SSD Toolbox

User Guide

OCZ STORAGE SOLUTIONS

A Toshiba Group Company

Contents

Installation Technical Support

OCZ products include free technical support for direct, expert advice.

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Introduction

The OCZ SSD Toolbox enables you to:

- update firmware and the BIOS (where relevant) on your OCZ SSD, whether it is used as a storage device or a boot drive
- send a TRIM command to clear data blocks that are no longer used
- secure erase data from your SSD, making the data unrecoverable
- carry out a supercap charge test (where relevant for your SSD)
- view SMART attributes and other data for your SSD, for monitoring and to help identify faults when contacting OCZ technical support

This guide describes how to use the SSD Toolbox GUI on Windows, Linux and Apple Macintosh systems. For information on the CLOUT command line version, see the *CLOUT SSD Toolbox Quick Reference*.

Supported OCZ SSDs include SATA 3.0 6Gb/s, SATA 2.0 3Gb/s and PCIe SSDs. For a full list, see http://ocz.com/enterprise/download/firmware or http://ocz.com/consumer/download/firmware, as relevant for your SSD.

The SSD Toolbox supports the following operating systems:

- Windows: 8.1, 8 and 7
- Linux distributions:
  - CentOS/Oracle/RedHat 6.x
  - Fedora 18-20
  - Mint 13-16
  - Oracle Unbreakable 5.8
  - SUSE 11 SP1-SP3
  - Ubuntu 12.04-13.10
- Mac operating systems

Before using the SSD Toolbox:

- always download the latest version of the SSD Toolbox; for instructions see Downloading and Starting the SSD Toolbox
- Apple Macintosh: use a USB mouse connected to your Mac; the touchpad may not allow you to move the cursor when using SSD Toolbox
- Windows and Linux: set the SATA controller to AHCI mode in the motherboard BIOS; for instructions see the user documentation for your computer
- Windows and Linux: to ensure that your SSD is correctly recognized by the SSD Toolbox, we recommend that you use Microsoft AHCI drivers
- you must run SSD Toolbox as an administrator
- for firmware or BIOS updates, your computer must be connected to the internet
- make back-up copies of any data on the SSD that you want to keep; some operations result in the complete loss of data on the SSD (you are warned if this will happen)

Downloading and Starting the SSD Toolbox

You can:

- Download the SSD Toolbox in Windows and Linux
- Download the SSD Toolbox and create a bootable USB flash drive for a Mac
- Start the SSD Toolbox
- Set a proxy server
- Find further information

Download the SSD Toolbox in Windows and Linux

1 Go to http://ocz.com/enterprise/download/firmware or http://ocz.com/consumer/download/firmware, as relevant for your SSD.

2 Find the SSD Toolbox entry for your operating system (Windows or Linux), and click it to download the **zip** or **gz** file to your computer.

Download the SSD Toolbox and create a bootable USB flash drive for a Mac

Before you start, ensure that you back up any data on the USB flash drive that you want to keep, as any data on the flash drive is erased during this procedure. These instructions assume that you are familiar with the applications described and have access to Apple Macintosh user documentation for the full instructions.

1 Go to http://ocz.com/enterprise/download/firmware or http://ocz.com/consumer/download/firmware, as relevant for your SSD.

2 Find the SSD Toolbox entry for your operating system (Macintosh), and click it to download the **zip** file to your computer.

3 Unzip the file on your computer to restore the **dmg** file.

4 Insert a USB flash drive in a USB port on the computer.

5 Do one of:
   - in the **Utilities** menu, choose **Disk Utility**
   - in the **Spotlight** (top right of your desktop), enter **Disk Utility** and press **Enter**

   The Disk Utility window is shown.

6 Select the USB flash drive partition you want to place the SSD Toolbox in.

7 In the Partition tab, select the following:
   - **Partition Layout**: 1 Partition
   - **Format**: MS-DOS (FAT)
   - leave the **Name** as Untitled 1
   - click **Options** and select **Master Boot Record**
   - click **Apply**

8 Click the Restore tab to display it.

9 In the left pane, right-click (tap the touchpad with 2 fingers) the USB flash drive partition Untitled 1 and click **Set as destination**. The partition name is shown in the **Destination** field.

10 To select the source file, do one of:
   - in the left pane, right-click (tap the touchpad with 2 fingers) the SSD Toolbox **dmg** file and click **Set as source**
   - in the right pane, click **Image** and select the SSD Toolbox **dmg** file; the file name is shown in the **Source** field

11 Click **Restore**. Messages are shown asking you to:
- confirm that you want to restore to disk: click **Restore**
- confirm that you want to erase the contents of the USB flash drive partition: click **Erase**
- enter your administrator user name and password
- confirm scanning the dmg file; click **Scan**

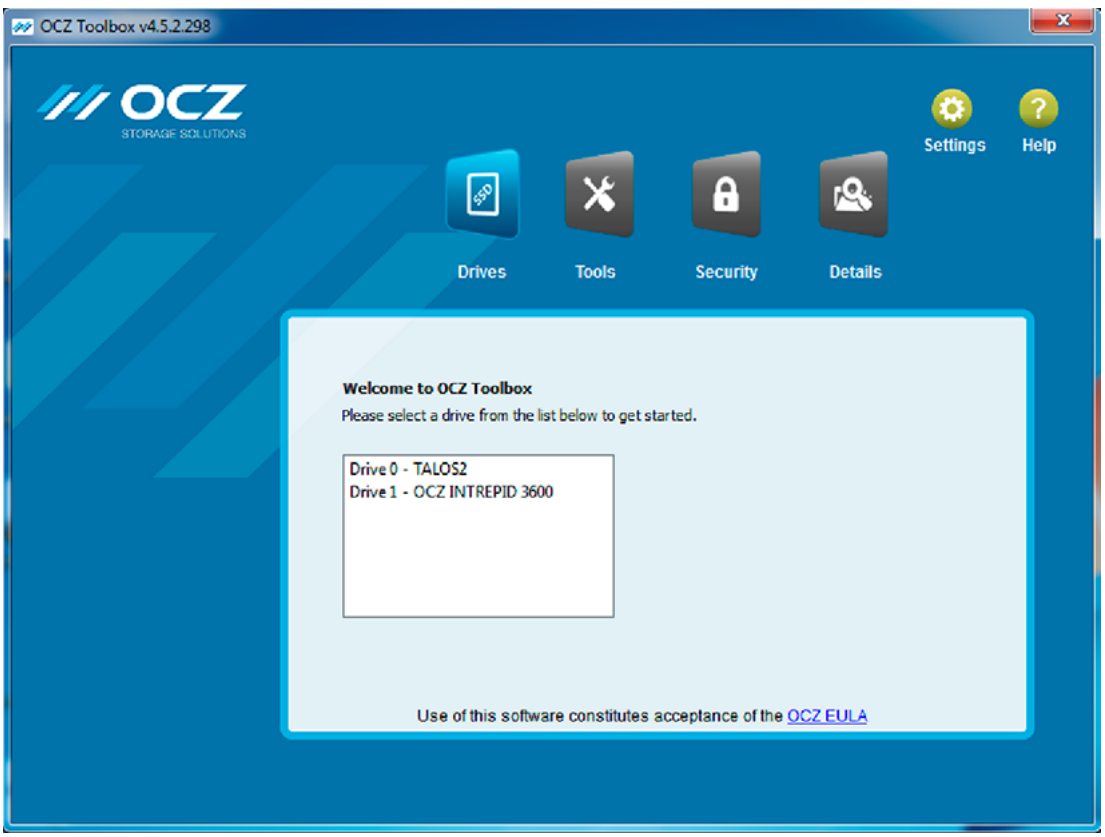
12 When the SSD Toolbox is created as a bootable item on the USB flash drive, the partition is listed in the left pane as **LINUX**.

13 Shut your computer down. You can now Start the SSD Toolbox.

Start the SSD Toolbox

1 Choose one of:
- Windows and Linux:
  - unpack the application file on your computer
  - double-click the application file
- Apple Macintosh:
  - insert the bootable USB flash drive in a USB port on your computer and start it up
  - immediately after the chime, or when the screen switches on (indicated by the black screen becoming gray), hold down the **Option** (**Alt**) key until the bootable drives are listed, including a USB icon (example below). This can take from several seconds up to several minutes: you must continue to press the **Option** (**Alt**) key

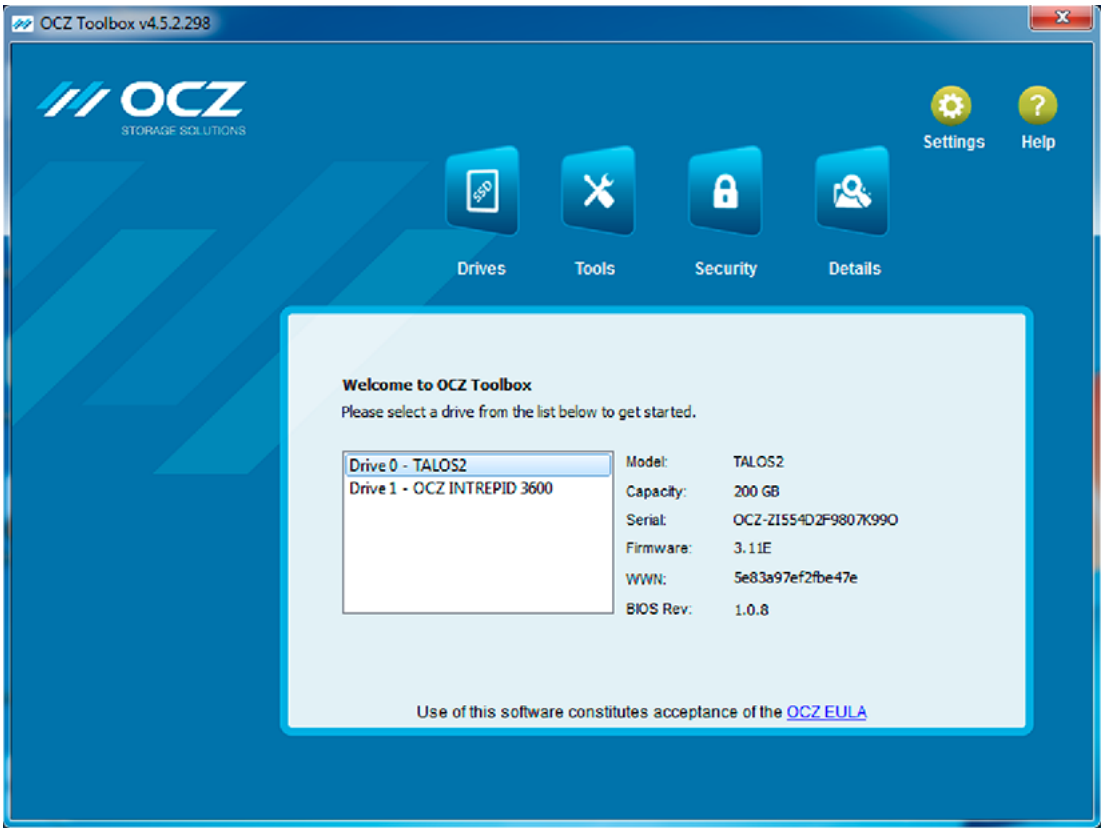
2 The Welcome window is shown, listing the detected OCZ SSDs on your computer.



If the list does not include all your SSDs, click **Drives** to update the list.

You can click **Drives** at any time to show the list of available SSDs, before choosing another task.

3 Select an SSD in the list. A summary of the SSD is shown and the remaining buttons become active.



Set a proxy server

If your network uses a proxy server to connect to the internet, you can tell SSD Toolbox which proxy server to use.

1 On the main window, click **Settings** . The Proxy server window is shown.

2 Enter the address, port identifier and type of authentication.

3 Click **OK** to save your settings. A message is shown indicating that you are using a proxy server.

Find further information

To view further instructions for a task, click **Help** . The Help is shown in a separate window that you can move, scroll through and close when finished.
If you do not find the information you need in the Help, you can contact our technical support team; for details, see inside the front cover of this guide.

Updating Firmware or BIOS on Your SSD

Our firmware and BIOS updates can enhance the performance of your SSD. To check your current firmware or BIOS version, you can use the SSD Toolbox.

Before updating your firmware or BIOS, be aware of the following:

- updating the firmware or BIOS on certain SSDs deletes all data on the SSD; a warning is shown if this applies to your SSD. We recommend that you back up any data you want to retain. You can check which updates and which SSDs may be affected at http://ocz.com/enterprise/download/firmware or http://ocz.com/consumer/download/firmware, as relevant for your SSD
- Windows only: you cannot use the SSD Toolbox to update firmware or BIOS on some SSDs that are used as a boot drive. A warning is shown if this applies to your SSD. Instead, either install the SSD as a storage device (on a different computer), or follow the instructions in Update firmware or BIOS for an SSD used as a boot device
- your computer must be connected to the internet when updating firmware or BIOS

Update firmware or BIOS for an SSD on a Windows or Linux system

You can:

- Update firmware or BIOS for an SSD used as a storage device
- Update firmware or BIOS for an SSD used as a boot device

Update firmware or BIOS for an SSD used as a storage device

1. Start the SSD Toolbox, select the SSD you want to update and click **Tools**
2. . The Drive Configuration Management Tools window is shown.
3. Click one of:
   - **Update Firmware** to download and update firmware
   - **Update BIOS** to download and update the BIOS

   If relevant for your SSD, a message is shown warning you that data on the SSD may be lost, and asking you to confirm the update.
4. Click **Yes**. One of the following happens:
   - if you are trying to update an SSD that is used as a boot device in Windows, a message is shown indicating that the firmware or BIOS cannot be updated. For instructions on how to update a boot device, see Update firmware or BIOS for an SSD used as a boot device below
   - if you already have the latest version of firmware or BIOS installed, a message is shown to indicate this and asks you to confirm whether to continue
   - if the update can proceed, a progress bar is shown indicating the progress of the update

Update firmware or BIOS for an SSD used as a boot device

1. Start the SSD Toolbox, select the SSD you want to update and click **Tools**. The Drive Configuration Management Tools window is shown.
2. Click one of **Update Firmware**, **Update BIOS** or **Create CD or USB boot media**. The Create bootable media window is shown.

3 Do one of:

To create bootable media on a...	do this...
USB flash drive	▪ select **USB stick** ▪ choose the relevant path to the USB flash drive ▪ click **OK**
CD	▪ select **ISO file** ▪ choose the location to save the ISO file to (for example your desktop) ▪ click **OK** ▪ go to the ISO file and double-click it ▪ follow the instructions on the screen

4 When finished, go into your computer's BIOS and change the boot settings. For instructions, see the user documentation for your system.

5 Reboot your computer from the USB flash drive or CD. The firmware update process normally starts automatically. A message is shown indicating when the firmware update is finished.

6 Reset your BIOS settings to boot from the SSD, remove the USB flash drive, then restart your computer.

Update firmware or BIOS for an SSD on an Apple Macintosh

1 Start the SSD Toolbox, select the SSD you want to update and click **Tools**  . The Drive Configuration Management Tools window is shown.

2 Click one of:
   - **Update Firmware** to download and update firmware
   - **Update BIOS** to download and update the BIOS

   If relevant for your SSD, a message is shown warning you that data on the SSD may be lost, and asking you to confirm the update.

3 Click **Yes**. One of the following happens:
   - if you already have the latest version of firmware or BIOS installed, a message is shown to indicate this and asks you to confirm whether to continue
   - if the update can proceed, a progress bar is shown indicating the progress of the update

4 When finished, shut down your computer and remove the USB flash drive. You can now restart your computer as normal.

Running a Supercap Charge Test

You can test the power loss protection capacity, if relevant for your SSD.

1 Start the SSD Toolbox, select the SSD you want and click **Tools**  . The Drive Configuration Management Tools window is shown.

2 Click **Supercap**. The test is run.

3 When completed, a message is shown indicating whether the test was successful.

Trimming Your SSD

You can manually send a TRIM command to your SSD to clear blocks of data that are no longer used by the file system.

This feature is not supported on all SSDs; the option is grayed out if it is not available.

1 Start the SSD Toolbox, select the SSD you want and click **Tools** . The Drive Configuration Management Tools window is shown.

2 Click **TRIM**. A progress bar is shown, indicating the progress of the trimming.

3 When completed, a message is shown indicating that the trimming has succeeded.

Secure Erasing Your SSD

You can delete data from your SSD in a way that makes it unrecoverable and return your SSD to an uninitialized state. The SSD is returned to an out-of-box state. If you want to retain the data, copy it somewhere else before you secure erase.

1 Start the SSD Toolbox, select the SSD you want and click **Security** . The Manage Drive Data Security window is shown.

2 Click **Secure Erase**. A message is shown asking you to confirm the erase.

3 Click **Yes**. When completed a message is shown indicating that the secure erase has succeeded. Reboot your system to complete the secure erase.

Viewing SMART Attributes or Device Details

You can view advanced details for your SSD to help monitor performance or to send to OCZ technical support when you need help identifying a fault.

1 Start the SSD Toolbox, select the SSD you want and click **Details** . The Display Drive Attribute Details window is shown.

2 Click one of:
- **SMART Data** to view SMART attributes for the SSD
- **Identify Data** to view advanced configuration details for the SSD

The details are shown in a separate window.

3 To copy the details to a text file, right-click in the window, press **Ctrl + A** then **CTRL + C**. Paste the copied text into your chosen text file.

Creating a Log File

If you contact OCZ technical support to request help with a fault, the technical support team may ask you to provide and send to us a log file for your installation.

To switch on the log file option and create a log file, after starting the SSD Toolbox, hold down **Ctrl+Shift+L**. The log file is created automatically and is stored in the active directory. For example, in the folder that the SSD Toolbox application file is located.

The file name is in the format **OCZToolbox***mmddyyyy***.log**.

The log file lists SSDs detected after logging is switched on. To update and log the list of SSDs after logging is switched on, click **Drives** .

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