

# Leica Geosystems

## How to connect a CS20, TS16, TS60 or MS60 to a PC



This document explains how to connect a CS20 field controller, TS16 or TS60 total station and MS60 MultiStation to a PC via USB cable

This may be needed for the following operations

- transfer data to and from the CS20, TS16, TS60 or MS60 to the PC
- connecting the CS20, TS16, TS60 or MS60 to myWorld.

Please note that the USB drivers which may have been previously installed on a PC for SmartWorx Viva instruments will not work for the new instruments running Leica Captivate. However, the new drivers will work for both systems.

The drivers support Windows 7, Windows 8 (8.1) and Windows 10 operating systems.

### Step 1 – Obtain the USB cable drivers

The new cable-drivers can be obtained in the following ways

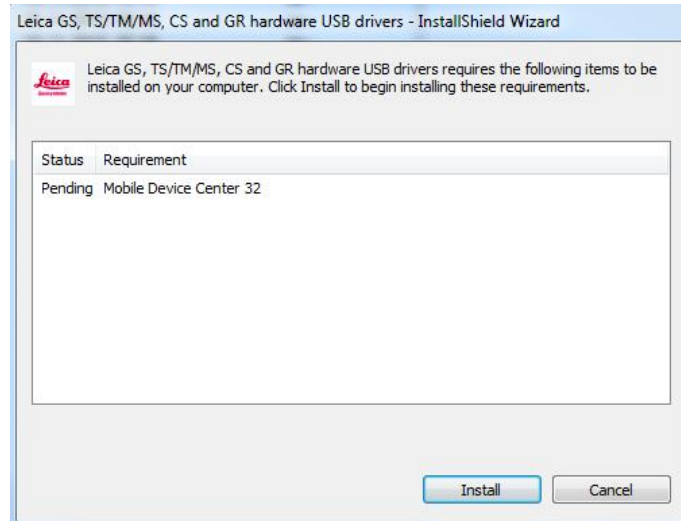
- from the USB card delivered with each CS20, TS16, TS60 or MS60
  - o Go to the Leica Driver installation folder on the USB card
- from myWorld
  - o Go to myProducts
  - o Select one of your registered CS20, TS16, TS60 or MS60
  - o Open the Tools tab
  - o Press the Download button next to the USB Driver file

## Step 2 - Install the USB cable drivers

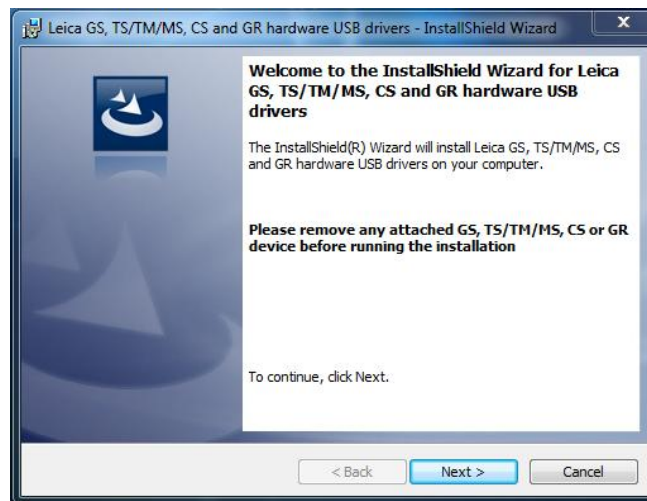
The cable-driver is installed by double tapping the appropriate .exe file depending on your operating system (32bit or 64bit). To check the version of your operating system, go to **Control Panel > System > System type**. Please note that the setup requires **administrative** privileges.

- Choose the Setup\_Leica\_USB\_64bit.exe file for 64bit PCs
- Choose the Setup\_Leica\_USB\_32bit.exe file for 32bit PCs
- Choose the Setup\_Leica\_USB\_64bit\_itanium.exe for 64bit servers and high performance PCs

In case that Windows Mobile Device Centre is not already installed on your PC it will be installed additionally otherwise this panel would not appear. Click Install to continue or Cancel to exit installation.



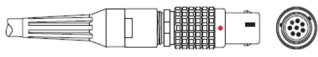
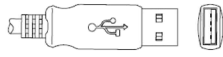
The installation is very simple – just follow the instructions in the Setup routine.





Ensure that any GS, TS/MS, CS or GR devices are unplugged from your PC during the installation of the USB cable drivers.

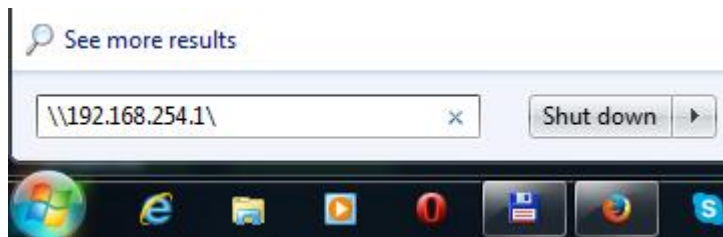
## Step 3 – Connect the CS20, TS16, TS60 or MS60 to the PC and access your data

The following cables can be used

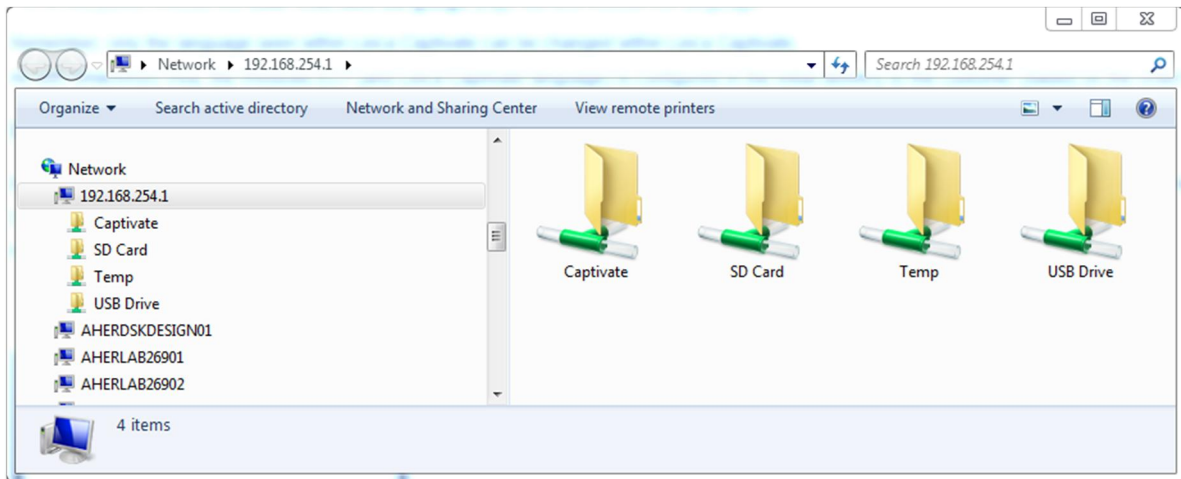
| Cable name       | Connector 1 (to instrument)  | Connector 2 (to PC)  |
|------------------|--|--|
| GEV234<br>GEV261 | Lemo 1, 8 pin<br> | USB type A<br> |
|                  | For CS20, TS60 and MS60 connect to the   |  |

|        |   |  |
|--------|---|--|
|        | Lemo port of the instrument   |  |
| GEV223 | Mini USB type B<br><br><br>For TS16 connect to the mini-USB port of the instrument | USB type A<br> |

1. Ensure the CS20, TS16, TS60 or MS60 is turned on and connect the instrument to the PC. Please note that the Mobile Device Center is not supported for any instrument running Leica Captivate.
2. On the PC press the Windows Start icon
3. To connect to a CS20, type `\\192.168.254.1\` including all `\` into the search field... OR To connect to a TS16, TS60 or MS60, type `\\192.168.254.3\` including all `\` into the search field...



4. ...and press Enter
5. File Explorer will open and it is now possible to browse the folders of the instrument and copy and paste files as required



Below is some information on the folder structure of the instrument

| Folder         | What is stored in the folder  | Comment   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
|----------------|---|---|---------------|------|------|------|------------------|-------------|--|--------|------------------|-------------|--|---------|------------------|-------------|--|------|------------------|-------------|--|-----|------------------|-------------|--|----------|------------------|-------------|--|-----|------------------|-------------|--|-----|------------------|-------------|--|--------|------------------|-------------|--|----------------|------------------|-------------|--|--|
| Captivate      | <table border="1"> <thead> <tr> <th>Name</th> <th>Date modified</th> <th>Type</th> <th>Size</th> </tr> </thead> <tbody> <tr> <td>Code</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Config</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Convert</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Data</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>DBX</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Download</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Gps</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>Gsi</td> <td>13.04.2015 12:54</td> <td>File folder</td> <td></td> </tr> <tr> <td>System</td> <td>02.02.2015 08:08</td> <td>File folder</td> <td></td> </tr> <tr> <td>TransferObject</td> <td>13.04.2015 12:55</td> <td>File folder</td> <td></td> </tr> </tbody> </table> | Name  | Date modified | Type | Size | Code | 13.04.2015 12:54 | File folder |  | Config | 13.04.2015 12:54 | File folder |  | Convert | 13.04.2015 12:54 | File folder |  | Data | 13.04.2015 12:54 | File folder |  | DBX | 13.04.2015 12:54 | File folder |  | Download | 13.04.2015 12:54 | File folder |  | Gps | 13.04.2015 12:54 | File folder |  | Gsi | 13.04.2015 12:54 | File folder |  | System | 02.02.2015 08:08 | File folder |  | TransferObject | 13.04.2015 12:55 | File folder |  | <p>This folder is basically the “internal memory” of Leica Captivate on the instrument.</p> <p>This is where all Leica Captivate objects are stored – coordinate systems, codelists, geoid field files etc. and jobs which were created on the internal memory</p> |
| Name           | Date modified   | Type  | Size          |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Code           | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Config         | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Convert        | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Data           | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| DBX            | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Download       | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
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| Gsi            | 13.04.2015 12:54  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| System         | 02.02.2015 08:08  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| TransferObject | 13.04.2015 12:55  | File folder   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| SD Card        | <p>This folder can only be accessed if an SD card is inserted into the instrument.</p> <p>What is shown depends on the contents of the SD card.</p>   |   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| Temp           | A temporary storage folder for files in use by Leica Captivate  | There is no need to change or touch anything in this folder |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |
| USB drive      | <p>This folder can only be accessed if a USB device is attached to the instrument.</p> <p>What is shown depends on the contents of the USB device.</p>  |   |               |      |      |      |                  |             |  |        |                  |             |  |         |                  |             |  |      |                  |             |  |     |                  |             |  |          |                  |             |  |     |                  |             |  |     |                  |             |  |        |                  |             |  |                |                  |             |  |  |

#### Step 4 – Connecting to [myWorld](#)

There are no special steps required to connect your instrument to myWorld. Once the USB drivers are installed, plug in the USB cable to the instrument and the PC, open [myworld.leica-geosystems.com](http://myworld.leica-geosystems.com) and log in to your account. You can now register new instruments, update the firmware on your instruments or activate a mySecurity key.