

Trimble Survey Controller™

Release Notes

Version 11.20
Revision A
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Release Notes

Corporate Office

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Release Notice

This is the November 2005 release (Revision A) of the *Trimble Survey Controller Release Notes*. It applies to version 11.20 of the Trimble Survey Controller software.

Product Information

This section contains information about the Trimble Survey Controller software version 11.20 running on a Trimble® CU, TSC2, ACU or TSCe controller ("the controller"). For detailed information, refer to the *Trimble Survey Controller Getting Started Guide*.

New user

In a new controller, the Trimble Survey Controller software version 11.20 and the Microsoft® Windows® operating system are already installed.



To use the software in a language other than English, you must transfer the language pack file from the Trimble Survey Controller Software CD to the controller.

Upgrading from a previous version of the software

To use the Trimble Survey Controller software version 11.20, your controller must be running a Microsoft Windows operating system the same as or later than that shown below.

Controller	Microsoft Windows operating system	First released with this Trimble Survey Controller software version
Trimble CU	CE .NET 4.2.3.44	11.20
Trimble ACU	CE .NET 4.0.12	11.02
Trimble TSCe	CE .NET 4.0.12	11.02
Trimble TSC2	Windows Mobile™ 2003 Software for Pocket PCs version 4.2.2	11.10

During the upgrade, complete all of the following steps. Follow the prompts in the installation wizard:

1. Select *Update Office Software*.
2. Install Microsoft ActiveSync® software version 3.8 from the *Trimble Survey Controller Software CD*.
3. Select *Trimble Survey Controller Installation*, and then select *Install Survey Controller Software*.

The *Install Survey Controller Software* option checks your operating system and then runs the operating system upgrade wizard, if required.

If you have a TSC2 controller, the latest operating system is already installed. You cannot reinstall the operating system on a TSC2 controller from the *Trimble Survey Controller Software Installation CD*.

Note – As you install the software, you are given the option to download the contents of the Trimble Data folder. To safeguard the data in this folder, make sure that you select this option. Unlike previous versions, the Trimble Survey Controller version 11.0 software installation does not back up the Trimble data folder to Trimble Data V10.

Once you accept this step, the contents of Trimble Data are removed, regardless of whether or not you accept the option to download the contents of Trimble Data.

4. Select *Install Language Pack*, to transfer a new language pack to the controller.
5. If applicable, use *Transfer downloaded Trimble data files* to transfer compatible files back onto the controller.

Note – The Trimble Survey Controller software version 11.1 or later does not fit on a 32Mb TSCe controller. A TSCe controller with a serial number below 25400 is a 32Mb controller.

For details about upgrading the Trimble Survey Controller software version 10.0x, contact Trimble Support.

Converting job files and transferring data after an upgrade

During an upgrade, you can choose to save all files in \Trimble Data on the controller to the office computer. Once you upgrade, you can transfer back onto the controller any files that are compatible with the Trimble Survey Controller software version 11.2.

To determine compatibility, the software inspects the files before transferring them to the controller. Trimble Survey Controller software version 10.70 and 10.80 job files can be converted and transferred. A variety of other files (for example, .fal from version 10.7 and 10.8, .csv, .txt, .dtm, .ttm, .ggf, .cdg, .jpg, .sgf, .pgf, .dxf, and .shp) can also be transferred back onto the controller. A report of the transferred files is available at the end of this operation. The report details the files that were converted, the files that were transferred and the files that were not transferred because they are not supported (for example, Style files).

During installation, new versions of the predefined ASCII export formats are installed to the controller. New ASCII export definitions, or modifications made to existing formats are **not** reinstalled to the controller. Use the Trimble Data Transfer utility or Microsoft ActiveSync technology to transfer these files back onto the controller once the upgrade is complete.

The files that are backed up are stored on the office computer in *C:\Documents and Settings\[user name]\Local Settings\Temp\[controller serial number]\Download*.

Note – You **cannot** copy old jobs onto the controller for the Trimble Survey Controller software to convert on-the-fly. You must use the *Transfer Downloaded Trimble Files* option on the *Trimble Survey Controller Software CD*, which converts the previously downloaded files and transfers them back onto the controller.

Using Trimble Survey Controller software version 11.20 with other Trimble products

Trimble Survey Controller software version 11.20 communicates best with the software and hardware products shown in the following tables. The software can also communicate with any version later than that shown.

Trimble Software	Version
Trimble Geomatics Office	1.63
Trimble Link	3.00
Data Transfer	1.19
Trimble Total Control	2.73
Terramodel®	10.13

Trimble Receiver	Version
Trimble R8 Model 2	3.00
Trimble R8	2.26
Trimble R7	2.26
5800	2.26
5700	2.26
4800	1.30
4700	1.30

Trimble Conventional Instrument	Version
Trimble S Series	R3.0.41
Trimble 5600 Series	696–03.08
Trimble ATS	696–03.08
Trimble 3600 Elta CP (with interpreter)	1.15
Trimble 3600	2.00
Trimble 3300 Series	5.65

Note – If you use a Trimble R8 receiver with a TSC2 controller and GPRS, you must upgrade the receiver to firmware version 2.24.

Trimble R8 receivers with firmware version 2.24 or later do not support GPRS with the Trimble Survey Controller software version 11.05 or earlier.

Updating office software

Note – If you have GPS Pathfinder Office® software version 2.51 or later installed, make sure that the Connection Manager utility is closed before you update the office software.

Before using Trimble Survey Controller software with Trimble office software, update the office software. To do this, select *Update Office Software* from the main menu on the *Trimble Survey Controller Software CD*.

The Trimble Survey Controller software version 11.20 uses a version 10.7 DC file.

If you use Trimble Geomatics Office software, Trimble recommends that you update the Trimble Geomatics Office software from version 1.60 to 1.63. This option will not update versions of Trimble Geomatics Office that are earlier than version 1.60.

The Trimble Geomatics Office software version 1.63 update, and the Trimble Coordinate System update is available from the *Trimble Geomatics Office* folder on the *Trimble Survey Controller software CD*.

Although Trimble Survey Controller software version 11.20 can output a version 10.0 DC file to older versions of the office software, the process does not support all new records and some information may be lost.

If you have a new GPS receiver or a new GPS antenna, you may need to update some of the components in your office software for it to recognize the new equipment. To do this, select *Additional Utilities / Antenna and Receiver configuration file update* from the *Trimble Survey Controller software CD* and then follow the installation wizard instructions. Alternatively, you can update to the latest files using the *Trimble Office Configuration Files Update Utility* on the Trimble website.

Upgrading Trimble 3600 and 5600 instrument firmware

If you need to upgrade the Trimble 3600, 5600, or ATS instrument firmware, return the instrument to your Trimble service center.

Configuring the system options

The new Trimble Survey Controller systems are shipped unconfigured. They are configured automatically when you connect the controller to the instrument. Alternatively, select *Configuration/Options* and then select the option(s) appropriate for you:

- GPS users – select *GPS surveying*
- Conventional Total Station users – select *TS surveying*
- Integrated surveying users – select both options
- Helmert, Station Setup Scale factor users – select *Advanced Geodetic Support*

These options control the styles that are available and the relevant options that appear throughout the software. You can reconfigure the Trimble Survey Controller system at any time.

New Features

This section summarizes new features in the Trimble Survey Controller software. For more information about the features, refer to the Trimble Survey Controller Help or the *Trimble Survey Controller Getting Started Guide*.

Note – The help is also provided on the Trimble Survey Controller Software CD in a PDF document, which you can search or print.

*** General Enhancements ***

Integrated surveying

You can now switch easily between a GPS survey and a conventional survey, within the same job.

Layer support in background maps

Layers in background DXF or SHP files can now be switched on and off.

Improvements to measure codes

- You can now activate a **Code** button, which enables you to combine codes from two or more buttons, or codes manually keyed in.
- Attributes for codes with strings are now supported from *Measure codes*.
- Attribute values for the current code appear at the bottom of the *Measure codes* screen.
- Left to right, right to left, and zig zag template pickup is now supported in *Measure codes*.
- You can now configure *Measure codes* to measure automatically, or to wait for you to initiate the measurement.
- You can now use A – Z to switch between group pages 1 – 26 in *Measure codes*.
- Groups are now saved in a *.mcd file that you can copy between controllers.

For more information, refer to the Trimble Survey Controller Help.

Configurable staked deltas

You can now create XSLT style sheets in the office and then use them in the field to reconfigure how the *View before storage* screen displays point, line, arc, DTM, and road stakeout details.

The development of the XSLT style sheets is an advanced procedure recommended for users with programming experience. For more information, please refer to the *Trimble Survey Controller software CD*.

New custom stakeout reports for Roads now include the following information:

- catch point delta report including the horizontal construction offset
- delta horizontal difference and delta vertical difference for each cross section element
- slope value of the cross section elements

Note – Although you can now configure staked deltas, their default values are the same in version 11.20 as in earlier versions of the software.

Trimble Roads – Key in improvements

You can now key in a horizontal alignment for a Trimble road by azimuth and distance, end station, end coordinates, or by selecting a point that defines the end coordinates.

GENIO Roads – Geometry strings now used to create master strings

Applications that create GENIO files with 12D geometry strings instead of 6D master strings can now be used.

Stakeout lines between two points

You can now stake out a line between two points without needing to create a line in the Trimble Survey Controller software.

Trimble S Series GPS search

You can use streamed NMEA data from a GPS receiver to turn a Trimble S Series or 5600 instrument to the target.

Trimble S Series search

The Trimble S Series instrument now has improved search performance at longer range.

GDM data streaming from the Trimble S Series COM port, and coordinate output

You can now stream data from the COM port on the Trimble S Series instrument.

Data streaming now supports the following record types; 7 (HA), 8 (VA), 9 (SD), 37 (Northing), 38 (Easting), 39 (Elevation), and 51 (Date), 52 (Time).

Trimble S Series Tracklight indicates status

You can now configure the Tracklight® on a Trimble S Series instrument to flash quickly, when the target is locked, or slowly, if there is no target.

Trimble S Series automatic pressure setting

You can now configure the Trimble Survey Controller software to obtain pressure information from the Trimble S Series instruments.

Auto-connect configuration

You can now configure the following types of instruments for the Trimble Survey Controller software to automatically connect to:

- Trimble GPS receivers
- Trimble S Series total stations
- Trimble 5600/3600 total stations

To speed up connection times, only configure the connection types that you use.

Automatically setting alpha and numeric state for fields within the Trimble Survey Controller software

The Trimble Survey Controller software now checks fields in the software to see if the field contains an alpha or numeric character and then sets the alpha or numeric state to match the existing data.

Support for the Next function on the TSC2 controller

You can now configure the Left or Right App buttons on the TSC2 controller to perform the Next function. This was available on the TSC1 controller, and is currently available using CTRL TAB on other controllers.

Computing azimuths using point names within azimuth fields

To compute the azimuth between the two points, you can now enter two point names separated by a hyphen ("-") into azimuth fields.

GPRS cards are now supported in the TSC2 controller

You can now use a GPRS CompactFlash card in a TSC2 controller that is running the Trimble Survey Controller software.

Auto-measure configuration from the map

You can now configure the map to measure as soon as you select Measure, or to wait for you to initiate the measurement from the Measure topo/Measure point form.

Prompt for attributes now available in GPS surveys

You can now configure the system to disable the prompt for attributes in a GPS survey.

Improved As–staked point code defaults

You can now configure the As–staked point to default to either Design name, Design code, Last code used, or Design station and offset.

Attributes copied with transformed points

After a transformation, the attributes are now copied to the new points.

Coordinate system updates

New coordinate systems for Sweden have been added.

Other Information

Connecting a TSCe controller to a Trimble S Series total station

To connect a TSCe controller to a Trimble S Series total station, use the 26–pin–to–Hirose cable that is provided.

To communicate with Trimble S Series total stations, the controller requires the Trimble S Series communication plug–in. When you upgrade the controller, make sure that you install this plug–in from the *Trimble Survey Controller Software CD*.

If you try to connect the controller to a Trimble S Series total station soon after you have made a connection between the controller and an office computer using Microsoft ActiveSync technology, the connection from the controller to the total station may fail. To avoid this problem, either cancel the ActiveSync connection before you remove the cable, or perform a soft reset on the controller.

Connecting a Trimble CU controller to the Office Computer

The Trimble CU controller communicates through the docking station to the office computer using USB. The docking station must be connected to the office computer through the USB–to–Hirose cable.

You cannot connect the Hirose–to–7–pin lemo cable to a 7–pin lemo–to–DB9 cable (supplied with GPS systems) and use this to connect the docking station to the serial port on the office computer.

Memory requirements

When you open a Trimble Survey Controller job, the entire job is loaded into memory, which results in a more robust job and faster software operations. As the job becomes larger, memory requirements increase. In addition, improvements to the operating system and the software mean that Trimble Survey Controller software version 11.1 or later needs more memory than earlier versions.

The Trimble Survey Controller software version 11.1 or later does not fit on a 32Mb TSCe controller. A TSCe controller with a serial number below 25400 is a 32Mb controller.

Microsoft ActiveSync issues

To install the Trimble Survey Controller software and to transfer data files, you must connect the controller to the computer using Microsoft ActiveSync technology version 3.8. ActiveSync is included on the *Trimble Survey Controller Software CD*.

Microsoft Explorer and the Trimble Data Transfer utility may sometimes fail to find the folders and display files on the controller. This can occur if another Microsoft Explorer window had been left browsing to the controller from a previous connection, or if the controller had been reset and a new connection made. To avoid this problem, make sure that you close all Microsoft Explorer windows before you disconnect the controller.

Documentation

Trimble Survey Controller Help is "context-sensitive." To access the Help:

- On a Trimble CU, ACU, or TSCe controller, tap [?] at the top of the screen.
- On a TSC2 controller, tap [Start / Help] on the touch screen, or press [Fn + Space] on the keyboard.

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

The help is also provided on the *Trimble Survey Controller Software CD* as a single file in Adobe Portable Document Format (PDF). View this file on an office computer. You can use it to search for a particular topic or to print pages from the help.