

- when it has to be **right**



Leica Captivate v3.00

Software Release Notes

Product Leica Captivate
Field Controllers: CS20, CS35
Total Stations: TS16, TS60, MS60

Release date 1st December 2017

Maintenance date 1st December 2017

Available in myWorld Week 49 2017



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

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1 Leica Captivate v3.00 Release Notes - Introduction

Please do take your time to read these Release Notes. They contain information about

- New features
- Bug fixes

General information There is a Leica Captivate v3.00 release for the following hardware

- Field Controllers: CS20, CS35
- Total Stations: TS16, TS60, MS60
- GS sensors: GS18T

Customer Care Product (CCP) dates The Leica Captivate software version 3.00 can be loaded onto all CS Field Controllers and TS Total Stations with a CCP valid until at least 01.12.2017

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 v3.00

Version compatibility between CS Field Controllers, TS Total Stations and GS Sensors The table below shows the compatibility between Leica Captivate versions

		CS20, CS35	CS20, CS35	CS20, CS35
		Leica Captivate v1.x	Leica Captivate v2.x	Leica Captivate v3.00
TS16, TS60, MS60	Leica Captivate v1.x	Fully compatible	Not compatible	Not compatible
TS16, TS60, MS60	Leica Captivate v2.x	Not compatible	Fully compatible	Not compatible
TS16, TS60, MS60	Leica Captivate v3.00	Not compatible	Not compatible	Fully compatible

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

		CS20, CS35	CS20, CS35	CS20, CS35
		Leica Captivate v1.x	Leica Captivate v2.x	Leica Captivate v3.0
All TS, MS and GS sensors capable of running SmartWorx	All versions prior to SmartWorx Viva v6.0 and higher than v5.60	Fully compatible	Not compatible	Not compatible

Viva	SmartWorx Viva v6.x	Not compatible	Fully compatible	Not compatible
	SmartWorx Viva v7.00	Not compatible	Not compatible	Fully compatible

2 Leica Captivate Software Improvements – new features

Support of the new Leica GS18 T smart antenna



Captivate v3.00 supports the new Leica GS18 T smart antenna with tilt compensation.

[The GS18 T GNSS RTK rover](#) is part of the Leica Geosystems self-learning GNSS series. This latest innovation combines GNSS and inertial measurement unit (IMU) being the first true tilt compensation solution that is immune to magnetic disturbances and is calibration-free.

Now you can measure any point faster and easier without the need to hold the pole vertical.

A new way of handling control and design data

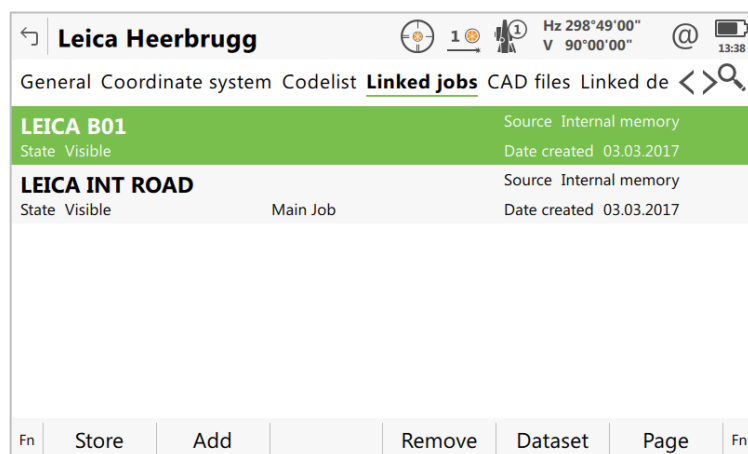


When working with control (Setup) and design (Stakeout) jobs in Leica Captivate, users who switch projects quite frequently, would find the way Leica Captivate handles control and design data to be making their own workflow less efficient.

For instance, only one control/design job could be activated at a time. If the user needs control/design data from several jobs, he needed to switch the jobs between measurements or when switching apps.

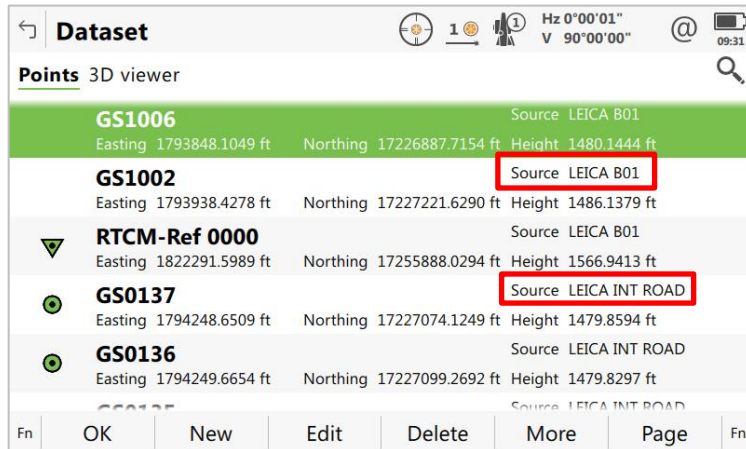
In addition, each time a new building site is accessed, the needed design data must be activated manually, which could lead to errors. Plus, the job carousel might get quite full when many jobs are used.

Leica Captivate v3.0 allows linking several jobs containing control and design data to one working job. This way, all Setup, Stakeout and Alignment data used with a working job is automatically activated when selecting the job in the home panel.



Control and design jobs can be linked to the working job

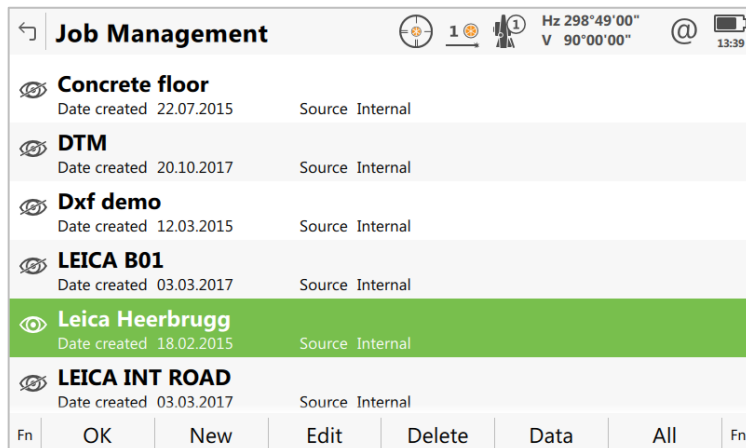
The data from these jobs is combined in a so-called **Dataset**, which allows using data from more than one job in parallel. This can be useful in many applications, for instance when calculating an inverse between points from different jobs.



Dataset			
Points 3D viewer			
GS1006	Easting 1793848.1049 ft	Northing 17226887.7154 ft	Height 1480.1444 ft
GS1002	Easting 1793938.4278 ft	Northing 17227221.6290 ft	Height 1486.1379 ft
RTCM-Ref 0000	Easting 1822291.5989 ft	Northing 17255888.0294 ft	Height 1566.9413 ft
GS0137	Easting 1794248.6509 ft	Northing 17227074.1249 ft	Height 1479.8594 ft
GS0136	Easting 1794249.6654 ft	Northing 17227099.2692 ft	Height 1479.8297 ft

Selecting points from different jobs in COGO Inverse

A new **Job Management** panel allows creating, editing and deleting jobs and hiding jobs from the home panel to keep it tidy and only show what is needed at the time.



Job Management		
Concrete floor	Date created 22.07.2015	Source Internal
DTM	Date created 20.10.2017	Source Internal
Dxf demo	Date created 12.03.2015	Source Internal
LEICA B01	Date created 03.03.2017	Source Internal
Leica Heerbrugg	Date created 18.02.2015	Source Internal
LEICA INT ROAD	Date created 03.03.2017	Source Internal

In the new Job Management panel, jobs can be set to visible/invisible for the Home panel.

Calculating points from chainage and offsets within the Road app.



When staking a Road alignment, there may be single points in the blueprint (design) that do not belong to the alignment. For instance, if there is a fire hydrant in the blueprint with a location given by a chainage and offset, it will be useful to be able to create and stake this point directly in the Road app without knowledge of the point coordinates.

With Leica Captivate v3.0, the COGO Tool within the Road app has been extended with new methods that allow creating points with chainage and offset information.

Define Line Segmentation

Calculate segment from: **Number of points**

Start chainage: **Number of points**

End chainage: **Chainage increment**

Line length: **Create single point**

Number of points: -----

Chainage increment: -----

Horizontal offset: **0.0000 ft**

Apply on both sides: ☐

3 new methods available in the COGO Roads tool

Stake Line

Point ID: **TS0002**

Target height: **5.0524 ft**

Stake chainage: **10.0000 ft**

Chainage increment: **0.0000 ft**

Fn Measure Distance Store Ch - Ch + Page Fn

New points created along the alignment with equal chainage increments, distance and height offset

It is now not necessary anymore to calculate coordinates for these points or to leave the Roads app to enter and use them in Leica Captivate.

Show alignment length as meta data



Leica Captivate v3.0 now shows the length of an alignment as meta data when selecting an alignment.

Choose Line

Alignments 3D viewer

L3:Asphalt	Length 697.2328
CL offset 0.0000 Height 0.0000	Height diff -1480.8966
L2:Asphalt	Length 696.2063
CL offset 0.0000 Height 0.0000	Height diff -1480.8966
L1:Asphalt	Length 696.2063
CL offset 0.0000 Height 0.0000	Height diff -1480.8966
CL:Asphalt	Length 690.0885
CL offset 0.0000 Height 0.0000	Height diff -1480.8966
Leica Road	Length 690.0885
CL offset 0.0000 Height 0.0000	Height diff -1480.8966
	Length 684.1711

Fn OK Page Fn

Easy access to alignment length information can be beneficial, for instance if the client wants to know how many lineal meters or feet there are in total for a particular section.

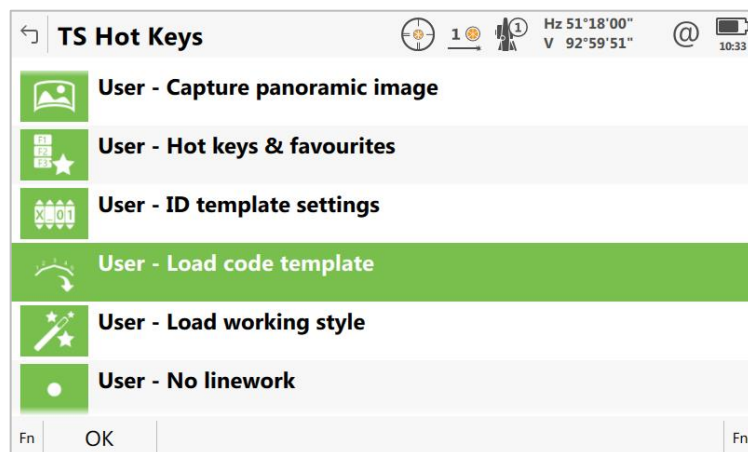
Open Load code template page via a hotkey



Within the Measure app, Leica Captivate allows defining a sequence of codes that can be used to Survey Cross sections, where the same sequence is to be repeated over and over. This way the order of the used codes is pre-defined and Leica Captivate will automatically jump to the next code in the sequence once a point is measured.

Sometimes it is needed to switch between several of these sequences so a sequence can be stored as a code template. If a user needs to switch between code templates very often on a job, going to the tools menu each time a new code template is needed can be quite time consuming.

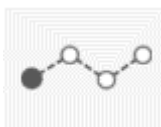
With Leica Captivate v3.0 loading a code template can be done via a hotkey. The hotkey will open the page that allows loading previously stored code templates. Pressing **F1(OK)** will bring the user back to the Measure panel.



Select the Load code template hotkey

When switching between code templates very often during a Survey job, this hotkey can save a lot of button presses and therefore a lot of time.

New hotkeys to switch a code between linework and non linework



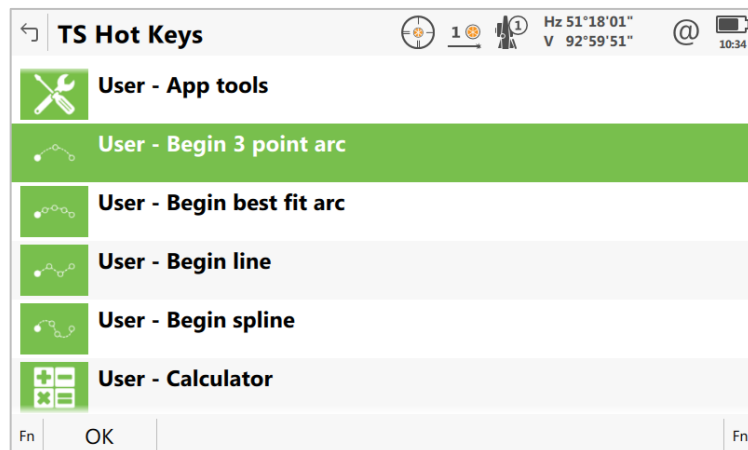
When using the coding and linework functionality in Leica Captivate to measure points, it may be required to switch between linework and non linework quite frequently.

For instance, when switching between measuring a single tree and then starting to measure a line of trees, the same code will be used but needs to be switched to create a line. Later that same code might be required for measuring a single tree again.

Each time a code is changed to or from linework, or each time an arc/spline is to be started, this requires 3 button presses.

Leica Captivate v3.0 now contains 5 new hotkeys that allow starting linework,

switching to no linework, starting an arc, starting a spline or starting a 3 point arc. These new hotkeys can be used in the Code panel of any app with measure functionality.



With the new hotkeys, switching to/from linework now only takes one button press and therefore significantly speeds up the work process, when such a switch is frequently used.

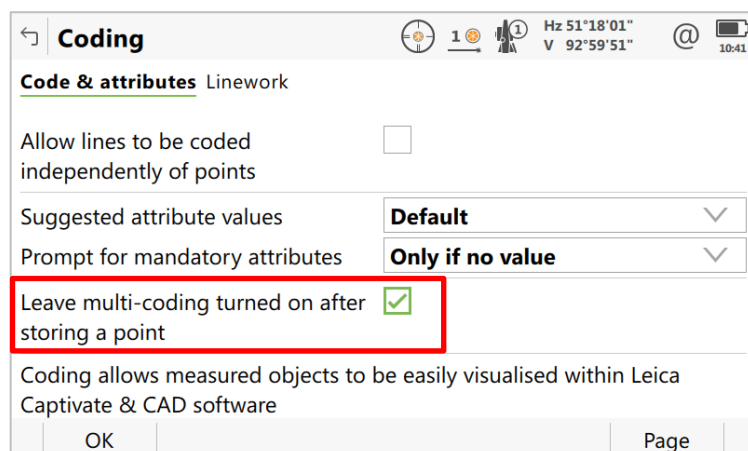
Keep multi-coding on permanently



Customers who measure pipelines or over land power lines sometimes need to create several string lines in the same position but with different codes (e.g. where 2 pipelines join). In Leica Captivate this can only be done by activating multi-coding after each measured point or by creating several lines after the Survey is finished and adding the measured points to the lines manually.

The multi-coding function that has been available since the first version of Leica Captivate can from v3.0 onwards be configured to stay on permanently until it is de-activated by the user instead of being deactivated automatically after each measured point.

In addition, when multi-coding is permanently on, the order of the codes used simultaneously is not changed after each measured point, decreasing the time for point storage significantly.



Permanent multi-coding without the need of turning it on after every point and the

improved point storage will significantly increase the speed of line or pipeline surveys if more than one line is to be created at a time.

Easily export stakeout data



Surveyors might need to quickly and easily provide reports about the points which were staked. This information may be needed in various formats and with varying content from the same job. While the job can contain a mixture of data (measured, control, staked), only the stakeout data is relevant for such a report.

Leica Captivate v3.0 now supports the export of user configured cutsheet data directly from within the Stake points app. The needed data can be provided in the required format and content directly from the field without the need of office software or further editing of the files.

The cutsheet content can be defined and stored for later use

Staked point ID	Staked code	Staked easting	Staked northing	Staked height	Design easting	Design northing	Design height	Cut	Fill
TS3016	FE	546651.1102	5250601.182	452.0965	546651.1099	5250601.182	449.9159	2.1806	
TS3015	FE	546630.8608	5250588.539	452.0959	546630.8607	5250588.538	450.4764	1.6196	
TS3012	ZAL&6	546694.9525	5250494.837	452.3232	546695.9848	5250492.021	452.3081	0.0151	
TS3011	CP	546713.6325	5250494.816	452.2729	546714.0731	5250495.233	452.273	0	0.01
TS3010	AVENA	546698.3901	5250480.157	452.2476	546699.2181	5250480.435	427.2476	25	
TS3004	CP	546690.2465	5250580.255	452.2326	546690.2852	5250579.808	451.6074	0.6251	
TS3003	KB	546666.4788	5250578.16	452.2325	546666.207	5250578.019	451.5002	0.7323	
TS3002	CP	546695.6962	5250579.199	452.2325	546695.8359	5250579.199	451.7059	0.5266	
TS3001	KB	546682.8642	5250582.766	452.2224	546682.2753	5250584.019	451.5605	0.662	
TS3000	MH	546686.3575	5250577.646	427.2477	546686.2567	5250579.368	451.5461	0	24.0

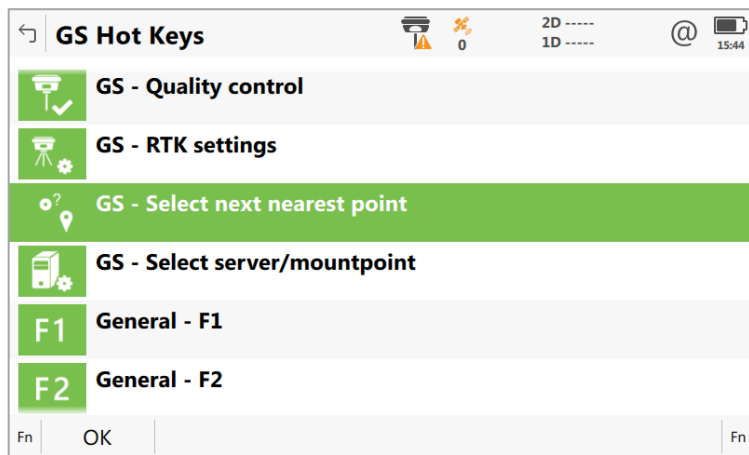
Cutsheet content as displayed in Microsoft Excel

New hotkey to select the next nearest point during stakeout



When using the Stake Points app, currently the Nearest Point function can only be started via a tool which needs 3 button presses, every time the function is used (which may be every staked point, depending on the working method of the user).

To speed up the workflow, and therefore the stakeout task, the Find Nearest Point function is now accessible via a hotkey, so only one button press is needed to stake out the closest next point



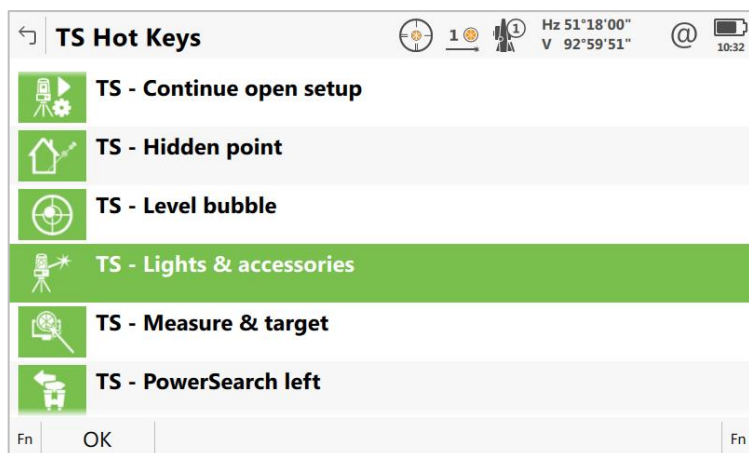
Selecting the Select next nearest point hotkey

Hotkey to turn laser pointer on or off



When using an app (e.g. Sets of Angles) where it is necessary from time to time to turn the lights/laser pointer on the TS on or off, it would be necessary use the touch screen or leave the app to do so via the keys.

With Leica Captivate v3.0 the **Lights & Accessories** panel can now be accessed via a hotkey to make the required changes.



Selecting the Lights & accessories hotkey

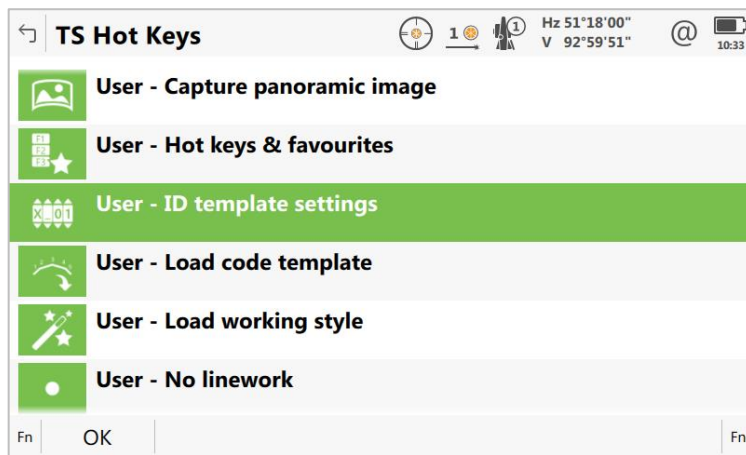
The laser pointer was already easily accessible via the favourites bubble. The change is beneficial for users who prefer working with the keys instead of the touch screen.

New hotkey to easily change the ID template



For very specific requirements when naming points that are being measured, ID templates may be used. For some use cases, it may be required to access the ID templates panel regularly to change the point numbering rule (e.g. with every new cross section being measured).

With Leica Captivate v3.0 the ID templates panel can now be accessed via a hot key, so one button press allows updating the ID template.



Selecting the ID template settings hotkey

Edit measured and staked points



Leica Captivate allows offsets to be entered for measured points and multiple elevations for staked points.

However, once the points are stored, these values could not be changed on the instrument. For further corrections, the point would either need to be remeasured or the correction would have to be done later in the office.

With Leica Captivate v3.0, the edit point panel in the data management, show the offsets and multiple heights entered for each point and allow editing them and update the stored values for the points.

Elevation	Cut/Fill	Information
-3.0000 ft	(Fill) 3.2298 ft	Inlet 1
-4.0000 ft	(Fill) 2.2298 ft	Inlet 2
-5.0000 ft	(Fill) 1.2298 ft	Outlet
-6.0000 ft	(Fill) 0.2298 ft	Outlet
----	----	----
----	----	----

Editing the additional elevations entered for a staked point

TS0001

Coordinates Obs **Offset** Code Annots Images

Offset left/right	2.0000 ft
Offset in/out	3.0000 ft
Offset height	1.0000 ft
Easting	-99.8280 ft
Northing	-191.5154 ft
Height	-5.2298 ft

Store Page

Editing the offsets for a measured point

With this new option to edit the points, the data brought back from the field to the office is correct and complete and does not need later editing to correct mistakes made during measuring/staking.

Show stakeout results in the Edit Point panel



When staking out points on a busy building site, the used pegs can sometimes be destroyed or pegs may get lost, therefore losing the information. It was until now not possible to recover this information from Leica Captivate if needed.

With Leica Captivate v3.0, the stake results are shown not only directly after staking the point but also in the **Edit Point** panel for later reference.

STKEStn001

Coordinates **Stake results** Obs Elevations Code Annots Images

Design point ID	TS0001
Difference in easting	-3.1440 ft
Difference in northing	-1.7650 ft
Fill	1.0000 ft
2D distance	3.6056 ft
3D distance	3.7417 ft
Design easting	-99.8280 ft

Store Page

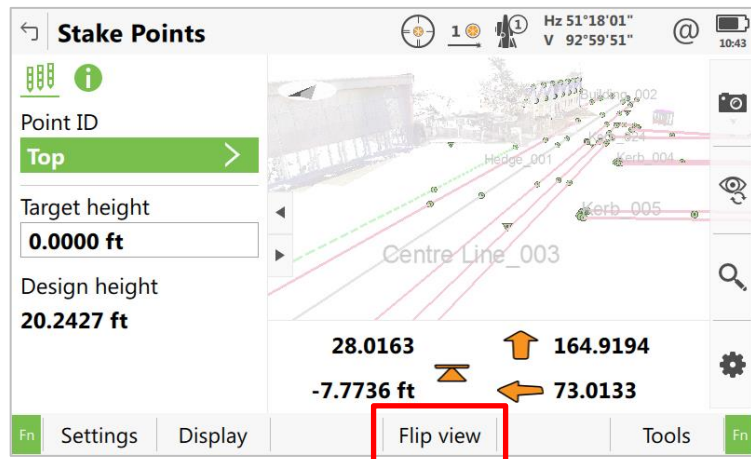
Stakeout results in the edit point panel

Stakeout results for each point can now be viewed when needed and information on the pegs can be re-written when they get lost on the building site.

Add the Flip view button to the 2D plan view and the free 3D in the Stake apps

When working within the stakeout apps, the 3D viewer allows to work in different views, depending on use case and personal preferences. Some of these views allow flipping the view by 180° (to support the view of the user) and some do not.

With Leica Captivate v3.0, the Fn+F4 **Flip view** button has now been added in the 2D plan view and the free 3D view to support changing the view direction in all map views.



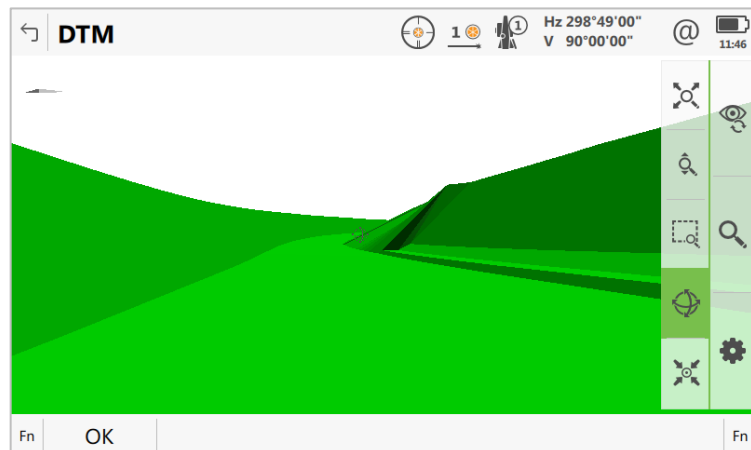
It is now possible to quickly and easily change the direction of the stakeout view in any of the map views.

Show DTM surfaces as shaded solids



Leica Infinity users are by now familiar with polyface meshes from .dxf files being shown as solids in the graphical view.

With Leica Captivate v3.0, DTM triangles can now optionally also be shown as shaded solids in the 3D viewer.



Improved performance when showing CAD files in the 3D viewer



For very large CAD files, Leica Captivate would occasionally experience performance issues when displaying them in the 3D viewer.

For Leica Captivate v3.0, the performance of showing CAD data has been greatly improved so that the 3D viewer is now able to handle large CAD files smoothly.

Extend the Orientate to Line setup method

The Orientate to line setup method allows the orientation line between 2 existing points to be defined as the Northing or Easting axis.



However, sometimes the user needs this line to be at an azimuth other than North or East. Additionally, sometimes the point to define the start of the orientation line already existed in the job. But up until now, the user always had to enter the start point of the line manually.

Within Leica Captivate v3.0 the orientation line can now be defined with any azimuth.

Additionally, an existing point to define the line to orientate can now be selected instead of entering a new point.

Setup Details	
Point ID	11
Instrument height	4.9212 ft
Point code	<None>
Manually enter the setup height	<input type="checkbox"/>
Line between target 1 & 2 defines	Custom direction
Azimuth of the defined line	0°00'00"
<div>Fn OK Fn</div>	

Defining the azimuth of the line to orientate to in Orientate to line setup method

Measure Target 1	
Target Camera	
Select target 1 from job	<input checked="" type="checkbox"/>
Point ID	Stn001
Target height	0.0000 ft
Easting	0.0000 ft
Northing	0.0000 ft
Height	0.0000 ft
<div>Fn Measure Distance Store Page Fn</div>	

Selecting a point in the Orientate to line setup method

This extension makes the app much more flexible and therefore allows for more use cases during Setup.

Measure hidden points in TS mode on the CS20

Sometimes a point that needs to be measured during a Survey task is not accessible from a TS setup and would require a complete new setup for measuring just that one point.

With Leica Captivate v3.0, the hidden point tool, available in the Measure app on the CS20 controller, is now also available when working with a Total Station.



The tool can be used in connection with the internal or an externally connected Disto or simply with user entered distances. These distances are used to calculate the position of the hidden point.

Measure Hidden Point	
Hidden point Camera	
Method	Using 2 distances
Point A	Using 2 distances
Horizontal distance	Distance & offset
Difference in height	-----
Point B	Point001
Horizontal distance	0.000 m
Difference in height	-----

Select the measurement method for the hidden points to be measure

On occasions, this new feature can save time that would have been needed for an additional setup and therefore speeds up the overall work process.

Extended Range for atmospheric pressure value



With Leica Captivate v3.0, the atmospheric onboard corrections now allow an atmospheric pressure value of up to 3000 mbar. This is useful when working under special environmental conditions, such as tunnelling.

The extended range allows to automatically, on-the-fly, generate the correct, measured slope distance.

Automatic start of continuous distance measurements when following a target



When measuring points in continuous EDM mode, it was always necessary to manually start the distance measurements once lock to target was achieved. This was necessary when first starting to work in continuous EDM mode but also each time lock to target was lost.

With Leica Captivate v3.0, the instrument will automatically start the distance measurement each time target lock is achieved, independent of how it is achieved (for instance after finding a target with PowerSearch).

This new feature helps making the tracking workflow more efficient and reduces the risk of forgetting to start the distance measurement and therefore storing points without distances.

Increase the resolution of the scale factor



When creating coordinate systems, the scale factor can now be entered with a resolution of 11 decimals instead of 7.

Allow displaying the entered password



When entering passwords, it is not possible to view the entered characters in Leica Captivate. So, when a "wrong password" message is shown, it is difficult to know what to correct.

Leica Captivate v3.0 allows displaying the entered password characters in all places that allow entering passwords. This makes the entry less error prone.

Displaying the password for the Leica Exchange login

Easily change a value between positive and negative



In previous Leica Captivate versions, when changing an already existing value in a field to negative, it was always necessary to overwrite the whole value to enter or remove the minus sign.

With Leica Captivate v3.0, the minus can be entered and removed at any time during the value entry without having to move the cursor to the start of the number or overwriting an entry.

Exclude jobs from transferring instrument settings



The Transfer User Objects function is an easy and quick way to transfer specific instrument settings from one device to another. However, when doing this, it is usually not wanted to duplicate the existing jobs on the other device.

With Leica Captivate v3.0, a new check box in the transfer user objects panel allows transferring the instrument settings with the jobs excluded. This results in faster transfer of data, smaller amounts of data to transfer and no unwanted job duplicates.

Transferring instrument settings without the jobs included

3 Leica Captivate Software Improvements – Bug fixes

Incorrect handling of arc geometries in the Measure/Stake to Line apps

In the Measure to Line app, when a point was measured/staked in reference to an arc and the angle between the start of line, arc center point and measured point exceeded 180°, the displayed distance and offset values were wrong.

This problem is fixed in Leica Captivate v3.0

Instrument does not turn to next point to stake

In very rare cases, when using the Stake points app and the Total Station is configured to **Automatically aim instrument at point being staked**, the instrument would start turning to the next point to stake but would stop turning before aiming in the correct direction.

This problem is fixed in Leica Captivate v3.0

Stakeout values in the Stake to line app not always updated

When using the **Stake to line** app and configuring to **Do not update stakeout values between distance measurements** and to measure each distance only **Once**, the **F2(Distance)** button would have to be pressed twice to update the stakeout values.

This problem is fixed in Leica Captivate v3.0

Offset values cannot be calculated when the line contains segments of length 0

In the **Measure/Stake to line** app and the **Stake/Check Road** app, when using a line that contains a segment of the length 0, the distance along the line and offset values were not be calculated.

With Leica Captivate v3.0 the values are now calculated.

Search starts always with capital letter

In certain search fields, when starting a search, the first entered letter would always automatically be capital, even if the system was set to lower key entry. The search result would then only display items starting with that capital letter.

In Leica Captivate v3.0 the search is started in the same mode that is configured for all current entries.

Pressing Enter in a selection field would not move the focus to the next field.

In certain selection fields, when selecting a value and pressing **Enter**, the focus would stay on the field and not move to the next field below. This would make entering values via the hard keys inefficient.

With Leica Captivate v3.0 pressing **Enter** in a value selection field will open the list to select a value. Pressing **Enter** again will select that value, close the list and move the focus to the next field.

Point ID is not incremented after using the Set Orientation setup method

When using the Set orientation setup method and afterwards starting a measurement in the Measure app, the last used Point ID would sometimes be used for the first measured point. This would mean 2 points could be stored with the same point ID and the subsequently unwanted averaging of these points.

This issue is fixed in Leica Captivate v3.0, the point ID is correctly incremented.

Very large arcs and circles not imported correctly

When importing circles or arcs with very large radiuses, where part of the full circle would be outside of the boundaries of the DXF file, the object would be imported as lines, not as arc or circle.

This problem is fixed in Leica Captivate v3.0

COGO point cannot be stored when a code is assigned

A point calculated in **COGO Line and arc calculations** with the **Calculate line offset point** method could not be stored when a code was assigned.

This problem is fixed in Leica Captivate v3.0

Attributes for free codes cannot be edited

This issue could be seen when using a codelist with free codes which have attributes. In this case, when accessing the **Enter Attributes** page, the code description and the attributes would not be shown.

This problem is fixed in Leica Captivate v3.0

Estimated CQ for points measure with a Total Station incorrect

The estimated 3D CQ for points measured with a Total Station was incorrect when using the measurement mode "precise".

This problem is fixed in Leica Captivate v3.0

Annotation values from Measure/Stake to line app shown with only one decimal

When using the unit US ft, the annotation values from the Measure/Stake to line app would always show the cut with a resolution of two decimals, while the offset and chainage would be shown with only 1.

With Leica Captivate v3.0 all values are shown and stored with two decimals.

The inclination values of the MS60

In some cases, the inclination values of the MultiStation are not correctly applied to the defined scan area. This can lead to a slight mismatch between the defined

**are not always
correctly applied to
the defined scan
area**

scan area and the scanned point cloud, especially if the MultiStation is not perfectly levelled.

This problem is fixed in Leica Captivate v3.0

**During Setup, the
instrument does not
lock in again
automatically after a
two-face
measurement**

In the **Setup** application, if the Total Station is locked to a target and **Single EDM** mode is used, the Total Station does not lock in again automatically after a two-face measurement, once the instrument turned back to face one.

This issue is fixed in Leica Captivate v3.0

4 Obtaining and loading the new software using myWorld (CS20 Field Controller and TS/MS instruments)

It is strongly recommended to use myWorld to load the new software to the CS20 Field Controller and TS/MS instruments.



The myWorld online update cannot be used to load the new software to the CS35 tablet.

Once your Controllers and Instruments have been registered in myWorld, connect the hardware to your PC, navigate to your products page in myWorld and follow the on-screen instructions. The latest software versions will be loaded as required.

To connect CS20 Field Controller and TS/MS instruments to the PC you need to first install the USB drivers. These drivers are available for download at myWorld.

5 Obtaining and loading the new software using manual loading (CS20 Field Controller and TS/MS instruments)

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 (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 CS20 Field Controller

The following file needs to be obtained to upgrade a CS Field Controller - CS20LeicaCaptivate_v3_00.fw

This file contains all Leica Captivate and WinEC languages and apps

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

The following file needs to be obtained to upgrade a TS/MS instrument - TSxxMS60LeicaCaptivate_v3_00.fw

This file contains all Leica Captivate and WinEC languages and apps

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

1. Insert the 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 card. This can be done with Windows Explorer or any other suitable PC software. (it is NOT possible to use a USB stick to upgrade your CS20 Field Controller or TS/MS instrument)
2. Insert the SD card 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.
5. Press **F1(OK)** – a message will appear to remind you the controller 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 controller will turn off and on several times during the process.

Obtaining sample data

Since Leica Captivate v2.0, the sample data is no longer included in each simulator build. The sample data can be installed using a separate installer. The advantage of this is that it is no longer needed to download several large files.

During the installation, it is possible to select for which simulators the sample data can be installed – the sample can be installed for all 4 simulators (SmartWorx Viva CS simulator, SmartWorx Viva TS simulator, Leica Captivate CS20 simulator and the Leica Captivate TS/MS 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.

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

The CS35 Tablet can only be upgraded 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 CS35 tablet

The following file must be downloaded to upgrade the CS35 tablet

LeicaCaptivate_CS35_v3_00.zip

The file contains Leica Captivate languages and apps.

How to load the Leica Captivate files to the CS35 tablet

1. On your PC unpack the files from the .zip file to a USB stick
2. Insert the USB stick into the CS35 Tablet
3. Using the File Explorer app within Windows 8.1 on the CS35 tablet, browse to the USB stick. Double tap the Setup.exe file
4. Follow the instructions

Note that this procedure will need to be performed twice – once to uninstall the existing Leica Captivate software and then a second time to install the new software.

Obtaining sample data

Since Leica Captivate v2.0, the sample data is no longer included in the CS35 firmware but will be provided separately via the sample data installer.

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.

7 Summary of Leica Captivate Software Files

Listed below is a summary of the files available relating to the new Leica Captivate software. The version number for all files is v3.00.

File name	Description	File date	Build no.	Maintenance date
CS20LeicaCaptivate_v3_00.fw	CS20 Field Controller Leica Captivate software file	27.11.2017	158	01.12.2017
TSxxMS60LeicaCaptivate_v3_00.fw	TS/MS instrument Leica Captivate software file	27.11.2017	158	01.12.2017
LeicaCaptivate_CS35_v3_00.fw	CS35 tablet Leica Captivate software file (without sample jobs)	27.11.2017	158	01.012.2017