RELEASE NOTES

TRIMBLE SURVEY
GNSS FIRMWARE

Trimble Survey GNSS Firmware Version 4.80 (April 2013)

Requirements

This firmware version includes improvements to the Survey Receiver firmware. It is considered a minor revision. This requires a valid firmware support agreement of:

- April 2013 or later for all support models

NOTE: For best results, users should upgrade to Trimble Access 2013.10 when using Receiver Firmware version 4.80.

Supported GNSS Receivers

The following table identifies the Survey GNSS receivers supported by this revision.

	Receiver	Support
Integrated	Trimble R10	●
	Trimble R8 Model 4	●
	Trimble R8 Model 3	●
	Trimble R8 Model 2	-
	Trimble R8 Model 1	-
	Trimble R6 Model 4	●
	Trimble R6 Model 3	●
	Trimble R6 Model 2	-
	Trimble R6 Model 1	-
	Trimble R4 Model 3	●
	Trimble R4 Model 2	●
	Trimble R4 Model 1	-
	Trimble 5800 Model 1	-

	Receiver	Support
Modular	Trimble R7 Model 2	●
	Trimble R7 Model 1	-
	Trimble R5	●
	Trimble 5700 Model 2	●
	Trimble 5700 Model 1	-

	Receiver	Support
Handheld	Trimble GeoXR	-
	Trimble R3	-

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Version 4.80 Release Notes

The release notes describe the added features and improvements made to Trimble Survey GNSS receiver firmware.

Issue	Type	R10	R8[1]	R7[2]	R6[3]	R5	R4[4]
✓ Full support for the BeiDou Satellite Constellation[5] • BeiDou B1 and B2 signals	Feature	●	●[5]		●[5]		●[5]
✓ Added bandwidth limiting to CMR/RTCM 3.x output with using a NTRIP Server or NTRIP Caster Bandwidth limiting of the CMR/RTCM 3.x output on a NTRIP Server or Caster may be necessary when re-transmitting the messages using a local radio transmitter. The messages will need limiting when a large number of SVs are visible.	Feature	●	●	●			
✓ Added GNSS Planning Service to the Web Services page on the WebUI. The Planning Service provides the following functionality: • Satellites – Map View • Sky Plot • Satellite Availability • Number of Satellites • DOP • Elevation • Ionospheric Map The Planning Service is a Web base application and requires access to the Internet & the installation and use of Microsoft Silverlight™. The Service does not support iOS, Linux or Android operating systems.	Feature	●	●	●			
✓ Added ability to set receiver to default settings when installing a clone file (Application Files menu) When using the *Install Clone File* or *Upload & Install Clone File* in the Receiver Configuration>Application Files menu, the user is now presented with a check box to "Set system to default before installing the clone file".	Feature	●	●	●			
✓ Added link to **IBSS Service Status** on I/O Configuration page (IBSS/NTRIP Server or IBSS/NTRIP Client) After checking the *IBSS Mode* check box on the I/O Configuration page of an IBSS Server or IBSS Client, you are presented with a hyperlink **IBSS Service Status**, which links you directly to the TCC and IBSS status page and announcements.	Feature	●	●	●			

✓ Improved xFill functionality Improved performance of xFill when the RTK base position is not accurate in terms of WGS84. You are no longer required to have a base position within 1 meter of WGS84 (ITRF08). The latest update to xFill requires a "warm up" period prior to use. After starting a survey in Trimble Access, you should maintain RTK Surveying (initialization) from your Base Station radio or VRS connection for a few minutes prior to moving into an area of possible loss of connection with the your correction source. After a few minutes of xFill "warm up", xFill will work in the same way as previous releases. After xFill is "warmed up", you are only required perform an xFill warm up after re-starting a survey, either later in the day or the next day. **NOTE:** For best results, users should upgrade to Trimble Access 2013.10 when using Receiver Firmware version 4.80. See Trimble Access 2013.10 release notes.	Update	●					
✓ Improved Ionosphere modeling	Update	●	●	●	●	●	●
✓ Updated WebUI Access Point Name (APN) Database for Cell Modem Users	Update	●	●	●			
✓ Updated Antenna.ini to include latest Geo++ models.	Update	●	●	●	●	●	●
✓ Updated OmniSTAR Contract information on the OmniSTAR>Subscription WebUI page.	Update	●	●	●			
✓ Removed the *Update* button from the GSM/GPRS Modem WebUI Summary page. The GSM/GPRS Modem status is now updated every second, removing the need for the status update button.	Fix	●	●				
✓ FTP Push now allows up to 30 characters for FTP Logins and increased security of FTP Server functionality to prevent server bounce attack.	Fix	●	●	●			
✓ Cleaned up Wi-Fi>Client WebUI page to ensure all entered SSIDs and Encryption Keys are saved prior to connecting or leaving the page.	Fix	●					

1 R8 Model 4, R8 Model 3

2 R7 Model 2

3 R6 Model 4, R6 Model 3

4 R4 Model 3, R4 Model 2

5 BeiDou support is available in the **R8 Model 4, R6 Model 4 and R4 Model 3 only**. BeiDou support is standard in the R8 Model 4 receiver. A BeiDou upgrade is required for BeiDou support in the R6 Model 4 and R4 Model 3 receivers. See your Sales Representative for more information about BeiDou upgrades for the R6 Model 4 and R4 Model 3. The R8 Model 3, R6 Model 3 and R4 Model 2 are **not upgradeable** to BeiDou support.

Before you update the receiver, download and backup any data files that are on the receiver.

Download information

The latest version of Trimble Survey GNSS Firmware can be downloaded from the Trimble website within the support page of each supported receiver.

1. Go to www.trimble.com

2. Click on the *Support & Training* link in the blue banner at the top of the page.

3. Click on *Support A-Z List* on the drop-down menu.

4. Find your receiver on the list of supported products.

   Hint: Click on the associated first character of your receiver type. All survey receivers full under "T" for "Trimble XX Receiver".

5. Click on the link for your receiver type.

6. Click on the *Downloads* link.

7. The latest firmware version should be located at the top of the page.

8. Click on the link to the latest version, in this case *version 4.71*.

9. Your browser will begin downloading the latest Winflash utility installer that contains your firmware.

10. At this point you can save the Winflash installer to a local folder or click on *Run (Open)* to begin installing the utility.

   Note: You may need to accept some security warnings based on your computer configuration.

Installing Winflash utility

At this point you will continue from the last step above or if you have saved the downloaded Winflash utility, you must navigate to the folder that contains the file and click on *WFC-Rx-5x-v464v471.exe*.

1. The Winflash installer will start. Click on the *Next* button.

2. Read the License Agreement and click on *Yes* to accept the terms.

3. At this point the Winflash installer will try to detect any previous versions of Winflash on your system

   a. If the Winflash installer detected a previous version of Winflash on your computer, it will display the current Winflash folder in use. Click on *Next*.

   b. If the Winflash installer does not detect a previous version of Winflash on your computer, it will ask you to accept the default folder for Winflash. If you do not want to use the default location then:

      i. Click on the *Browse...* button and navigate to the desired folder location you would like to use.

      ii. Click *Ok* to accept the new location.

      iii. Click on *Next* to continue.

      iv. Select the Program Folder location for the program icon, and then click on *Next*.

4. Winflash installer will now install all required files to run the Winflash utility.

5. The Winflash installer will now ask if you want to register Winflash. You have three options:

   a. ***Register via the Internet (web access required)***

   b. ***Register by Fax or Mail.*** Selecting this option will open a document. Complete the document and fax or mail to Trimble.

   c. ***Register Later.***

6. The Winflash installation is now complete.

Loading new Firmware

Use the Winflash utility to install the latest firmware on your Trimble GNSS receiver.

1. Click on the *Winflash* icon added to the Start menu on your computer.

2. Click on the *Device type* (receiver group) for your receiver type.

3. Click on the *PC serial port* drop down menu to select the serial port your receiver is connected to.

4. Click on the *Next* button.

5. From the *Operations* list box, click on the *Load GPS software* operation.

6. Click on the *Next* button.

7. Click on the *Available Software* for you receiver and the firmware you just downloaded. If you have installed firmware before, the firmware versions are still available in the listing.

8. Click on the *Next* button.

9. The next screen shows the current settings and actions to be taken by the Winflash utility.

10. Click on the *Finish* button.

11. Winflash will now load the latest firmware onto your receiver. This procedure can take several minutes. If the firmware loads correctly, then click on the *Exit* button.

Loading the USB Driver

This version of Winflash now includes the USB driver necessary to connect the Trimble R10 and Trimble R7/R5 Survey receiver with USB to your computer. Your PC will assign a COM port as your USB connection.

Once you have installed Winflash, the USB Driver installer is found in the *Program Files\Common Files\Trimble\USB Driver*[1] folder. Follow the steps below to install the USB Driver.

1. Using Windows Explorer (or equivalent), navigate to the *Program Files\Common Files\Trimble\USB Driver*[1] folder on your computer.

2. Double click on the *Win7_USB_Installer.exe* file in the folder. A *Device Driver Installation Wizard* dialog box will open. **Note:** If you are running Windows 7 64-bit, you will see a second dialog box, which automatically loads the 64-bit USB driver.

3. Click on the *Next* button if the installation wizard to continue.

4. The USB Driver will install and present you will and dialog showing the USB drivers that were installed. Click the *Finish* button.

5. The USB Driver is now installed. **Note:** The Windows 7 64-bit USB driver will complete its installation.

6. Plug the USB cable into the USB port of the R7 or R5, and then plug the other end into your computer. Your computer will find the device and assign a COM Port for the USB connection. A message is displayed in the Taskbar indicating which COM port the USB is assigned to.

[1]**For Windows 7 users, the** *USB Driver* **folder is located in** *Program Files (x86)\Common Files\Trimble\USB Driver*