

OPERATING SYSTEMS

CNC Software continues to review the operating system (OS) requirements for Mastercam with a goal of providing the best possible user experience for our customers.

We recommend using Windows 10 version 1903 or later 64-bit Professional editions. While Mastercam may run on other Windows editions (such as Home Edition) or virtual environments (such as Parallels for Mac), it has not been tested on these configurations and is therefore not supported.

We anticipate that Mastercam 2021 will be the last release to officially support Windows 7 as Microsoft is ending extended support for the OS in January 2020. We anticipate the new versions of Mastercam will still install on Windows 7 until the release of Mastercam 2024.

PROCESSOR

The processor speed will impact how fast the software will calculate and complete tasks. With each release, more and more aspects of Mastercam are becoming multi-core processor aware. Toolpath calculation and Simulation will generally run faster with a multi-core processor. We typically see a 50% reduction in toolpath calculation time with the latest Intel i7 or Xeon processors.

MEMORY

When Mastercam uses all available RAM, it switches to using virtual memory space, which is stored on the hard drive, and will dramatically slow the system down. We recommend a minimum of 8GB memory. For large toolpath generation and simulation, we recommend 32 GB of RAM.

VIDEO

When purchasing a new computer for Mastercam, one of the most important component is the video card.

We recommend an NVIDIA Quadro® or AMD FirePro™ / Radeon Pro card with 4 GB or more of memory. Other graphics cards can be used, but they must offer full OpenGL 3.2 and OpenCL 1.2 support. OpenCL is required for Mastercam to be able to hand off certain computation tasks to the graphics card to increase system performance.

We do not recommend or support the use of onboard graphics found with some PC configurations. These do not generally have the capability to drive graphics intensive applications such as Mastercam.

Make sure you are using up-to-date drivers from your card manufacturer. We often see issues that are resolved with updated video drivers. The driver version can have a great impact on how the card performs.

The latest drivers for [NVIDIA](#) and [AMD](#) can be found at the online links. We recommend using the automatic detect feature to detect which video card is installed. More information on configuring the graphics card can be found at this [Mastercam knowledge base article](#).

MONITOR

Most of our internal systems utilize dual monitors and we find this to be a more productive setup. Mastercam displays on the primary monitor while applications such as Mastercam Simulator, Code Expert, or Tool Manager display on the secondary monitor.

The minimum recommended resolution for the primary display is 1920 * 1080 resolution typical of widescreen monitors available today. Mastercam will run on lower resolution screens but beware of potential sizing issues with larger dialog boxes and panels which may be awkward to work with. Lower resolution monitors may work fine as a second monitor in a dual screen setup.

Mastercam will run on large format displays, including 4K monitors and high-DPI devices however, we do experience some display issues with these configurations.

STORAGE

We have found that one of the best computer upgrades is to invest in a Solid State Drive (SSD). These drives are now priced at a point which makes them a good investment. Many of our test systems employ a smaller primary SSD for the OS and installed applications with a second large capacity conventional drive for data.

3D MOUSE

A 3D mouse improves the way you interact with your 3D application. It is designed to be used by your non-dominant hand in tandem with a standard mouse for a balanced and cooperative work style. You gently manipulate the 3D mouse's controller cap to simultaneously pan, zoom and rotate 3D content while your standard mouse is free to select menu items or parts of the model. Additional technical and purchase information can be found on the [3Dconnexion](#) website.

ANTI-VIRUS SOFTWARE

Most computers today have some kind of anti-virus software to protect from unwanted malware. In some cases, these have been found to interfere with applications such as Mastercam which are running on the computer. CNC Software does not recommend specific anti-virus products, but if you see unexpected issues, it may be a conflict with anti-virus software. Try temporarily disabling the anti-virus software or setting an exception for Mastercam.