



Customer FAQs

TRIMBLE GEOSPATIAL
DECEMBER 2019

TRIMBLE SITEVISION

Getting Started

What is Trimble SiteVision?

Trimble® SiteVision™ is a high accuracy augmented reality system that is ideal for use outdoors. It enables you to interact with your spatial data in the context of the real world. You can visualize and measure positions using GNSS, Electronic Distance Measurement, and Augmented Reality technology as you explore the project site.

The SiteVision system is a lightweight handheld integrated positioning solution that works with the Google® Play Services for AR technology and is comprised of:

- The SiteVision hardware including GNSS, distance measurement and power management
- The SiteVision App running on a user-supplied device powered by the Android™ operating system version 9.0.
- Trimble positioning and correction services (Trimble Catalyst™ GNSS technology)
- Trimble Cloud Services (Trimble Connect)

Overall SiteVision is a productive construction tool, allowing users to plan and visualise the progress on site, complete quality management, and identify issues early reducing costs and time.

What do I need to get started with Trimble SiteVision?

Before you start with Trimble SiteVision you will need:

- The Trimble SiteVision Integrated Positioning System
- A Trimble Identity (TID) to be able to log into the SiteVision App
- A current SiteVision subscription
- A compatible Android Mobile Phone.
- The SiteVision Application downloaded from Google Play
- A model to view



<https://sitevision.trimble.com>

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How do I set up my SiteVision software?

To install the SiteVision app on your Android mobile phone:

- Go to the Google Play Store and search for Trimble SiteVision
- Download and install the software from Google Play Store

Note: You will also be prompted to download and install Google Play services for AR (formerly known as ARCore), Trimble SiteVision Firmware Updater, and Trimble Catalyst Service if not previously installed on your mobile device. These must be installed on your device for SiteVision to function correctly. Trimble recommends that you configure your device to allow automatic updates of these applications.

Do I need any special hardware to use SiteVision?

Yes. In addition to purchasing the Trimble SiteVision Integrated Positioning System, you must have an Android Mobile phone that meets the minimum requirements.

Trimble SiteVision runs on mobile devices, smaller than 8", supporting Google Play Services for AR and Android™ Operating System Version 9.0.

The Trimble tested and recommended devices for SiteVision are:

- Samsung SM-G965 - S9+
- Samsung SM-G975 - S10+
- Samsung SM-N950 - Note8
- Samsung SM-N960 - Note9

Other supported devices for SiteVision are:

- Samsung SM-G955 - S8+
- Google Pixel 2 XL
- Google Pixel 3 XL

Note: Your Trimble SiteVision subscription will not work with other receivers. It will only work with the Trimble SiteVision Integrated Positioning System

What is the Trimble SiteVision Integrated Positioning System?

The Trimble SiteVision Integrated Positioning system is the Trimble handheld device that integrates the Trimble Catalyst DA1 Antenna (high precision GNSS), with Electronic Distance Measurement (EDM) Laser Rangefinder, and power management.

The power management system provides power to the Trimble Catalyst DA1, the EDM, and your Android mobile phone running the SiteVision application.

How do I set up my SiteVision hardware?

Follow the Quick Start Guide in your Trimble SiteVision kit to get started! You can also follow the instructions via our User Guide - Getting Started.

What is Trimble Catalyst?

Trimble Catalyst is a GNSS receiver completely implemented in software (softGNSS receiver). Trimble Catalyst technology is used by SiteVision to obtain high accuracy GNSS positions on your mobile device.

A Trimble SiteVision subscription includes a Trimble Catalyst for SiteVision Subscription, which includes the precision accuracy level for use with the SiteVision application, access to Trimble Corrections Hub, including Trimble VRS Now™ networks and Trimble RTX™ technology globally, and also supports GNSS corrections from other third party sources. To learn more about Trimble Catalyst, go to the Trimble Catalyst [website](#).

Note: Your Trimble SiteVision subscription will only provide services to the SiteVision application. If you want to use other applications with the Trimble SiteVision Integrated Positioning System or with a Trimble Catalyst DA1 antenna standalone, you will require a Catalyst subscription that supports the other applications.

Note: Your Trimble SiteVision subscription will not work with a Trimble Catalyst DA1 antenna standalone. It will only work with the Trimble SiteVision Integrated Positioning System.

What is GNSS?

GNSS stands for "Global Navigation Satellite System", which consists of a network of orbiting satellites, ground control stations, and user receivers that allow you to know your location in the world with the push of a button. GPS is the most commonly referenced GNSS constellation; others include GLONASS, Beidou, and Galileo. Trimble Catalyst currently supports GPS, GLONASS, Galileo and QZSS constellations.

What is Trimble Connect?

Trimble Connect is a cloud-based data management and collaboration platform that allows you to view, share, and access project information over the Internet from anywhere at any time. Trimble Connect stores the 2D and 3D models, prepared in your office software, that are to be viewed in SiteVision.

The subscription for Trimble Connect is included with your SiteVision subscription. If you have separate users who will only be doing data preparation you can purchase separate Trimble Connect subscriptions for them. To get started with Trimble Connect, go to the Trimble Connect [website](#).

What is Google Play Services for AR (formerly known as ARCore)?

Google Play Services for AR is a service for building augmented reality experiences. The service enables your mobile device to sense its environment, understand the world and interact with information. Trimble SiteVision combines Google Play Services for AR with Trimble Catalyst to produce high-accuracy augmented reality. To learn more about Google AR technology, go to the Google Play Services for AR [website](#).

What data plan do you recommend for use with Trimble SiteVision?

When SiteVision is running it uses very little data to obtain corrections. The component that uses the most data is downloading the models. We recommend a plan with at least 5 GB of data. This will allow for periodic use of SiteVision e.g. one day a week or a couple of hours a day. However, if you are using large models, and multiple downloads of models with your cellular data, we recommend an unlimited plan.

Subscription Management

How many devices can I use my Single User subscription on?

Trimble SiteVision monthly, and annual subscriptions are licensed "per user" for use on one device at a time. A subscription cannot be used on multiple devices simultaneously. If you log into SiteVision on a second phone, the system will automatically disconnect the services to the first phone—so if you left your phone at home, you can borrow a phone and still keep working.

Where can I purchase Trimble SiteVision?

Trimble SiteVision can be purchased through any authorized Trimble Distributor.

Click Shop Now on the Trimble SiteVision website for more information and to find the nearest Trimble distributor in your area.

What do I get when I purchase Trimble SiteVision?

When you purchase Trimble Sitevision you will receive:

- **Hardware:** Trimble SiteVision Integrated Positioning System and accessories.
- **Software & Services:** Trimble SiteVision Subscription for a monthly or annual term depending on your cart selection that provides access to a range of services needed to use the hardware to get high accuracy positioning.

How do I cancel or renew my Trimble SiteVision subscription?

Contact your local Trimble Distributor to upgrade, renew, or cancel Catalyst subscriptions.

How do I manage Trimble SiteVision subscriptions for my team?

If you purchase Trimble SiteVision for a group of users, you can assign individual subscriptions to other users in your team, unassign users, or re-assign subscriptions from one user to another user within your team via the [License Manager](#).

What is a Trimble Identity (Trimble ID)?

A Trimble ID (or TID) is a unique account identity linked to your email address. You can use your Trimble ID to associate and assign applications, services, and subscriptions from many different parts of Trimble including Trimble SiteVision and Trimble Connect.

To change or modify information on your Trimble ID go to <https://login.trimble.com>

I already have a Catalyst Subscription can I use this with Trimble SiteVision?

No. To log into Trimble SiteVision you must have a Trimble Identity (TID or Trimble Account) with a Trimble SiteVision Subscription.

I already have a Trimble Connect Subscription can I use this with Trimble SiteVision

No. To log into Trimble SiteVision you must have a Trimble Identity (TID or Trimble Account) with a Trimble SiteVision Subscription.

Performance and Compatibility

Do I need an internet connection to use Trimble SiteVision?

Yes, you need an internet connection to:

- Download models from Trimble Connect for viewing
- Obtain high accuracy GNSS positions
- Create and assign ToDo's, send measurement data from the field to the office.

The minimum recommended network speed is 3G.

How accurate is Trimble SiteVision?

The accuracy of Trimble SiteVision is dependent on a number of factors: GNSS environment, length of line being measured to, type Android mobile device.

GNSS Accuracy:

In areas with VRS Now coverage or where you use a 3rd party VRS service or Internet base station service, the SiteVision system will typically achieve horizontal and vertical accuracies of a few centimeters.

If you are operating in an area that does not have VRS Now coverage, the Trimble Corrections Hub will select the RTX service. When using the RTX services the horizontal accuracies will vary by location, but are typically 10 - 20 cm (4 - 8 inches) in areas with RTX Fast coverage, after convergence, and 30 cm (12 inches) in areas without RTX Fast. Vertical accuracies will vary when using the RTX services.

EDM:

The EDM unit has a range of up to 100 m (300 ft) depending on the target type surface and lighting conditions, but in most outdoor environments the practical range is about 25 m. For accurate operation (< 20 cm / 8 inches/ 7/10ths) Trimble recommends that you use it at range of 0.5 m to 10 m (1.5 ft to 30 ft), or up to 25 m (80 ft) to record features requiring lower accuracy (such as trees).

Download the SiteVision Datasheet or read more about Trimble SiteVision accuracies in the in app user guide.

What devices are compatible with Trimble SiteVision?

Trimble SiteVision runs on mobile devices, smaller than 8", supporting Google Play Services for AR and Android™ Operating System Version 9.0.

The Trimble tested and recommended devices for SiteVision are:

- Samsung SM-G965 - S9+
- Samsung SM-G975 - S10+
- Samsung SM-N950 - Note8
- Samsung SM-N960 - Note9

Other supported devices for SiteVision are:

- Samsung SM-G955 - S8+
- Google Pixel 2 XL
- Google Pixel 3 XL

Note: Although Trimble Catalyst Service and Google Google Play Services for AR can run on a number of mobile devices, the requirements for SiteVision differ due to the combination of the processing requirements of Trimble Catalyst softGNSS receiver, Google Google Play Services for AR, and data processing.

Can I use Apple OSX, iOS, or Microsoft Windows devices with Trimble SiteVision?

No. Trimble SiteVision is only available on Android mobile phones, with an operating system of Android 9, the phone must also be supported by Google Play Service for AR.

What is the maximum file size I can use with SiteVision?

The model size that can be used with SiteVision varies by phone type, and complexity of the data (geometry and number of entities). SiteVision will warn the user if any limits are exceeded.

Below is a guideline highlighting the file size limitations:

File Size:

If you are using a model over 200 MB in size, a warning will be displayed in SiteVision highlighting the time to download the model from Trimble Connect may take some time. You will have the option to continue, or cancel the download.

Geometry:

This is a combination of the lines and number of meshes or triangles used to build surfaces. For recommended and supported devices this is:

Device	Geometry Limit
Samsung S10+	8 million
Samsung Note 9	8 million
Samsung S9+	6 million
Samsung Note 8	6 million
Samsung S8+	3 million
Google Pixel 3 XL	3 million
Google Pixel 2 XL	1.5 million

Note: We limit unsupported devices to 1.5 million entities.

Please refer to our SiteVision Help Guide for more information.

SiteVision and GNSS Technology

What GNSS Satellite Technologies does Trimble SiteVision support?

The Trimble SiteVision system has the ability to track the following satellite constellations: GPS, GLONASS, QZSS, and Galileo.

To use these constellations the correction source needs to support these constellations. For more information about Trimble Corrections Hub go to catalyst.trimble.com.

What type of GNSS positions can Trimble SiteVision use?

Trimble SiteVision uses Trimble Catalyst technology. The SiteVision Application displays the type of positioning solution being used under the GNSS menu. These are: Autonomous, RTK Float, RTK Fixed, Differential, RTX, SBAS, RTXCode.

The Trimble Catalyst service monitors the accuracy that your system can achieve from the different signal types and automatically selects and outputs the solution type with best available accuracy.

What reference frame are my positions output in?

When using the Trimble Corrections Hub you must select the Target Reference Frame that matches the reference frame of your model. The SiteVision system will apply a datum transformation used by the Trimble Correction Services ITRF to the datum of your model.

What is the difference between Source Reference Frame and Target Reference Frame?

A network (for example Trimble VRS Now) will be broadcasting coordinates in relation to a global reference frame such as ITRF2014. This is called a Source Reference Frame.

You might be using Trimble SiteVision with Trimble VRS Now, but want your coordinates in relation to a local reference frame which is commonly used for that region, such as NZGD2000. This is called the Target Reference Frame.

I want to use SiteVision indoors, do I need to have GNSS?

No. To use Trimble SiteVision indoors you do not need to have GNSS or be connected to the Trimble Integrated Positioning System (IPS). Please note that Trimble SiteVision is designed for outdoor use with high accuracy GNSS, via the Trimble SiteVision IPS handheld unit, and use of SiteVision indoors will not achieve the same accuracies.

Do I need a separate subscription to Trimble VRS Now to use SiteVision?

No. Your Trimble SiteVision subscription includes bundled access to Trimble VRS Now correction streams where it is available, and worldwide access to Trimble RTX technology.

However, if you are operating outside of a Trimble VRS Now coverage area, you will need a separate local VRS or IBSS delivered correction to achieve optimum results, which may incur additional costs.

Can I use Trimble SiteVision with Local correction sources and Internet Base Stations?

Yes. To use a local correction source such as a 3rd party or government Virtual Reference Station (VRS) Network or Internet Base Station (IBSS), you will need to deselect Trimble Corrections Hub and enter the required information under GNSS Configuration within the Trimble SiteVision Application.

SiteVision Features

What data formats can I use with SiteVision?

Trimble SiteVision supports the following open source and industry formats, and Trimble proprietary formats:

Open Source and Industry:

- LandXML (.xml)
- IFC (.IFC)
- Shapefile (.SHP)
- Geodatabase (.GDB)
- AutoCAD(.DWG)

Trimble Formats:

- TrimBIM (.TRB)
- Trimble Business Center (.VCL)
- Trimble Terrain Model (.TTM)
- Trimble Maps (.TMap)
- SketchUp (.SKP)

What measurements can I take with SiteVision?

Using Trimble SiteVision you can measure points, lines and cut/fill values.

The Trimble SiteVision system supports measurements between the real world and the data model using three types of measurement modes: GNSS, EDM and AR. Points and lines can be measured using GNSS, EDM or AR. Cut/Fill measurements are only supported by GNSS and EDM measurement functions.

How is my measurement data stored?

All measurements recorded with SiteVision can be synced back to the office via Trimble Connect. Measurements are synced as a .CSV file and located alongside the data model which was being viewed in SiteVision. Each time you sync the .CSV file it updates the file in Trimble Connect to the latest version of the file on your device. To see an earlier version of the file you can use the History function within Trimble Connect.

How can I place my model on site?

In SiteVision, there are three ways to position a model on site: Automatic, measured and manual.

Automatic Placement requires high accuracy GNSS, and uses coordinate system information from within model data and/or reads a Trimble site calibration file associated with the model.

Measured Placement requires high accuracy GNSS, and walks you through steps for completing your own two point calibration. You can use the IPS standalone, or on the pole mount. This information is recorded and remembered for the next time you open the model to view with SiteVision.

Manual Placement does not use high accuracy GNSS, and placement is by using gestures on the screen and the augmented reality technology on your mobile device. Note: Inside you will likely experience model drift, and your placement will be valid for only that session of SiteVision.

What languages are supported?

Trimble SiteVision is available in: English, German, Norwegian, Swedish, Japanese and Korean.

For more information

For more information contact your local Trimble Distribution Partner.