

- when it has to be **right**



Leica Captivate v8.10

Software Release Notes

Product	Leica Captivate Field Controllers: CS20, CS35, CS30 Total Stations: TS16, TS60, TM60, MS60, TS13, TS10 GNSS Sensors: GS18 T, GS18 I, GS18
Release date	11 th October 2023
Maintenance date	1 st June 2023
Available in myWorld	Week 42, 2023



Available via: <https://myworld.leica-geosystems.com/irj/portal>

Contents

1	<i>Leica Captivate v8.10 Release Notes - Introduction</i>	3
2	<i>Leica Captivate - New Software Features</i>	5
3	<i>Leica Captivate New Features – TS specific</i>	10
4	<i>Leica Captivate Software Improvements</i>	11
5	<i>Leica Captivate Simulator Updates</i>	12
6	<i>Obtaining and loading the new software using the online update (CS Field Controller and TS/MS Total Stations)</i>	13
7	<i>Obtaining and loading the new software using manual loading (CS20 Field Controller, TS/MS instruments and AP20 AutoPole)</i>	13
8	<i>Obtaining and loading the new software using manual loading (GS18, GS18 T and I GNSS sensors)</i>	15
9	<i>Obtaining and loading the new software using manual loading (CS30 and CS35 Tablet) ...</i>	15

1 Leica Captivate v8.10 Release Notes - Introduction

Please do take your time to read these Release Notes. They contain information about new features and bugfixes.

General information	There is a Leica Captivate v8.10 release for the following hardware <ul style="list-style-type: none">• Field Controllers: CS20, CS30, CS35• Total Stations: TS10, TS13, TS16, TS60, MS60, TM60• GNSS Sensors: GS18, GS18 T and GS18 I
Customer Care Product (CCP) dates	The Leica Captivate software version 8.10 can be loaded onto all CS Field Controllers, GS18 GNSS Sensors and TS Total Stations with a CCP license valid until at least 01.06.2023
Jobs, Coordinate Systems, Working Styles, RTK Profiles and other objects	All Leica Captivate “objects” (such as Jobs, Coordinate Systems, Working Styles, RTK profiles etc.) created or used within previous Leica Captivate versions can be used without problems in Leica Captivate v8.10

Compatibility between Leica Captivate versions

Compatibility between Leica Captivate versions is guaranteed if the instruments run the same major version.

This means, for example, when using a version 8.x on a Leica Captivate GS Sensor or TS Total Station, the CS20 Controller or CS30/CS35 Tablet must also run a v8.x to be compatible.

For the new Leica Captivate v8.10, all Leica Captivate GS Sensors and TS Total Stations must be updated to version 8.x to be compatible with a CS20 Controller or CS30/CS35 Tablets running v8.10 and vice versa.

Note that there will be no firmware update for the GS07 GNSS sensor, and the latest version will remain v7.813.

Compatibility between Leica Captivate and SmartWorx Viva versions

The table below shows the compatibility between Leica Captivate and SmartWorx Viva versions.

The new GS related features released with Leica Captivate v8.10 can be used with a Leica Viva GS14, GS15, GS16, GS10 or GS25 sensor. SmartWorx Viva GS version 12.10 is needed on these GS sensors to use the new features.

		CS20, CS3x			
		Leica Captivate v1.x	...	Leica Captivate v7.x	Leica Captivate v8.x
TS MS GS	All versions prior to SmartWorx Viva v6.0 and higher than v5.60	Fully compatible		Not compatible	Not compatible
	...				
	SmartWorx Viva v8.x	Not compatible		Not compatible	Not compatible
	SmartWorx Viva v9.x	Not compatible		Compatible for Viva TS	Compatible for Viva TS
GS	SmartWorx Viva v11.x	Not compatible		Fully compatible	Not compatible
	SmartWorx Viva v12.x	Not compatible		Not compatible	Fully compatible

2 Leica Captivate - New Software Features

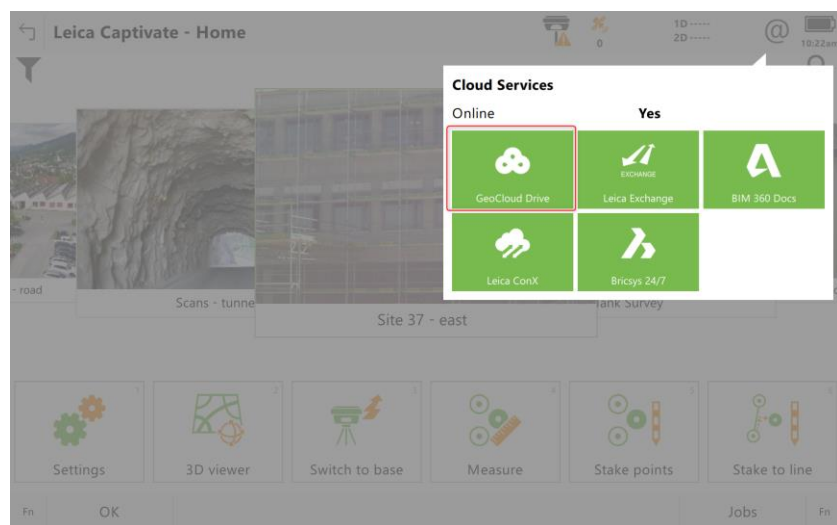
GeoCloud Drive support



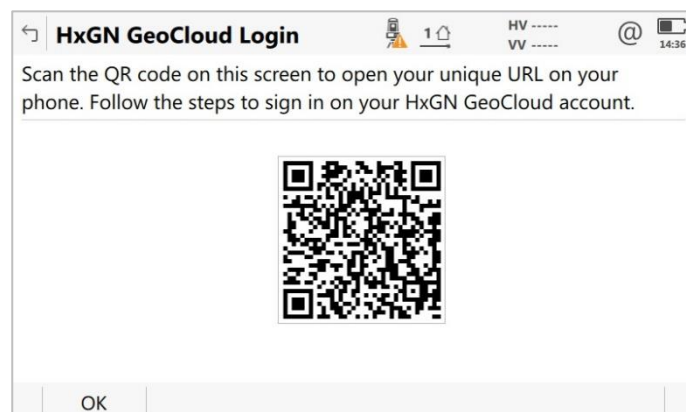
The GeoCloud Drive is the first service of the HxGN GeoCloud, the cloud-based collaboration portal for measurement professionals. GeoCloud Drive allows to store and share data, organised in projects, accessible by both field and office crews.

Leica Captivate v8.10 supports the GeoCloud Drive service, allowing to conveniently upload and download data and Leica objects to and from the projects stored in the cloud. There is no specific GeoCloud Drive for Captivate license required to use this new functionality, however, access to a HxGN GeoCloud online account is required.

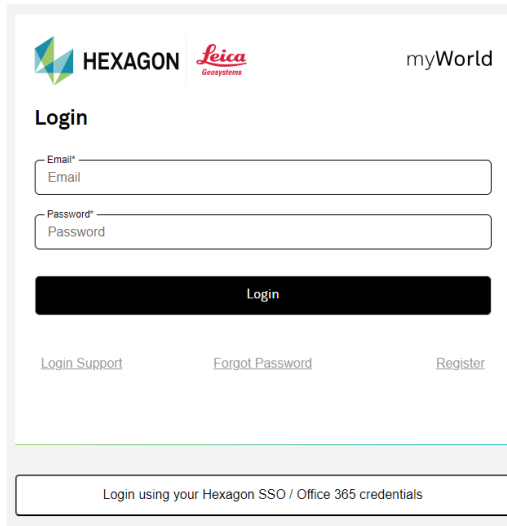
GeoCloud Drive can be accessed by tapping the @ icon in the Leica Captivate status bar, pressing **Cloud services** and selecting the **GeoCloud Drive** tile. It can also be accessed via **Settings > Cloud services > GeoCloud Drive**.



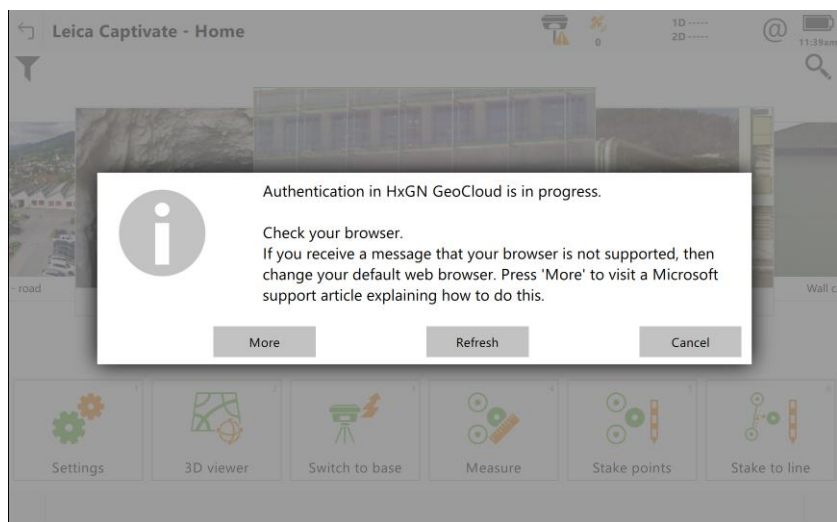
When opening **GeoCloud Drive** on a CS20 controller or a Total Station, a QR code will be displayed. To complete the authentication, a second device such as a mobile phone must be used to scan the QR code to open the Leica MyWorld login page, where the account credentials can be entered.



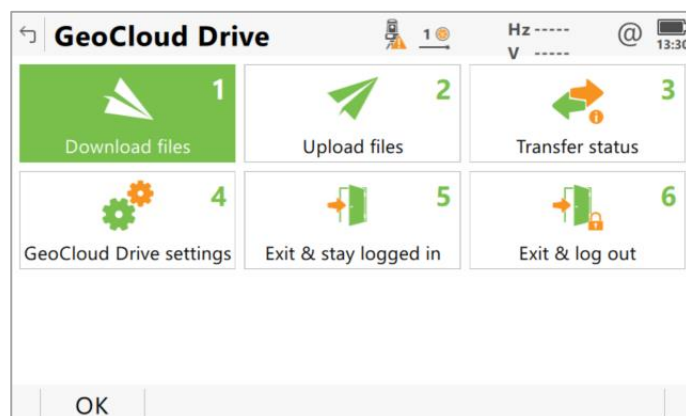
When opening **GeoCloud Drive** on a Windows tablet, Leica Captivate will automatically use the default Internet browser to open the Leica MyWorld log in page, where the account credentials can be entered.



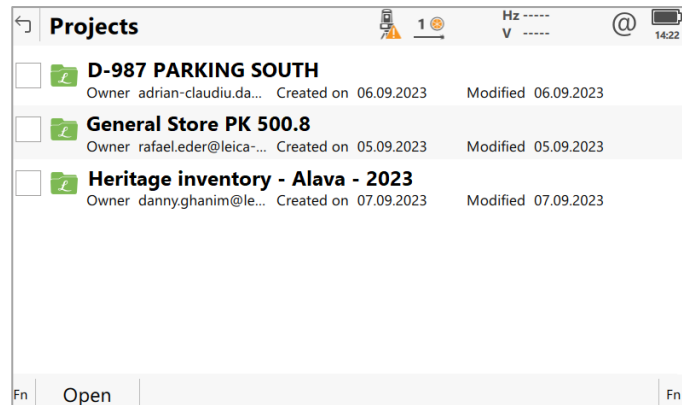
Be aware that Google Chrome and Microsoft Edge web browsers are advised.



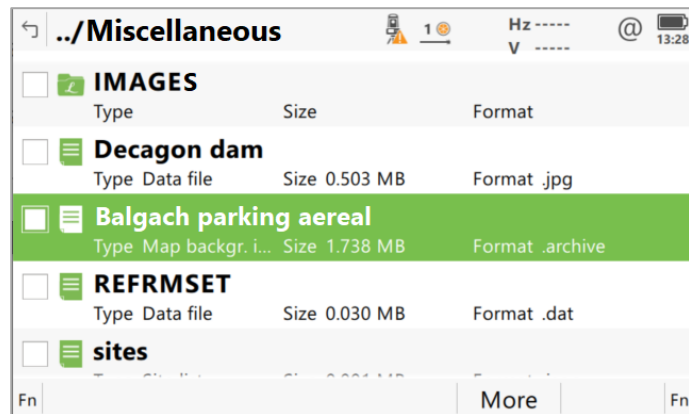
Once the authentication is successful and the login complete, the GeoCloud Drive main menu is shown. From here it is possible to download or upload files from or to the HxGN GeoCloud projects, check the transfer status of files, access the settings or exit from GeoCloud Drive.



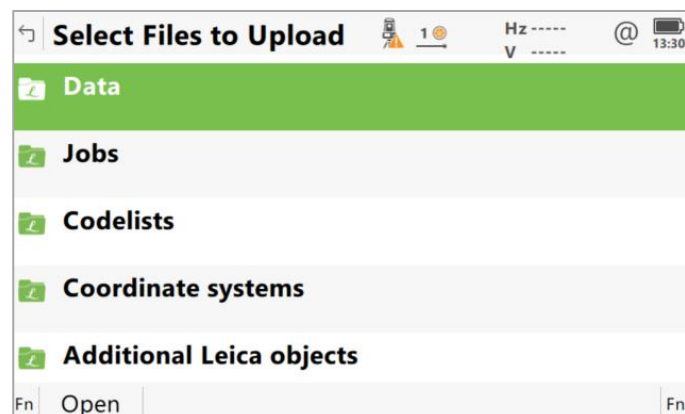
When selecting **Download files** from the GeoCloud Drive menu, all the projects stored on the cloud and assigned to the field user will be listed.



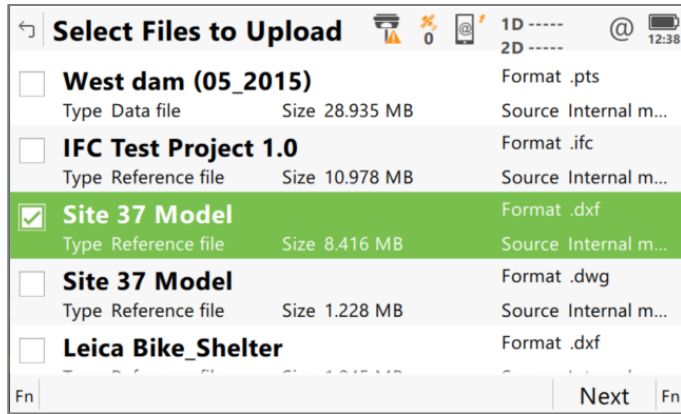
Each project shows the same folder structure as defined in the office, allowing to navigate to the folder that contains the files to download. Individual files or whole folders can be downloaded. Captivate automatically recognises the file types and knows to which folder on the device they must be downloaded to.



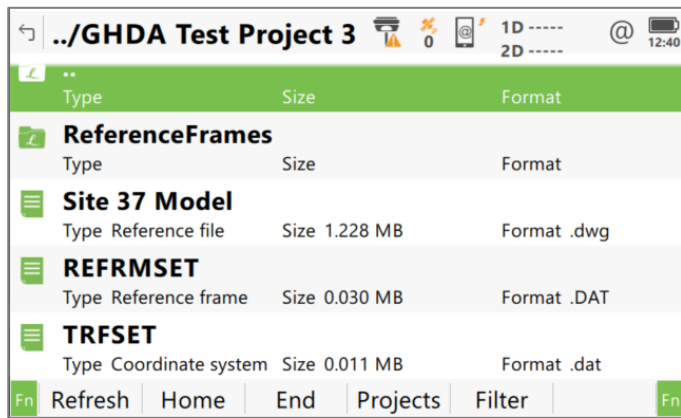
When selecting **Upload files** from the GeoCloud Drive menu, first the type of file wanted to be uploaded must be selected.



All files of that type from the available storage devices are listed.

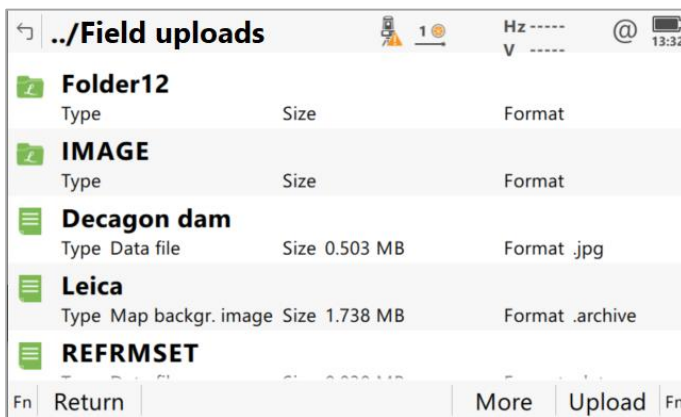


The files to upload can be selected, and then by clicking **Next**, the destination folder in the cloud project can be selected.

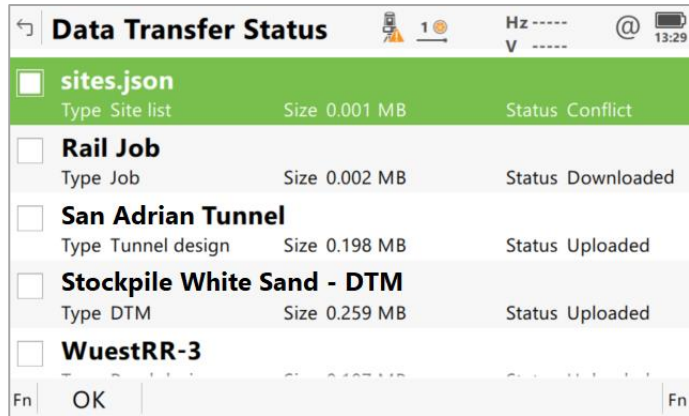


For both upload and download, the last used cloud folder is automatically suggested. The **Projects** button allows to navigate directly up to the project level.

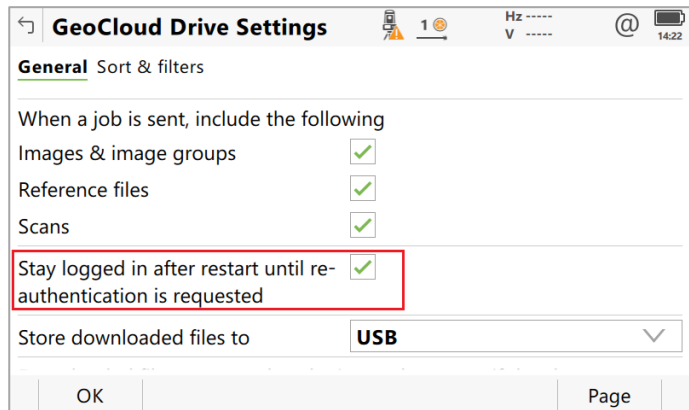
Once the destination folder is found, by pressing Upload button, the transfer process is triggered.



Once an upload or download is started, the **Data Transfer Status** panel can be used to check the transfer status. The files currently being transferred are indicated with a completion percentage. Once the transfer is successfully completed, the status will report either **Uploaded** or **Downloaded**. In case of a conflict with the transfer, the status will report **Conflict**. Leica Captivate gives the option to re-start a transfer or to resolve the conflict from within this panel.



To reduce the number of times needed to log in, when the setting **Stay logged in after restart until re-authentication is requested** is ticked, you can log back into the GeoCloud Drive service without entering the credentials, until the token is expired.



Using GeoCloud Drive within Leica Captivate saves time and enhances the workflow in the field and in the office, especially when using the GeoCloud web or desktop applications. Since HxGN GeoCloud is a Hexagon release, its integration into different Hexagon products will facilitate the exchange of data between field and office.

3 Leica Captivate New Features – TS specific

MultiStation level check after a scan is completed



In previous Leica Captivate versions, if a scan was performed using the band scan method and the instrument went out of level during the scan, you would not be notified of this, once the scan was complete. This could mean that the quality of the scan data was affected without you realising until the data was processed.

From Leica Captivate v8.10, a level check is performed directly after the scan is completed. If the instrument has gone out of level, you will be notified immediately, allowing you to react and repeat the scan if necessary.

4 Leica Captivate Software Improvements

Loss of Tilt functionality on GS18 T/GS18 I after update to Captivate v8.00

After an update to Captivate v8.00, it could happen that the GS18 T/GS18 I would lose the Tilt functionality. In some cases, the recovery of the Tilt functionality was only possible with a downgrade to Captivate v7.50.

This issue is fixed in Captivate v8.10.

If the unit is in this faulty state, the following steps are recommended:

1. Downgrade the unit to Captivate v7.50
2. Upgrade the unit to Captivate v8.10

Upgrading directly from Captivate v8.00 to v8.10 may not resolve the issue.

4G connectivity issues with CS20 LTE in 5G areas

The connection to 4G networks using CS20 LTE controllers is not always established in areas where 5G coverage is available. This was not a general issue but something particular to specific SIM cards from some cellular network providers, for example with EE in UK.

This issue is fixed in Leica Captivate v8.10.

Leica Captivate crash in Road app when using a DTM model

This issue would happen in the Road application when using a DTM model and switching to and from the data management panel or switching on and off the DTM model. At some point Leica Captivate would freeze.

This issue is fixed in Leica Captivate v8.10.

Geometry of a tunnel design not correctly shown in Leica Captivate

When a tunnel design created in the software Gemini Terrain was exported as a Leica tunnel job, the layers, profiles or centreline of the tunnel were not shown in Leica Captivate v8.00.

This issue is fixed in Leica Captivate v8.10.

Point heights of an exported DXF file show the wrong information

When exporting data to DXF and the points did not have a height definition or when the DXF export was configured to export the heights as 2D, the height value of the exported points in the DXF file would be populated with a value "nan". Some office software could not interpret this value and did not therefore, import the DXF file.

This issue is fixed in Leica Captivate v8.10.

5 Leica Captivate Simulator Updates

Leica Captivate PC simulator Availability With the release of Leica Captivate v8.10 there will be a change to the availability of the Captivate PC simulators.

Prior to the release of v8.10, both a CS simulator and a TS/MS simulator were available in myWorld. The TS/MS simulator was licence-free and allowed you to work with Captivate for training, support, data preparation, or data emulation tasks. The CS simulator was licence protected, when a licence was loaded the software operated as if it was a full version of Captivate, including allowing connections to real sensors, however, without a licence it was not possible to enter any apps, to fully utilize Captivate, or to use it as a simulator/emulator.

From the release of Leica Captivate v8.10 onwards, the Captivate simulator experience is simplified, the CS simulator will be discontinued and only the license-free TS/MS simulator will be available. This change ensures that everyone who installs a simulator will have the full use of Captivate simulation for training, support, data preparation, and data emulation tasks.

If a full Captivate CS experience is still required on your Windows 10/11 device, then please contact your local Leica Selling Unit or Dealer to discuss Leica Captivate subscription options.

6 Obtaining and loading the new software using the online update (CS Field Controller and TS/MS Total Stations)

It is strongly recommended to use the online update to load the new software to the CS Field Controller and TS/MS Total Stations. As a pre-requisite, your instrument must be registered in Leica myWorld.

myWorld

The online update cannot be used to load the new software to the GS18 GNSS receivers.

Once your Controller or Total Station has been registered in myWorld, connect your instrument to the internet. It is recommended to use a WLAN connection.

Open Leica Captivate on the device and navigate to the **Settings – Tools – Update Software** panel. The field **Update software using** contains the option **Online update**. Note that this option is only available if a new version is available online. The instrument will do a check for new versions within the first minutes of being connected to the internet. An SD card needs to be inserted in the instrument for the firmware update to work.

When selecting this option and pressing **F1(OK)**, the firmware update is triggered. Should the currently installed CCP license not be valid for the firmware to be installed, a check for new licenses is done first. If any new licenses, such as extended CCPs, are available in Leica myWorld, those new licenses will be downloaded and installed first.

Afterwards, the new firmware file and all additionally loaded apps will be downloaded and once successfully finished, the installation process is started automatically.

7 Obtaining and loading the new software using manual loading (CS20 Field Controller, TS/MS instruments and AP20 AutoPole)

If you prefer not to use the myWorld online update, it is also possible to “manually” load the new software – in this case, please carefully read the notes below.

Obtaining the new software

The new software, language files and apps can be obtained from the following sources:

- the myWorld web site
- your local Leica Selling Unit or Dealer

Files which need to be obtained for upgrading a CS20 Field Controller

The following file needs to be obtained to update a CS20 Field Controller - CS20LeicaCaptive_v8_10.fw

This file contains all Leica Captivate and WinCE languages and apps

Files which need to be obtained for upgrading a TS/MS instrument

**The following file needs to be obtained to update a TS/MS instrument - TSxxMS60LeicaCaptive_v8_10.fw
TS10LeicaCaptive_v8_10.fw**

These files contain all Leica Captivate and WinCE languages and apps

Files which need to be obtained for upgrading an AP20 AutoPole

**The following files need to be obtained to update an AP20 AutoPole - AP20H_ID_Firmware.swu - for AP20 H and AP20 ID
AP20_T_Firmware.swu - for AP20 T and AP20**

Note that for the Captivate v8.10 release, there are no firmware updates for the AP20.

How to load the Leica Captivate files to a CS20 Field Controller or TS/MS instrument

1. Insert your SD card or USB flash drive into your PC or card reader and copy the necessary file to be uploaded to the instrument to the **System** directory of the used memory device. This can be done with Windows Explorer or any other suitable PC software.
2. Insert the SD card or USB flash drive into the CS20 Field Controller or TS/MS instrument and turn on. Ensure the battery is fully charged.
3. From the main menu, choose **Settings** and then choose menu item **Tools** and then choose **Update software**. The **Update software** screen is now visible.
4. In the **File to load** list box ensure the correct file name is visible. If the file name is not visible, then check you have correctly copied the firmware file to the **System** directory of the SD card USB flash drive.
5. Press **F1(OK)** – a message will appear to remind you that the CS20 Controller or TS Total Station will turn off and on during the process. Press **F6(Yes)** to begin the loading process.
6. The loading process will take a few minutes and the CS20 Controller or TS Total Station will turn off and on several times during the process.

How to load the Firmware on an AP20 AutoPole

1. Download the suitable firmware file from <https://myworld.leica-geosystems.com> to your local PC.
2. Turn on the AP20.
3. Connect the AP20 to the PC using a GEV284 cable.
4. Copy the firmware file onto the root directory of the AP20 memory device.
5. Disconnect GEV284 cable from the AP20.
6. Switch the AP20 off.
7. Switch the AP20 on.
8. The upload starts automatically. During the upload, all three LEDs are flashing consecutively.
9. The update is complete when the Power LED on AP20 is constantly on.

How to load the Leica Captivate files to a TS13 Total Station with a 4-button keyboard

1. Insert your SD card into your PC or card reader and copy the necessary file to be uploaded to the instrument to the System directory of the Sd card. This can be done with Windows Explorer or any other suitable PC software.
2. Insert the SD card into the TS13 Total Station.
3. Ensure the battery is fully charged.
4. Turn on the instrument, the firmware update starts automatically.
5. Check the power LED. If it shows permanent green, the firmware update is finished.

8 Obtaining and loading the new software using manual loading (GS18, GS18 T and I GNSS sensors)

The GS18, GS18 T and I GNSS sensors can only be updated manually. Follow the instructions below.

Obtaining the new software

The new software, language files and apps can be obtained from the following sources:

- the myWorld web site (it is also possible to manually download the files from the myWorld web site as well as automatically upgrading your controllers and sensors with myWorld)
- your local Leica Selling Unit or Dealer

Files which need to be obtained for upgrading a GS18, GS18 T and I GNSS sensor

The following file must be downloaded to update the GS18, GS18 T and I GNSS sensors:

GSxxLeicaCaptive_v8_10.fw

How to load the Leica Captivate files to the GS18, GS18 T and I GNSS sensors

1. Insert the SD card into your PC or card reader and copy the firmware file to be uploaded to the instrument to the **System** directory of the card. This can be done with Windows Explorer or any other suitable PC software. (it is NOT possible to use a USB stick to update your GS18 T or GS18 I GNSS sensor)
Or
Download the firmware file to the PC from which you will update the GS18 T or I GNSS sensor
2. Insert the SD card into the GS18 T or GS18 I GNSS sensor. Ensure the battery is fully charged.
3. Connect the GS18 T or GS18 I GNSS sensor to your PC via a USB cable. Open the web interface by typing **192.168.254.2** into the browser window.
4. Go to **User – Load firmware** to start the firmware update. You can now either browse to the firmware file on your PC or check the box that says the firmware file is on the SD card.
5. Start the firmware update and follow the instructions in the web interface.

9 Obtaining and loading the new software using manual loading (CS30 and CS35 Tablet)

The CS30 and CS35 Tablet can also be updated manually. Follow the instructions below.

Obtaining the new software

The new software, language files and apps can be obtained from the following sources:

- the myWorld web site (it is also possible to manually download the files from the myWorld web site as well as automatically upgrading your controllers and sensors with myWorld)
- your local Leica Selling Unit or Dealer

Files which need to be obtained for upgrading a CS30/CS35 Tablet

The following file must be downloaded to update the CS35 Tablet

LeicaCaptive_CS3x_v8_10.zip

The file contains Leica Captivate languages and apps.

How to load the Leica Captivate files to the CS30/CS35 Tablet

1. If the tablet already has Leica Captivate installed with a version prior to v8.00, it will first need to be uninstalled manually within Windows. This can be done by going to **Apps & features**, finding the Leica Captivate application and then selecting **Uninstall**
2. Extract the downloaded .zip file and run the **Leica_Captivate_Setup_v8.10.exe** file on the tablet
3. Follow the installation wizard instructions

Note that when first upgrading Leica Captivate from a version prior to v8.00, all existing jobs, data files and setting files that existed in the “Leica Captivate” folder will be automatically copied into a new folder called “Leica Captivate_x64”. The folder location can be modified during the installation, by changing the Loadable Application path.

Obtaining sample data

Leica Geosystems provides sample data that can be used with the simulator or the instruments to help you explore the features and apps of Leica Captivate. The sample data needs to be installed using a separate installer. Before using it on a CS20 Controller or a TS Total Station, the data needs to be installed on a simulator first.

During the installation, it is possible to select for which simulators the sample data can be installed (SmartWorx Viva CS simulator, SmartWorx Viva TS simulator, Leica Captivate TS/MS simulator, Leica Captivate CS simulator and Leica Captivate CS x64 simulator).

The sample data installer can be downloaded from myWorld. An installation guide is provided along with the sample data installer, though the installation process is very easy to follow.