Release Notes

TRIMBLE SITEWORKS SOFTWARE VERSION 1.11
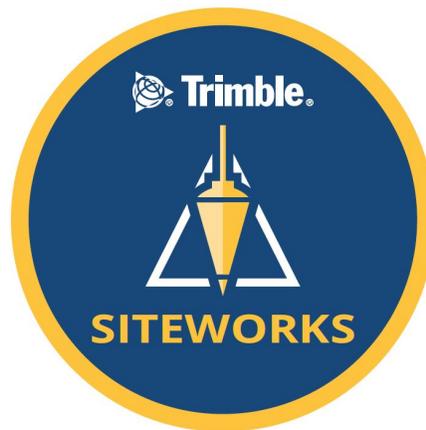
This document contains late-breaking product information, updates, and troubleshooting tips not covered in the Trimble® Siteworks Software documentation.

- ■ Introduction
- ■ New features and functions
- ■ General improvements

- ■ Known Issues
- ■ Firmware and operating system compatibility
- ■ Legal notices

Introduction

The Trimble Civil Engineering and Construction division is pleased to announce that Version 1.11 of Trimble Siteworks Software is now available. This version is available, at no charge, to all users under an active protection plan with an active date of September 30, 2019 or later. It is a purchasable upgrade for all users without an active software protection plan. Licenses from controllers that have an active protection plan are able to be transferred

http://sitech.business.trimble.com

onto new controllers. The software and its modules can be loaded through Trimble Installation Manager (TIM), which can be downloaded from http://www.trimble.com/installationmanager/.

Siteworks version 1.11 is available for operation on the following Trimble site controllers running Windows 10:

- Trimble TSC7 Controller
- Trimble T7 Tablet
- Trimble Site Tablet 10
- Trimble T10 Tablet

Siteworks Mobile v1.11 for Android™ has also been tested and confirmed to work on the following Android Tablets running Android 8.0 (Oreo) or above:

- Samsung Galaxy Tab S3
- Samsung Galaxy Tab S4

Trimble Siteworks Installation

For compatible devices, TIM needs to be installed and run directly on the device and the device connected to the internet. The License Manager checks which software options were purchased for the specific controller with this serial number and checks for the latest version of the software that is available. Siteworks is not supported on TSC3, Site Tablet or Site Mobile devices. Select the Siteworks Icon in TIM to install the latest available version.

This release is available in the following languages:

- English - UK English
- English - US English
- Chinese (Simplified)
- Danish
- Dutch
- Finnish
- French
- German
- Italian
- Japanese
- Norwegian
- Polish
- Portuguese
- Russian
- Spanish
- Swedish

Many of the improvements described here were requested by field users. Trimble appreciates this type of feedback and continually improves and evolves the product to meet the needs of contractors in the construction industry. If you have any feature enhancement requests, please submit them to Construction_Support@Trimble.com with a subject line of "Siteworks Enhancement Request".

The Siteworks User Guide is available for further information on the Siteworks webpage at: www.construction.trimble.com/Siteworks under *Technical Information > Siteworks Software Documentation*.

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New Features and Functions

Support for Background Images in the Plan View - Windows Only

Version 1.11 includes support for georeferenced raster background images in BMP, JPG, GIF, PNG, and TIFF formats. This feature is currently available only on Windows platforms. The image requires an associated "World File" for the image to be loaded in the correct location in Siteworks. World Files are created in other software, e.g. via the *Image Capture* command in the *CAD > Images* menu of Trimble Business Center.   World Files are standardized sidecar text files that contain pixel scale, rotation and georeferencing information about an associated raster file (see: http://wikipedia.org/wiki/World_file). The World File must have the same filename as the raster image file with the proper associated filetype suffix and be in the same coordinate system and units as the Project for the image to be georeferenced correctly. The filetype suffix of a World File consists of the first and last letters of the raster file suffix plus the letter "W". For example: JPG -> JGW; TIF -> TFW; PNG -> PGW; BMP -> BPW; GIF -> GFW

Background Image files are loaded via *Map Options* where there is a new *Images* tab. Upon pressing the "**+**" icon to add an image, navigating to it and then selecting it, the image and associated World File will be copied into a new *Background Images* folder inside of the Project folder in the *Trimble SCS900 Data* folder. When selecting the image file, ensure that the associated and properly named World File is in the same folder as the image. To toggle the background map off and on, use the checkbox in the *Images* tab of the Map Options. The transparency of the image can be set via the *Image Transparency* pulldown. Note that the *Background Images* folder is not currently copied during a TCC sync, nor is that folder created via existing Trimble Business Center workflows.

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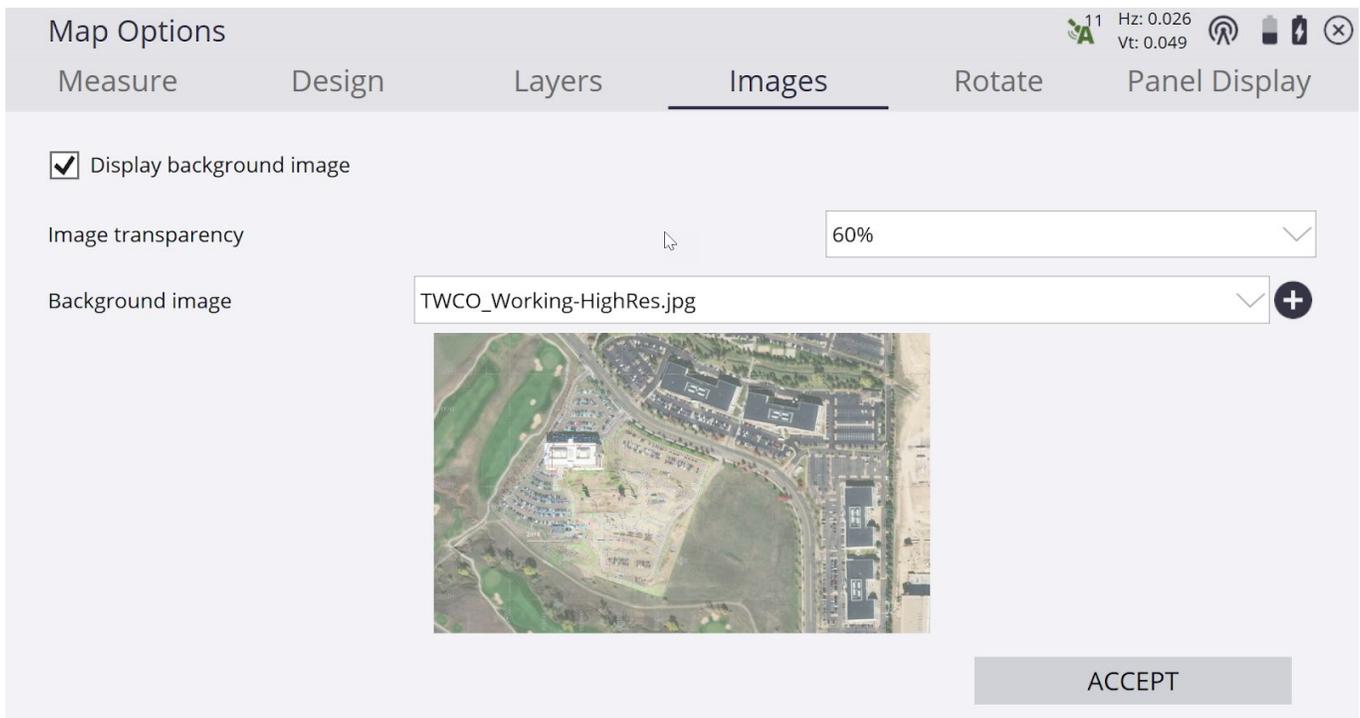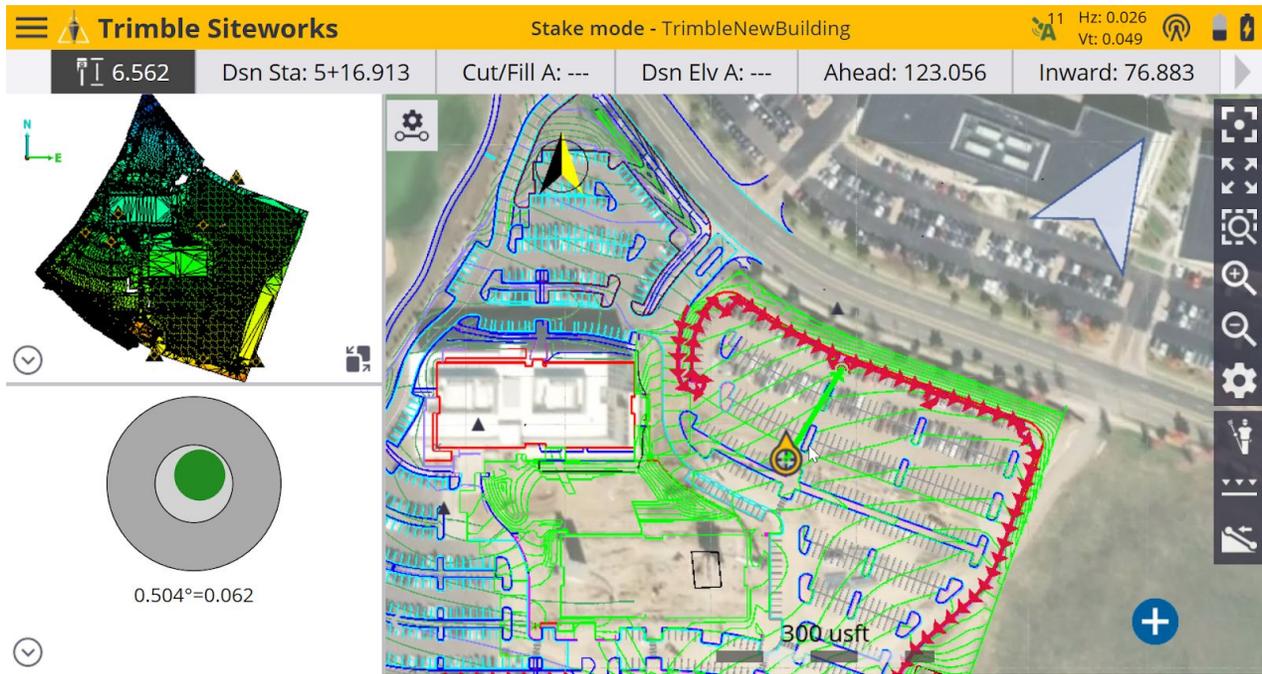
New Current Location Icons in Plan View

The icon that shows a user's location in plan view has been updated. When a receiver with Tilt Compensation is aligned the receiver bearing is now shown on the location icon. The arrowhead points to the direction that the receiver is facing. When a device that does not have tilt compensation functionality is used the icon is new but does not show the direction the device is facing. **Note:** the site orientation is based on having the receiver's faceplate (power button and LED panel) facing the operator while on the survey pole.


New position icon when Tilt is
enabled and receiver aligned

New position icon for all
other modes

2D Plan View Map Rotation can be set to Site Bearing for the SPS986 Receiver with Tilt Compensation

The plan view rotation can now be set to Site Bearing when using a SPS986 receiver with Tilt Compensation enabled. This now means the 2D Plan map will be rotated to match whatever way the receiver is facing when Tilt Compensation is enabled and the receiver is aligned. A black and yellow north arrow will appear, pointing to site north when this feature is active. For those times when the receiver is not aligned or loses alignment the screen will be in a "North" (Static) Up orientation.   This functionality is accessed by selecting the *Receiver Bearing* in the *Rotate* tab of the *Map Options* screen, as shown below.

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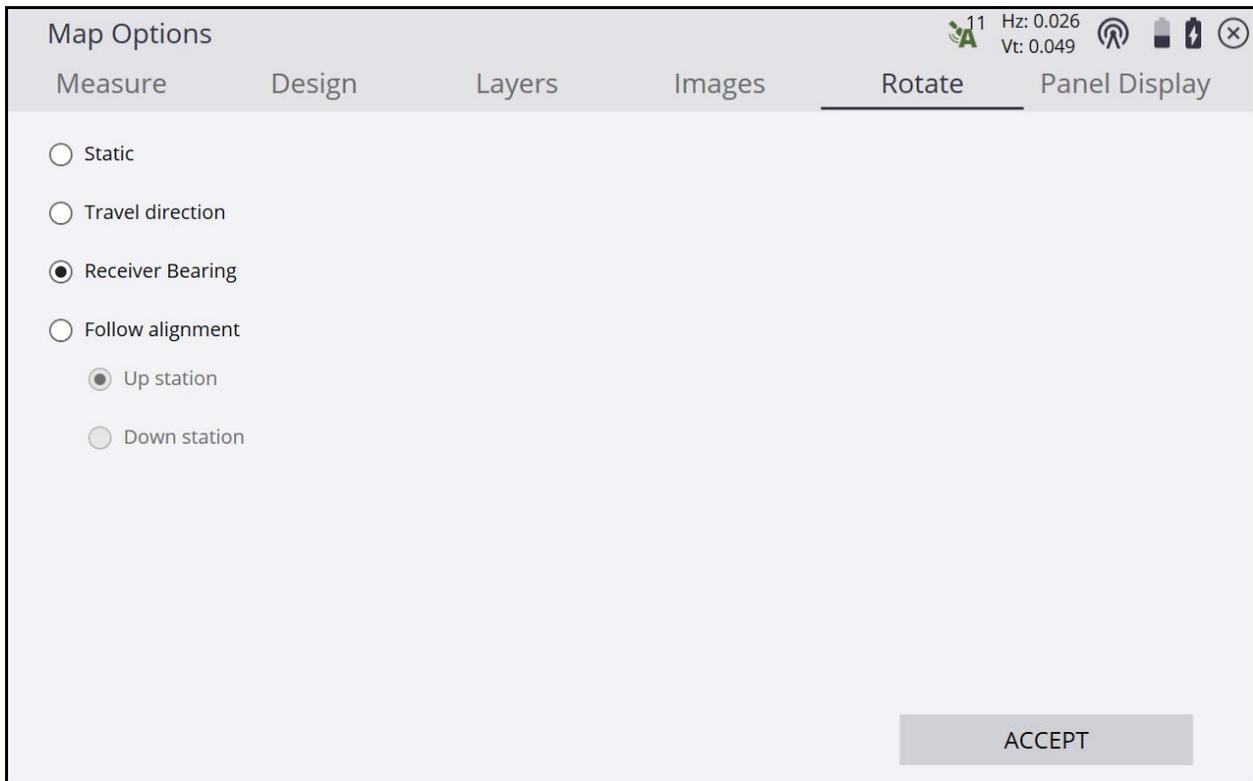
Staking Enhancements for the SPS986 Receiver with Tilt Compensation

A new stake guidance mode utilizing the Receiver Bearing is available where the fine guidance bullseye and the direction arrow are oriented relative to the SPS986's site bearing when Tile Compensation is active and the receiver is aligned. This will update the distances to the point being staked in the fine guidance bullseye depending on where the receiver is pointing on the site. Now it is possible to simply rotate the survey pole so that the direction arrow directly faces the point to be staked. Once within two meters of the point and the fine guidance bullesye appears, rotate the receiver so that the left and right distances are minimized towards zero. Then the user can then simply move forwards or backwards towards the point being staked. It is anticipated that using this new method will result in significant productivity gains when precisely staking points.
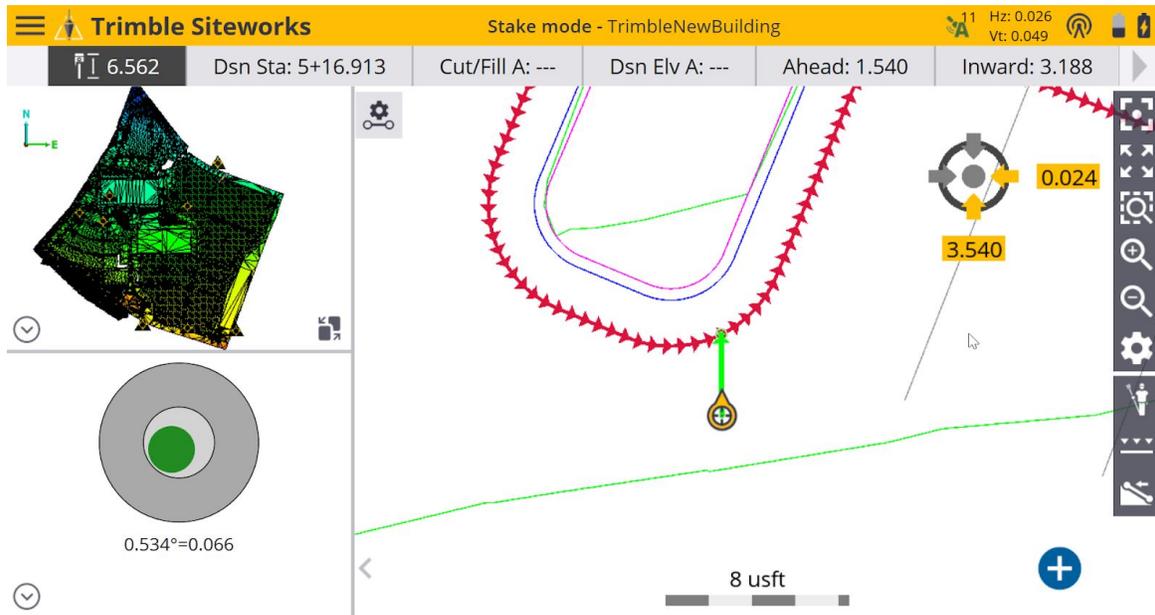
This new staking orientation is turned on under the *Design* tab of the *Map Options* menu by selecting *Receiver Bearing*:
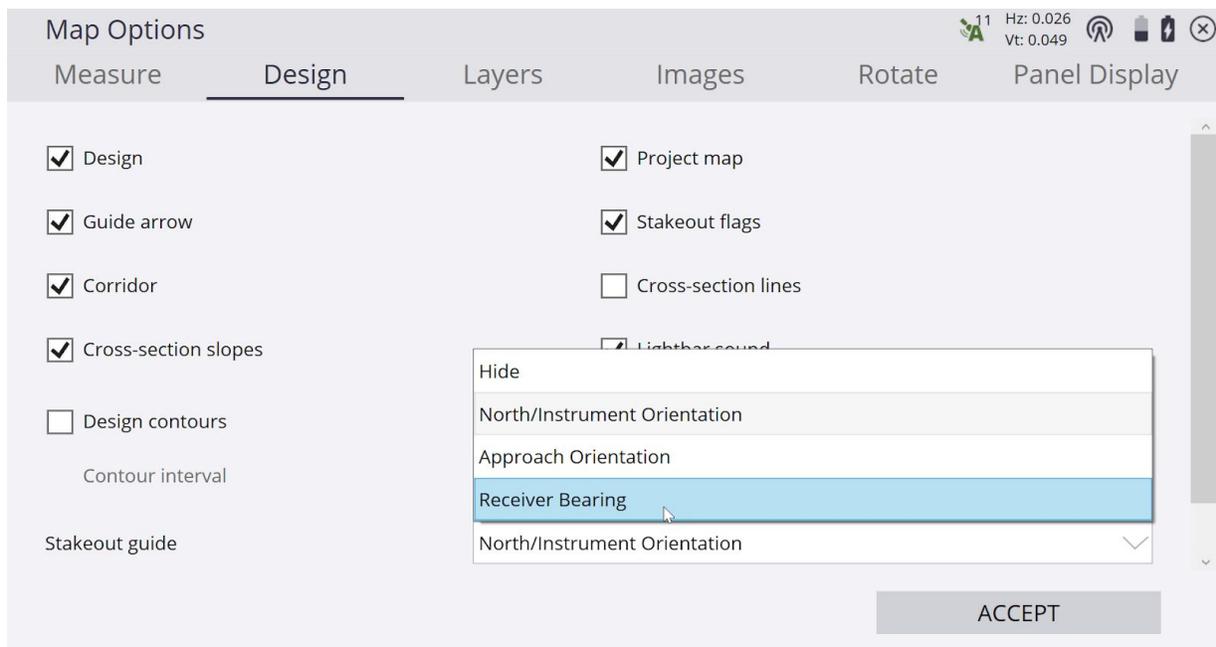

Total Station Settings and Scale Factor Shown during UTS Setup

A new "Display scale factor option at connection" option accessed via the *Ctrl+O* (letter "oh") menu is available to bring up the UTS settings screen during the initial connection and setup of a Total Station on a Project. When this

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option is checked in the Ctrl+O menu the user will be presented with the existing Total Station "Corrections" screen, allowing the selection of the mean sea level correction and a computed or manual scale factor. Note that once these values are set for the Project, as was the case in prior versions of Siteworks and SCS900, the values cannot be changed. Also, after making these settings the first time, the user will not be shown the screen again. Values can be reviewed in the Task Log accessible via the Menu > Data Management > Log. Please see the latest Siteworks User Guide for more information on how scale factors are calculated and used within Siteworks.
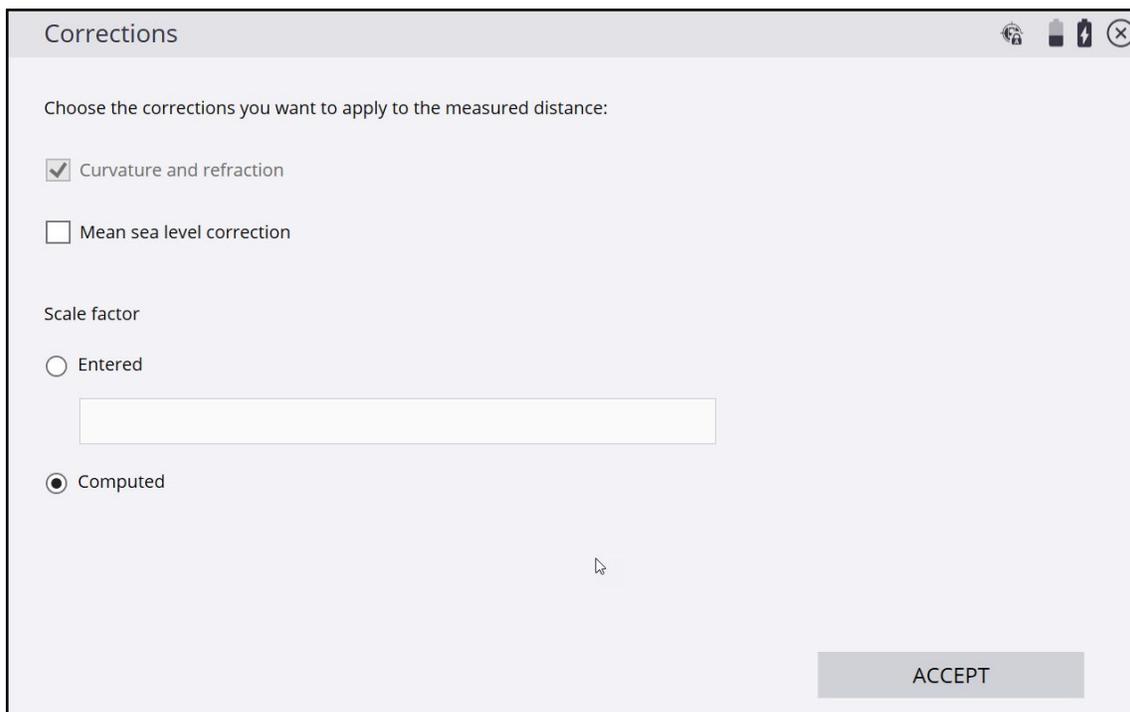
Object Layer names displayed in Stakeout Object Selection Screen

Now when selecting an object from the Stakeout "Select Object" screen, (accessed via the Menu > Stake command) the object's layer is displayed. When clicking in area with multiple objects within the pick radius, their layers will appear in the table of the objects. Layer display is not available for the "Quick stake" command when selecting objects via tap-and-hold on the main map screen, only through the Menu > Stake command.
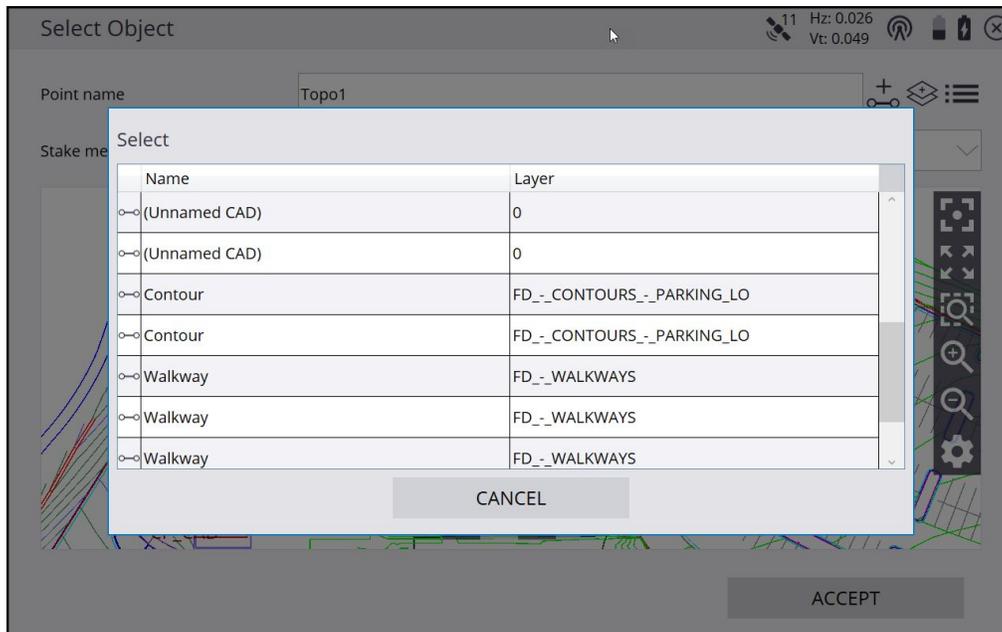
Additional 450MHz Radio Modes for SPS785

When connecting to a SPS785 it is now possible to configure receivers equipped with the optional 450MHz radio to transmit and receive all radio modes compatible with the radio module. The additional radio modes have been added to the radio mode pulldown menu in the receiver setup screen.

SPS785 Now Supports RTX Corrections

It is now possible to select RTX as a correction method for SPS785 Receivers during receiver setup. More information is available at: https://positioningservices.trimble.com/industries/construction/centerpoint-rtx/
Please contact your Sitech dealer for more information on RTX and how to obtain a subscription or a demo.

Support for the MPS865 GNSS Marine Receiver

Siteworks v1.11 adds the ability to configure and connect to a MPS865 GNSS Receiver. Once connected, the receiver will operate as any other Trimble GNSS in Siteworks. It can set the MPS865 up in both Base and Rover mode (if appropriate codes have been purchased and installed on receiver). When in rover mode it can be mounted on an ATV, vehicle or with the MPS865 in your backpack using a light weight range pole with GNSS antenna. The system can also be integrated with the SonarMite echosounder for small scale bathymetric surveys (as with all other SPS receivers). Siteworks does not currently support configuring the MPS865 as a Base for corrections using External Radio, Wi-Fi, or IBSS. These can be configured using the Web User Interface for the receiver if required.

Note that the MPS865 does not support eBubble or tilt compensation. Nor does Siteworks support dual GNSS antenna mode for the MPS865. The dual antenna feature can be utilized with Trimble Marine Construction software (TMC) and configured through the MPS865 receiver Web User Interface.

Utility Locator Support back in version 1.11 and now available on Android version of Siteworks

Version 1.11 of Siteworks now supports Utility Locator connections on both Windows and Android. It was temporarily removed in version 1.10 while updates were worked on. Please see the user guide for more information on supported devices. This update also enhances the Bluetooth connection method to the RD8100 and no longer requires the Bluetooth pairing to be made in the Operating System first. Utility Locator support is enabled through the Ctrl+O (letter "oh") menu.

General Improvements

- Siteworks v1.11 can now connect to Trimble R10-2 and R2 GNSS Receivers. These receivers have not been tested by Trimble CEC QA and, as with any non-supported receiver, may have unsupported features which could cause issues. Please see the firmware table below for supported receivers.
- Siteworks now displays codes in an FXL file (feature code library) with more than 5 characters in the plan view.
- When a base setup is completed in Siteworks the base elevation mask now defaults to 10 degrees instead of 7.
- When vehicle mode is used with Tilt Compensation enabled a user can now view and record the same values as in standing mode (Pitch, Roll, Site Bearing).
- A total station calibration can now be completed when a controller is connected to the total station via 2.4Ghz radio link. Previously it was only possible to calibrate a total station via a Bluetooth or Cable connection.
- A crash was fixed that occured after taking multiple high resolution photos as attributes when using a Feature Code Library.
- A bug was fixed for a certain limited number of coordinate systems that use a Shift Grid file (SGF) that produced positional errors.
- Translation updates including Danish and Italian.
- Various Coordinate System enhancements, including a Coordinate System Database update to v87.

Known Issues

- Reconnecting to a Total Station via Bluetooth may not work after the first connection is made and then disconnected. Restarting the controller should allow for subsequent connections to be made.
- On Android installations only, the CoordinateSystemDatabase.xml file is not updated to the latest version when upgrading from v1.10 to v1.11 unless the file is first deleted from the *GeoData* folder prior to the upgrade. A clean installation of Siteworks onto an Android device does not have this issue and will install the latest CoordinateSystemDatabase.xml. The file is updated correctly on all Windows systems.

More Information

For more information, contact your Trimble regional account manager.

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Firmware and Operating System Compatibility

Version 1.11 of the Siteworks software supports the following firmware versions in total stations, GNSS receivers, radios, and operating system versions for handheld computers. Please ensure that all equipment that will be used with this version is upgraded to the correct firmware/operating system before use. If a device is not listed in the table Trimble cannot guarantee compatibility or support for that device.

Trimble TSC7, T7 Tablet, Site Tablet 10, T10 Tablet, Samsung S4 & S3 Tablets

	v1.01	v1.01.18203.233	v1.02	v1.03	V1.10	V1.10.19201.376	V1.11
Software Protection Plan Expiry Date	JUN 2018	October 2018	DEC 2018	APR 2019	June 2019	July 2019	October 2019
SNPCOM Server	R5.0.31.46	R5.0.31.46	R5.0.31.46	R5.0.31.46	R5.0.31.46	R5.0.31.46	R5.0.31.46
Controller OS	Win10 Pro v1703; v1803 recommended	Win10 Pro v1803 Build 17134.286 recommended	Win10 Pro v1803 Build 17134.286 recommended	Win10 Pro v1803 Build 17134.286 recommended	Win10 Pro v1903 Build 18362.116 recommended Android v8.0	Win10 Pro v1903 Build 18362.116 recommended Android v8.0	Win10 Pro v1903 Build 18362.116 recommended Android v8.0
SPS855	v5.34	v5.34	v5.34	v5.37	v5.41	v5.41	v5.43
SPS882	v5.32	v5.32	v5.32	v5.32	v5.32	v5.32	v5.32
SPS986	v5.32	v5.37	v6.00	v6.00	v6.01	v6.02	v6.03
SPS785	-	-	v3.36	v3.81	v3.81	v3.81	v3.83
SPS985	v5.32	v5.37	v5.37	v5.37	v5.41	v5.41	v5.43
SPS985L	v5.32	v5.37	v5.37	v5.37	v5.41	v5.41	v5.43
SPS585	v5.32	v5.37	v5.37	v5.37	v5.41	v5.41	v5.43
MPS865	-	-	-	-	-	-	v3.86
SPSx10	C9.2.44	C10.5.200	C10.5.200	C10.5.200	C10.6.10	C10.6.10	C10.6.10
SPSx20	M2.2.33	M3.5.200	M3.5.200	M3.5.200	M3.6.10	M3.6.10	M3.6.10
SPSx30	C9.2.44	C10.5.200	C10.5.200	C10.5.200	C10.6.10	C10.6.10	C10.6.10

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Legal Notices

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Release Notice

This is the October 2019 release of the Siteworks Site Controller Software Release Notes. It applies to Version 1.11 of the Siteworks Site Controller software.

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