

Trimble Survey Controller™

Release Notes

Version 11.21
Revision A
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Release Notes

Corporate Office

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Release Notice

This is the February 2006 release (Revision A) of the *Trimble Survey Controller Release Notes*. It applies to version 11.21 of the Trimble Survey Controller software.

Product Information

This section contains information about the Trimble Survey Controller software version 11.21 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 11.21 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 11.21, your controller must be running a Microsoft Windows operating system the same as or later than that shown below.

Controller	Microsoft Windows operating system	Firmware Version	First released with Trimble Survey Controller software version
Trimble CU	Microsoft Windows CE .NET Version 4.2	4.2.3.44	11.20
Trimble ACU	Microsoft Windows CE .NET Version 4.0	4.0.12	11.02
Trimble TSCe	Microsoft Windows CE .NET Version 4.0	4.0.12	11.02
Trimble TSC2	Microsoft Windows Mobile® Version 5.0 Software for Pocket PC	5.0.2	11.21

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® technology version 4.1 from the *Trimble Survey Controller Software CD*.

Note – ActiveSync technology version 4.1 does not support **network** (Ethernet) connections. If you have an ACU or TSCe controller and you use a **network** (Ethernet) connection for file transfer, use ActiveSync technology version 3.8.

3. Select *Trimble Survey Controller Installation* and then select *Install Survey Controller Software*.

The *Install Survey Controller Software* option checks the 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*.

The latest operating system for the TSC2 controller is available from the Trimble website (www.trimble.com).

Note – As you install the software, make sure that you select the option to download the contents of the Trimble Data folder. This safeguards the data in the folder. Unlike some earlier versions, the Trimble Survey Controller version 11.21 software installation does not back up the Trimble Data folder to Trimble Data V10.

Once you accept this step, the contents of the Trimble Data folder are removed, regardless of whether

or not you accept the option to download the contents.

When you upgrade the operating system on the TSC2 controller, follow the installation instructions on the web to ensure that you make a backup of the files in the \Trimble Data folder.

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 11.21.

To determine compatibility, the software inspects the files before transferring them to the controller. Trimble Survey Controller software version 10.70 and later 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, .tmm, .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 11.21 with other Trimble products

Trimble Survey Controller software version 11.21 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	1.20
Trimble Total Control	2.73
Terramodel®	10.13

Trimble Receiver	Version
Trimble R8 Model 2	3.10
Trimble R8	2.27
Trimble R7	2.27
5800	2.27
5700	2.27
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 or later.

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 11.21 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 does 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 11.21 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 *****

Trimble R8 Model 2 and GLONASS support

The Trimble Survey Controller software now supports the Trimble R8 Model 2 receiver with firmware version 3.10, which supports GLONASS satellites.

RTCM 3.0 Net support

The Trimble Survey Controller software now supports network RTK surveys using the RTCM v3.0 Network format.

Trimble PDL450 and Trimble HPB450 radio support

The Trimble Survey Controller software now supports the Trimble PDL450 and Trimble HPB450 radios.

Trimble S6 High Precision EDM

The Trimble Survey Controller software now supports the Trimble S6 High Precision EDM instrument.

Trimble S Series prism type support

You can now select the Trimble S Series prism types, and automatically set the prism constants. In addition, when using the Trimble 360 prism, a vertical angle correction is applied to correct for observations on steep angles.

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

Suspend TSC2 now suspends the Trimble S Series instrument

When you suspend the TSC2 controller, the Trimble S Series instrument is now also suspended.

Cut/Fill display in the map with DTM stakeout

The map now displays the updated cut or fill when staking a DTM.

Microsoft Windows Mobile 5.0 software and ActiveSync technology version 4.1

There are a number of changes to the operating system on the TSC2 controller that may affect the use of the Trimble Survey Controller software:

- The Windows Mobile 5.0 software requires ActiveSync technology version 4.1.
- Windows Mobile 5.0 software and ActiveSync technology version 4.1 now support Bluetooth wireless connections and file transfer.
File transfer using ActiveSync technology version 4.1 over WiFi (802.11b), network (Ethernet), and a serial connection is no longer supported.
If you do not have a TSC2 controller and you want to use one of these transfer mechanisms, continue to use ActiveSync technology version 3.8.
- File system changes; persistent storage NAND flash memory, no RAM file system, no Sprite backup, and no "\Built-In Storage".
- To use the new controller reset model, hold down the power button. This is similar to the previous soft reset.
To reset the controller back to the factory default settings – reset the controller and when the controller beeps press Fn F and D all together.
The screen may go blank for a second when resetting the controller, this is normal.
- The Windows Mobile 5.0 software automatically determines the best connection to use when you run an application such as Internet Explorer or the built-in e-mail client.

To start a specific connection, tap *Start / Settings / Connections* and then tap the *Connection* icon. Tap the *Manage existing connections* option, tap and hold on the modem name and then select *Connect* from the drop down list.

- You cannot now use an internet connection that was started within the Trimble Survey Controller software (for example, in a GPRS survey) to surf the web while surveying.
- The Motorola V710 phone from Verizon cannot pair with the Windows Mobile 5.0 software.

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 technology 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 4.1.

ActiveSync technology is included on the *Trimble Survey Controller Software CD*.

If your TSC2 controller is running the Windows Mobile 5.0 software, you must have ActiveSync technology

version 4.1.

Windows Mobile 5.0 software and ActiveSync technology version 4.1 now support Bluetooth wireless connections and file transfer.

File transfer using ActiveSync technology version 4.1 over WiFi (802.11b), network (Ethernet), and a serial connection is no longer supported.

If you do not have a TSC2 controller and you want to use one of these transfer mechanisms, continue to use ActiveSync technology version 3.8.

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.