

dxAPI System Requirements

Supported Operating Systems

32-bit vs 64-bit

dxAPI is provided in both 32-bit (x86) and 64-bit (x64) versions. The 64-bit version of dxAPI requires the operating system to be 64-bit, whereas the 32-bit version runs on either the 32-bit or 64-bit versions of the Windows operating systems listed below.

When choosing an operating system for use with dxAPI, 64-bit operating systems are preferred even in the case of the 32-bit dxAPI. This is because the 32-bit dxAPI can use up to 4GB of RAM on 64-bit computers whereas it can only use 2GB of RAM on 32-bit computers. 64-bit systems also allow more than 4GB of RAM on the computer which provides more memory for other applications being run concurrently with dxAPI.

Windows Versions

- Windows 7
- Windows 8
- Windows 8.1
- Windows 10

NOTE: Windows RT is not supported.

Mac OS X

dxAPI is currently not supported on the native Apple Mac operating system 'OS X', 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 (<http://www.apple.com>). As with a PC computer, the Mac hardware and Windows operating system installed must meet the system requirements in this document.

Recommended Hardware

Processors

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.
- Working with 3D drawings.
- Working with detailed PDFs and large scanned images.
- Importing BIM dimensions from Revit DWFs and other BIM formats.
- Adding many dimensions or measurements.
- Using revisions or drawing comparisons.

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

Network and Internet

- Network bandwidth of 1 GB or greater is highly recommended.
- Network bandwidth of 100 MB or greater is required.

NOTE:

1. Adding very large drawings which are located across the network will increase the bandwidth requirements.
2. Ensure all components of the network such as Servers, Routers, Switches, PCs etc. meet the same minimum bandwidth. dxAPI is designed only for LAN environments when used on a network.
3. An internet connection is required in order to activate the licenses online. To successfully activate, please ensure your firewall does not block HTTP connections on port 80 to licensing.dimtronix.com.

Video Graphics

dxAPI 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 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 video graphics card is required for 3D but it has many benefits for 2D drawings as well such as allowing a higher resolution to be set and therefore allowing more of the drawing to be seen on the screen at once. It also offers much better performance with many aspects of drawings such as improved display quality, faster loading time, and smoother zooming and panning amongst other things.

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

Hard Disks

- Recommended available (free) hard disk space is 20 GB or greater. This is calculated as 10 GB required + 10 GB for the local drawing cache, which is optional and configurable in size.
- Minimum required available (free) hard disk space is 1 GB or greater.

The following conditions increase the disk space requirement:

- Using the local drawing cache.
- Adding many drawings.
- Adding very large drawings.
- Adding many measurements.
- Creating many dimensions.
- Importing BIM dimensions.

RAM Capacity

dxAPI 64-bit (recommend for working with large 3D / BIM drawings)

- Recommended RAM capacity is 8 GB or greater.
- Minimum RAM capacity is 4 GB.

dxAPI 32-bit

- Recommended RAM capacity is 4 GB or greater.
- Minimum RAM capacity is 2 GB.

The following conditions increase the memory size requirement:

- Opening many drawings concurrently.
- Working with BIM Models.
- Working with detailed PDFs and large scanned images.
- Working with very large drawings.
- Working with 3D drawings.
- Adding many measurements and dimensions to the project.

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

Mouse

- A wheel mouse is highly recommended to enable panning and zooming operations.

Optional Hardware Upgrades

Some hardware upgrades will improve the experience of using dxAPI 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. SATA III 10000 RPM or a Solid State Drive (SSD)) for faster database access. This will improve loading projects, and drawings, as well as importing and exporting data amongst other things.
- Purchase a large, quality widescreen LCD monitor (e.g., Full HD LCD 24" +). With a larger monitor, it is more feasible to run the computer at a higher resolution. This allows drawings to display more information at once and provides a better picture making it easier to work with.

Screen Resolution

- Recommended screen resolution is 1680 × 1050 or higher.
- Minimum screen resolution is 1280 × 800.
- Recommended DPI is 96.

Lower screen resolutions such as 1024 x 768 will still work, however screens are not optimized at resolutions below 1280 × 800.

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, .DWG, .DGN, .SKP, .4DA, .12DAZ and .12DA.

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.

Installation Prerequisites

Administrator

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

Runtime Libraries

Microsoft Visual C++ 2012 Update 4 runtime libraries are required and can be downloaded from here: <http://www.microsoft.com/download/en/details.aspx?id=30679>.

- 64-bit: The required file is called 'vc_redist_x64.exe'.
- 32-bit: The required file is called 'vc_redist_x86.exe'.

To load Sketchup drawings (.SKP files), the Microsoft Visual C++ 2010 SP1 runtime libraries are also required. These libraries can be downloaded and installed from the following links:

- 64-bit: <http://www.microsoft.com/en-au/download/details.aspx?id=13523>
- 32-bit: <http://www.microsoft.com/en-au/download/details.aspx?id=8328>

Serial Number

You must have one or more valid Serial Numbers in order to successfully activate dxAPI.

Correct Date and Time Settings

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

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