



Intel[®] Memory and Storage Tool (Intel[®] MAS) Graphic User Interface (GUI)

Installation Guide

December 2023

Revision 012US



Notice: This document contains information on products in the design phase of development. The information here is subject to change without notice. Do not finalize a design with this information.

Intel technologies' features and benefits depend on system configuration and may require enabled hardware, software, or service activation. Learn more at intel.com, or from the OEM or retailer.

No computer system can be absolutely secure. Intel does not assume any liability for lost or stolen data or systems or any damages resulting from such losses.

You may not use or facilitate the use of this document in connection with any infringement or other legal analysis concerning Intel products described herein. You agree to grant Intel a non-exclusive, royalty-free license to any patent claim thereafter drafted which includes subject matter disclosed herein.

No license (express or implied, by estoppel or otherwise) to any intellectual property rights is granted by this document. The products described may contain design defects or errors known as errata which may cause the product to deviate from published specifications. Current characterized errata are available on request.

This document contains information on products, services and/or processes in development. All information provided here is subject to change without notice. Contact your Intel representative to obtain the latest Intel product specifications and roadmaps.

Intel disclaims all express and implied warranties, including without limitation, the implied warranties of merchantability, fitness for a particular purpose, and non-infringement, as well as any warranty arising from course of performance, course of dealing, or usage in trade.

Tests document performance of components on a particular test, in specific systems. Differences in hardware, software, or configuration will affect actual performance. Consult other sources of information to evaluate performance as you consider your purchase. For more complete information about performance and benchmark results, visit <http://www.intel.com/performance>.

Cost reduction scenarios described are intended as examples of how a given Intel-based product, in the specified circumstances and configurations, may affect future costs and provide cost savings. Circumstances will vary. Intel does not guarantee any costs or cost reduction.

Results have been estimated or simulated using internal Intel analysis or architecture simulation or modeling and provided to you for informational purposes. Any differences in your system hardware, software or configuration may affect your actual performance.

Intel does not control or audit third-party benchmark data or the web sites referenced in this document. You should visit the referenced web site and confirm whether referenced data are accurate.

Copies of documents which have an order number and are referenced in this document may be obtained by calling 1-800-548-4725 or by visiting www.intel.com/design/literature.htm.

Intel and the Intel logo are trademarks of Intel Corporation in the U.S. and other countries.

*Other names and brands may be claimed as the property of others

Copyright © 2022, Intel Corporation. All Rights Reserved.

Contents

1	Overview	5
1.1	Requirements	5
1.2	Known Limitations	6
1.2.1	Intel® RAID, Dynamic Disk or Storage Space Configurations	6
1.2.2	Systems with Virtualization	6
1.2.3	Intel® SSD Formatted with FAT32 File System	6
1.2.4	Windows* 7 NVMe* Native Driver on Intel SSD	6
1.3	Known Issues	7
1.3.1	Not All Drives in an Intel® RAID Configuration are Recognized by Intel® MAS Tool	7
1.3.2	Intel® MAS Tool Does Not Communicate with Drives on Some Systems.....	7
1.3.3	Intel® RAID Volume May Display Extended Serial Number	7
1.3.4	Intel® SSD May Report "BAD_CONTEXT" if Secure Erase Operation is Interrupted.....	7
2	Installation and Start Up	8
2.1	Downloading the Intel® MAS Tool	8
2.2	Installing the Intel® MAS Tool	8
2.2.1	Starting the Intel® MAS Tool.....	8



Revision History

Revision Number	Description	Date
012US	<ul style="list-style-type: none">Release for software version 2.3	December 2023
011US	<ul style="list-style-type: none">Release for software version 2.2	December 2022
010US	<ul style="list-style-type: none">Added Firmware updates for hybrid products	July 2022
009US	<ul style="list-style-type: none">Minor formatting updates	May 2022
008US	<ul style="list-style-type: none">Updated Install Guide rev version	April 2021
007US	<ul style="list-style-type: none">Updated Install Guide rev version	February 2021
006US	<ul style="list-style-type: none">Updated OS support	January 2021
005US	<ul style="list-style-type: none">Updated Requirements	November 2020
004US	<ul style="list-style-type: none">Added Support for RHEL* 8.0	October 2020
003US	<ul style="list-style-type: none">Removed Windows* 8 as Supported Operating System	August 2020
002US	<ul style="list-style-type: none">Added Windows* Server 2019 support	July 2020
002US	<ul style="list-style-type: none">Added Windows* Server 2019 support	July 2020
001US	<ul style="list-style-type: none">Initial release for software version 1.0.5	April 2020

1 Overview

This guide describes how to install the Intel® Memory and Storage Tool (Intel® MAS).

For information on using Intel® MAS Tool once installed, see the help system included with the application.

For more information on Intel® SSDs, go to:

<https://www.intel.com/content/www/us/en/products/details/memory-storage.html>

1.1 Requirements

Intel® MAS Tool requires the following:

- x86/x64 processor-based systems
- Supported operating systems:
 - Microsoft Windows Server* 2022 x64
 - Microsoft Windows Server* 2019 x64
 - Microsoft Windows Server* 2016 x64
 - Microsoft Windows Server* 2012R2 x64
 - Microsoft Windows* 11 x32/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 400 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.

1.2.1 Intel® RAID, Dynamic Disk or Storage Space Configurations

The Intel® MAS Tool works with single Intel® SSD, Intel® SSD in a simple Dynamic Disk configuration, and Intel® SSD that are part of Intel® Matrix Storage Manager or Intel® Rapid Storage Technology (Intel® RST) configurations. It supports Intel® RAID 0, 1, 5, and Intel® Virtual RAID on CPU (Intel® VROC).

The Intel® MAS Tool provides limited functionality for Intel® SSD that are part of Intel® 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.

1.2.2 Systems with Virtualization

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

1.2.3 Intel® SSD Formatted with FAT32 File System

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

1.2.4 Windows* 7 NVMe* Native Driver on Intel SSD

By default, the Windows* 7 drivers will not detect Intel® SSD with the PCIe*/NVMe* interface. 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 Firmware Update Tool (FUT).

1.3 Known Issues

1.3.1 Not All Drives in an Intel® RAID Configuration are Recognized by Intel® MAS Tool

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

Not all drives in an Intel® RAID configuration are recognized by Intel® MAS Tool. Drive details and Self-Monitoring and Reporting Technology (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

1.3.2 Intel® MAS Tool Does Not Communicate with Drives on Some Systems

On some systems, Intel® MAS Tool does 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

1.3.3 Intel® RAID Volume May Display Extended Serial Number

When an Intel® 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

1.3.4 Intel® SSD May Report "BAD_CONTEXT" if Secure Erase Operation is Interrupted

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

Known drive affected: Intel® SSD X25-E Series.

2 *Installation and Start Up*

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\

2.2.1 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.