

Trimble MX

Software suite

Simplicity, efficiency, and intelligence, all in one

Mobile mapping systems capture massive amounts of data very quickly. For large-scale asset management projects, high efficiency is needed to extract valuable and accurate information with confidence.

Trimble® MX software—an all-in-one desktop solution—makes mobile mapping data management and feature extraction simple, automated, and efficient.

Trimble MX software imports reality data captured by any mobile mapping device. A complete system-agnostic solution can handle unlimited point cloud, imagery, and 3D mapping data.

Import and manage your reality capture data

Import your mobile mapping data, whether acquired from a Mobile Mapping system, a 3rd party drone, backpack, or handheld solution. All data can be organised and fused together in a single project. The data management and catalog functionalities optimise the imported mobile mapping resources. Easily view and understand your data, remove unnecessary or redundant information by cleaning your data, adjust and archive all your imported data in an exhaustive data catalog. Image-based and point cloud 3D views provide efficiency for quick data navigation, fundamental for the extraction and data inspection operations.

Display and navigate in a true reality capture ecosystem

All acquired data can be displayed in different views, regardless of size or the data collection system. Import and overlay any 2D or 3D GIS and CAD vector resources to your mobile mapping data. Trimble MX software enables focusing and synchronising all the opened views on the features that matter. Distribute the different views on multiple monitors to better navigate through your reality capture data.

Extract your features with ease

Trimble MX software enables extracting and storing features on your local machine or a remote server database. The operators can access manual, semi-automated, and full-automated tools and procedures for feature extraction.

The operator has the complete flexibility to run the software as a stand-alone solution and as a part of a network of multiple concurrent users. The connection to a common database enables sharing feature extraction tasks among multiple operators, working in a single shared project.

Enable artificial intelligence (AI) by annotating your reality data, launching trained AI model on imagery and pointclouds. Verify automatically generated data annotations, and turn annotated data into real 3D objects.

Share your reality capture to the web

Trimble MX Publisher enables sharing your mobile mapping data and extracted features in an easy-to-navigate web-based interface. Navigate through your mobile mapping project in a standard web browser. Decide which data type to navigate or combine your point cloud data and images in synchronised views. Extract your assets or annotate. Bookmark specific locations for future navigation and extract the information you need using the different measurement extraction tools.

Extract and share information with ease

Trimble MX software's intelligent tools enable you to easily extract asset information, perform measurements and comply with privacy requirements—blurring of faces and car number plates. Designed for simplicity and efficiency, the Trimble MX software provides the greatest level of productivity for large scale production from mobile mapping data.

Maintain standard workflows

Publisher plug-ins allow anyone to access mobile mapping content from within their standard workflows and business intelligence tools including popular GIS or CAD systems such as ArcGIS, AutoCAD and more.

KEY COMPONENTS

- **Trimble MX Assets Manager** efficiently cleans and organises data for deliverable production. Smart feature extraction tools to create your locally layer based inventories, or to assets data directly in existing databases
- **Trimble MX Publisher** simplifies the sharing of mobile mapping results with project stakeholders. Smart street-view based navigation approach to simplify feature extraction capabilities. Extract features directly from the publication and store in a centralised database to maximise efficiency when extracting or maintaining your assets.
- **Trimble MX Publisher Plug-ins** simplify accessing mobile mapping data in many popular GIS and CAD environments.



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System Requirements

Minimum and recommended system specifications are detailed below. Additional storage space, processing capability, and RAM will improve performances in most applications. Higher specification computers are strongly recommended for large volumes of processed data and reduced processing times.

Trimble MX Desktop Products

General requirements

Operating system Microsoft® Windows® 7, 8, 10 and 11
 Microsoft Windows Server 2003, 2003 (R2), 2008 (R2),
 2012 (R2), 2016, 2019, 2019 (R2) and 2022

Processor 64-bit, 2.8 GHz dual-core (Quad-core recommended)

Memory 4 GB RAM (8 GB or more recommended)

Graphics Card 1 GB of memory (3 GB or more preferred)

Trimble MX software products use the Java Runtime Engine (JRE) and CPU to process graphic requests. The used JRE is embedded in the MX installation so you do not need separate installations for Java. Trimble MX desktop products will use the 3D graphics card (GPU) to render complex 3D graphics, e.g. 3D TIN models.

If no 3D graphics card is available, complex 3D requests will be processed by the JRE using the CPU. Virtual environments (like Citrix, Virtualbox, VMWare, etc.) can have issues supporting videos or the use of moving high resolution images and may thus cause the MX Asset Modeler Client to slow. When using Citrix, XenApp is recommended, including video optimisation and a 1 GB network connection.

Disk space 2 GB free space for installation
 (Much more space is needed to organise large volumes of mobile mapping data)

Data storage and file access

- **Storage** — Trimble MX software requires a file-based storage system. This can be either local or network storage system that supports direct file access. On importing, Trimble MX software will process all mapping data into performance-optimised resource files, which may need a bit more storage capacity. This optimised storage reduces other hardware burdens.
- **File access and disk** — Trimble MX software requests result in direct file access, performance is particularly determined by the disc speed and disc access times. Slow discs or slow connections will create a bottleneck.
- **Large file considerations** — When processing large mobile mapping datasets your file system should be able to store big files. Processing errors may occur due to:
 1. lack of disk-space
 2. file size limitation of file system (FAT32 is limited up to 4 GB, NTFS is advised)
 3. extreme fragmentation of storage volume.
- **Internet connection** — The Trimble MX desktop software requires online connectivity to a Licence Service to operate

Trimble MX Publisher Server

General requirements

In general, there are no specific hardware requirements for the Trimble MX Publisher Server. However, it is recommended to take into consideration the requirements in terms of:

- Number of concurrent users
- Volume of data to be hosted
- Expected performance

Operating system

Windows Microsoft Windows 7, 8, 10 and 11
 Microsoft Windows Server 2025, 2003, 2003 (R2), 2008 (R2),
 2012 (R2), 2016, 2019, 2019(R2) and 2022

Memory Required RAM for the Trimble MX Publisher can be calculated at about 7.5 MB per concurrent user (per image)

Connection between Trimble MX Publisher – Publishing Clients

- **Network** — When hosting a Publisher, take the server upload and client download speed into account relative to the average size of the images and the amount of images to be served within a given time frame. Consider a minimum server upload/download speed of 50 Mbps. Trimble MX Publisher includes a web server supporting Http (Https) and Ws (Wss) communication. No need to install additional services like Microsoft's Internet Information Service, Apache or others.
- **Port** — Trimble MX Publisher (server) - publishing client communication requires one port to operate, default configuration port 1100. If required this can be reconfigured, but we do advise to use a reverse proxy.
- **HTTP/HTTPS** — The Trimble MX Publisher includes a web server supporting HTTP or HTTPS.
- **Client access to publications** — If you would like to make your Trimble MX Publications available via the internet, public access to the Trimble MX Service is required. Publication can also be configured for intranet systems.

Please consult with a Trimble representative for more details on Trimble MX Publisher configurations.



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