



# Intel® Memory and Storage Tool – GUI

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## ***Installation Guide***

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Software Version 1.6

## Revision History

Tool Version	Document Version	Description	Date
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1.1	002	<ul style="list-style-type: none"><li>Added Windows Server 2019 support</li></ul>	July 2020
1.2	003	<ul style="list-style-type: none"><li>Removed Windows 8 as Supported Operating System</li></ul>	August 2020
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1.4	005	<ul style="list-style-type: none"><li>Updated Requirements</li></ul>	November 2020
1.5	006	<ul style="list-style-type: none"><li>Updated OS support</li></ul>	January 2021
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# 1 Overview

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This guide describes how to install the Intel<sup>®</sup> Memory and Storage Tool (Intel<sup>®</sup> MAS Tool). For information on using Intel MAS Tool once installed, see the help system included with the application. For more information on Intel<sup>®</sup> SSDs, go to: [www.intel.com/ssd](http://www.intel.com/ssd).

## 1.1 Requirements

Intel MAS Tool requires the following:

- x86/x64 processor-based systems
- Supported operating systems:
  - Microsoft Windows Server 2019 x64
  - Microsoft Windows Server 2016 x64
  - Microsoft Windows Server 2012R2 x64
  - Microsoft Windows 10 x32/x64
  - Microsoft Windows 8.1 x32/x64

- Microsoft .NET Framework version 4.0.

.NET Framework version 4.0 is included with Windows 10.


If your system is running Windows 8.1 or does not have version 4.0 of .NET Framework installed, it can be installed via Windows Update or downloaded from Microsoft.

- Visual Studio 2019 C++ redistribution package

The Intel MAS Tool installer will install this package; however, there are certain dependencies that it requires to install. These dependencies are resolved by Windows Updates

- At least 350 megabytes (MB) of available space.

To determine whether the drive has enough available space:

1. Double-click **My Computer**. (On Windows 10 open 'This PC' by clicking the Start Icon  and typing 'This PC'.)
2. Right-click the drive you want to check and click **Properties** to display the amount of free space.

## 1.2 Known Limitations

Review the following limitations before installing Intel MAS Tool.

- **RAID, Dynamic Disk or Storage Space Configurations**

The Intel MAS Tool works with single SSDs, SSDs in a simple Dynamic Disk configuration, and SSDs that are part of Intel® Matrix Storage Manager or Intel® Rapid Storage Technology (Intel® RST) RAID configurations. It has support for RAID 0,1,5 & VROC RAID

The Intel MAS Tool provides limited functionality for SSDs that are part of RAID, Dynamic Disk, Windows 8.1 or Windows 10 Storage Space configurations with multiple partitions: Intel SSD Optimizer and Secure Erase are not supported in these configurations.

- **Systems with Virtualization**

The Intel MAS Tool does not work on systems running in a virtualized environment as it cannot detect the SSDs.

- **SSD Formatted with FAT32 File System**

The Intel SSD Optimizer does not work on SSDs formatted with file allocation system FAT32. New Technology File System (NTFS) is required to run Intel SSD Optimizer.

- **Systems in IDE Mode**

The Intel MAS Tool cannot update firmware on certain Intel SSDs in IDE mode.

- **Firmware Updates on Intel SSDs**

Use the [Intel® Solid State Drive Firmware Update Tool](#) to update firmware on these SSDs.

To identify your Intel SSD, view the model number on the Intel MAS Tool home screen. To identify if the Intel SSD is 50nm:

1. Select the Intel SSD on the Intel MAS Tool home screen.
2. Click **Drive Details**.
3. View the Model Number (Word 27-46). If the number contains **G1**, the Intel SSD is 50nm.

- **Device Initiated Power Management on Intel SSDs**

Intel MAS Tool System Tuner can configure Device Initiated Power Management (DIPM) settings for the following configurations only:

- Intel® Rapid Storage Technology (Intel® RST) driver
- Microsoft AHCI driver in Windows 8.1 or Windows 10

- **Windows 7 NVMe Native Driver on Intel SSDs**

By default, the Windows 7 drivers will not detect Intel NVMe SSDs. There is a hotfix available for users to install on Windows 7 that will enable the Intel MAS Tool to be able to detect NVMe drives however, this driver does not support the Intel MAS Tool features beyond detecting the drive.

**Note:** Windows 7 support is as is, this operating system is not validated or guaranteed to work. For firmware updates on Windows 7 platforms it is required to use the Intel SSD FUT (Firmware Update Tool)

## 1.3 Known Issues

- **Cannot Run Intel SSD Optimizer on RAID Configurations**

Description: Some systems without a RAID configuration display the following error message when running Intel SSD Optimizer: "Cannot run the Intel SSD Optimizer on RAID Configurations." There is currently no workaround for this issue.

Known Systems Affected: Dell Inspiron Mini 10 netbook

- **Not All Drives in a RAID Configuration are Recognized by Intel MAS Tool**

Not all drives in a RAID configuration are recognized by Intel MAS Tool

Not all drives in a RAID configuration are recognized by Intel MAS Tool. Drive details and SMART information may be obtained with another program.

Known systems affected: HP Compaq dc7800 Convertible Minitower PC, HP Compaq dc7800 Small Form Factor PC, HP Compaq dc7800 Ultra Slim Desktop PC

- **Intel MAS Tool Does Not Communicate with Drives on Some Systems**

On some systems, Intel MAS Tool does not communicate with drives and all functionality is disabled. There is no workaround for this issue.

Known systems affected: Supermicro H8DAi-2, TYAN Thunder N3600M motherboard – NVIDIA nForce Pro 3600

- **RAID Volume May Display Extended Serial Number**

When a RAID volume is selected on the home screen, the serial number may contain an extended number of characters. There is no workaround for this issue.

Known system affected: GIGABYTE GA-790FXTA-UD5

- **SSD May Report "BAD\_CONTEXT" if Secure Erase Operation is Interrupted**

During a Secure Erase operation, if the SSD loses power or if the SSD is removed from the system once the Secure Erase operation is 40% or more complete, the SSD may report "BAD\_CONTEXT" in the Serial Number field. There is no workaround for this issue.

Known drive affected: Intel® X25-E Solid State Drive

## 2 Installation and Start Up

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### 2.1 Downloading the Intel® MAS Tool

1. Go to the Intel support website by clicking [here](#).
2. Chose **Run** to begin immediately installing the application, or you can **Save** the Intel MAS Tool application (.exe file) to a folder on your computer.

### 2.2 Installing the Intel MAS Tool

1. Double-click the downloaded .exe file to start the Intel MAS Tool setup wizard (skip if you chose **Run** from step 2 above).
2. Click **Next** on the Welcome screen.
3. Click **Install** to begin the installation process.
4. Once the installation is complete, check the box if you want the application to load after completion.
5. Click **Finish**

The Intel MAS Tool installs at the default location: Program Files (x86)\Intel\Intel(R) Memory and Storage Tool\

### 2.3 Starting the Intel MAS Tool

- Click Start Menu and navigate to the Intel MAS Tool
- Double-click the Intel MAS Tool icon on your desktop to run as Administrator