System requirements for AutoCAD 2022 including Specialized Toolsets

| **System requirements for AutoCAD 2022 including Specialized Toolsets (Windows)** | |
| --- | --- |
| **Operating System** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **Processor** | **Basic**: 2.5–2.9 GHz processor **Recommended**: 3+ GHz processor |
| **Memory** | **Basic**: 8 GB **Recommended**: 16 GB |
| **Display Resolution** | **Conventional Displays:** 1920 x 1080 with True Color  **High Resolution & 4K Displays:** Resolutions up to 3840 x 2160 supported on Windows 10 (with capable display card) |
| **Display Card** | **Basic**: 1 GB GPU with 29 GB/s Bandwidth and DirectX 11 compliant **Recommended**: 4 GB GPU with 106 GB/s Bandwidth and DirectX 12 compliant |
| **Disk Space** | 10.0 GB |
| **Network** | See [Autodesk Network License Manager for Windows](https://knowledge.autodesk.com/search-result/caas/downloads/content/autodesk-network-license-manager-for-windows.html) |
| **Pointing Device** | MS-Mouse compliant |
| **.NET Framework** | .NET Framework version 4.8 or later |
| **Additional Requirements for large datasets, point clouds, and 3D modeling** | |
| **Memory** | 8 GB RAM or more |
| **Disk Space** | 6 GB free hard disk available, not including installation requirements |
| **Display Card** | 3840 x 2160 (4K) or greater True Color video display adapter; 4G VRAM or greater; Pixel Shader 3.0 or greater; DirectX-capable workstation class graphics card. |

Specialized Toolsets (Windows Only)

| **Toolset** | **Additional Requirements** |
| --- | --- |
| **AutoCAD Map 3D** | Disk Space: 20GB Memory: 16GB Database & FDO Requirements (see below) |
| **AutoCAD Electrical** | Disk Space: 20GB Microsoft Access Database Engine 2016 Redistributable (x64) (16.0.5044.1000) or later |
| **AutoCAD Architecture** | Disk Space: 20GB Memory: 16GB |
| **AutoCAD MEP** | Disk Space: 21GB Memory: 16GB |
| **AutoCAD Plant 3D** | Disk Space: 12GB |
| **AutoCAD Mechanical** | Disk Space: 12GB |
| **AutoCAD Raster Design** | Disk Space: 1GB |

AutoCAD Map 3D Additional Requirements (Windows Only)

| **FDO Provider Requirements** | | |
| --- | --- | --- |
| **FDO Provider** | **Certified With** | **Notes** |
| **Microsoft SQL Server** | Microsoft SQL Server 2016 Standard and Enterprise Editions Microsoft SQL Server 2017 Standard and Enterprise Editions Microsoft SQL Server 2019 Standard and Enterprise Editions | Industry Models also support the versions of Microsoft SQL Server listed on the left. |
| **Oracle 12c Release 2** | Oracle 12.2.0.1.0 Standard Edition and Enterprise Edition | Industry Models support the same Oracle versions as listed on the left. |
| **Oracle 18c** | Oracle 18.3 Enterprise Edition and Standard Edition 2 | Industry Models support the same Oracle versions as listed on the left. |
| **Oracle 19c** | Oracle 19.3 Enterprise Edition and Standard Edition 2 | Industry Models support the same Oracle versions as listed on the left. |
| **Raster** | DEM, JPG2K, DTED, MrSID®, ECW, PNG, ESRI® Grid, TIFF, JPEG, ESRI® ASCII |  |
| **Autodesk SDF** | 3.0 |  |
| **ESRI ArcGIS** | ArcGIS® 10.8.1 ArcGIS 10.7.1 ArcGIS 10.6.1 | This Provider requires ESRI licensed components to be installed on client system. |
| **MySQL** | 8.0 |  |
| **ODBC** | The FDO ODBC provider has been tested with corresponding versions of ODBC drivers that are shipped with the relevant supported operating systems version. |  |
| **OGC WMS** | WMS 1.3.0 |  |
| **OGC WMTS** | WMS 1.0.0 |  |
| **OGC WFS** | WFS 2.0.0 |  |
| **SQLite** | SQLite 3.27.2 |  |
| **PostgresSQL** | PostgreSQL 12.2 + PostGIS 3.0 |  |

System requirements for Autodesk Inventor 2022

| **System Requirements for Autodesk® Inventor® 2022 Windows** | |
| --- | --- |
| **Operating System** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **CPU** | **Recommended:** 3.0 GHz or greater, 4 or more cores  **Minimum:** 2.5 GHz or greater |
| **Memory** | **Recommended:** 32 GB RAM or more  **Minimum:** 16 GB RAM for less than 500-part assemblies |
| **Disk Space** | Installer plus full installation: 40 GB |
| **Graphics** | **Recommended:** 4 GB GPU with 106 GB/S Bandwidth and DirectX 11 compliant  **Minimum:** 1 GB GPU with 29 GB/S Bandwidth and DirectX 11 compliant  See the [Certified Hardware](http://www.autodesk.com/inventor-graphic-cards) |
| **Display Resolution** | **Recommended:** 3840 x 2160 (4K); Preferred scaling: 100%, 125%, 150% or 200%  **Minimum:** 1280 x 1024 |
| **Pointing Device** | MS-Mouse compliant Productivity: 3DConnexion SpaceMouse®, driver version 10.7.0 or later. |
| **Network** | Internet connection for web install with Autodesk® Desktop App, Autodesk® collaboration functionality, web downloads, and licensing.   Network license manager supports Windows Server® 2016, Windows Server 2019 and the Windows 10 desktop versions listed above. |
| **Spreadsheet** | Full local install of Microsoft® Excel 2016 or later for workflows that create and edit spreadsheets. Inventor workflows that read or export spreadsheet data do not require Microsoft® Excel. See [Inventor Excel Requirements](https://knowledge.autodesk.com/search-result/caas/simplecontent/content/inventor-excel-requirements.html) for more information.  Office 365 subscribers must ensure they have a local installation of Microsoft Excel.  Windows Excel Starter®, OpenOffice®, and browser-based Office 365 applications are not supported. |
| **Browser** | Google Chrome™ or equivalent |
| **.NET Framework** | .NET Framework Version 4.8 or later. Windows Updates enabled for installation. |

For Complex Models, Complex Mold Assemblies, and Large Assemblies (typically more than 1,000 parts)

**CPU Type Recommended:**  
3.30 GHz or greater, 4 or more cores

**Memory Recommended:**  
64 GB RAM or greater

**Graphics Recommended:**  
4 GB GPU with 106 GB/S Bandwidth and DirectX 11 compliant

System requirements for Autodesk ReCap Pro 2021

| **Recommended system specifications** | |
| --- | --- |
| **Operating System** | Microsoft® Windows® 10 (64-bit) |
| **CPU Type** | 2.0 gigahertz (GHz) or faster 64-bit (x64) processor |
| **Memory** | 8 GB or more RAM |
| **Display Resolution** | 1600 x 1050 or higher true color |
| **Display Card** | OpenGL 3.3 capable workstation-class graphics card with 1 GB or greater graphics memory |
| **Browser** | Google Chrome™ - latest version |

| **Minimum system specifications** | |
| --- | --- |
| **Operating System** | Microsoft Windows 10 (64-bit) |
| **CPU Type** | 2.0 GHz or faster 64-bit (x64) processor |
| **Memory** | 4 GB or more RAM |
| **Display Resolution** | 1280 x 1024 with True color |
| **Display Card** | OpenGL 3.1 capable graphics device with 256 MB graphics memory |

System requirements for Autodesk ReCap Photo 2021

| **Recommended system specifications** | |
| --- | --- |
| **Operating System** | Microsoft® Windows® 10 (64-bit) |
| **CPU Type** | Multiple i7 or Intel® Xeon® processors |
| **Memory** | 32 GB system RAM |
| **Display Card** | Video Nvidia® GFX® card ¹   * One or more Nvidia® Quadro® M6000 cards OR * Nvidia® GeForce® GTX 970 upwards   ¹ Graphics card must support DirectX 11 |
| **Browser** | Google Chrome™ - latest version |
| **Minimum system specifications** | |
| **Operating System** | Microsoft Windows 10 (64-bit) |
| **CPU Type** | 2.0 GHz or faster 64-bit (x64) processor |
| **Memory** | 16 GB system RAM |
| **Display Card** | Video Nvidia® GFX® card with 4GB VRAM ¹  ¹ Graphics card must support DirectX 11 |
| **Cloud credits requirements** | In a paid subscription mode (non-trial, non-EDU), ReCap Photo requires [cloud credits](https://knowledge.autodesk.com/customer-service/account-management/users-software/reporting/cloud-credits) for processing online reconstructions.   * 1 to 300 photos will use 12 cloud credits * 301 to 700 photos will use 30 cloud credits * 701 to 1,000 photos will use 55 cloud credits |

System requirements for Autodesk Fusion 360

| **System requirements for Autodesk Fusion 360** | |
| --- | --- |
| **Operating System** | Apple® macOS™ Big Sur 11.x\*; Catalina 10.15; Mojave v10.14([learn more about Apple Security Updates](https://support.apple.com/en-us/HT201222))  Microsoft® Windows® 8.1 (64 bit) ([until January 2023](https://support.microsoft.com/en-us/help/13853/windows-lifecycle-fact-sheet))\*\*  Microsoft Windows Windows 10 (64-bit) [Windows Release Information](https://aka.ms/Windows/ReleaseInfo) |
| **CPU Type** | x86-based 64-bit processor (e.g. Intel Core i, AMD Ryzen series), 4 cores, 1.7 GHz or greater; 32-bit not supported ARM-based processors partially supported via Rosetta 2 only -[see this post for more information](https://forums.autodesk.com/t5/fusion-360-support/running-fusion-360-with-rosetta-2-on-apple-arm-based-m1-chipsets/td-p/9876850). |
| **Memory** | 4 GB of RAM (integrated graphics recommend 6 GB or more) |
| **Graphics Card** | DirectX11 (Direct3D 10.1 or greater) Dedicated GPU with 1 GB or more of VRAM Integrated graphics with 6 GB or more of RAM |
| **Disk Space** | 3 GB of storage |
| **Display Resolution** | 1366 x 768 (1920 x 1080 or greater at 100% scale strongly recommended) |
| **Pointing Device** | HID-compliant mouse or trackpad, optional Wacom® tablet and 3Dconnexion SpaceMouse® support |
| **Internet** | 2.5 Mbps or faster download; 500 Kbps or faster upload |
| **Dependencies** | SSL 3.0, TLS 1.2+ |

**Recommended specs for complex modelling and processing**

**CPU Type** 3 GHz or greater, 6 or more cores

**Memory** 8 GB RAM or greater

**Graphics** Dedicated GPU with 4 GB or more VRAM, DirectX 11 (Direct3D 11 or greater)

System requirements for Revit 2022 products

| **Revit 2022  Minimum: Entry-Level Configuration** | |
| --- | --- |
| **Operating System \*** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **CPU Type** | Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher.  Highest CPU GHz recommended. Autodesk® Revit® software products will use multiple cores for many tasks. |
| **Memory** | 8 GB RAM   * Usually sufficient for a typical editing session for a single model up to approximately 100 MB on disk. This estimate is based on internal testing and customer reports. Individual models will vary in their use of computer resources and performance characteristics. * Models created in previous versions of Revit software products may require more available memory for the one-time upgrade process. |
| **Video Display Resolutions** | **Minimum:** 1280 x 1024 with true color  **Maximum:** UltraHigh (4k) Definition Monitor |
| **Video Adapter** | **Basic Graphics:** Display adapter capable of 24-bit color  **Advanced Graphics:** DirectX® 11 capable graphics card with Shader Model 5 and a minimum of 4GB of video memory |
| **Disk Space** | 30 GB free disk space |
| **Pointing Device** | MS-Mouse or 3Dconnexion® compliant device |
| **.NET Framework** | .NET Framework Version 4.8 or later. |
| **Browser** | Microsoft Internet Explorer 10 (or higher) |
| **Connectivity** | Internet connection for license registration and prerequisite component download |

| **Revit® 2022  Value: Balanced price and performance** | |
| --- | --- |
| **Operating System ¹** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **CPU Type** | Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher.  Highest CPU GHz recommended. Autodesk® Revit® software products will use multiple cores for many tasks. |
| **Memory** | 16 GB RAM   * Usually sufficient for a typical editing session for a single model up to approximately 300 MB on disk. This estimate is based on internal testing and customer reports. Individual models will vary in their use of computer resources and performance characteristics. * Models created in previous versions of Revit software products may require more available memory for the one-time upgrade process. |
| **Video Display Resolutions** | **Minimum:** 1680 x 1050 with true color  **Maximum:** Ultra-High (4k) Definition Monitor |
| **Video Adapter** | DirectX 11 capable graphics card with Shader Model 5 and a minimum of 4GB of video memory. |
| **Disk Space** | 30 GB free disk space |
| **Pointing Device** | MS-Mouse or 3Dconnexion compliant device |
| **.NET Framework** | .NET Framework Version 4.8 or later. |
| **Browser** | Microsoft Internet Explorer 10 or higher |
| **Connectivity** | Internet connection for license registration and prerequisite component download |

| **Revit® 2022  Performance: Large, complex models** | |
| --- | --- |
| **Operating System \*** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **CPU Type** | Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher.  Highest CPU GHz recommended. Autodesk® Revit® software products will use multiple cores for many tasks. |
| **Memory** | 32 GB RAM   * Usually sufficient for a typical editing session for a single model up to approximately 700 MB on disk. This estimate is based on internal testing and customer reports. Individual models will vary in their use of computer resources and performance characteristics. * Models created in previous versions of Revit software products may require more available memory for the one-time upgrade process. |
| **Video Display Resolutions** | **Minimum:** 1920 x 1200 with true color  **Maximum:** Ultra-High (4k) Definition Monitor |
| **Video Adapter** | DirectX 11 capable graphics card with Shader Model 5 and a minimum of 4GB of video memory |
| **Disk Space** | * 30 GB free disk space * 10,000+ RPM HardDrive (for Point Cloud interactions) or Solid State Drive |
| **Pointing Device** | MS-Mouse or 3Dconnexion compliant device |
| **.NET Framework** | .NET Framework Version 4.8 or later. |
| **Browser** | Microsoft Internet Explorer 10 or higher |
| **Connectivity** | Internet connection for license registration and prerequisite component download |

| **Revit Cloud Worksharing** | | | |
| --- | --- | --- | --- |
| **Disk Space** | Three times (3X) the total disk space consumed by equivalent RVT files for all cloud workshared projects accessed by the user. | | |
|  | **Minimum** | **Value** | **Performance** |
| **Connectivity** | Internet connection able to deliver symmetrical 5 Mbps connection for each machine on burst transfers. | Internet connection able to deliver symmetrical 10 Mbps connection for each machine on burst transfers. | Internet connection able to deliver symmetrical 25 Mbps connection for each machine on burst transfers. |

| **Revit LT™ 2022** | |
| --- | --- |
| **Operating System \*** | 64-bit Microsoft® Windows® 10. See Autodesk's [Product Support Lifecycle](https://knowledge.autodesk.com/customer-service/account-management/users-software/previous-versions/previous-version-support-policy) for support information. |
| **CPU Type** | Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher.  Highest CPU GHz recommended - 3 GHz or Higher recommended Autodesk® Revit® software products will use multiple cores for many tasks. |
| **Memory** | 8 GB RAM   * Usually sufficient for a typical editing session for a single model up to approximately 100 MB on disk. This estimate is based on internal testing and customer reports. Individual models will vary in their use of computer resources and performance characteristics. * Models created in previous versions of Revit software products may require more available memory for the one-time upgrade process. |
| **Video Display Resolutions** | **Minimum:** 1280 x 1024 with true color  **Maximum:** Ultra-High (4k) Definition Monitor |
| **Video Adapter** | **Basic Graphics:** Display adapter capable of 24-bit color  **Advanced Graphics:** DirectX® 11 capable graphics card with Shader Model 5 and a minimum of 4GB of video memory |
| **Disk Space** | 30 GB free disk space |
| **Pointing Device** | MS-Mouse or 3Dconnexion compliant device |
| **.NET Framework** | .NET Framework Version 4.8 or later. |
| **Browser** | Microsoft Internet Explorer 10 or higher |
| **Connectivity** | Internet connection for license registration and prerequisite component download |