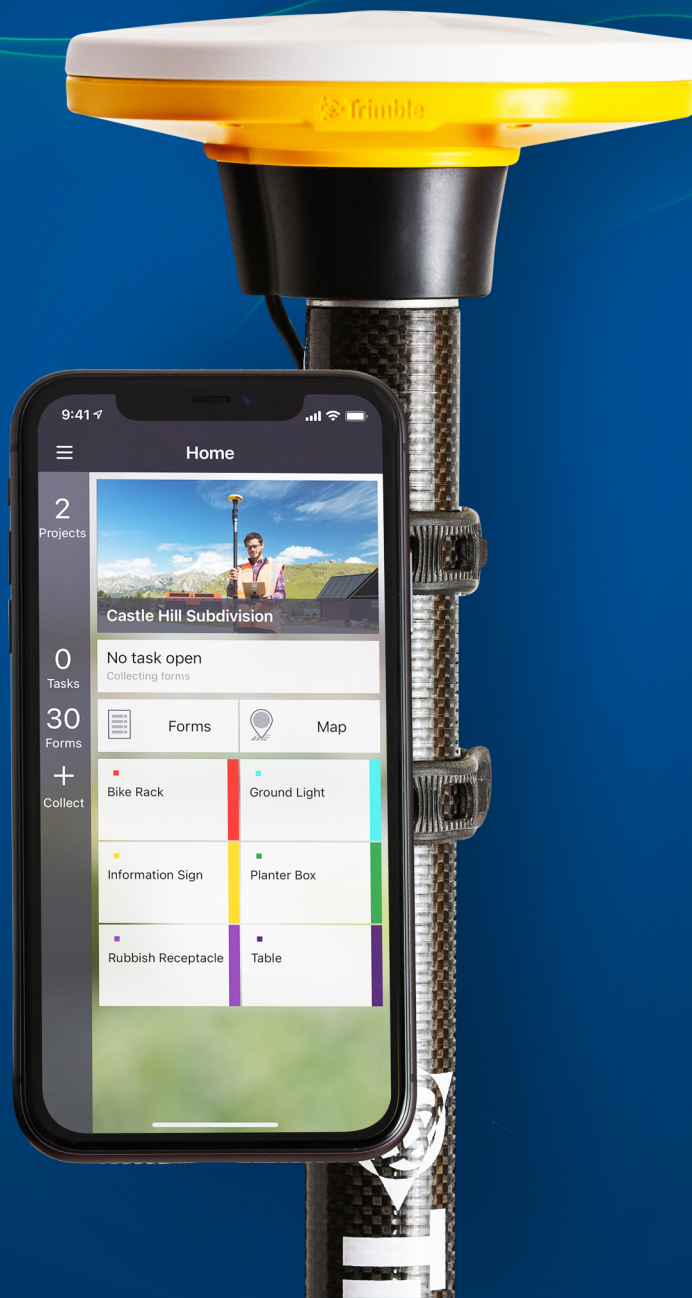# Questions about
Trimble DA2 Catalyst?

Read More About the Flexible & On-Demand
DA2 Catalyst

GENERAL QUESTIONS

What is Trimble Catalyst?

Trimble Catalyst is a revolutionary offering from Trimble that delivers precise GNSS positioning as a service. Catalyst uses advanced GNSS receiver technology with a small yet powerful custom-designed GNSS antenna - and enables these with a subscription service that also bundles Trimble's premium GNSS corrections services. The end result is "Simply Precise" positioning-as-a-service for location-enabled apps. Customers simply purchase a very low-cost Catalyst GNSS receiver, and unlock the service with a Catalyst subscription at the performance level that suits the project (from centimeter- to meter-level precision). There are no additional components or costs. Catalyst works with Android and iOS devices.

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. GPS is the most commonly referenced GNSS constellation and quite often GPS is used to describe GNSS in general. Other international GNSS constellations are GLONASS, BeiDou, and Galileo. Some regions have their own localized GNSS constellations too, including MSAS in Japan and IRNSS in India. You can learn more about GNSS technology at Navipedia.

Where can Trimble Catalyst be used?

GNSS positioning uses signals coming from space and Trimble Catalyst has to be used outdoors. High-accuracy GNSS systems like Catalyst use a technology called differential corrections to correct position errors in real-time while you work, so there must also be a way for the Catalyst receiver to access this correction data in the field. All Catalyst subscriptions include free access to both Trimble VRS Now and Trimble RTX correction services via the Trimble Corrections Hub (TCH). These Trimble correction services can be delivered via satellite (RTX only) or via a mobile internet connection (both RTX and VRS Now). Catalyst also allows the use of custom local correction services via mobile internet. Using cellular data or data roaming may incur additional charges from your cellular service provider. Check regional Trimble VRSNow and Trimble RTX coverage areas, or talk to your local Trimble distributor about local GNSS corrections options in your region.

Where is Trimble Catalyst available?

Trimble Catalyst is generally available worldwide however, regional compliance restrictions and correction service coverage may affect availability performance in your area. Contact your local Trimble distributor for information about availability and the suitability of Catalyst for your workflow and the availability of Catalyst hardware in your country.

Can Trimble Catalyst work offline?

Yes. An internet connection is required to download the Catalyst license file for your subscription before using the service for the first time, but once you have a license Catalyst can be used offline for up to 30 days, or until your license expires, whichever comes first. If you are using the Catalyst On Demand service, you need to be online to draw down and start a session on your device.

Catalyst GNSS performance is typically faster to converge in online conditions where corrections can be delivered over the internet connection of the connected phone or tablet with a higher bandwidth data connection than when using satellite-delivered corrections. In offline conditions, Catalyst will use corrections from the Trimble RTX service via satellite broadcast. Satellite broadcast RTX also requires line-of-site between the RTX satellite and the Catalyst antenna.

CATALYST PERFORMANCE

How accurate is Trimble Catalyst?

» Catalyst 60 (60 cm)

» Catalyst 30 (30 cm)

» Catalyst 10 (10 cm)

» Catalyst 1 (1 cm)

The accuracy that you achieve depends on the subscription level associated to your account, and the environment and method of use of the receiver.

I had an older Catalyst subscription with 1 Meter, Submeter, Decimeter, or Precision. What has changed?

Only the name of Catalyst subscription levels has changed. Your subscription level will automatically update to the new naming system. No action is required by you or your distributor.

» Catalyst One Meter is now Catalyst 60

» Catalyst Submeter is now Catalyst 30

» Decimeter is now Catalyst 10

» Precision is now Catalyst 1

What types of phone or tablet can I use Trimble Catalyst with?

Trimble Catalyst DA2 is compatible with Android 5.0 and iOS 13 or higher. For a detailed description of devices supported by DA2, refer to this Geospatial Community topic. Trimble Catalyst DA1 with the Catalyst Service App is compatible with high-performing Android devices with Android 5.0 and higher only.

CATALYST APPS & APPLICATIONS

What apps can I use with Trimble Catalyst?

Trimble Catalyst can be used with nearly any location-enabled app on a compatible Android or iOS phone or tablet. There are two main classes of applications that can be used: Catalyst-ready apps, and Third-party location-enabled apps. Catalyst-ready apps are those that integrate directly with Catalyst using the Trimble Catalyst SDK, and provide a seamless workflow, rich positioning metadata, and streamlines the Catalyst user experience. Third-party location-enabled apps do not integrate directly with Trimble Catalyst, but instead use positions from Catalyst using the location service on compatible devices alongside the Trimble Mobile Manager app.

How does Catalyst work with "Catalyst Ready" apps?

Catalyst ready apps use the Trimble Catalyst SDK to directly connect to the receiver. Catalyst-enabled apps have access to a powerful set of capabilities and information that enables high accuracy workflows, auditing, and the development of specialized positioning functions. For example, apps utilizing the Trimble Catalyst SDK have full control of the position output rate,

and can access full position metadata information and statistics. Positions from Catalyst-enabled apps can be more easily utilized and stored inside different location-aware back-end systems. Catalyst-enabled apps allow for accurate comparison of positions from other sources, and enable reliability, quality, and control checks to be

What Trimble apps are "Catalyst Ready"?

The following Trimble field software can be used with Catalyst:

» Trimble Penmap Android (Android - with DA1 or DA2)

» Trimble TerraFlex Mobile (Android - with DA1, and iOS - with DA2)

» Trimble UAV Ground Control (Android - with DA1)

What Esri mobile apps are "Catalyst Ready"?

The following Esri field operations apps can be used with Catalyst:

» ArcGIS Field Maps (Android & iOS - with DA1 or DA2)

» ArcGIS Collector (supports Catalyst DA1 for Android only)

Other Esri field applications (such as ArcGIS Survey 123, ArcGIS Quick Capture, and ArcGIS Navigator) can be used using the third-party application workflows for Android and iOS, as described below.

How does Trimble Catalyst work with third-party Android apps?

Third-party apps can be used with Catalyst on Android devices, using the Android "Mock Locations" feature. Third-party applications receive their GPS data from the Operating System, which is taking high accuracy positions from Catalyst via the Trimble Mobile Manager app. For more information on this workflow, refer to the Catalyst documentation in the Trimble Geospatial Help Portal.

How does Trimble Catalyst work with third-party iOS/iPadOS apps?

Third-party apps can be used with Catalyst on iOS devices, with positions and NMEA data from the DA2 receiver directly. Trimble Mobile Manager is used to connect to and configure the receiver, but positions from the DA2 are consumed directly by the iOS device, and then made available for location-enabled apps through the iOS location service. For more information on this workflow, refer to the Catalyst documentation in the Trimble Geospatial Help Portal.

Do I need any other software to use Catalyst?

If you are using the Catalyst DA1 antenna, the separate Trimble Catalyst Service app is required to be installed on your Android device. This contains the Catalyst softGNSS receiver engine and this app runs in the background on your device whenever you use Catalyst. The Catalyst Service app can be downloaded free from the Google Play Store. If you are using DA2, the separate Trimble Catalyst Service app is not required.

» Get the Trimble Catalyst Service App for Android (only needed for DA1 users).

Trimble partner apps typically also require the Trimble Mobile Manager utility, which is used to configure the GNSS receiver settings, and is also used to download and control user licenses to the Catalyst subscription service. Trimble Mobile can also be used to download and check for and install firmware updates for DA1 and DA2 antennas.

» Get the Trimble Mobile Manager App for iOS

» Get the Trimble Mobile Manager App for Android

I have an app idea for Trimble Catalyst, what should I do?

If you already have a location-based app that you want to be enabled with Trimble Catalyst, you can apply to be a part of our Partner Program and request to receive access to the Catalyst SDK. If you don't have in-house app development capabilities, but want to share an idea you or your organization have, you can let us know in the form on the Contact page. Maybe you could be the next location-based app rock star!

PURCHASING A SUBSCRIPTION

How are Trimble Catalyst Monthly/Annual subscriptions sold?

Trimble Catalyst is available as a monthly or annual unlimited use service (Catalyst Monthly or Catalyst Annual). For these monthly and annual subscription plans, you can choose the accuracy level that suits your workflow (Catalyst 1, Catalyst 10, Catalyst 30, or Catalyst 60), then purchase a subscription for the number of months or years and users you require.

When do Catalyst Monthly/Annual subscriptions expire?

Catalyst Monthly/Annual subscriptions end on the last day of the subscription term, unless renewed/extended beforehand. You can check the expiry date from the License Manager view of the account owner.

How are Trimble Catalyst Monthly/Annual subscriptions sold?

Trimble Catalyst is available as a monthly or annual unlimited use service (Catalyst Monthly or Catalyst Annual). For these monthly and annual subscription plans, you can choose the accuracy level that suits your workflow (Catalyst 1, Catalyst 10, Catalyst 30, or Catalyst 60), then purchase a subscription for the number of months or years and users you require.

How are Trimble Catalyst On Demand subscriptions sold?

For the Catalyst On Demand service option, you purchase time in blocks of "hours". On Demand users drawdown time in 1-hour increments, and can be easily topped up at any time. The On Demand packs are available in block starting from as little as 10 hours/year, and up to 25,000 hours/year for enterprise- deployments. You can purchase packs in any quantity you need to meet your needs. Catalyst On Demand is only available for the

How long do I have to use a Catalyst On Demand block?

Each On Demand block is valid for 12-months from date of purchase, and can be used by a single user or shared across a whole team. Unused hours expire 12 months after the original purchase date.

How many devices can I use my subscription on?

Trimble Catalyst subscriptions are licensed "per user" for use on one device at a time. Your subscription cannot be used on multiple devices simultaneously. Access to your subscription is managed through a secure license file which is stored on your iOS or Android device. To transfer a license file from one device to another, sign-out from the first device before signing-in on the second device.

Where can I purchase a Trimble Catalyst subscription and accessories?

Trimble Catalyst subscriptions (as well as the DA1 antenna and the DA2 receiver and a range of Trimble accessories) can be purchased through any authorized Trimble Mapping & GIS Distributor. They are also able to answer any of your questions.

https://geospatial.trimble.com/where-to-buy

How do I upgrade, cancel, or renew my Trimble Catalyst subscription?

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

How do I manage Trimble Catalyst subscription(s) for my team?

When you purchase Trimble Catalyst for a group of users, the purchaser can assign individual subscriptions to other users in your team, remove users, or re-assign subscriptions from one user to another user within your team using the Trimble License Manager. View our Help Portal for the basic steps on how to manage individual Catalyst subscription assignments, or contact your Trimble distributor for assistance.

What is a 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 Catalyst.

How do I change my personal information on my Trimble ID?

Go to https://login.trimble.com to modify any of your Trimble ID details.

How do I modify or reset my Trimble ID password?

Go to https://login.trimble.com to modify or reset your Trimble ID password.

CATALYST HARDWARE

What hardware is required to use Trimble Catalyst?

Using Catalyst requires the use of a Catalyst compatible GNSS antenna. There are currently two models: The original DA1 GNSS antenna and the new DA2 GNSS receiver. The only other hardware you will need is your Android or iOS phone or tablet, and a suitable USB power source for your DA1 or DA2 antenna. Both models of Catalyst antenna can be powered with a USB Power Pack, or optionally can be powered by your Android or iOS device (if Power Delivery is support). Depending on where and how you want to operate Catalyst, you may also want to consider purchasing a suitable mounting system for the antenna, and for your phone or tablet. Both DA1 antenna and the DA2 receiver are supplied with a push-fit base that allows the antenna to be mounted on any 32 mm diameter pole or rod. It is also supplied with a 5/8-11 thread adapter for screwing the antenna onto a standard survey rods and accessories. A number of off-the-shelf mounting options are available for gripping and attaching phones or tablets to rods. For a selection of high-quality solutions, consider the portfolio of mounting supplies available from Trimble accessories vendor SECO, or contact your local Trimble distributor.

What is the difference between Catalyst DA1 and Catalyst DA2?

The Catalyst DA1 is the original Catalyst antenna, and works with Android devices and applications. It communicates with your hardware via USB cable, and Catalyst software GNSS receiver that runs in the background on the Android device itself. DA2 is the latest generation (announced in October 2021) Catalyst antenna and brings many improvements, including:

» Compatible with both iOS and Android phones and tablets

» Integrates the softGNSS receiver inside the antenna
  (no longer requires a separate phone app)

» Trimble ProPoint technology for improved performance in difficult GNSS environments

» Wider GNSS signal support (DA2 tracks more satellites, and more signals)

» Bluetooth (wireless data transfer between the receiver and the phone/device)

I already have a Catalyst subscription for my DA1, can I use a DA2?

Yes. Catalyst subscriptions are associated with your username, not your hardware. You can use your subscription with any device or antenna. If your subscription is still active it will also work with DA2.

What is the warranty for my Trimble Catalyst DA1 antenna and the DA2 receiver?

The DA1 antenna and the DA2 receiver is covered by the standard Trimble hardware warranty policy covering damage from damage in normal use environments, valid for 12 months from the date of purchase. Read the full terms and conditions of the hardware warranty on the warranty card included in the box with your antenna, or view it online here.

What is Trimble ProPoint technology?

Trimble ProPoint is the fifth generation high-precision positioning engine from Trimble that is engineered to provide position and orientation data from the fusion of GNSS signals, globally accessible high-accuracy correction services, and measurement data from a variety of sensors. It leverages the latest developments in GNSS signal infrastructure and Trimble's high-precision receiver hardware to deliver improved positioning performance in challenging environments.

Is the Trimble ProPoint technology available on all Catalyst accuracy levels?

Yes. the Trimble ProPoint technology is part of the DA2 hardware. The advantages of this technology like increased yield and faster tracking are noticeable for all accuracy levels.

What's the Catalyst handle?

The Catalyst handle is an accessory to provide a handheld form factor for the DA2. https://www.geospatial.trimble.com/accessory/catalyst-handle

What's in the DA2 pack out?

» The DA2 GNSS Receiver

» the DA2 Accessory Pack with the 5/8x11 Pole Cap and the Battery pack mount

» Documentation