CostX System Requirements

These system requirements apply to CostX running either as a network client or standalone, as well as CostX Viewer. CostX Server system requirements differ slightly and are covered in a separate document.

Supported Operating Systems

Bitness

CostX is a 64-bit application and therefore requires a 64-bit version of the Windows operating system. The free CostX Viewer is also a 64-bit application.

NOTE: CostXL is available in both 32-bit and 64-bit versions. However, it only supports opening drawings in the 64-bit version. If you need to open drawings from CostXL, please ensure you have updated to 64-bit Excel.

Windows Versions

- Windows 10 2022 Update (v22H2)
- Windows 11

NOTE: As Microsoft will end support for Windows 10 in October 2025, CostX 7.3 will be the last version that supports it. It is recommended that customers still using Windows 10 transition to Windows 11 as soon as possible.

Required Windows Updates

To ensure compatibility and security, it is highly recommended that customers upgrade to the latest Windows version and all Windows Updates are installed.

Apple macOS

CostX is currently not supported on the native Apple Mac operating system 'macOS', however it is possible to run Windows on Apple Mac hardware using an Apple utility called Boot Camp or using virtual machine software such as Parallels or VMWare. Please refer to the Apple website for details about running Windows on a Mac (<u>http://www.apple.com</u>). As with a PC computer, the Mac hardware and Windows operating system installed must meet the system requirements in this document.

Cloud Support

CostX Cloud is available as a subscription-based service hosted in Microsoft Azure and fullymanaged by RIB. Please contact our sales team for further information.

Customers can also deploy CostX in a self-managed cloud environment using various technologies and providers including Amazon AWS and Microsoft Azure.



Recommended Hardware

Processors

CostX is multi-threaded and will perform better on processors with higher numbers of cores.

Working with native RVT files or other large 3D / BIM drawings

- Highly recommended to have the **highest** CPU speed rating within your budget. (Larger models require higher CPU specifications)
- Minimum required CPU speed is the equivalent of or faster than Intel Core i7 6700K 4.00GHz (or equivalent AMD).

Working with 2D drawings and 3D / BIM drawings

- Recommended CPU speed is the equivalent of or faster than an Intel Core i7 3770 3.40GHz (or equivalent AMD).
- Minimum required CPU speed is the equivalent of or faster than Intel Core i7 2600 3.40GHz (or equivalent AMD).

Working with 2D drawings only

- Recommended CPU speed is the equivalent of or faster than an Intel Core i5 750 2.67 GHz (or equivalent AMD).
- Minimum required CPU speed is the equivalent of or faster than an Intel Core 2 Duo E8400 3.00GHz (or equivalent AMD).

The following conditions increase the load on the CPU, requiring a higher CPU specification:

- Working with very large drawings including detailed PDFs and large scanned images.
- Working with 3D drawings.
- Importing BIM dimensions from Revit DWFs and other BIM formats.
- Using the Auto Count feature. Auto Count benefits significantly from additional cores.
- Adding many dimensions or dimension groups.
- Using revisions or drawing comparisons.

TIP: Use a benchmarking website such as <u>http://www.cpubenchmark.net/cpu_list.php</u> to compare your CPU speed to the recommended CPUs above.



Network

LAN and WAN connections are supported between CostX and CostX Server.

Latency

- A low latency network connection is required.
- Wired LAN connections perform better than WAN or wireless LAN connections due to lower latency and are therefore recommended.
- WAN connections must have low latency for adequate performance.

<u>Bandwidth</u>

- Network bandwidth of 1 GB or greater is highly recommended.
- Lower bandwidths such as 100 MB are also supported. For adequate performance, ensure the network has sufficient capacity to avoid saturation.

The following conditions increase the bandwidth requirements:

- Many users working on the same shared project.
- Adding very large drawings which are located across the network.
- Importing and exporting large amounts of data across the network.

<u>DNS</u>

TLS encryption of network communications requires that CostX Server is configured with a real DNS hostname and that hostname is entered in the Server field of the CostX login prompt, rather than the server's IP address.

Internet

An internet connection is required in order to activate the licenses online. To successfully activate, please ensure your firewall does not block HTTP and HTTPS connections on ports 80 and 443 to <u>techweb.rib-international.com</u>.

An internet connection is required to connect to RIB Benchmark, MTWO, and cloud storage providers.



Video Graphics

CostX supports OpenGL 2.0 and Direct3D 9.0c for hardware rendering and therefore a video graphics card that supports OpenGL 2.0 or Direct3D 9.0c with up-to-date drivers is required. Please see below for recommendations on performance levels.

Working with native RVT files or other large 3D / BIM drawings

- A powerful dedicated video graphics card is required (eg. AMD or NVidia).
- Recommended performance is the equivalent of or faster than an NVIDIA GeForce GTX 660 (or equivalent AMD).
- Minimum performance is the equivalent of or faster than an NVIDIA GeForce GTX 260 (or equivalent AMD).

Working with 2D drawings and small to medium 3D drawings

- A dedicated video graphics card is required (eg. AMD or NVidia).
- Recommended performance is the equivalent of or faster than an NVIDIA GeForce GTX 260 (or equivalent AMD).
- Minimum performance is the equivalent of or faster than an NVIDIA 9400GT (or equivalent AMD).

Working with 2D drawings only

• A dedicated video graphics card is highly recommended (eg. NVIDIA or AMD, 512 MB or better).

Installing a dedicated OpenGL 2.0 or Direct3D 9.0c capable video graphics card with up-to-date drivers is required as it has many benefits for 2D and 3D such as supporting higher resolutions, better performance, improved display quality, faster loading time, and smoother zooming and panning.

TIP: Use a benchmarking website such as <u>http://www.videocardbenchmark.net/gpu_list.php</u> to compare your video card performance to the recommended video cards above.

Screen Resolution

- Recommended screen resolution is 1920 x 1080 or higher.
 - $_{\odot}$ 4K screen resolution is supported for CostX when total RAM available to the video card is 8GB or higher, however 4K is not supported for CostXL.
 - o Screen resolutions above 4K are not recommended.
- Minimum screen resolution is 1280 × 800.
 - Lower screen resolutions will still work, however screens are not optimized below 1280 × 800.
- Recommended DPI is 96 (100% scale). Higher DPIs (scales of 125%+) are also supported.



RAM Capacity

- Recommended RAM capacity:
 - 32GB or greater for large native RVT files (> 100MB).
 - 16GB or greater for other large 3D / BIM drawings, or opening multiple drawing tabs.
 - 8 GB or greater for general use.
- Minimum RAM capacity is 4 GB.

The following conditions increase the memory size requirement:

- Opening 100MB+ RVT files (may require more than 32GB RAM. See <u>Revit Models</u> topic below).
- Opening many drawings concurrently.
- Working with BIM Models / 3D drawings.
- Working with detailed PDFs and large scanned images.
- Working with very large drawings.
- Adding many dimension groups and dimensions to the building.
- Using the Auto Count feature on large drawings.

Note that other programs also use RAM and allowances should be made for their requirements as well.

Hard Disks

Standalone Configuration (Local Database)

- Recommended available (free) hard disk space is 50 GB or greater.
- Minimum required available (free) hard disk space is 20 GB or greater.

Network Configuration (No Local Database)

- Recommended available (free) hard disk space is 15 GB or greater.
- Minimum required available (free) hard disk space is 10 GB or greater.

The following conditions increase the disk space requirement:

- Using the local drawing cache.
- Using cloud storage providers (files are temporarily stored in the local drawing cache).
- Adding many drawings.
- Adding very large drawings.
- Adding many dimension groups.
- Creating many dimensions.
- Importing BIM dimensions.
- Adding many workbooks.
- Storing many projects in the database (archiving to EXF is recommended)



Mouse

• A wheel mouse is highly recommended for panning and zooming operations.

Optional Hardware Upgrades

Some hardware upgrades will improve the experience of using CostX however they are not mandatory and may involve additional costs. The following list is not exhaustive, but provides some suggested upgrades if the budget allows for it.

- Use a faster hard disk (e.g. a Solid State Drive (SSD)) for faster database access. This will improve loading buildings, drawings etc., importing and exporting data as well as saving data (such as buildings) amongst other things.
- Use a large widescreen monitor (e.g., Full HD LCD 24"+). With a larger monitor, it is more feasible to run the computer at a higher resolution which allows drawings and workbooks to display more information at once and provides a better picture making it easier to work with.
- Dual monitors may also provide improved productivity as it is possible to display multiple take-off and estimating windows on separate screens at the same time.



Software Requirements

Supported Drawing File Formats

2D formats supported are .PDF, .DWG, .DWF, .DWFx, .DGN, .DXF, .BMP, .GIF, .JPG, .PNG, and .TIF.

3D / BIM formats supported are .IFC, .IFCZIP .DWF, .DWFx, .PDF, .RVT* (RVT 2025 format recommended), .SKP, .CPIXML, .DWG, .DGN, .4DA, .12DAZ and .12DA

Revit Models

*NOTE: CostX can load native RVT files from Revit versions 2015 to 2025, however, if your RVT file version is older than 2025, it is highly recommended to upgrade the file to the 2025 version for the best results before loading it in CostX.

Native RVT files require significant computer resources and can take some time to load, however load times can typically be reduced by ensuring the RVT file is in Revit 2025 format, and ensuring you have a high performance CPU and sufficient RAM.

It is also possible to load Revit models in CostX by exporting to other supported formats such as IFC or DWF, which generally require significantly less resources than the native RVT format.

User-Defined BIM Properties

In order to add external user-defined BIM properties to BIM Models, a program that can work with **.XLSX** files such as Microsoft Excel is required.

Exported Data

Dimension and costing data can be exported using .XLSX format. To view these files, Microsoft Excel is required and it is recommended that you use an up-to-date version of Excel.

In addition, reports may be saved in a wide variety of formats such as PDF format. To view these files, the appropriate program for the file type is required. For example, PDF format requires Adobe Reader.



Installation Prerequisites

Administrator

The person installing CostX must have administrative privileges (be able to log on as an administrator) on the computer to which CostX will be installed.

Runtime Libraries

Microsoft Visual C++ 2015-2022 Redistributable 64-bit runtime libraries are required and can be downloaded from here:

https://aka.ms/vs/17/release/vc_redist.x64.exe

When running CostX in a Network configuration (Client/Server system), Microsoft Edge WebView2 Runtime is required for the sign-in system to work. It is recommended to install WebView2 as an administrator using the **Evergreen Bootstrapper** installer, which can be downloaded from here:

https://go.microsoft.com/fwlink/p/?Linkld=2124703

To load CPI drawings (.CPIXML files), Microsoft .Net Framework 4.5 is also required. It can be downloaded and installed from here:

https://www.microsoft.com/en-us/download/details.aspx?id=30653

Serial Number

You must have one or more valid Serial Numbers in order to successfully activate CostX. In the case of upgrades, if licenses are a rental or a purchase under maintenance, re-activation is not required, and the existing serial numbers are automatically detected.

Date and Time Settings

Check the date, time and time zone are set correctly on the server to ensure that the software expiration date (if applicable) is set correctly.

NOTE: <u>All clients and servers including the licensing server must be within a 2 hour time zone</u> range.



CostXL (Excel Add-in)

The CostXL Add-in for Microsoft Excel supports both the 32-bit and 64-bit versions of Microsoft Excel 2013, 2016, 2019 and 2021. Hardware and operating system requirements are the same as those listed above for CostX with the exception of 4K monitor support.

The installer will automatically match the correct version of CostXL to the version of Excel. In other words, the installer will install the 32-bit (x86) version of CostXL if the version of Excel on the computer is 32-bit and the 64-bit (x64) version of CostXL if Excel is 64-bit.

CostXL only supports opening drawings in the 64-bit version. If you need to open drawings from CostXL, please ensure you have updated to 64-bit Excel.

Excel 2013

CostXL does not support Excel Web App (part of Office Web Apps), Excel 2013 on Demand installation (part of Office on Demand), Excel 2013 RT (part of Office RT on Windows RT), Excel 2013 Mobile (part of the Office Mobile suite), or the 'Click-to-Run' (streaming) version of Excel 2013.

Excel 2016

CostXL does not support Excel Online (part of Office Online) or Excel 2016 Mobile (in the Office Mobile suite).

Excel 2019

CostXL does not support Excel Online (part of Office Online).

Excel 2021

CostXL does not support Excel Online (part of Office Online).

