



RELEASE NOTES

TRIMBLE[®] ACCESS[™] SOFTWARE

Version 2014.10
Revision A
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Legal Information

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Trimble Access Software Version 2014.10

These Release Notes contain information about the Trimble® Access™ software version 2014.10.

The Trimble Access software provides a collection of survey tools for use in the field, and web-based services for the office and in the field. These applications may be installed on the controller, the office computer, or on servers hosted by Trimble, depending on the parts you have purchased.

Installing the software and licenses on the controller

Operating system installation

With a new Trimble Tablet, the operating system is not installed. Turn on the Tablet to install the Windows® operating system and then apply Windows updates.

With all other new controllers, the operating system is already installed.

Software and license installation

Before you use your controller, you must install the applications and licenses using the Trimble Access Installation Manager. If you have:

- not installed the Trimble Access Installation Manager before, go to www.trimble.com/taim for installation information.
- previously installed the Trimble Access Installation Manager, you do not need to reinstall it because it updates itself automatically. Select *Start / All Programs / Trimble Access Installation Manager* to start the Installation Manager.

For further information on how to install or update your software and license file, refer to the Help file in the Trimble Access Installation Manager.

Note – For Trimble CU controllers, Trimble Access version 2013.00 and later can be installed only on the Trimble CU model 3 (S/N 950xxxxx). Trimble CU models 1 and 2 have insufficient memory to run later versions of Trimble Access.

Am I entitled to this version?

To install and run Trimble Access software version 2014.10, you must have a warranty agreement valid up to 1 April 2014.

When you upgrade to version 2014.10 using the Trimble Access Installation Manager, a new license file is downloaded to your device.

Updating office software

When you upgrade to version 2014.10, you must also update your office software. These updates are required if you need to import your General Survey jobs into Trimble office software such as Trimble Business Center.

When you upgrade the controller using the Trimble Access Installation Manager, the office software on the computer that has the Trimble Access Installation Manager installed is also upgraded. To upgrade other computers that were not used to update the controller, do one of the following:

- Install the Trimble Access Installation Manager onto each computer and then run Office updates.
- Run the Trimble Update Office Software packages for the Trimble Access software from www.trimble.com/support_trl.aspx?Nav=Collection-84862.
- Use the Trimble Data Transfer utility:
 - You must have version 1.51 or later installed. You can install the Data Transfer utility from www.trimble.com/datatransfer.shtml.
 - If you have version 1.51, you do not need to update to a later version of the Data Transfer utility; you can run one of the Trimble Update Office Software packages from www.trimble.com/support_trl.aspx?Nav=Collection-84862.
- If you only need to update the latest version of the Trimble Business Center software, you do not need to run the Trimble Access Installation Manager to update the office software. The required converters are now available on the controllers running the Trimble Access software and, if required, they are copied from the controller to the computer by the Trimble Business Center software.

Trimble Solution Improvement Program

The Trimble Solution Improvement Program collects information about how you use Trimble programs and about some of the problems you may encounter. Trimble uses this information to improve the products and features you use most often, to help you to solve problems, and to better meet your needs. Participation in the program is strictly voluntary.

If you participate, a software program is installed on your computer. Every time that you connect your controller to this computer using ActiveSync® technology or the Windows Mobile® Device Center, the Trimble Access software generates a log file that is automatically sent to the Trimble server. The file includes data on what the Trimble equipment is being used for, what software functions are popular in specific geographical regions, and how often problems occur in Trimble products that Trimble can correct.

At any time, you can uninstall the Trimble Solution Improvement Program. If you no longer wish to participate in the Trimble Solution Improvement Program go to *Add or Remove programs* on your computer and remove the software.

Documentation

Trimble Access Help is "context-sensitive." To access the Help, tap ? at the top of the screen.

A list of Help topics appears, with the relevant topic highlighted. To open the topic, tap its title.

Go to <http://help.trimbleaccess.com> to download a PDF file of the Help. A separate PDF file is provided for each application.

General Survey

New features

V10 camera calibrations

The Trimble Access software now enables you to collect data to later check the camera calibration of the V10 imaging rover in Trimble Business Center version 3.20. This process collects images to evaluate if the calibration of the cameras is still within specification. Camera calibration check images are stored in the job folder and are imported into Trimble Business Center with the job.

V10 imaging rover magnetometer calibration record

A record is now written to the job when the V10 magnetometer is calibrated successfully or when a calibration is canceled by the user. The record includes the serial number of the V10 that was calibrated.

Trimble TSC3 with dual-mode internal modem

The Trimble Access software supports the Trimble TSC3 controller with an integrated dual-mode internal modem. These TSC3 controllers have a part number ending in 002 (for example TSC3112-002). To check the part number of your controller, remove the battery to view the label affixed to the left side of the battery compartment.

The dual mode modem can run in GSM mode or CDMA mode. This version of the TSC3 is available for US customers only, and is specifically designed to access the Verizon network. For more information, contact your local Trimble distributor.

Measure points on a plane enhancements

The following enhancements have been made to the *Measure points on a plane* measurement method:

- It is now possible to change the point selection after calculating the parameters if desired, and then redo the computation.
- If the selected points are detected as all being in a line, the software now warns you that "A plane cannot be formed because the selected points all lie on a single line".
- If only 2 points are selected the software now checks if the 2D positions of these 2 points is close (within 5 mm) and if so warns you that "A vertical plane cannot be formed using 2 points with the same horizontal positions".

Job-specific map options

The following map options are now job-specific: color gradient, surface triangle, vertical offset display, vertical exaggeration scale, ground plane, and surface side.

Selection of correction satellite for RTX, xFill, and OmniSTAR

Trimble Access now provides the ability to select or change the satellite used for obtaining corrections when using the Trimble CenterPoint™ RTX™ service, xFill technology, or the OmniSTAR satellite differential service. This provides the same functionality on the controller as provided in the receiver Web UI.

To view the current satellite, tap the solution type icon in the status bar to open the status screen. The status screen shows the current *Correction satellite name*. To select a different satellite, tap *Options* and then select the required satellite from the list. Alternatively, select *Custom* and then enter the frequency and bit rate to use.

Changes you make to the settings are used the next time you start a survey. You can change the correction satellite at any time; changing the correction satellite does not require restarting the survey.

Bluetooth wireless connection to Laser Atlanta Advantage

Trimble Access now supports connecting to the Laser Atlanta Advantage rangefinder using Bluetooth™ wireless technology.

RTCM v3.0 message type 1029 text messages

RTCM v3.0 message type 1029 text messages are now displayed in the *Network/Reference Station Status* screen during a network RTK survey.

Alignment code renamed to string

The term *String* now replaces the term *Code* when keying in an alignment. This change is reflected when staking an alignment. This change has been made because the term *Code* was being confused with the *As-staked code*.

Chain and Link unit abbreviations

The symbol for Chain (the unit of distance) has been abbreviated to "ch".

The symbol for Link (the unit of distance) has been abbreviated to "lnk".

These units can be typed into any distance field, or selected from the *Units* context menu.

Resolved issues

- **Warranty date:** An issue where the warranty date was not visible in the *About* screen for some languages is now resolved.
- **Fast Fix points:** An issue where Fast Fix points were being stored as rapid points instead of construction points is now resolved. This issue was introduced in Trimble Access 2013.42. Fast Fix points are now stored as construction points which by default do not appear in the map.
- **Laser rangefinder trigger measurement:** An issue where pressing the trigger key on a laser rangefinder did not initiate a laser measurement is now resolved.
- **Laser rangefinder null angles:** An issue where null angles were recorded with a value of 1e308,

rather than '?', is now resolved.

- **Compensated points:** The following issues are now resolved for compensated points:
 - An issue where a "Measurement in progress" message appeared before the measurement had started.
 - An issue where, if you attempted to measure a compensated point and were prompted to calibrate the tilt sensors, then a measurement would start as soon as you finished calibrating the tilt sensors. Now you are returned to the *Measure point* screen and must tap *Start* to begin measuring the point. This ensures you are standing at the location you want to measure when you begin measuring.
 - An issue where, if you attempted to measure a compensated point and were prompted to calibrate the tilt sensors, and then returned to the *Measure point* screen without calibrating and the *Calibration* screen was still open then the prompt to calibrate the tilt sensors would not appear correctly.
 - An issue where the "Duplicate point: Out of tolerance message" was displaying incorrect differences between the just measured compensated point and the point of the same name already in the job database, is now resolved.
- **Bluetooth port now available for GPS search:** An issue where Bluetooth was missing from the list of available ports for *GPS search* is now resolved. This issue was introduced in Trimble Access 2014.00.
- **Re-measure GNSS points:** An issue where *Re-measure* would cancel the measurement but not start a new one for GNSS points that were not a tilt auto measured point is now resolved.
- **R10 receiver connection:** An issue where Trimble Access would occasionally connect, but then lose the connection to the Trimble R10 receiver while the receiver was powering up is now resolved. This issue usually occurred if Trimble Access tried to connect to the receiver before it was ready to connect.
- **Receiver firmware version:** The *Receiver Settings* screen now shows the *Firmware version* and the *Firmware warranty expiry* fields. Previously, these fields were incorrectly named *Software version* and *Software warranty expiry*, which caused confusion for customers.
- **RTX subscription start date:** The *Receiver Settings* screen now shows the RTX subscription start date, if one is set.
- **xFill subscription start date:** The *Receiver Settings* screen now shows the xFill subscription start date, if one is set.
- **Swapping base station:** An issue where, if you attempted to swap to a different base station using the *Swap Base* screen during an RTK survey, the application sometimes incorrectly displayed a "New base station detected" message and would not complete the process of switching to the selected base station, is now resolved.
- **Integrated surveying:** An issue where switching between a total station survey and a GNSS survey did not always work is now resolved.
- **Coordinate system rotation values:** An issue where Trimble Access did not accept rotation values between 359°59'59" and 360° during import is now resolved.

- **CAPS lock on the Tablet:** An issue where CAPS lock was reset each time the keyboard was hidden on the Trimble Tablet is now resolved. Now, if CAPS lock is on and you hide and then show the keyboard, CAPS lock remains on.
- **3D map:** The following issues are now resolved for the 3D map:
 - An issue where the orientation of the NE axes icon that appears in the corner of the map did not always update to match the view of the map.
 - An issue where the 3D map was not correctly rendering images when the associated world (.wld) file had a negative pixel width. Previously the image was flipped.
 - An issue where some .jpg image files were not being displayed correctly in the 3D map.
 - An issue where two or more raster images were selected as background images for the map, but instead of each image appearing in the map, the same image was displayed multiple times.
 - An issue where the ground plane was not displayed when the 3D map contained an rxl file.
 - An issue with the display of a vertical alignment in an rxl file, which occurred when the length of the vertical alignment was less than the horizontal alignment. Previously, where there was no vertical alignment, the software continued to draw an alignment using the elevation of the ground plane. This is now resolved by drawing the horizontal alignment where it is coincident with the vertical alignment.
- **Display of non-European language characters on the Tablet:** An issue where some characters were not displayed correctly in the *V10 Panorama* form and in the *3D Map* for non-European language installations of Trimble Access is now resolved.
- **Application errors:** You should no longer see occasional application errors when you do any of the following:
 - Link the current job to another job that has more than one point of the same name as the original job.
 - End a GNSS survey while a measurement is in progress.
 - Import .jxl files that contain points with duplicate names in the Reduction section.
 - Tap the *Esc* softkey more than once when in the *Settings / Connect* screen.
 - Lose the connection to the GNSS receiver while editing radio settings.

Roads

New features

Graphical road stakeout

For a Trimble or LandXML road a new graphical selection screen, with both plan and cross section views, appears before the stakeout screen. The graphical selection screen enables you to graphically activate the survey method, in a similar way to the existing method used for GENIO roads.

Graphically activating the survey method provides the following advantages:

- The survey method activated is determined by what you have selected, which provides a more intuitive workflow. You no longer need to select the method from the drop-down list.
- You can select the position to stake from the map or by using the arrow keys on the controller.
- You can graphically view the position you have selected to stake, along with any construction offsets that you may have applied, from the plan view or the cross section view. If a cross slope or subgrade has been applied, you can see the resultant positions. This all happens before you begin staking so you can be confident of the correct staked results.
- When using the arrow keys on the controller to select a position and the **Enter** key to measure and store a staked position, stakeout requires the pressing of just two keys.

The first time you survey a road, the software prompts you to choose the selection method you want to use. Choose *Traditional menu selection* or choose *Graphically* to use the new graphical selection method. The selected option is used for all subsequent surveys. To change the selection method, tap the *Options* softkey when selecting the road.

The following table describes how to activate each survey method:

Survey method	Graphical activation
Measure your position relative to a road	At the selection screen, with nothing selected, the Roads software is ready to measure your position relative to the road.
Measure your position relative to a string	<p>From the plan view, tap the line work that represents the string.</p> <p>The cross section view is available, enabling you to make sure that the correct string is selected.</p> <p>To select a different string (from the plan or cross section view), depending on your controller use the arrow keys or use the available softkeys. Alternatively, tap and hold in the graphics area and select a string from the list.</p> <p>To measure your position relative to the string nearest to your position, from the plan view, tap and hold in the graphics area and then select <i>Measure nearest string</i>.</p>
Stake a station on a string	<p>From the plan view, tap the circle that represents the station on the string to be staked.</p> <p>The cross section view is available, enabling you to make sure that the correct position is selected.</p> <p>To change your selection (from the plan or cross section view), depending on your controller use the arrow keys or the available softkeys to select a different string and/or a different station. Alternatively, tap and hold in the graphics area and select a string and station value from the appropriate lists.</p>
Stake additional points	<p>From the plan view, tap the circle that represents the point.</p> <p>The cross section view is available, enabling you to make sure that the correct position is selected.</p> <p>Alternatively, tap and hold in the graphics area and select <i>Stake additional points</i>.</p>

Note – *The Side slope from alignment method is not available when using the graphical selection option.*

To clear the current selection, from the plan view do one of the following:

- Tap in a clear space
- Tap the selection again

Tap and hold in the graphics area of the plan or cross section view to:

- Define a construction offset
- Edit or reload an elevation

Tap a line in the graphics area of the cross section view to define a cross slope or subgrade.

For more information, refer to the *Roads Help*.

Subgrade

For a Trimble or LandXML road you can now use a special subgrade calculation tool to define a subgrade that is offset parallel from an existing line in the cross section. The position where the subgrade intersects an existing line can then be selected for stakeout.

To graphically activate this tool: at the new graphical selection screen (cross section view), tap an existing line and then select *Define subgrade* from the pop-up menu.

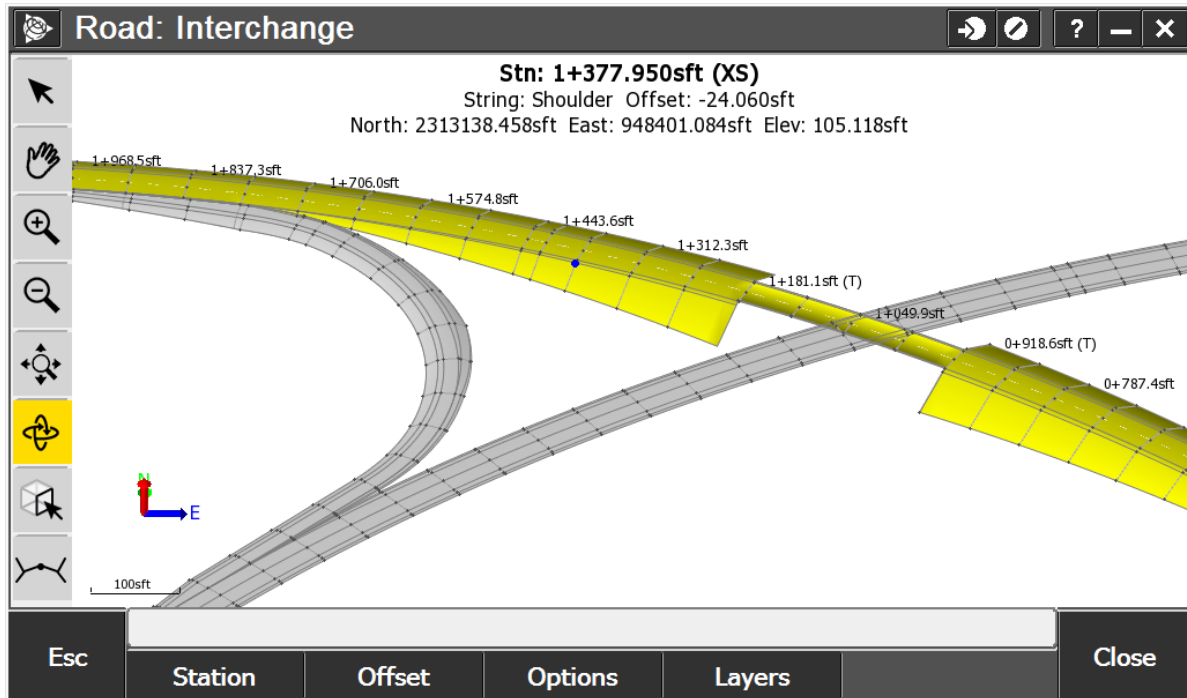
Note – You cannot add a subgrade when the survey method has been selected using the traditional menu option.

3D review for Trimble Tablet

If you are using a Trimble Tablet, then reviewing a Trimble or LandXML road can now be done in 3D. This view includes all the review functionality previously provided but with the following improvements:

- You can view the whole road in 3D, rotate the road, and view and check the design from different views.
- You can display the road relative to other roads. Issues relating to misalignment of the roads at intersections and interchanges quickly become apparent in 3D. This is available for Trimble roads only.
- You no longer need to browse to see the details of the selected position as this information is now displayed at the top of the screen.
- The road surface can be presented as a:
 - shaded model
 - color gradient
 - color gradient with surface triangles
 - surface triangles only
- When viewing the cross section, you can display each cross section so that it fills the screen, providing the best view of the cross section. Alternatively, you can choose to display each cross section with the scale fixed so that the widest cross section fills the screen. This option enables the cross sections to be viewed relative to each other.

The image below shows an interchange with the current road highlighted:



You can also view the road in 3D from the 3D map accessed from the *Roads / Jobs* menu. The 3D view of a road is also available from the General Survey map, provided you have a Roads licence.

Note – Reviewing roads in 3D is not available on the first generation Trimble Tablet.

Workflow improvements

The following workflow improvements have been made:

- The stake option *Position from file* has been renamed to *Additional points* to better reflect the option. Additional points can be keyed in or imported from a file.
- When importing a file of additional points, where the file contains points with null elevations, and the road has a vertical alignment, you can now choose to use the elevation of the vertical alignment at the station value of the point, for points with null elevations.
- You can now import additional points when there are already additional points defined. Previously, to import points there had to be no additional points previously added to the road. Additional points are used to define design features like key positions for a drainage system or road cross sections. The points are defined relative to a horizontal alignment, and optionally a vertical alignment. The points can be keyed in or imported.
- The term *String* now replaces the term *Code* when defining a template element. This change is reflected when:
 - reviewing a road
 - surveying a road
 - reporting a road

This change has been made because the term *Code* was being confused with the *As-staked code*. Also the term *String* better describes the shoulder, curb and other similar road entities.

- The *Set last template element as side slope* option is now named *Set last cross section point as side slope*. This option is available when defining or surveying a LandXML road. The LandXML format does not support side slopes, but you can use this option to define a side slope if the last point in each cross section record in the LandXML file represents a side slope.

Resolved issues

- **Displaying staked positions:** An issue when staking by station and offset where the as staked positions were not being displayed is now resolved. This was an issue when the road only had a horizontal alignment.
- **Application error:** You will no longer see occasional application errors when you do any of the following:
 - Attempt to change the transition type. This was an issue only when the road included transitions that were not fully developed and you were attempting to change to either a Bloss curve or a Korean Cubic Parabola. These transition types do not support partially developed spirals. Now, you cannot select these transition types when the road includes transitions that are partially developed.
 - Attempt to survey a road where the horizontal alignment is defined by a start point element only.

Tunnels

New features

Resolved issues

- **Application errors:** You should no longer see occasional application errors when you attempt to change the transition type. This was an issue only when the tunnel included transitions that were not fully developed and you were attempting to change to either a Bloss curve or a Korean Cubic Parabola. These transition types do not support partially developed spirals. Now, you cannot select these transition types when the tunnel includes transitions that are partially developed.

Software and Hardware Requirements

Trimble Access software version 2014.10 communicates best with the software and hardware products shown below. The software can also communicate with any version later than that shown.

Trimble software	Version
Trimble Business Center (32-bit)	2.97
Trimble Business Center (64-bit)	3.20

Trimble receiver	Version
Trimble R10	4.84
Trimble R8-4, R8-3	4.84
Trimble R6-4, R6-3	4.84
Trimble R4-3, R4-2	4.84
Trimble R7 GNSS	4.84
Trimble R5	4.84
Trimble NetR9	4.84
Trimble GeoXR	4.55
Trimble R8-2, R6-2, R4-1	4.64
5800 II	4.64
5700 II	4.64

Trimble Instrument	Version
Trimble V10 imaging rover	E0.2.62
Trimble VX Spatial Station	R12.4.17
Trimble S8 total station	R12.4.17
Trimble S6 total station	R12.4.17
Trimble S3 total station	M2.2.9
Trimble M3 total station	1.30 2.10

For the latest software and firmware versions, see also <http://trl.trimble.com/dscgi/ds.py/Get/File-93082/Survey%20Software%20and%20Firmware.pdf>.

Controller operating system support

Trimble TSC3 controllers with Microsoft Windows Mobile Version 6.5 Professional can run Trimble Access software version 1.8.0 to version 2011.10.

Trimble TSC3 controllers with Microsoft Windows Mobile Embedded Handheld 6.5 must have Trimble Access version 2012.00 or later.