975	Upright	-		0	0.0000				
Ht-Delta												
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	Meas- Type	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
Ref												
129	COL	1.2763	52.410	Upright	-	Ref	1	0.0000				
Target												
130	TILT9	1.2761	52.432	Upright	COL	Target	0	0.0002				0.0002
131	TILT10	-0.4557	37.317	Inverted	COL	Target	0	1.7320				1.7320
132	TILT11	-0.4557	37.314	Inverted	COL	Target	0	1.7320				1.7320
CF-Ref												
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	Meas- Type	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
222	COL	1.7980	6.671	Upright	-	CF-Ref	1	0.0000				
CF												
ArrayNo	PtNo	Height [m]	Distance [m]	StaffType	ReferNo	Meas- Type	IsReferNo	Elevation [m]	D.Elvs [m]	Cut [m]	Fill [m]	Delta Height dH [m]
223	TEST88	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
224	TEST89	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
225	TEST90	1.7980	6.670	Upright	COL	CF	0	0.0000	0.0000	0.0000		
226	TEST91	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
227	TEST92	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
228	TEST93	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
229	TEST94	1.7980	6.671	Upright	COL	CF	0	0.0000	0.0000	0.0000		
230	TEST95	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		
231	TEST96	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		
232	TEST97	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		
233	TEST98	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		
234	TEST99	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		
235	TEST100	0.5573	6.753	Upright	COL	CF	0	1.2407	0.0000	1.2407		

Table1: Data Listing - report example

Sprinter Fieldbook Report

Units: [m]

Ht/Dist										
PtID	HEIGHT	DISTANCE	MEAS TYPE							
TILT1	1.2611	29.979	Upright							
TILT2	1.5440	29.963	Upright							
TILT3	2.0796	29.960	Upright							
TILT4	2.3039	29.971	Upright							
TILT5	1.2495	29.963	Upright							
Ht-Delta										
PtID	BS_HEIGHT	IS_HEIGHT	FS_HEIGHT	dH	MEAN_dH	Elevation	BS_DIST	IS_DIST	FS_DIST	MEAS TYPE
COL	-0.4561					0.0000	37.286			Inverted
Target										
TEST1		-0.4558		-0.0003		-0.0003		37.326		Inverted
TEST2		-0.4561		0.0000		0.0000		37.300		Inverted
TEST3		-0.4560		-0.0002		-0.0002		37.283		Inverted
CF-Ref										
PtID	HEIGHT	DISTANCE	CUT	FILL	D.ELV	ELEVATION	MEAS TYPE			
COL	1.7980	6.671				0.0000	Upright			
CF										
PtID	HEIGHT	DISTANCE	CUT	FILL	D.ELV	ELEVATION	MEAS TYPE			
TEST88	1.7980	6.671	0.0000		0.0000	0.0000	Upright			
TEST89	1.7980	6.671	0.0000		0.0000	0.0000	Upright			
TEST90	1.7980	6.670	0.0000		0.0000	0.0000	Upright			
TEST91	1.7980	6.671	0.0000		0.0000	0.0000	Upright			
BIF										
PtID	BS_HEIGHT	IS_HEIGHT	FS_HEIGHT	dH	MEAN_dH	Elevation	BS_DIST	IS_DIST	FS_DIST	MEAS TYPE
1	1.7678					0.0000	4.897			Upright
2			1.7677	0.0001		0.0001			4.897	Upright
4	1.7678					0.0000	4.897			Upright
5		1.7678		0.0000		0.0000		4.897		Upright
6		1.7678		0.0000		0.0000		4.897		Upright
7		1.7677		0.0001		0.0001		4.897		Upright
8		1.7678		0.0000		0.0000		4.897		Upright
9			1.7677	0.0002		0.0001			4.897	Upright
BF										
PtID	BS_HEIGHT	IS_HEIGHT	FS_HEIGHT	dH	MEAN_dH	Elevation	BS_DIST	IS_DIST	FS_DIST	MEAS TYPE
1	1.7679					0.0000	4.898			Upright
2			1.7676	0.0003		0.0003			4.903	Upright
2	1.7677					0.0003	4.903			Upright
3			1.7677	0.0000		0.0002			4.903	Upright
3	1.7676					0.0002	4.904			Upright
4			1.7676	0.0000		0.0003			4.903	Upright
BFFB										
PtID	BS_HEIGHT	IS_HEIGHT	FS_HEIGHT	dH	MEAN_dH	Elevation	BS_DIST	IS_DIST	FS_DIST	MEAS TYPE
11	1.7677		1.7677	0.0000		0.0000	4.904		4.904	Upright
12	1.7676		1.7676	0.0000			4.904		4.904	Upright
12					0.0000	0.0000				
12	1.7676		1.7677	0.0000		0.0000	4.903		4.904	Upright
13	1.7676		1.7677	0.0000			4.904		4.903	Upright
13					0.0000	0.0000				
13	1.7676		1.7676	0.0000		0.0000	4.904		4.904	Upright
14	1.7676		1.7676	0.0000			4.904		4.904	Upright
14					0.0000	0.0000				

Table2: Field Book report sample