



User Guide

Storage Executive

Introduction

This guide describes how to install and use Storage Executive to monitor and manage Micron solid-state drives (SSDs).

Storage Executive provides the ability to:

- View all drives installed in a system and see current drive status and capacity, temperature, firmware version, and driver information.
- View SMART attributes.
- Update firmware.
- Remove all data from a drive by performing a sanitize, format drive, or physical security ID (PSID) revert operation.
- Enhance burst performance by enabling the Momentum Cache feature.
- Improve drive performance and endurance by allocating over-provisioning capacity.
- Increase drive endurance by setting Flex Capacity (supported drives only).
- Perform a drive self-test.
- Create or delete namespaces.

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Installing and Starting Storage Executive

Storage Executive supports the SSDs listed below. Install Storage Executive on each system containing the SSD(s) you want to manage.

Table: 1 System Requirements

Requirement	Description		
Micron SSD	SATA SSDs: <ul style="list-style-type: none"> • 5400 • 5300 Series • 5210 • 5200 Series • 5100 Series • 1300 • 1100 • M500 • M500DC • M500IT • M510 • M510DC • M550 • M600 • P400M 	NVMe™ SSDs: <ul style="list-style-type: none"> • 2100AI, 2100AT • 2200 • 2210 • 2300 • 2400 • 2450 • 2550 • 3400 • 3460 • 3500 • 4150 • 6400ZNS • 6500ZNS • 6500ION • 7100 Series • 7300 Series • 7400 Series • 7450 Series • 7500PRO 7500MAX • 9100 Series • 9200 Series • 9300 Series • 9400 Series • 9500.Series • P7 	SAS SSDs <ul style="list-style-type: none"> • S610DC • S630DC • S650DC • S655DC



Table: 2 Supported OS

Requirement	Description
Operating system	<ul style="list-style-type: none"> • Microsoft Windows Server® 2022 • Microsoft Windows Server® 2019, 2016 • Windows® 11 (x64) • Windows® 10 (x64) • Red Hat® Enterprise Linux® version 7.0 or later • SUSE® Linux Enterprise Desktop 12, 11 • Ubuntu® Desktop 18.04 LTS or later • CentOS 7.x or later • Fedora 14 and later • Debian 11 and later • Rocky Linux 9.0 and later

Table: 3 NVMe Driver Support

Driver	Description
Micron Windows NVMe driver	For all supported versions of Windows, supports all Storage Executive features
Inbox Microsoft Windows 10 and Windows 11 NVMe driver	Supports all Storage Executive features except: -Configure Power Management feature for an NVMe drive -Perform format namespace operation
Linux inbox NVMe driver	Supports all Storage Executive features when drive is configured through Linux inbox driver
The Intel® Rapid Storage Technology (Intel® RST) driver	Supports limited storage executive features when drive is configured with IRST driver

Table: 4 RAID Controller Support

RAID Controller	Details
Avago MegaRAID, Smart HBA, Microchip Smart RAID, Smart Array Controllers	Drives connected to MegaRAID controllers appear with the following device name, where X indicates the ID of the MegaRAID controller and Y indicates the ID of the drive behind the controller: mraidX:Y



Installation

1. Download Storage Executive from micron.com.
2. Run the installation file:
 - i) Windows: **Storage-Executive-setup.exe**
 - ii) Linux: **Storage-Executive-setup.run**
3. Follow the instructions on the screen.
4. Click Finish when the installation completes.

Starting Storage Executive

In Windows:

1. Open the Windows Start menu.
2. Click All Programs > Micron Storage Executive > Micron Storage Executive.

In Linux:

1. Navigate to /opt/Micron Technology/Micron Storage Executive.
2. Run the following command: **./Storage Executive Client.run**

When Storage Executive starts, the System Information screen appears.

Stopping and Exiting Storage Executive

To stop and exit Storage Executive, click the **X** in the upper right window of the application.

Obtaining Help

For help or additional information while using Storage Executive, click the **Help** link.

To contact customer support, click the **Support** link and enter the requested information.

For a list of global SSD support websites, click the **About** link and select SSD Support Website.

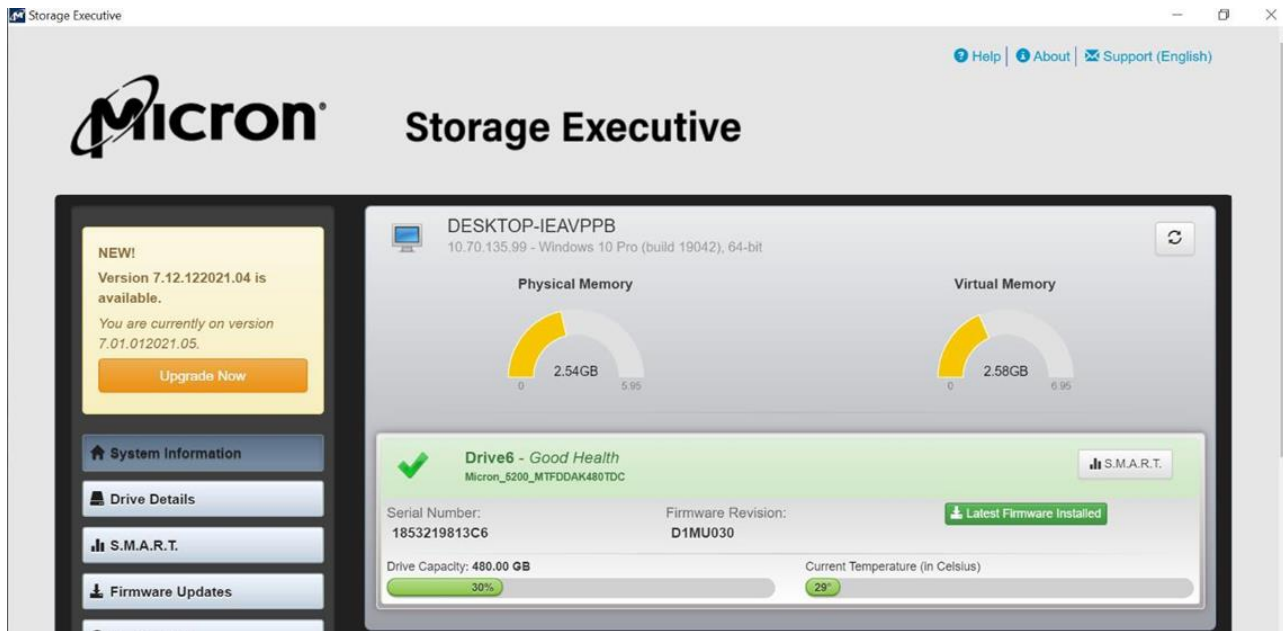


Updating Storage Executive

To view the version of Storage Executive installed on the system, click the **About** link.

When a new version of the software becomes available, a notice automatically appears above the management options.

Fig: 1 Storage Executive GUI





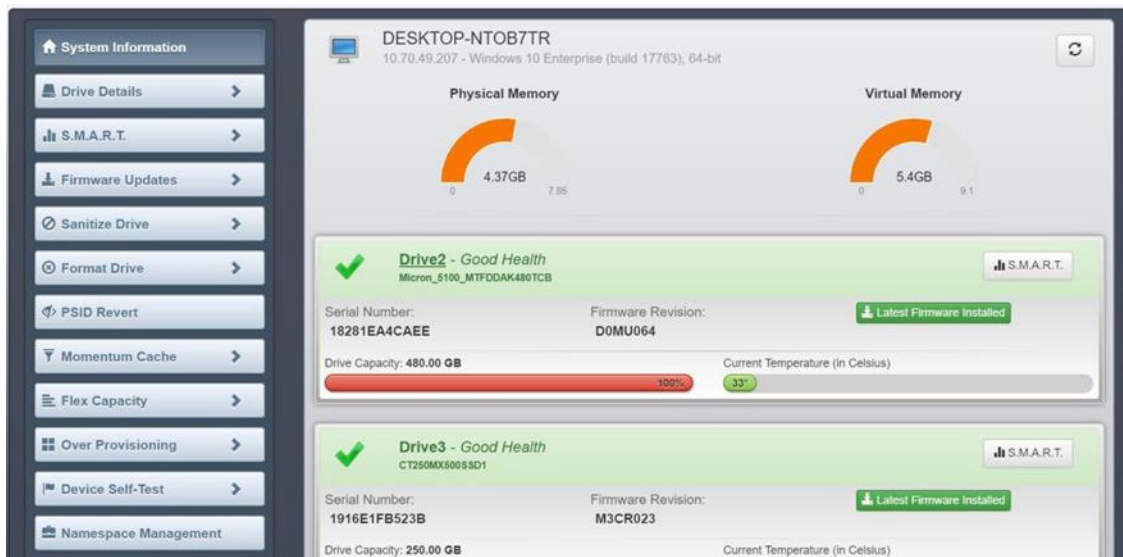
Using Storage Executive

At startup, Storage Executive detects all supported Micron SSDs installed in the system as well as standard hard drives and third-party SSDs.

The System Information screen appears and displays:

- Management options
- System information
- All detected drives and their status

Fig: 2 System Information



Management Options

Options for managing a drive appear on the left side of the screen. Options available may vary depending on the type and model of drive(s) installed in the system:

- System Information
- Drive Details
- SMART
- Firmware Updates
- Sanitize Drive
- Format Drive
- PSID Revert
- Momentum Cache
- Flex Capacity
- Over-Provisioning
- Device Self-Test
- Namespace Management



System Information

General system information appears at the top of the screen:

- **System details:** Hostname, IP address, and installed operating system.
- **Physical memory:** Amount of memory installed in the system.
- **Virtual memory:** Amount of virtual memory configured in the system.

Detected Drives

All drives installed in the system appear in the lower portion of the screen.










Information displayed depends on the type and model of drive(s) detected:

- **Drive status:** Overall status of the drive (Table 4).
- **Drive number and name:** Name and number assigned to the drive. Click on the drive number to view the driver's details.
- **Serial number:** Manufacturing serial number of the drive.
- **Firmware availability:** Indicates if a new version of firmware is available for the drive. This information is not available for standard hard drives or third-party SSDs.
- **Current temperature:** Current operating temperature of the drive as reported by the SMART temperature attribute. This information is not available for standard hard drives or third-party SSDs.
- **Drive capacity:** Percentage of drive capacity used out of total capacity.
- **SMART button:** Click to view the drive's Self-Monitoring, Analysis, and Reporting Technology (SMART) attributes.

The order of the drives displayed on the screen is determined by the status of each drive. Drives with errors or warnings appear before drives that are functioning properly (with no errors).



Table: 4 Drive Status

Drive Status	Description
 Drive3 - Good Health Micron_M550_EEFDDAK512MAY	Good Health Drive is operating properly (no errors).
 Drive3 - Busy Micron_M550_EEFDDAK512MAY	Busy Drive is busy with an operation. This is a temporary state and occurs when a long-running operation is in progress.
 Drive6 - Sanitize In Progress Micron_M600_EEFDDAK512MAY	Sanitize In Progress Sanitize drive operation is in progress.
 Drive5 - Near TBW Micron_M600_EEFDDAK512MAY	Near TBW/Has Met TBW Drive is nearing or has met its limit for total bytes written (TBW). The drive will continue to operate normally; however, it is recommended to back up all drive data to an alternate storage device and replace the drive as soon as possible.
 Drive4 - Nearing Write Protect Micron_M500_EEFDDAK512MAY	Nearing Write Protect Drive is approaching the end of its lifespan and will soon enter write protect (read-only) mode. It is recommended to back up all data to an alternate storage device and replace the drive as soon as possible.
 Drive4 - Exceeded SMART Threshold Micron_M600_MTFDDAK1T0MBF	SMART Threshold Exceeded One or more SMART threshold values has been exceeded on the drive.
 Drive3 - In Write Protect Micron_M550_EEFDDAK512MAY	In Write Protect Drive has reached the end of its lifespan and is in write protect (read-only) mode. Any pending data should be saved to an alternate storage device and the drive replaced as soon as possible.
 Drive4 - In Fault State Micron_M500_EEFDDAK512MAY	In Fault State Drive is in a faulty state, which could result in unreliable behavior (drive operations may fail or drive information may no longer be available). Contact Micron support on the Contact Support page.
 /dev/nvme0 - Attention! Drive is in Panic State! EEFDKCC1T9QFR	Drive is in With Drive in panic state, Only limited functionalities supported on the drive

Refreshing Information

Click the **Refresh** icon in the upper right corner of the screen to refresh detected drives and drive information.

Selecting a Drive

Select a drive using one of two methods:

- Click on a drive number to view the drive's details. (Fig: 3)
- Click a management option and then select a drive to manage. (Fig: 4)

Fig: 3 Selecting a Drive for Details

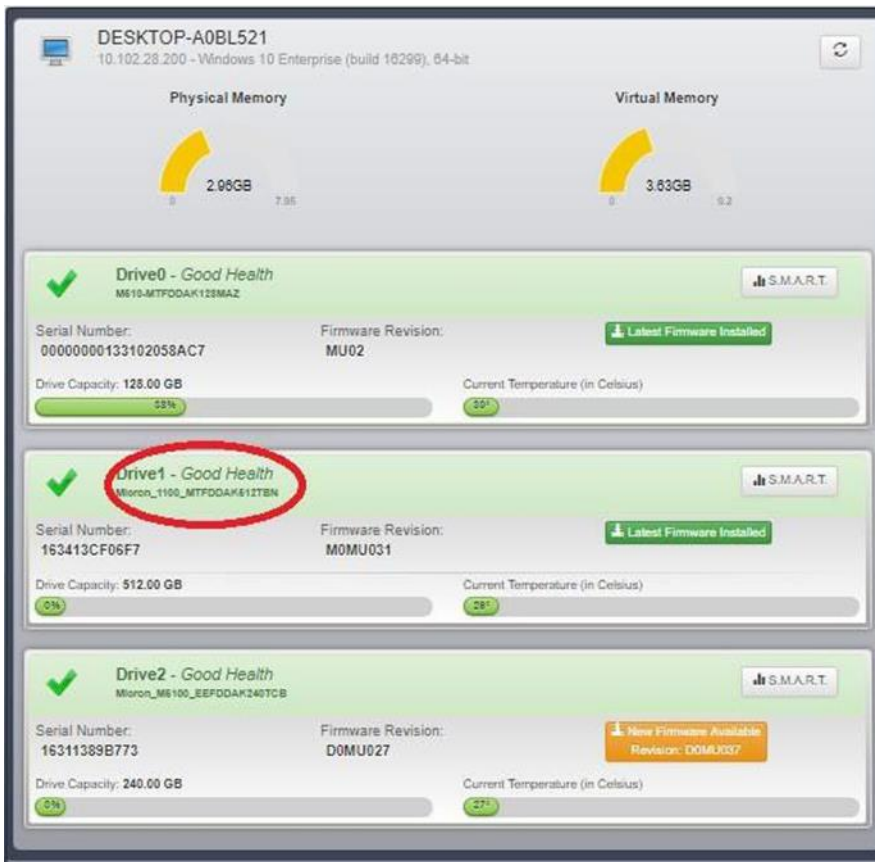
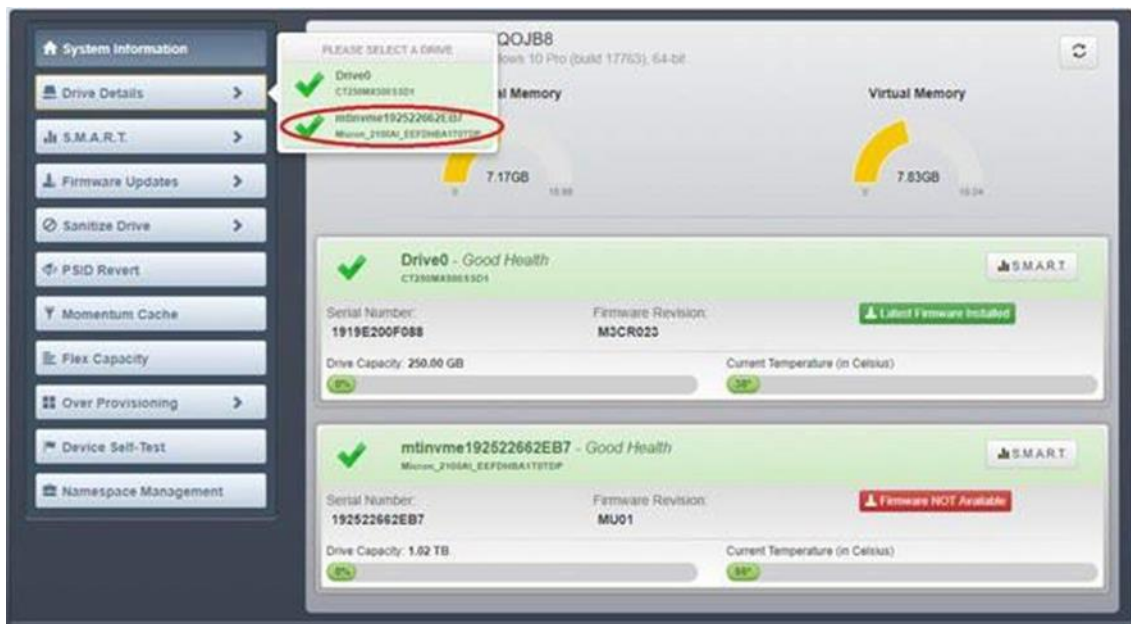




Fig: 4 Selecting a Drive to Manage



Viewing and Saving Drive Details

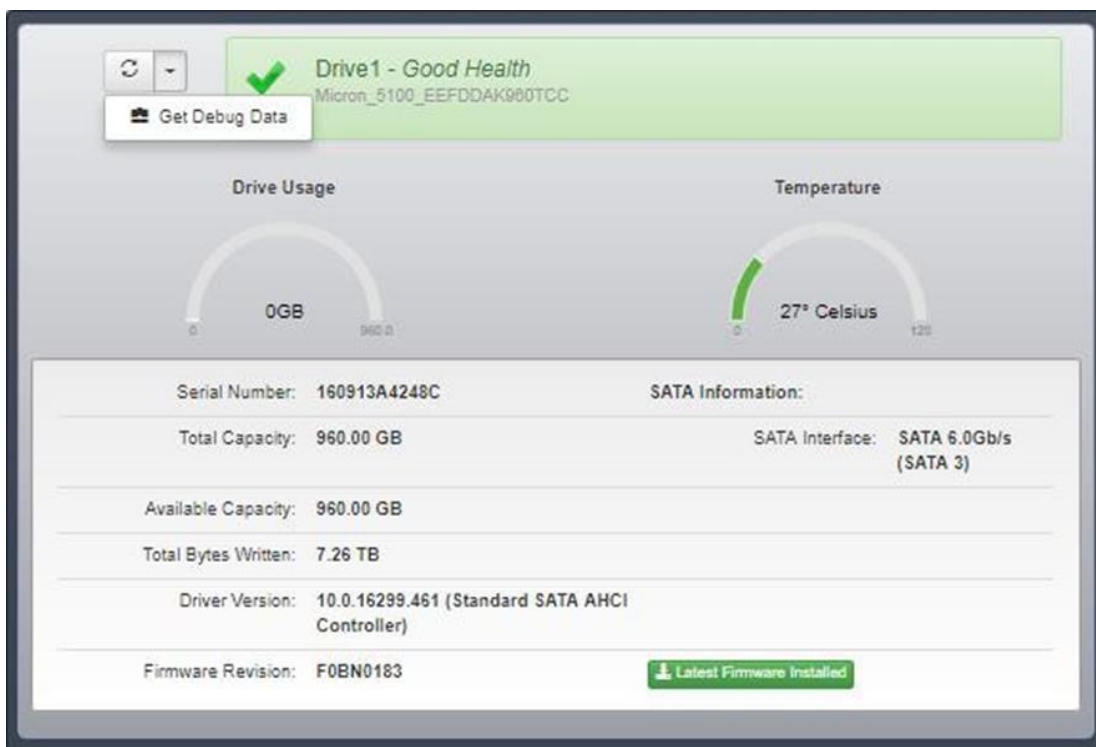
The Drive Details screen provides various information about a selected drive, including:

- Basic information such as capacity, interface, temperature, and driver versions.
- Performance and optimization information.
- SMART threshold alerts.
- Debug data including controller and OS information.

Viewing Basic Information

- Click a drive number on the System Information screen or click on the **Drive Details** menu and select a drive.
- Then drive's details will appear.

Fig: 5 Drive Details



Note: The drive capacity reported by Storage Executive may vary from the capacity reported by the operating system. Storage Executive reports 1KB as 1000bytes. Most operating systems report 1KB as 1024 bytes.

Also note:

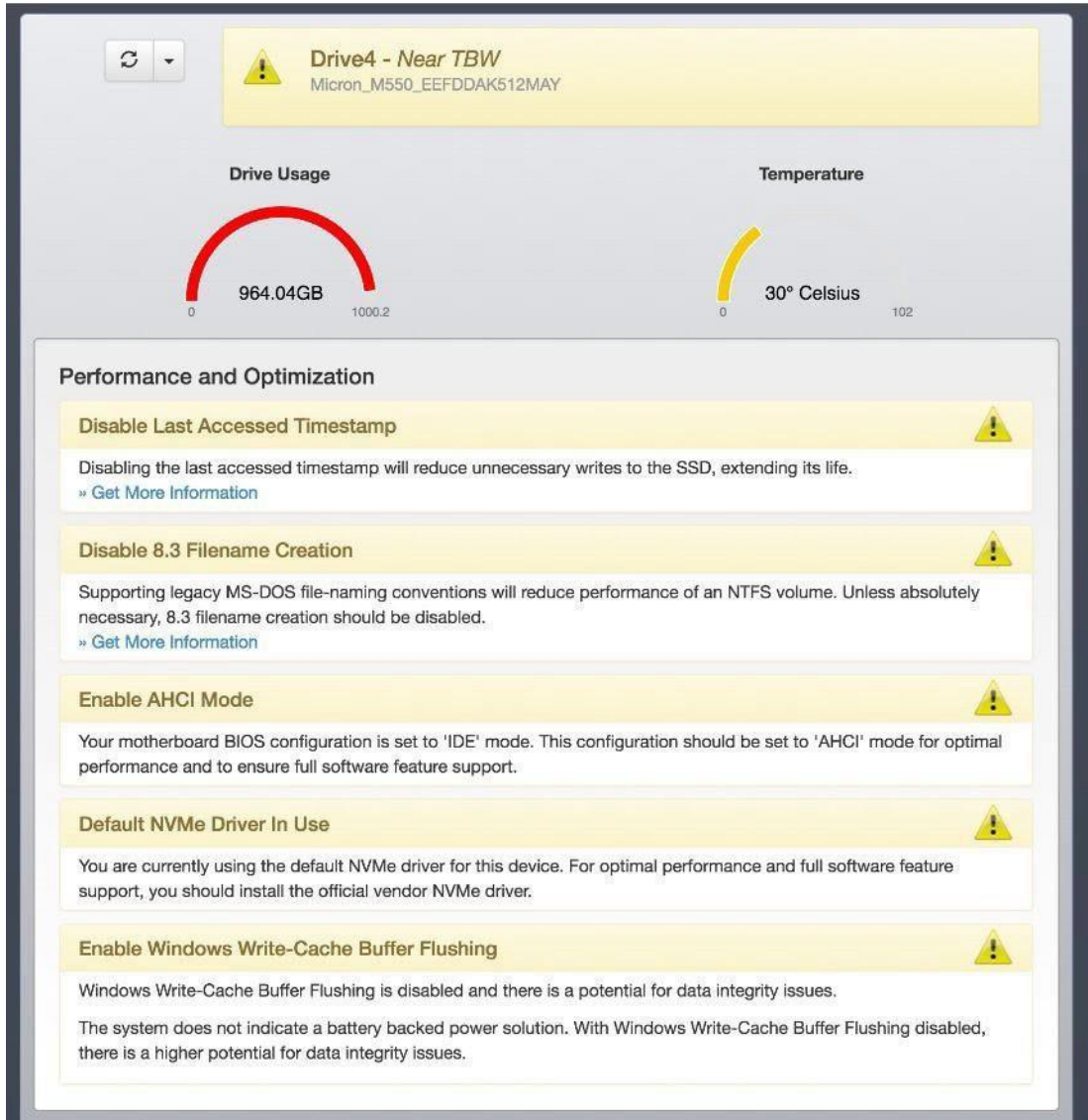
- Drive capacity (Drive Usage gauge) does not appear for drives behind a RAID controller.
- If a drive does not contain partitions, the entire drive is reported as available.
- If a drive does contain a partition but the partition is not mounted, the entire partition is reported as unavailable.
- If a drive contains a partition and the partition is mounted, the portion that is used is reported as unavailable while the remaining portion is reported as available.
- Click the **Refresh** button to refresh the information.

Viewing Drive Performance and Optimization

If the selected drive can be optimized for performance, information appears at the top of the Drive Details screen describing what action(s) can be taken.

Note: This information varies and only appears if the selected drive is not meeting a performance or optimization condition.

Fig: 6 Performance and Optimization Information





Viewing SMART Thresholds

If the selected drive exceeds Smart threshold, a warning appears at the top of the Drive Details screen with a list of SMART attributes.

Fig 7 Drive Details—SMART Threshold Exceeded:

The screenshot displays the 'Drive2 - Exceeded SMART Threshold' warning for a Micron_5200_EEFDDAK1T9TDC drive. It lists exceeded SMART thresholds: 5 Retired NAND Blocks and 170 Reserved block count. Drive usage is shown at 0.24GB and temperature at 27° Celsius. A performance warning suggests disabling 8.3 filename creation. Hardware details include Serial Number 174619A93C86, Total Capacity 1.92 TB, Available Capacity 1.92 TB, Total Bytes Written 91.55 GB, Driver Version 10.0.16299.461, and Firmware Revision D1MU004.

ID	Description
5	Retired NAND Blocks
170	Reserved block count

Serial Number:	174619A93C86	SATA Information:	
Total Capacity:	1.92 TB	SATA Interface:	SATA 6.0Gb/s (SATA 3)
Available Capacity:	1.92 TB		
Total Bytes Written:	91.55 GB		
Driver Version:	10.0.16299.461 (Standard SATA AHCI Controller)		
Firmware Revision:	D1MU004	Latest Firmware Installed	

Saving Drive Debug Data

Drive debug data can be useful when contacting customer support.

This information includes:

- Controller information (firmware logs, SMART data, and SMART logs).
- Drive information (serial number, model number, firmware version, drive status, and driver version).
- OS information (memory usage, kernel version, system interrupts, and CPU information).

1. Open the drop-down menu at the top of the Drive Details screen and select the **Get Debug Data** option.

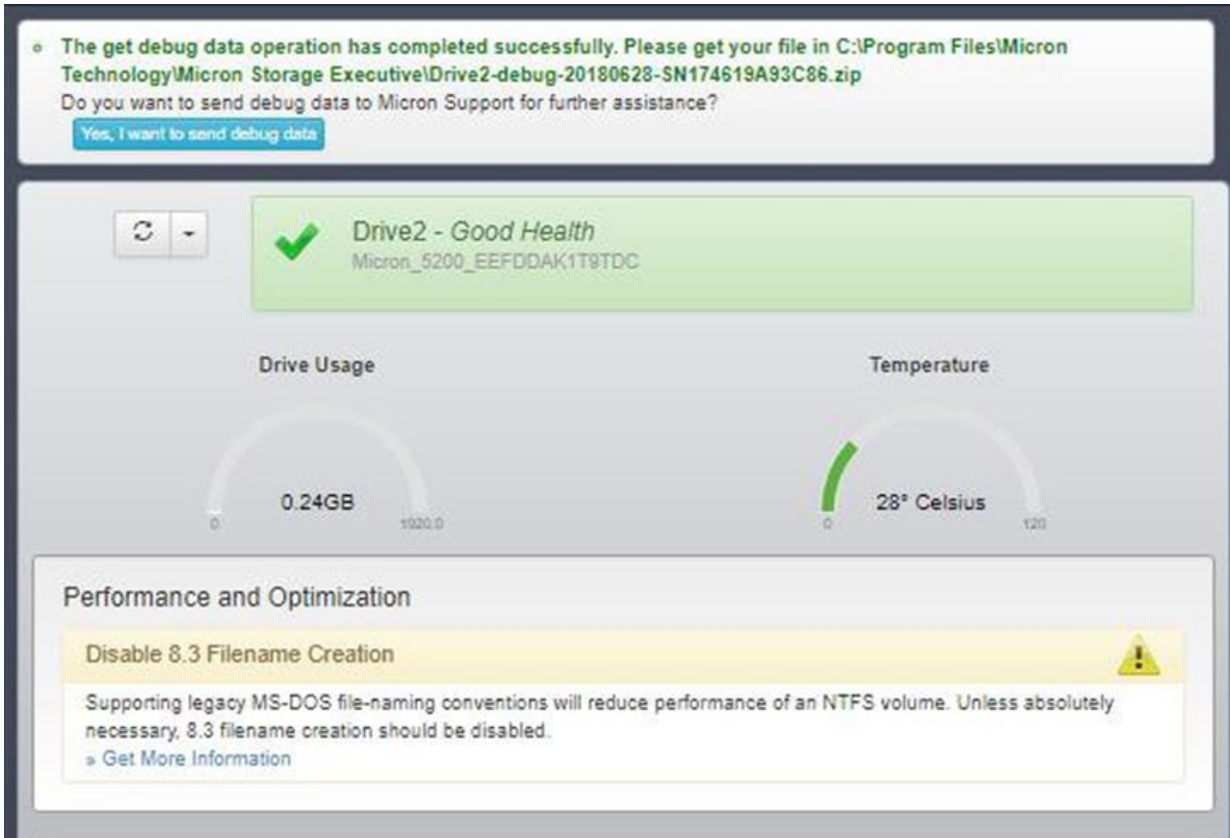
The data is saved as a zip file in the Storage Executive installation directory, as noted at the top of the Drive Details screen.

2. You can send the debug data to Micron support by clicking the **Yes, I want to send debug data** button.
3. Click the **Get Debug Data** option multiple times to overwrite the .zip file with the latest information.

Fig: 8 Get Debug Data Option



Fig: 9 Debug Data





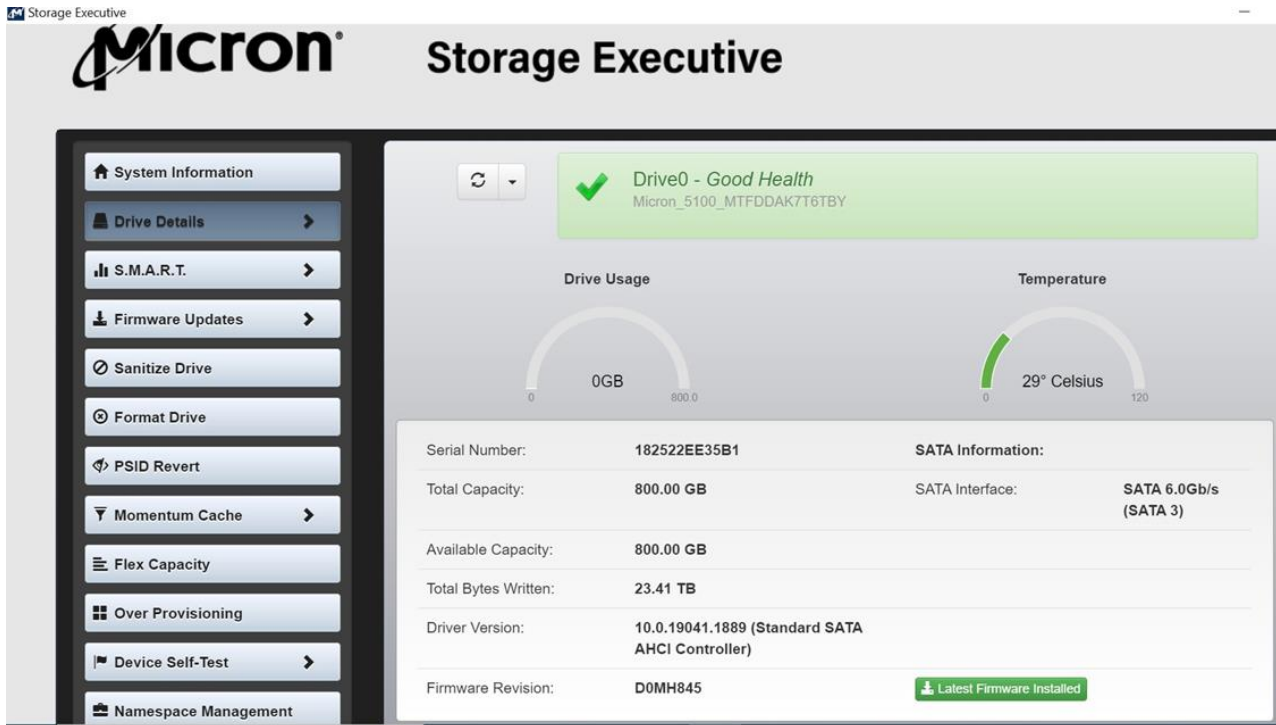
Removing a Drive (PCIe Drives Only)

This section describes how to use Storage Executive to prepare a drive for physical removal from the system.

Note: This option is available only with hot-swappable PCIe drives.

1. Click on the **Drive Details** menu and select a drive.
2. Click the drop-down menu at the top of the screen and select **Prepare for Removal**.

Fig: 10 Prepare for Removal





Displaying SMART Attributes

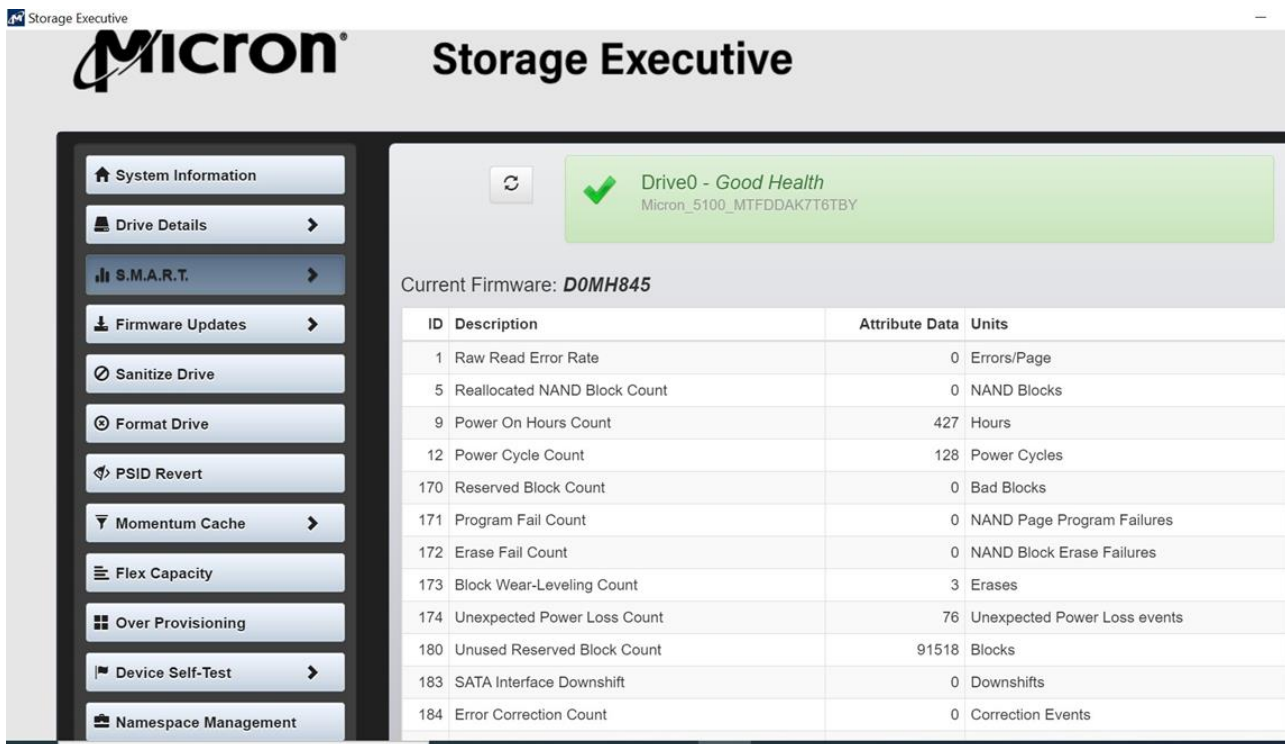
This section describes how to display the Self-Monitoring, Analysis, and Reporting Technology (SMART) attributes of a Micron SSD. SMART is a monitoring framework used to detect and report various indicators of consistency and anticipate failures.

1. Click on the **SMART** menu and select a drive.
2. The standard SMART attributes and attribute IDs for the selected drive appear.
3. Click the **Refresh** button to refresh the drive's SMART details.

For a customer-specific list of SMART attribute details, see the Client SSD SMART Attribute Reference Technical Note (TN-FD-22) available on micron.com, or contact your Micron customer representative.

If a drive exceeds a SMART attribute threshold, the status appears on the Drive Details screen.

Fig: 11 SMART Attributes





Performing a Firmware Update

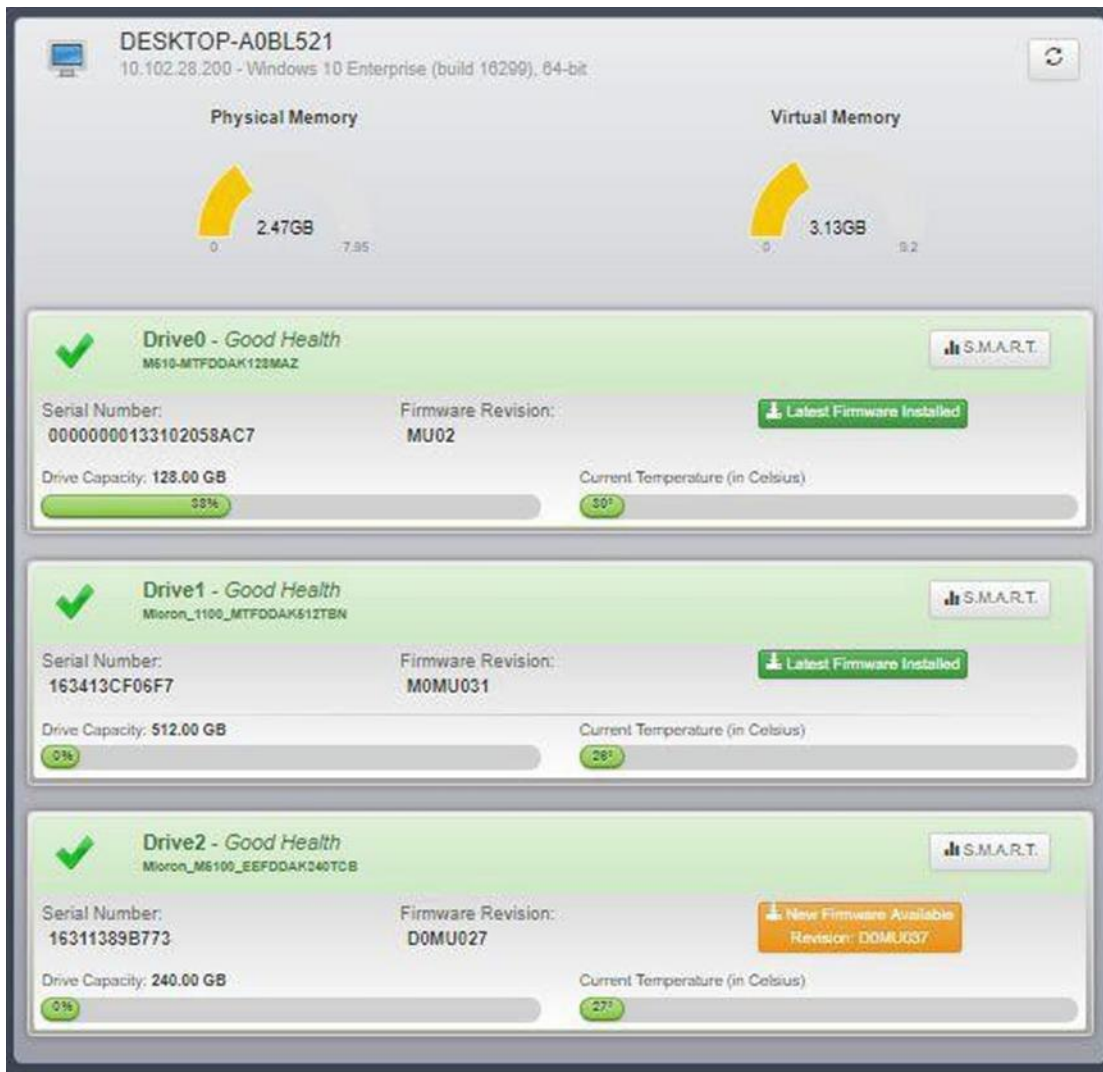
This section describes how to check for and perform firmware updates on supported drives.

Checking for Firmware Updates

To see if a firmware update is available, view the drive information on the System Information screen.

If your system has Internet access and is not behind a proxy server, Storage Executive detects and automatically displays the status of a drive's firmware version: Latest Firmware Installed, New Firmware Available, Update Firmware, or Firmware Not Available. For some drives, a Check Firmware button is available to manually check the status. For standard hard drives or third-party SSDs, firmware update is not available.

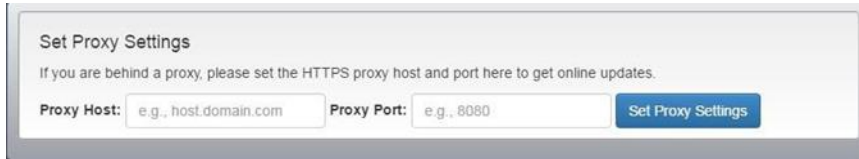
Fig: 12 System Information—Firmware Update Availability



Systems Behind a Proxy Server

If your system is behind a proxy server, set the proxy server information (on the System Information screen or the Firmware Update screen) to enable firmware update checks:

Fig: 13 Set Proxy Settings



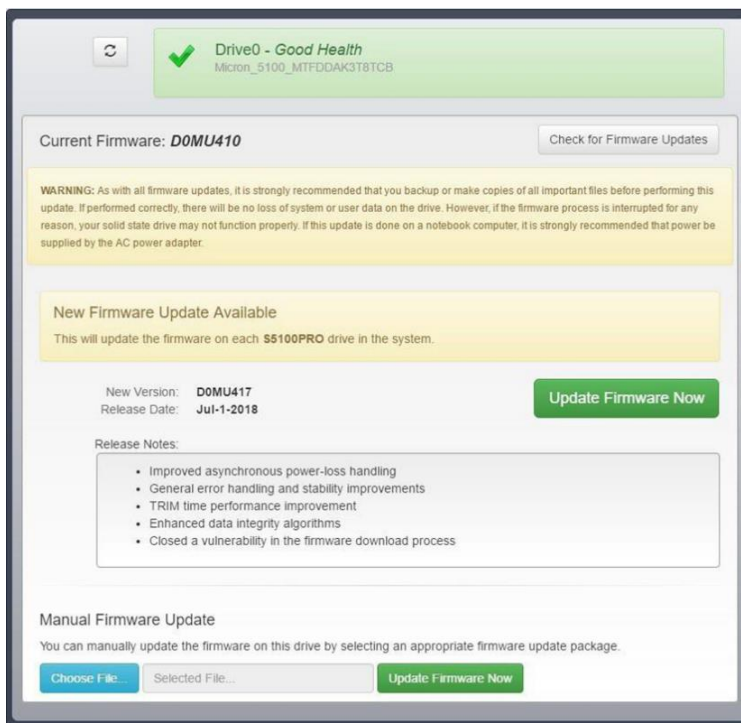
Updating Firmware

Before performing a firmware update, save all work and close any applications that may be running.

NOTE: All drives in the system of the same model type are updated when you perform this operation.

1. Click the Firmware Updates menu and select a drive.
2. Review the information on the screen.
3. Click Update Firmware Now.
4. During the update, Storage Executive runs in an ISO environment. A reboot occurs automatically after the firmware is installed (Windows systems only).
5. After the firmware is updated, verify the new version by viewing the drive's details on the System Information screen.

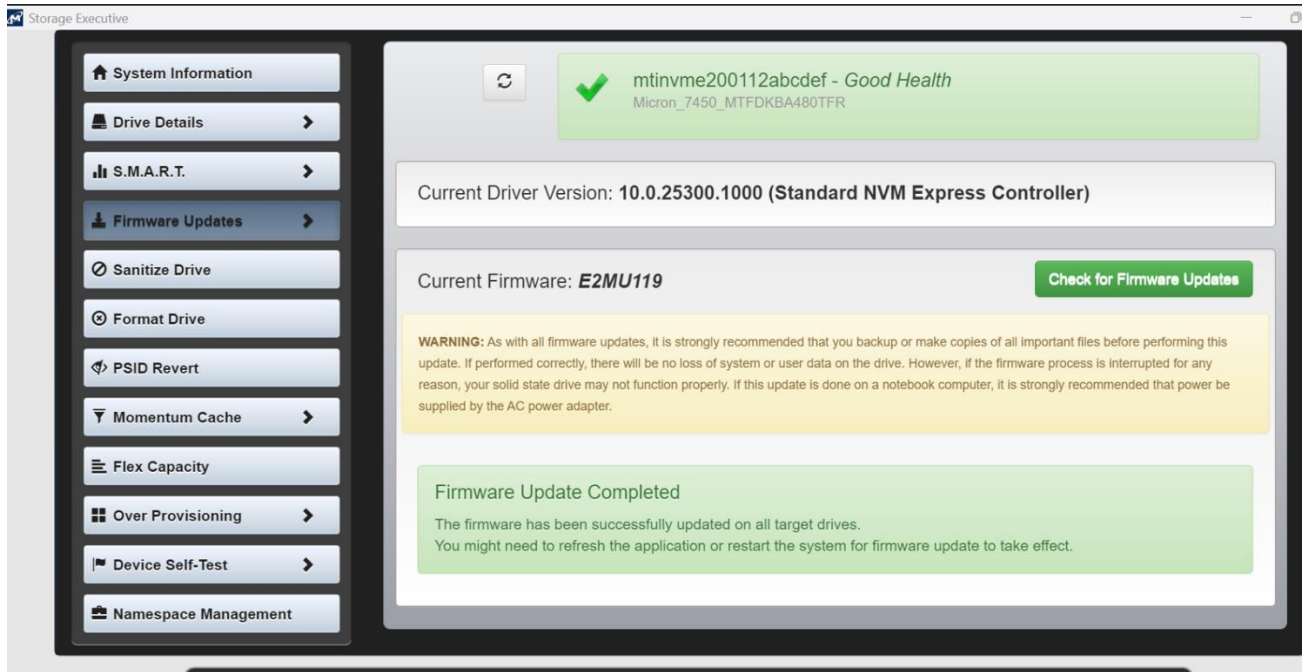
Fig: 14 Update Firmware



Manually Updating Firmware

1. Download the latest firmware from micron.com.
2. Click the **Choose File** option and locate the firmware package file.
3. Click **Update Firmware Now**.

Fig: 15 Firmware Update Completed



Erasing a Drive

This section explains how to remove all data from a drive by performing a Sanitize, Format drive or Physical Security ID (PSID) revert operation.

Performing a Sanitize Drive Operation

The sanitize drive operation is supported on all drives except for encrypted drives (those with TCG-enabled/password-protected). These drives must use the PSID revert operation to remove data. See [Performing a PSID Revert Operation](#).

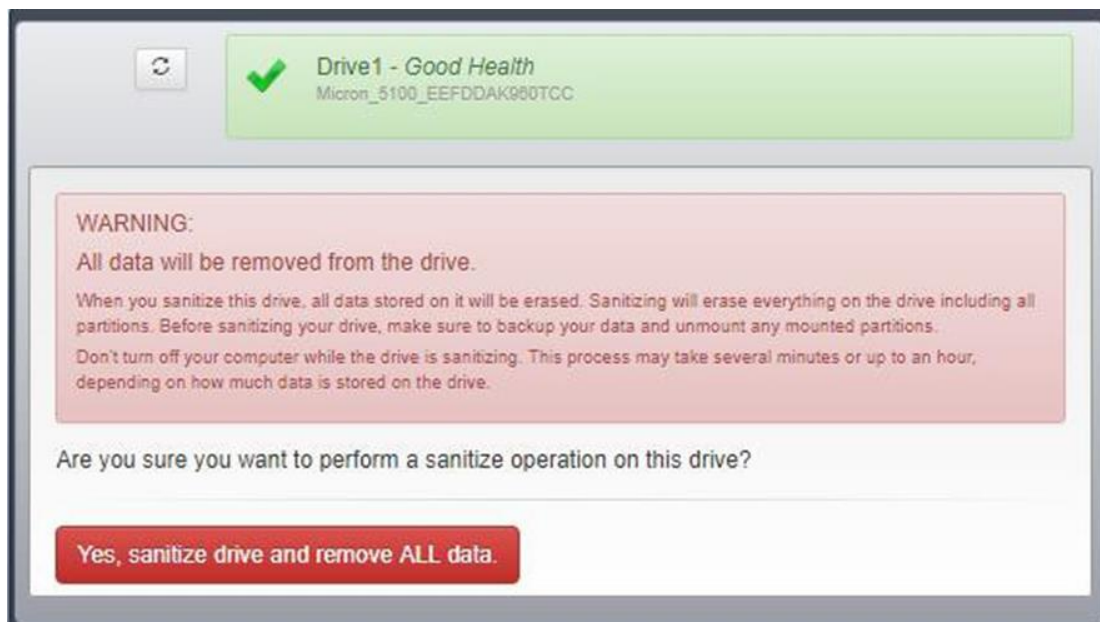
Also note:

- This operation runs on systems in AHCI mode. If your system is in IDE mode, change to AHCI mode and then proceed.
- This operation cannot be performed on mounted drives. Unmount the drive before proceeding. See [Unmounting Drives and Drive Partitions](#).
- This operation cannot be performed on drives connected behind a RAID controller.

CAUTION: This operation completely removes all data from a drive. If possible, back up important data to alternate storage media before performing the operation.

1. Click the Sanitize Drive menu and select a drive.
2. Review the information on the screen.
If the drive is mounted or contains mounted partitions, an option to take the drive offline and unmount all partitions appears. Click this option to continue with the operation.
3. Click **Yes, sanitize drive and remove ALL data** to perform the operation.
4. The operation starts. On Windows systems (boot drives only), the system reboots during the sanitize drive process. No reboot occurs on Linux systems or on non-boot drives in Windows systems.
5. When complete, all data from the drive is removed.

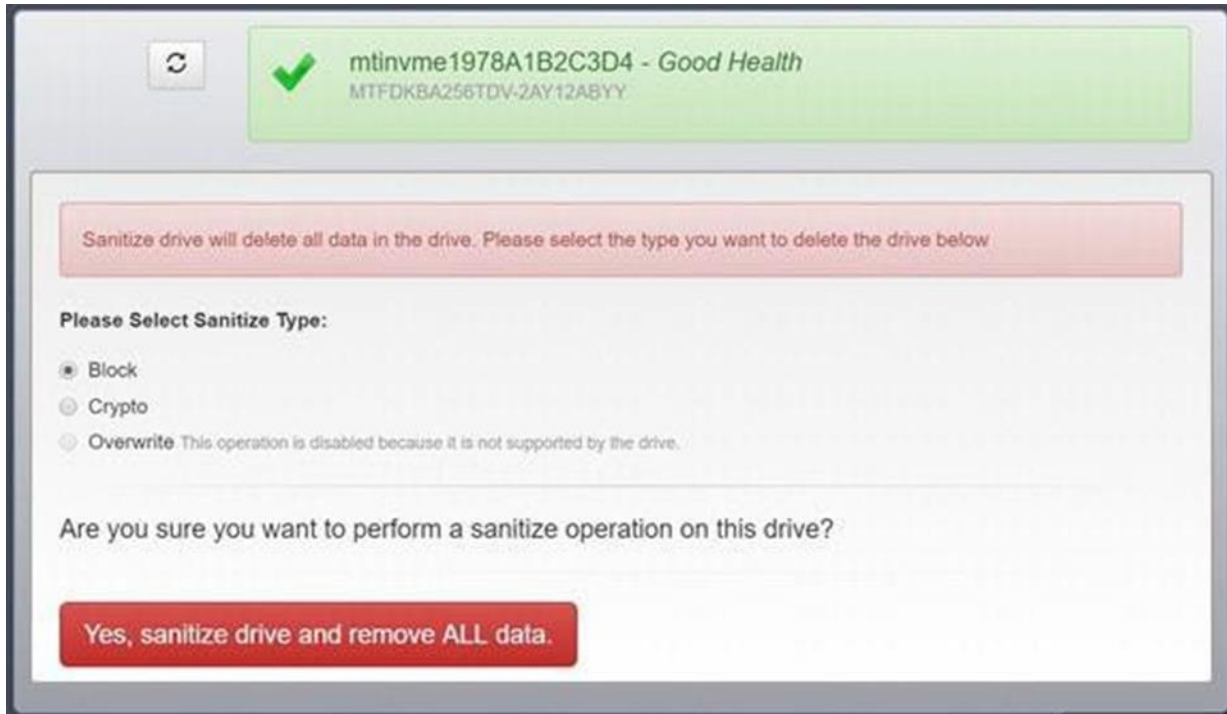
Fig: 16 Sanitize Drive for non-NVMe drives.





For NVMe drive Block Erase, Crypto Erase, or Overwrite can be selected.

Fig: 17 Sanitize Drive for NVMe drives.



Performing a Format Drive Operation

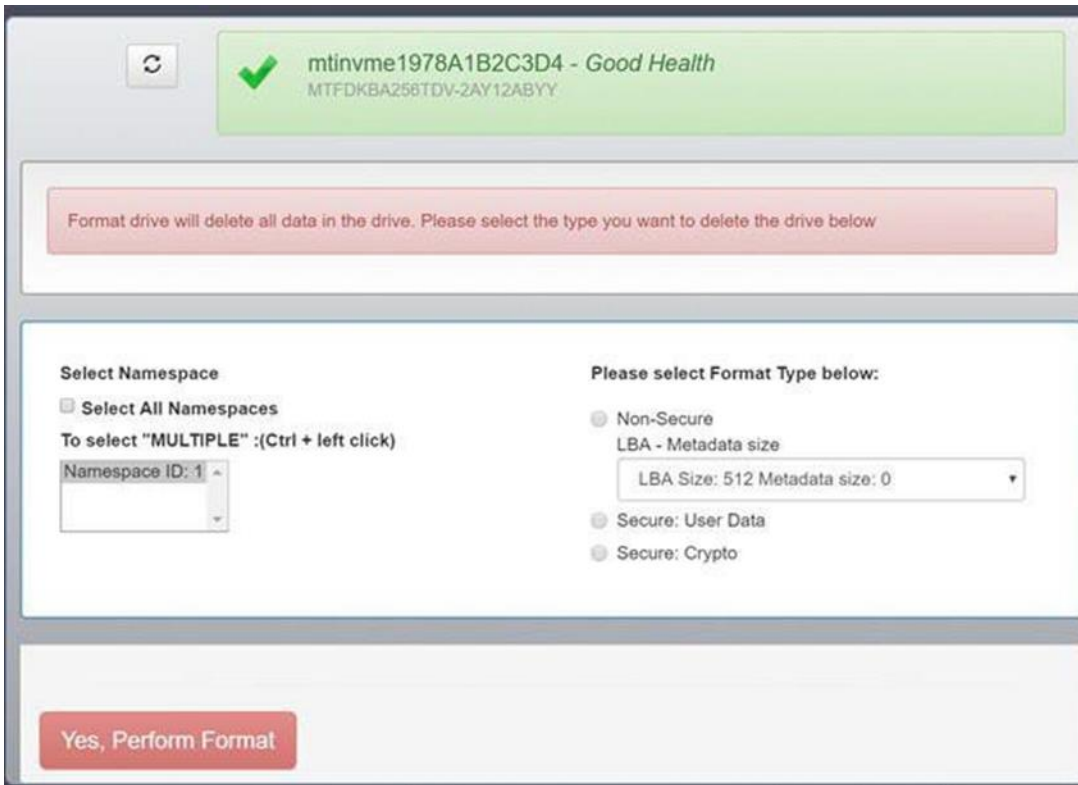
The Format operation is used to low level format the NVM media. This may destroy all data and metadata associated with the specified namespace(s). This is used when the host wants to change the LBA data size and/or metadata size.

The format operation is supported on all drives except for encrypted drives (those with TCG-enabled/password-protected). These drives must use the PSID revert operation to remove data. See [Performing a PSID Revert Operation](#).

This operation cannot be performed on mounted drives. Unmount the drive before proceeding. See [Unmounting Drives and Drive Partitions](#).

1. Click the **Format Drive** menu and select a drive.
2. Select the namespace(s) and Format type to perform format operation.
3. Review the information on the screen.
4. Click **Yes, perform format** to perform format operation on drive and remove all data.
5. The operation starts. When complete, all data from the drive is removed.

Fig: 18 Format Drive for NVMe drives



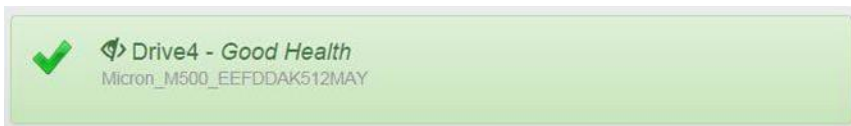
Performing a PSID Revert Operation

The PSID revert operation removes all data from an encrypted drive (one with TCG-enabled/password-protected). It can also be used in the event you have an encrypted drive for which you have lost the authentication code to return the drive to its factory default state.

TCG is automatically enabled on drives that are initialized in systems running Windows 8 or later, or it can be enabled with third-party software utilities. For more information on TCG, refer to <http://www.trustedcomputinggroup.org/>.

To determine if TCG is enabled on your drive, view the Drive Details screen. Drives with TCG enabled appear with the eye icon next to the drive number.

Fig: 19 TCG-Enabled Drive

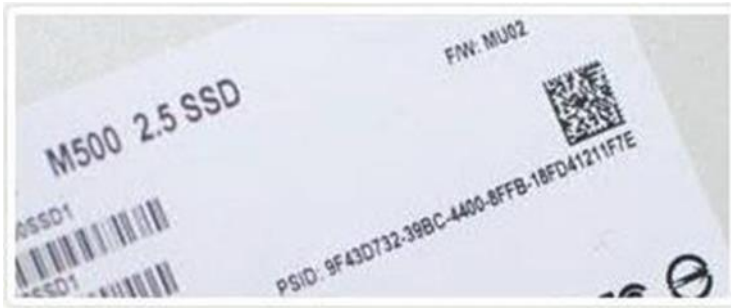


Before You Begin

Obtaining the PSID Code

The drive's PSID code is required to run this operation. The PSID code is located on the front label of the drive (Fig: 20). Obtain this code before proceeding.

Fig: 20 PSID Code



Unmounting Drives and Drive Partitions

A PSID revert operation cannot be performed on mounted drives or drives with mounted partitions.

To unmount a drive in Linux, issue the unmount command.

To unmount a drive in Windows:

1. Open an administrator command prompt.
2. Run the following command: **compmgmt.msc**
3. Select **Disk Management**.
4. Right-click on the target drive and select Offline.

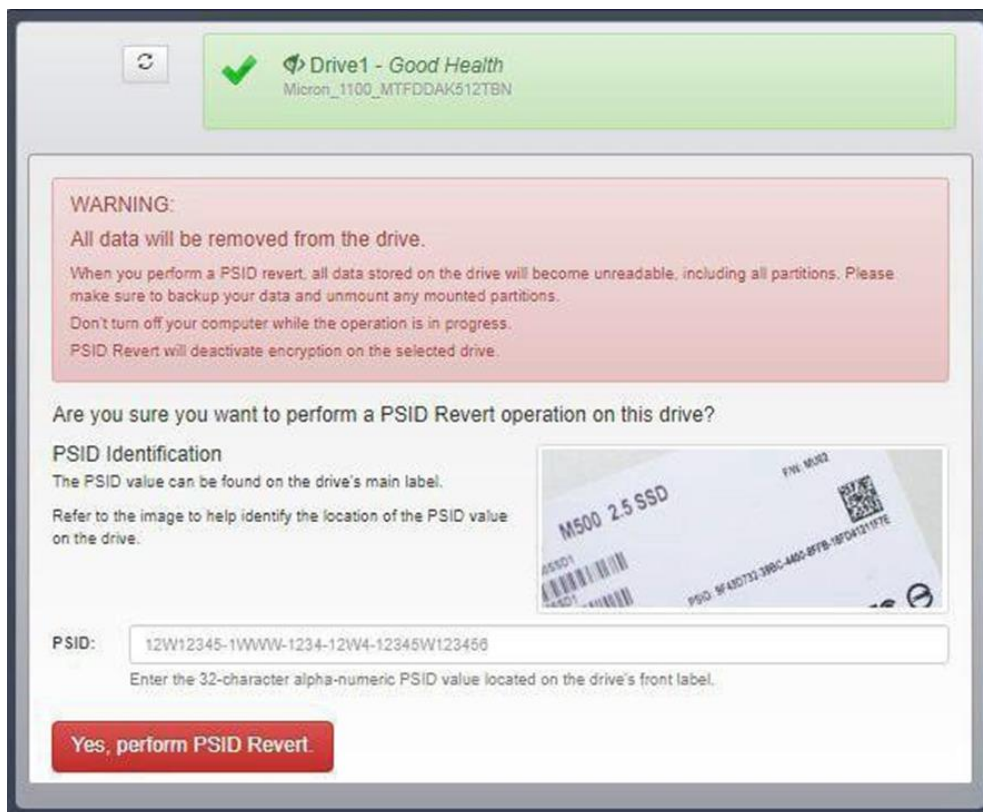
Running PSID Revert

These instructions apply to both Windows and Linux systems. However, some configuration is required on Linux systems before performing this operation. See [Configuring Linux Systems to Perform a PSID Revert Operation](#).

CAUTION: This operation completely removes all data from the drive and returns the drive to its factory default state. If possible, back up important data to alternate media before performing the operation.

1. Click the **PSID Revert** menu and select a drive.
2. Review the information on the screen.
3. In the PSID field, enter the **32-Character PSID code** found on the front label of the drive.
4. Click **Yes, perform PSID Revert** to perform the operation.

Fig: 10 PSID Revert



The operation begins and takes a few seconds to complete. When complete, a confirmation message appears, and all data is removed from the drive.

Configuring Linux Systems to Perform a PSID Revert Operation

TCG commands must be enabled on a Linux system to run the PSID revert operation. By default, all TCG commands are disabled (blocked) by a Linux kernel. To enable TCG commands, an additional kernel boot parameter (`libata.allow_tpm=1`) must be added.

The steps to add a kernel boot parameter vary by Linux distribution. The following are generic steps for adding a kernel boot parameter using the boot loader GRUB:

1. As a root user, make a back-up copy of the `grub.conf` file: `cp/boot/grub/grub.conf /boot/grub/grub.conf.backup`
2. As a root user open: `/boot/grub/grub.conf`
3. Go to the kernel boot line (the line that begins with "kernel /vmlinuz"). Some Linux distributions with multiple boot options have multiple kernel boot lines. In this case, you must determine the boot option that you would like to use for performing the PSID revert operation and edit that menu option.
4. Append the following option to the line: `libata.allow_tpm=1`
5. Save changes to `/boot/grub/grub.conf`.
6. Reboot the system.
7. Perform the PSID revert operation following the instructions in [Performing a PSID Revert Operation](#).



8. As a root user, reinstate the backup copy of the grub.conf file: `mv/boot/grub/grub.conf.back /boot/grub/grub.conf`
9. Reboot the system.



Enabling or Disabling Momentum Cache

Momentum Cache is an intelligent software driver that dynamically leverages unused system resources to enhance burst performance. This feature runs on supported drives containing a boot volume in Windows systems only. It is recommended to enable Momentum Cache on your system's boot drive.

For more information on Momentum Cache, see the Enhancing Burst Performance with Momentum Cache Technical Note(TN-FD-32) available on micron.com.

Before enabling or disabling this feature, save all work and shut down any running applications.

1. Click the **Momentum Cache** menu.
2. Review the information on the screen.
3. Click the button next to a drive to enable or disable the Momentum Cache feature.
4. Confirm the operation when prompted.
5. The system reboots after the operation completes.

Fig: 11 Momentum Cache



Setting Over-Provisioning Capacity

Over-provisioning allocates a percentage of a drive's free space to improve performance and endurance.

The over-provisioning space becomes available exclusively to the drive's controller, enabling the controller to use the space for various management functions. This leaves less usable capacity, but results in improved performance and endurance.

Requirements:

- Over-provisioning can be enabled on supported drives with NTFS file systems only.
- A drive must have a partition to enable over-provisioning (the over-provisioning capacity is set on the last accessible partition).

Restrictions:

- Over-provisioning can be set on a Raw partition; however, it is not recommended as damage to data can occur.
- Over-provisioning cannot be set on SAS drives.
- Over-provisioning cannot be set on drives with the following configurations: USB-attached, write-protect enabled, offline status, dynamic status, or security locked.

Enabling Over-Provisioning

1. Click the **Over-Provisioning** menu and select a drive.
2. Click **Initiate Over-Provisioning**.

Fig: 23 Over-Provisioning





1. To enable Storage Executive to automatically allocate the recommended amount of over-provisioning capacity, click the button next to Recommended. The amount of over-provisioning capacity appears in the Custom field.
To allocate your own amount of over-provisioning capacity, do not select the button. Simply enter the percentage amount (from 1–50%) in the Custom field.
2. Click **Set OP**.
3. Confirm the operation when prompted.
4. The over provisioning capacity is set immediately. No reboot is required.

Disabling Over-Provisioning

1. Click the **Over-Provisioning** menu and select a drive.
2. Click **Initiate Over-Provisioning**.
3. Click **Clear OP**.

Setting Flex Capacity

The Flex Capacity feature allows you to change the capacity of a drive to help improve drive endurance. This feature changes the user allocated space, which limits the amount of data that can be stored on the drive. The capacity you set appears as the drive's new capacity in the OS; the remaining capacity becomes available to the drive for the purpose of performing background activities, which can help extend drive life.

The new capacity can be as low as 1GB but cannot exceed the native maximum capacity of the drive. This feature is available on supported drives only.

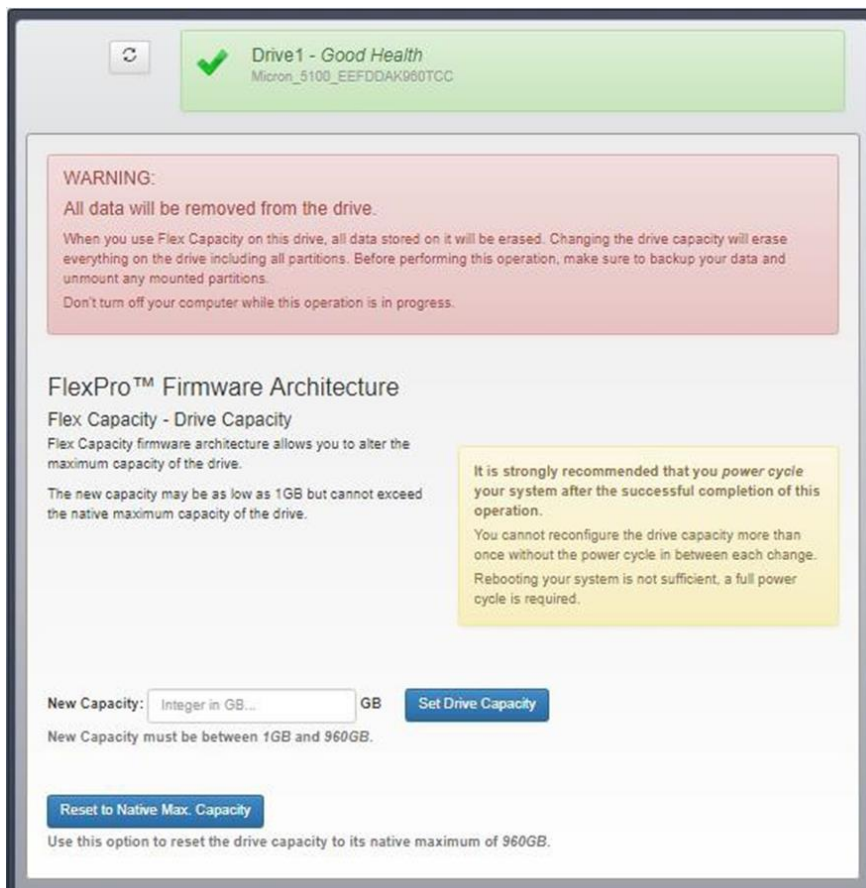
Important:

- All data is removed from the drive when you set the Flex Capacity.
- Before performing this operation, backup your data and unmount any mounted partitions.
- Do not turn off the system while the operation is in progress.

Setting Capacity

1. Click the **Flex Capacity** menu.
2. Enter the new maximum capacity for the drive in the New Capacity field.
3. Click **Set Drive Capacity**.
4. After the operation completes, power cycle the system. (A reboot is not sufficient; a full power cycle is required.)

Fig: 24 Setting Drive Capacity





Returning to Native Drive Capacity

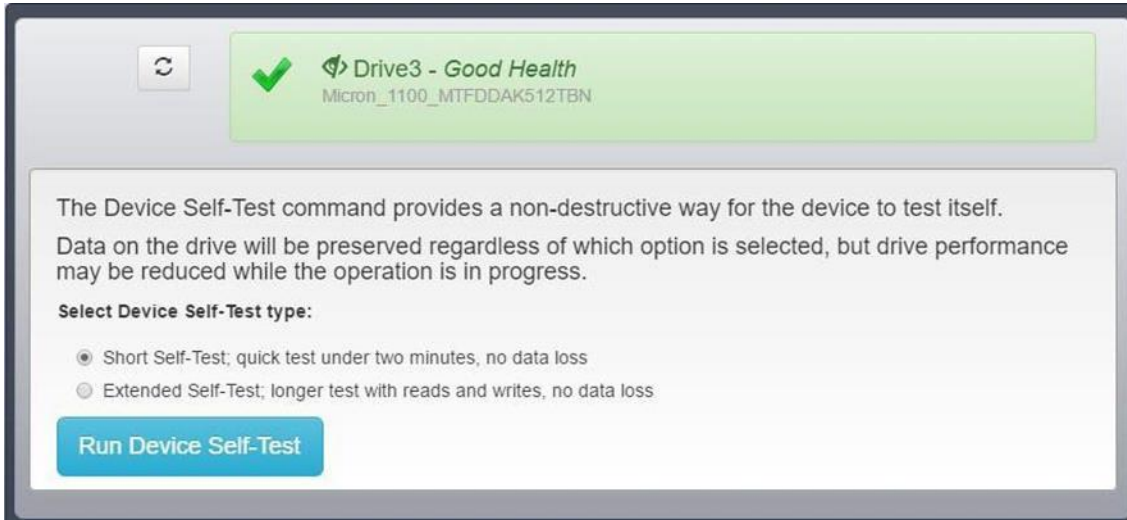
1. Click the **Flex Capacity** menu.
2. Click **Reset to Native Max. Capacity**.

Running Device Self-Test

The Device Self-Test feature allows you to test the health of the drive. The drive remains operational during testing and all data on the drive is preserved; however, performance may be reduced during the test operation.

This feature is available on supported drives only.

Fig: 25 Running the Device Self-Test



1. Click the Device **Self-Test** menu.
2. Select the type of test to run.
Short Self-Test: Performs a quick test of the drive.
Extended Self-Test: Performs a more in-depth test of the drive, consisting of reads and writes.
3. Click **Run Self-Test**.
4. The test progress appears. When complete, the results of the test appear under the drive name.

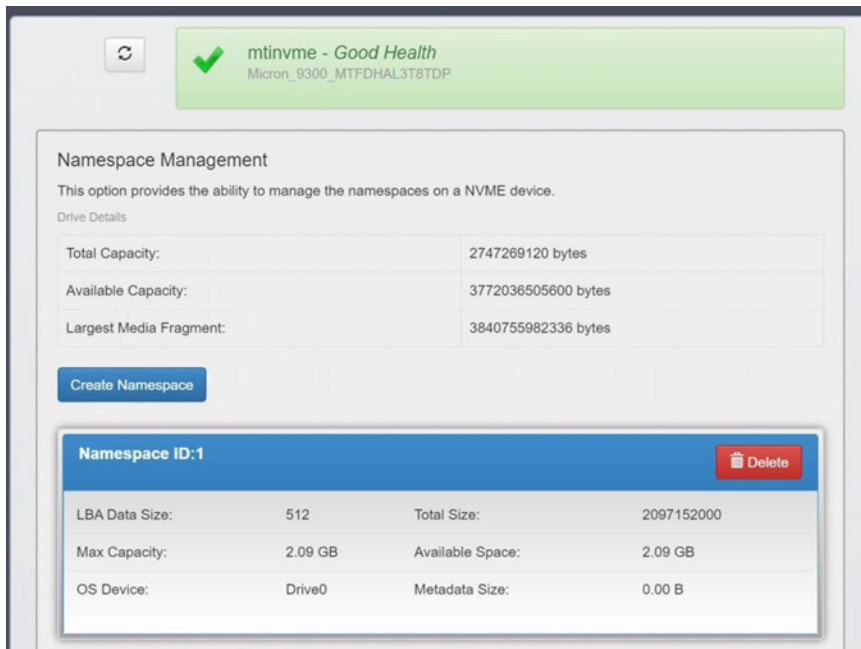
Managing Namespaces

The Namespace Management feature allows you to create or delete namespaces on a supported NVMe drive. A namespace is a collection of logical blocks with addresses that range from 0 to the size of the name space. A namespace appears as a standard block device on which file systems and applications can be deployed without any modification.

Creating a Namespace

1. Click the **Namespace Management** menu and select a drive.
2. Click **Create Namespace**.
3. In the Namespace Type field, select TLC or SLC.
 - If you select TLC, provide the namespace size in LBs.
 - If you select SLC, provide the namespace size in terms of percentage. Valid percentages are: 10, 20, 30, 40, 50, 100.
4. Click **Create**.

Fig: 26 Namespace Management



Deleting a Namespace

1. Click the **Namespace Management** menu and select a drive.
2. Click **Delete Namespace** next to the namespace to be deleted.
3. Confirm the operation when prompted.



Revision History

- Rev. U – 09/23**
 - Updated supported drive models.
 - Added few screenshots.
 - Aligned the document.
- Rev. T – 02/23**
 - Updated supported drive models.
- Rev. S – 02/23**
 - Updated supporting drive models.
- Rev. R – 02/23**
 - Updated supporting drive models.
- Rev. Q – 02/23**
 - Added Format Namespace feature.
- Rev. P – 02/23**
 - Added 2100AI, 2100AT SSDs.
 - Added Namespace Management feature.
- Rev. O – 02/23**
 - Updated for release 5.05.
 - Added 5300, 7300 Series SSDs.
 - Removed P1 SSD.
- Rev. N – 02/23**
 - Added P1, 1300, 9300 Series SSDs.
- Rev. M – 02/23**
 - Updated OS support information.
- Rev. L – 03/22**
 - Updated for release 3.63.
 - Added 2200 Series.
 - Updated OS support information.
- Rev. K – 01/22**
 - Updated for release 3.60.
 - Updated operating system requirements.
- Rev. J – 10/21**
 - Updated for release 3.58.
 - Added Device Self-Test feature.
 - Updated Firmware Update feature.
- Rev. I – 04/21**
 - Updated for release 3.56.
 - Added 5210 and 5200 Series.
- Rev. H – 01/21**
 - Updated for release 3.49.
 - Added 9200 Series.
 - Updated Flex Capacity information.
 - Updated OS support information.
- Rev. G – 11/19**
 - Updated for release 3.38.
 - Added 1100 and 5100 series support.
 - Added RAID controller support.
 - Added Flex Cap feature.
 - Updated Installing and Starting Storage Executive section.
- Rev. F – 07/19**
 - Updated for release 3.34.
 - Added NVMe support.
 - Revised Viewing and Saving Drive Details and Performing a Firmware Update sections.
 - Added Viewing Drive Performance and Optimization section.
 - Added Removing a Drive section.



- Rev. E – 04/19** • Updated for release 3.30.
- Rev. D – 03/19** • Updated for release 3.24.
 - Added support for M500IT and SAS drives, over-provisioning, and live firmware up- dates.
- Rev. C – 04/18** • Updated for release 3.20.
 - Added support for P400m, Momentum Cache, SMART threshold exceeded drive status.
- Rev. B – 10/17** • Updated for release 3.17.
- Rev. A – 3/17** • Initial release; version 3.15.

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