

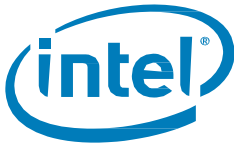
# Intel® Solid State Drive Toolbox

## Installation Guide

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*August 2018*

*Software Version 3.5.4*



## Revision History

| Revision | Description                                                                              | Revision Date  |
|----------|------------------------------------------------------------------------------------------|----------------|
| 001      | Initial release                                                                          | September 2010 |
| 002      | Updated for software version 3.1.0<br>Added updates for Windows 8                        | October 2012   |
| 003      | Updated for software version 3.1.5<br>Updated known issues and known limitation sections | June 2013      |
| 004      | Updated for software version 3.3.0                                                       | May 2015       |
| 005      | Updated for software version 3.4.0<br>Updated known issues and known limitation sections | October 2016   |
| 006      | Updated for software version 3.5.4                                                       | August 2018    |

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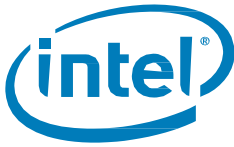
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# 1 Overview

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This guide describes how to install the Intel® Solid State Drive Toolbox (Intel® SSD Toolbox).  
For information on using Intel SSD Toolbox once installed, see the help system included with the application.  
For more information on Intel SSDs, go to: [www.intel.com/ssd](http://www.intel.com/ssd).

## 1.1 Requirements

Intel SSD Toolbox 3.5.4 requires the following:

- Supported operating systems:
  - Microsoft Windows Server 2016\*
  - Microsoft Windows Server 2012\*
  - Microsoft Windows Server 2008\*
  - Microsoft Windows 10 Enterprise\*
  - Microsoft Windows 8.1 Pro\*
  - Microsoft Windows 8.1 Enterprise\*
  - Microsoft Windows 8 Enterprise \*
  - Microsoft Windows 7 Professional\*
  - Microsoft Windows 7 Enterprise \*

- Microsoft\* .NET Framework version 4.0

.NET Framework version 4.0 is included with Windows 10\*.

If your system is running Windows 7\*, Windows 8\* or 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 2015 C++ redistribution package

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

- At least 60 megabytes (MB) of available space.

To determine whether the drive has enough available space:

1. Double-click **My Computer**.
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 SSD Toolbox.

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

Intel SSD Toolbox 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.

Intel SSD Toolbox provides limited functionality for SSDs that are part of RAID, Dynamic Disk or Windows 8\*, 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**

Intel SSD Toolbox 3.4 does not work on systems running in a virtualized environment as it cannot detect the SSDs.

- **SSD Formatted with FAT32 File System**

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**

Intel SSD Toolbox 3.4 cannot update firmware on certain Intel SSDs in IDE mode. These include:

- Intel® Solid State Drive DC S3700 Series
- Intel® Solid State Drive 335 Series
- Intel® Solid State Drive 311 Series
- Intel® Solid State Drive 310 Series
- Intel® X25-M/X18-M Solid State Drives
- Intel® X25-V Solid State Drive

- **Firmware Updates on Intel SSDs**

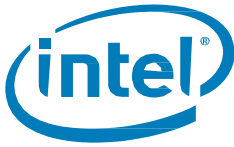
Intel SSD Toolbox 3.4 supports firmware updates on all Intel SSDs except for the following:

- Intel® Solid State Drive 510 Series
- Intel® X25-E Solid State Drive and Intel® X25-M/X18-M Solid State Drives (50nm)

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 SSD Toolbox home screen. To identify if the Intel SSD is 50nm:

1. Select the Intel SSD on the Intel SSD Toolbox 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 SSD Toolbox 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 7\*, Windows 8\*, 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 SSD Toolbox to be able to detect NVMe drives however, this driver does not support the Intel SSD Toolbox features beyond detecting the drive.

## 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 SSD Toolbox**

Not all drives in a RAID configuration are recognized by Intel SSD Toolbox

Not all drives in a RAID configuration are recognized by Intel SSD Toolbox. 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 SSD Toolbox does not communicate with drives on some systems**

On some systems, Intel SSD Toolbox 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

- **RAID Volume may display extended serial number**

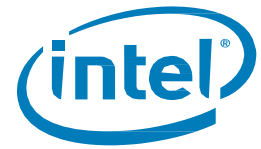
When a RAID volume is selected on the home screen, the serial number may contain an extended number of characters. There is no workaround for this issue.

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® SSD Toolbox

1. Go to the Intel support website located at <http://www.intel.com/ssd/toolbox>.
2. Chose **Run** to begin installing the application immediately, or **Save** the Intel SSD Toolbox 3.4 application (.exe file) to a folder on your computer.

### 2.2 Installing the Intel SSD Toolbox

1. Double-click the downloaded .exe file to start the Intel SSD Toolbox setup wizard (skip if you chose **Run** from step 2 above).
2. Click **Next** on the Welcome screen.
3. Review the Intel Software License Agreement, and click **Yes** to continue.
4. Click **Yes**, if you wish to install the Intel Update Manager (IUM), or **No** to continue.  
You will see a list of files as they are installed on your computer.
5. Click **Next** to proceed.  
Choose **No** if you don't want to run the Intel SSD Toolbox right away.
6. Click **Finish** when the Installation Complete dialog box appears.

The Intel SSD Toolbox installs at the default location: Program Files (x86)\Intel\Intel(R) SSD Toolbox\

### 2.3 Starting the Intel SSD Toolbox

Start Intel SSD Toolbox one of two ways:

- Double-click the Intel SSD Toolbox icon on your desktop.
- Open the Windows **Start** menu > **Intel SSD Toolbox**.

