

# Technical Note

**Title:** MasterSeries Hardware Requirements 2020

**Date:** 07/01/2020

## MasterSeries 2020

### General Hardware/Software Requirements

	Minimum	Purchase of new Hardware
Operating System ❶	Windows 7+ 64 bit only	Windows 10 64 bit only ❶
Processor ❷	Dual Core 1.2 GB +	“Intel Core i5+”
RAM Mb ❸	4 GB+	8-16 GB+
Hard Drive (Excluding user files)	5 GB free	1000 GB+ @7200 RPM or 250 GB SSD & 750 GB SATA ❹
External Mouse	3 button wheel mouse	Optical 3 button wheel mouse
Video Card ❺	DirectX 9 compatible, 256MB+ video RAM & Hardware Acceleration	Separate DirectX 11 Graphics Card, 1GB+ dedicated Video RAM, Hardware Acceleration
Screen Size	15”+ LED	19”+ wide screen LED
Screen Resolution ❷	900+ pixels deep	1600+ x 1080+
Broadband ❻ for downloads, updates, notifications, and technical support.	1 mbs+  Email and web access	2 mbs+ for Email & web access  5 mbs+ for Videos, Webinars & GoToMeeting

### Notes

#### ❶ Operating System

Windows 7 – Microsoft support for Windows 7 ends on the 14<sup>th</sup> January 2020. You need to upgrade your OS/hardware now. See <https://www.microsoft.com/en-us/microsoft-365/windows/end-of-windows-7-support>

Windows 8/8.1 - We do not recommend them as they are alien to most users. However, MasterSeries will run on them.

Windows 10 – Our recommended OS. It is stable & the interface is good

Apple MAC - For the Commercial versions of MasterSeries, Apple Mac users can use “Parallels desktop” <http://www.parallels.com/> to run MasterSeries (we do not guarantee current or future compatibility) The 30-day trial & Student versions will NOT run on Apple Macs due to the software lock.

#### 64-bit Operating System.

MasterSeries 2019+ requires a 64-bit operating system.

#### ❷ Processor

We recommend quad core processors

### Dual/Quad Core Processors.

MasterSeries takes direct advantage of dual/quad processors. Particularly in heavy number crunching areas such as Finite Element and Dynamic/Seismic Analysis. Multiple cores also let MasterSeries have a whole core or two, whilst other housekeeping software such as anti-virus & email use different cores.

The bottom line is that all new computers should run MasterSeries, but you get what you pay for in terms of speed.

**③ RAM:** The amount of RAM required is dependent on the amount of RAM your computer system uses. If you are networked, have anti-virus software, Outlook and the Microsoft Office loaded, then you will need to allow for this in your assessment of RAM. Your Video Card may also use your main RAM. Just remember that most new PCs need pairs of RAM chips to use dual processing and get optimum speed.

Windows 8 uses between 2 and 3 GB just for running housekeeping so we highly recommend a minimum of 8GB of RAM.

Windows 10 has better memory management

**④ Hard Drives:** Most MasterSeries files are small, but FEA and large frame output files can be large. As it is hard to upgrade or replace, get as large a hard drive as you can afford with your PC. Not all hard drives are the same. It is important to get a high-spin speed as these are faster.

You can increase your analysis speed further by installing a Solid-State Drive (SSD). SSD is a good option on new PCs as the price of SSDs has come down. You also get far faster boot times

The MasterSeries installation uses about 500 MB of hard disc space. A typical MasterSeries Data directory will grow over time, to about 1-5 GB. MasterFrame files are typically 1-10 MB in size dependant on frame complexity.

**⑤ VIDEO:** MasterSeries uses Direct X for all 3D graphics and is thus essential. Not all video cards that claim to be DirectX 11 compatible are good enough. Avoid video cards that use shared RAM; it eats your RAM and is slower. MasterSeries needs full hardware acceleration and at least one light source under HAL.

**⑥ Broadband:** ALL-new versions, updates and bug fixes to MasterSeries are uploaded to our Web Site [www.masterseries.com](http://www.masterseries.com). Full installations are 200-350 MB in size, and updates are commonly 30 MB. We DO NOT issue CDs. Posted CDs are available at an extra cost.

Webinars and Web training requires a good broadband speed.

Note: Certain technical support functions can only be provided via remote assistance software. We currently use [www.fastviewer.co.uk](http://www.fastviewer.co.uk) for tech support and [www.gotomeeting.com](http://www.gotomeeting.com) for training.

**⑦ Screen Resolution:** The latest screens are 4K+. Be careful, as on a 4K 24" screen, text will be very difficult to read and lines will be very fine. Upgrading to medium or large fonts will improve things but, unless you have Windows 10, MasterSeries will have display problems.

### Licence Servers

**①** MasterSeries is switching over to Software Lock Licencing (RMS) instead of the current USB hardware lock.

USB licences will remain active, but, all **New licences** will be supplied as a Softlock. Softlocks have many advantages over the old USB keys, one being that they are by default a network licence. If you install the new RMS Licence Manager on a server, then it needs to be a minimum of **Windows Server 2008**. The licence manager does not require a physical server; it can be installed on any windows 7 + PC, provided it is accessible from all other MasterSeries PCs.

## Example Specification System

As used by MasterSeries Help Desk.

**Style:** HP Z230  
**Processor:** Intel i7 -4790 (3.6 GHz, quad core)  
**Operating System:** Windows® 10 Pro  
**Memory:** 16 GB 1600MHz Dual Channel DDR2 (2x8GB chips)  
**Video Card:** 2 GB nVidia Quadro K620  
**Screen:** 2 No. DELL 24" wide-screen LCDs at 1920 x 1200 resolution  
**Hard Drive:** 200 GB SSD and  
1000 GB SATA hard drive  
**Network** 10/100/1000 Gigabit NIC, Wi-Fi 802.11a/g,  
**Ports:** 6 No. USB 2.0/3.0, HDMI