

QUICK START GUIDE

November 2019





©2019 AMD, Inc. All rights reserved. The AMD, AMD Ryzen, and StoreMI logos and trademarks are used under license from Advanced Micro Devices, Inc. Select images herein © 2019 Advanced Micro Devices, Inc. All other trademarks and registered trademarks are the property of their respective owners.



Contents

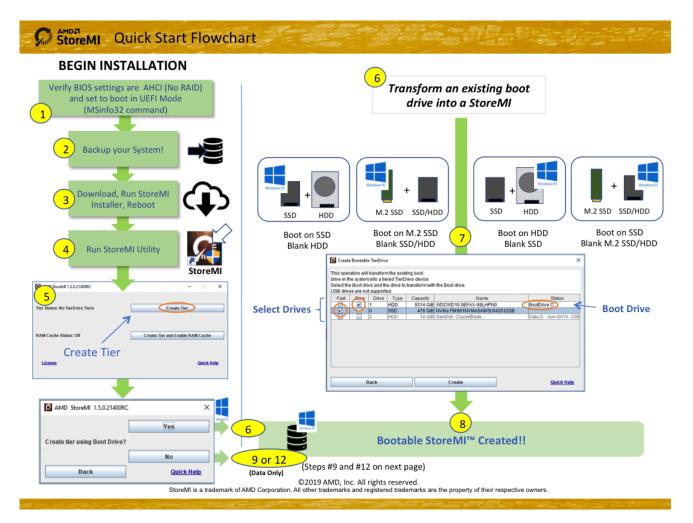
QUICK START GUIDE	L
Quick Start Flowchart:	1
Pre-Install Checklist	5
Software Installation6	5
Entering License Key6	5
Create Bootable StoreMI Tiered Drive	7
Create a New Non-bootable StoreMI TierDrive (two new drives with no existing data))
Enable the RAM cache Feature)
Checking StoreMI Status)
Troubleshooting	L
USER GUIDE	2
Software Installation	5
Configuring StoreMI	5
Entering License Key	5
StoreMI Top Level Menu Options	5
Create Bootable StoreMI TierDrive	3
Adding SSD to Existing HDD Boot Drives)
Utilizing the Additional Capacity Over the 256GB SSD Limit 23	3
Adding an SSD with Capacity Greater than 256GB to an Existing HDD Boot Drive 24	1
Expand the Capacity of an Existing SSD Boot Drive	5
Convert StoreMI Tiered Drive To Single 29)
Delete Tier	L
Configuration of StoreMI Tiered Drive when Starting Remove Operation	3
Configuration of StoreMI Tiered Drive after Remove Operation is Completed	1
Change Settings	1
Change RAM Cache Settings 34	1
Change Declared Disk Type Settings	5
Change StoreMI Declared Disk Type	5
Checking StoreMI Status	5
Configuring StoreMI Using Systray Utility	5
Installing a New Operating System	3
Uninstalling StoreMI Software	3



Troubleshooting	. 39
AMD RAID is installed on the system and StoreMI will not convert the boot drive	. 39
My system no longer hibernates	. 39
StoreMI utility reports reserved partition and cannot transform my boot drive	. 39
My issue is not addressed here	. 39
Appendix A: Example Drive Configurations and StoreMI Options	. 41
Pre-Convert Example Configurations	. 41
Post Conversion Examples	. 43
Appendix B: Cleaning Disks Previously Used as a StoreMI during Windows Setup	. 44

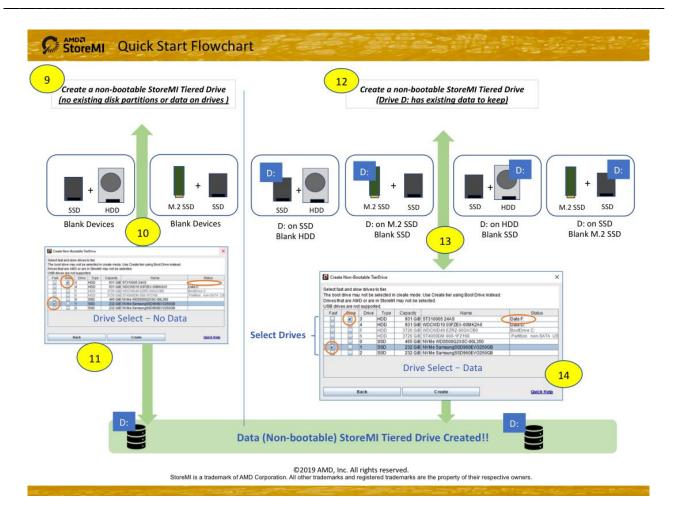


Quick Start Flowchart:



Steps 8 and 11 Continued on Next Page





Quick Start Guide

AMD StoreMI[™] is a tiered storage acceleration solution designed to run on AMD Socket sTRX4, Socket sTR4 and Socket AM4 motherboards based on TRX40, X399, 400-Series and 500-Series chipsets, respectively, running Windows 10 64-bit operating system. AMD StoreMI utilizes up to 256GB of any solid-state drive (SSD) as a fast tier, and combines it with a large-capacity mechanical hard disk drive (or second SSD) into a single drive letter as seen by Windows 10 operating system.

AMD StoreMI is not a caching solution; it utilizes advanced **Machine Intelligence**, virtualization and automated MicroTiering[™] to analyze the data blocks that are most often accessed and actually moves those blocks to the fastest storage tier. StoreMI operates consistently at the same performance levels as SSDs, continuously adapting to changing storage usage patterns in real time.

As a result, the user experiences the performance of the fastest tier SSD drive, combined with the large capacity and low-price advantages of the mechanical hard disk (or second SSD) in a single, large, and easy-to-manage drive.



Pre-Install Checklist

IMPORTANT: Backup the boot drive and important data and follow the instructions below carefully! When upgrading to a StoreMI, the system boot and/or data drives will be converted to a virtual disk to fully accelerate or expand the storage in the system. Backing up protects from potential hardware storage device errors or failures that may occur during the conversion process.

If converting an SSD or NVMe boot drive that is larger than 256GB, additional steps are required. See the section *Expand the Capacity of an existing SSD Boot Drive* for additional information.

Check the following prior to upgrading your system to StoreMI:

- Your system meets the minimum configuration: AMD Ryzen, 4xx series motherboard with a minimum of 4G RAM (6G RAM to support RAM cache).
- Secure Boot is NOT enabled. Consult your system documentation for further details.
- There are no other SSD caching or AMD software RAID solutions installed.
- The BIOS SATA disk settings are set to AHCI, not RAID and there is no software RAID installed on the system.
- Microsoft's *chkdisk* or other third-party disk scan tools run error free on the boot drive
- A new unused SSD or HDD is available
- If wishing to use bootable tiers > 2TB in size, the system must be configured to boot in UEFI mode with a UEFI bootable Windows OS installation as Windows 10 does not support > 2TB boot drives in Legacy MBR boot mode.

Software Installation

Step 1: Download the AMD StoreMI installer to a temporary directory and double click the installer application.

Step 2: Follow the installer instructions to accept the license and install the AMD StoreMI software, drivers and JAVA (if not already installed) using the Express option. Ensure the system is connected to the Internet for this step if JAVA is not already installed.

NOTE: Prior to starting the Express install, you may optionally view the current disk configuration using the AMD Drive Controller information option to verify the drive setup.

Step 3: Reboot the system to complete the installation.

Entering License Key

AMD StoreMI does not require a license key, as it checks for an AMD motherboard with a TRX40, X399, 500-Series or 400-Series chipset when the system boots.



Create Bootable StoreMI Tiered Drive

If starting with a fresh Windows install, the OS can be installed on either the HDD or SSD. If the SSD is larger than the 256GB limit of StoreMI, it will be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

While installing the OS on the HDD initially simplifies the process, it is important to note that your initial performance will occur at HDD speeds. Once StoreMI's Machine Intelligence learns how you use your system, you will quickly start seeing the performance of the SSD.

Loading the OS on the SSD initially provides immediate SSD performance, and as the system learns your usage patterns, it will move your infrequently used applications to the HDD.

Adding SSD to Existing HDD Boot Drives

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI scans your system and only display those options that are available to you based on your system's configuration.

Case A: Tier created without enabling RAM Cache

Step 1: Select "Create Tier" and confirm by selecting "Yes".

Step 2: Choose the drives to create a StoreMI TierDrive.

All of the drives that are available in the system will be displayed. The boot drive is noted as such in the "Status". The "Type" of drive, HDD or SSD, is also listed. In the example above, the Operating System is on the HDD, and it is being combined with a blank SSD. Choose the HDD as the slow drive and the SSD as the fast drive. Note, if you make a mistake, and chose the wrong drives as the slow and fast drives, an error message will provide a warning.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool, making sure to back up any important data on the drives beforehand.

Step 3: Transform the Boot Drive and Reboot. Once the appropriate drive has been selected, click **Create** to start the conversion process.

Reboot the system when prompted.

If the system is in UEFI mode, the following should display on reboot indicating that the boot drive has been successfully transformed into a StoreMI drive.





Step 4: Once Windows boots, open Disk Manager to verify the system has correctly booted from the StoreMI and to access the volume expand capability of Windows.

STEP 5: If not automatically completed, manually expand the boot volume to use the new capacity added by the SSD by right clicking on the C: partition in Disk Manager and selecting **Extend Volume**

In the extend dialog box, leave the defaults as-is if using all the capacity and click next.

The C: on the StoreMI is now expanded to use the SSD capacity and ready for use.

Case B: Tier created with RAM Cache Enabled

You also have the option at create time to enable 2GB of RAM Cache. This option will dedicate 2GB of your system memory as a Read Cache. Note that the option to enable or disable RAM Cache can also be changed any time after the creation of the Tiered Drive using the system utilities. (This will be detailed in a later section)

The remainder of the install process is the same as Case A: Tier created without enabling RAM Cache

IMPORTANT: StoreMI may need to optimize the hibernate file to ensure it is stored on a SATA device attached to the primary SATA controller. Ensure these are complete BEFORE rebooting to ensure hibernate and shutdown operates properly. This process may take up to 30 minutes or more depending on system RAM size and the HDD speed. This typically occurs when converting NVMe SSD boot drives or non-primary SATA controller SSD boot drives e.g. M.2 SATA boot devices. Float the mouse pointer over the StoreMI icon in the system tray to verify of the process is complete.

Utilizing the Additional Capacity Over the SSD License Limit

The software supports up to 256GB fast tier capacity. An SSD without an operating system over 256GBwill be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

This will result in a new device appearing in the Disk Manager that may be formatted and used as



temporary storage.

IMPORTANT: A carve out SSD drive created using excess capacity over the license limit will be deleted whenever a Remove StoreMI operation is completed and the SSD removed. For this reason, ensure that any important data stored on this temporary drive is backed up before performing the transition.

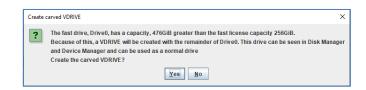
Expand the Capacity of an existing SSD Boot Drive

If the boot drive is an SSD, the software provides the ability to expand the capacity of the boot drive by adding a large capacity HDD or SSD and increasing the overall size of the boot volume.

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI scans your system and only display those options that are available to you based on your system's configuration.

Step 1: Select "Create Tier". Select an available blank SSD or HDD from the options presented.

IMPORTANT: For the case where you see the following message:



The SSD will be carved into two sections. The first section is used for tiering in the StoreMI TieredDisk and will the the size of the licensed capacity, and the second piece is presented as and additional virtual SSD.

Step 2: Choose the drive with which to create a StoreMI TierDrive.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool.

Step 3: Transform the Boot drive and Reboot. Once the appropriate drive has been selected, click **Transform** to start the conversion process.

Reboot the system when prompted.



Step 4: If not automatically completed by the software, you may manually extend the size of your new StoreMI with additional capacity added by the SSD or HDD using Windows Disk Manager as described in the earlier section for accelerating a HDD in steps 4 and 5.

Create a New Non-bootable StoreMI TierDrive (two new drives with no existing data)

To accelerate a data (non-boot) drive, Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI will scan your system and only display those options that are available to you based on your system's configuration.

STEP 1: Select the "Create Tier" option and then "No".

STEP 2: Select your Data drive (Status will say "data") and drive you would like to combine it with. Drives containing data can easily be identified in the Status column. Choose the "Create" button.

Your second drive should be blank. Pay special attention to which drives have an existing partition on them and which are available as unused/blank drives. If you select a drive with a partition, (Information in the **Status Column**), the software will warn that all data will be deleted on the drive, are you sure? Only say YES if you intend to delete the data and you have any important data backed up safely. If you select an option that has no partitions, a new StoreMI with no file partition will appear in your Disk Manager.

STEP 3: The screen will identify how the new StoreMI drive will appear. If satisfied, click the "Next" button. The existing drive will temporarily go offline while it is converted to a StoreMI. Once complete, the data drive will reappear as a StoreMI. Appendix A, example A5, shows the Disk Manager configuration after converting a D: DATA drive to a StoreMI.

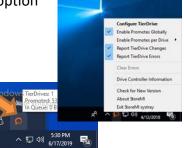
Enable the RAM cache Feature

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI will scan your system and only display those options that are available to you based on your system's configuration.

Select the Enable RAM Cache Setting. The drop-down menu gives you the option or RAM Cache Off or 2G Cache. Select 2G Cache and hit the Create button.

Checking StoreMI Status

A system tray utility is provided for quick access to the StoreMI software status. In the lower right-hand corner of the desktop, either float over the AMD icon to see basic information about the StoreMI or right click to gain access to several high-level control functions to start and stop the





StoreMI activity.

The systray application may also be used as a shortcut for several other configuration or status functions, as well as turning the promotion/tiering functions off while running backups for example.

Troubleshooting

Software will not install - Not licensed for this hardware message

Check your system meets the minimum requirements outlined in the Pre-Install Checklist. This version of the software will only run on AMD Socket AM4 motherboards with a 400-Series chipset.

AMD RAID is installed on the system and StoreMI will not convert the boot drive

Bootable RAID systems are not supported by the StoreMI software.

My system no longer hibernates

If your system supports multiple storage controllers (use Microsoft Device Manager or the AMD installer utility to determine how many there are), hibernate may not be possible in all combinations. When using all SATA devices, ensure that all StoreMI disk devices are attached to the same SATA controller on the motherboard whenever possible. For Windows 7, attach the devices to ports 0 and 1.

Cannot transform my boot drive or remove due to recovery partition

Open Microsoft Disk Manager and check if there is a reserved partition on the boot drive after the primary C: boot volume.

Disk 0 Basic 978.07 GB Online	100 MB Healthy (EFI Sy	(C:) 929.64 GB NTFS Healthy (Boot, Page File, Crash Dump, Primary Par	1.76 GB Healthy (Recovery Partitic
-------------------------------	---------------------------	--	---------------------------------------

If a reserved partition exists, then use a third-party tool to reduce the size of the C: partition by 3 or 4GB, and move the Recovery Partition to fill the 3-4GB capacity gap created between the C: and the reserved partition, then repeat the StoreMI utility operation. You may also do the opposite when expanding the boot drive.

My issue is not addressed here ...

See <u>www.AMD.com/support</u> for additional information, an online FAQ and knowledge base which may contain more up to date information.





Intelligent Tiered Storage Acceleration Software for Windows 10

USER GUIDE

November 2019



©2019 AMD, Inc. All rights reserved. StoreMI, RAM cache and vSSD are a trademarks of AMD Corporation. The AMD and AMD Ryzen logos and trademarks are used under license from Advanced Micro Devices, Inc. Select images herein © 2019 Advanced Micro Devices, Inc. All other trademarks and registered trademarks are the property of their respective owners.



Contents

QUICK START GUIDE	1
Quick Start Flowchart:	4
Pre-Install Checklist	6
Software Installation	6
Entering License Key	6
Create Bootable StoreMI Tiered Drive	7
Create a New Non-bootable StoreMI TierDrive (two new drives with no existing data)	0
Enable the RAM cache Feature	0
Checking StoreMI Status	0
Troubleshooting1	1
USER GUIDE	2
Software Installation	6
Configuring StoreMI	6
Entering License Key10	6
StoreMI Top Level Menu Options	6
Create Bootable StoreMI TierDrive	8
Adding SSD to Existing HDD Boot Drives	9
Utilizing the Additional Capacity Over the 256GB SSD Limit 23	3
Adding an SSD with Capacity Greater than 256GB to an Existing HDD Boot Drive	4
Expand the Capacity of an Existing SSD Boot Drive	6
Convert StoreMI Tiered Drive To Single	9
Delete Tier	1
Configuration of StoreMI Tiered Drive when Starting Remove Operation	3
Configuration of StoreMI Tiered Drive after Remove Operation is Completed	4
Change Settings	4
Change RAM Cache Settings	4
Change Declared Disk Type Settings	5
Change StoreMI Declared Disk Type	6
Checking StoreMI Status	6
Configuring StoreMI Using Systray Utility	6
Installing a New Operating System	8
Uninstalling StoreMI Software	8



Troubleshooting	. 39
AMD RAID is installed on the system and StoreMI will not convert the boot drive	. 39
My system no longer hibernates	. 39
StoreMI utility reports reserved partition and cannot transform my boot drive	. 39
My issue is not addressed here	. 39
Appendix A: Example Drive Configurations and StoreMI Options	. 41
Pre-Convert Example Configurations	. 41
Post Conversion Examples	. 43
Appendix B: Cleaning Disks Previously Used as a StoreMI during Windows Setup	. 44



User Guide

AMD StoreMI[™] is a tiered storage acceleration solution designed to run on AMD TRX40, X399, 500-Series or 400-Series chipset motherboards and Windows 10 64-bit systems. It utilizes up to 256GB of any solid- state drive (SSD) as a fast tier and combines it with a large-capacity mechanical hard disk drive (or second SSD) into a single drive letter as seen by Windows 10 operating system.

AMD StoreMI is not a caching solution; it utilizes advanced **Machine Intelligence**, virtualization and automated MicroTiering[™] to analyze the data blocks that are most often accessed and actually moves those blocks to the fastest storage tier. StoreMI operates consistently at the same performance levels as SSDs, continuously adapting to changing storage usage patterns in real time.

As a result, the user experiences the performance of the fastest tier SSD drive, combined with the large capacity and low-price advantages of the mechanical hard disk (or second SSD) in a single, large, and easy-to-manage drive.

Pre-Install Checklist

IMPORTANT: Backup the boot drive and important data and follow the instructions below carefully! When upgrading to a StoreMI, the system boot and/or data drives will be converted to a virtual disk to fully accelerate or expand the storage in the system. Backing up protects from potential hardware storage device errors or failures that may occur during the conversion process.

If converting an SSD or NVMe boot drive that is larger than 256GB, additional steps are required. See the section *Expand the Capacity of an existing SSD Boot Drive* for additional information.

Check the following prior to upgrading your system to StoreMI:

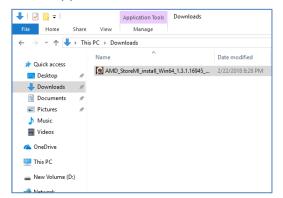
- Your system meets the minimum configuration: AMD Ryzen or Ryzen Threadripper processor and TRX40, X399, 400-Series or 500-Series chipset motherboard with a minimum of 4G RAM (6G RAM to support RAM cache).
- Secure Boot is NOT enabled. Consult your system documentation for further details.
- There are no other SSD caching or AMD software RAID solutions installed.
- The BIOS SATA disk settings are set to AHCI, not RAID and there is no software RAID installed on the system.
- Microsoft's *chkdisk* or other third-party disk scan tools run error free on the boot drive
- A new unused SSD or HDD is available
- If wishing to use bootable tiers > 2TB in size, the system must be configured to boot in UEFI mode with a UEFI bootable Windows OS installation as Windows 10 does not

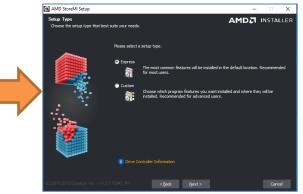


support > 2TB boot drives in Legacy MBR boot mode. When installing, be sure to boot your Windows install media with the UEFI option.

Software Installation

Step 1: Download the AMD StoreMI installer to a temporary directory and double click the installer application.





Step 2: Follow the installer instructions to install the AMD StoreMI software.

NOTE: Prior to starting the Express install, you may optionally view the current disk configuration using the AMD Drive Controller information option to verify the drive setup.

Step 3: Reboot the system to complete the installation.

Configuring StoreMI

Run the StoreMI wizard installed under the Windows Start, AMD program folder to setup the desired configuration. For Windows 10, click the Windows icon in the lower left corner or press the Windows key on the keyboard and type "StoreMI" to find and run the StoreMI configuration utility. The utility will first scan the system for all visible SSD and hard drives.

StoreMI will scan your system and only display those options that are available to you based on your system's configuration. The primary consideration determined by either the absence or presence of a StoreMI TierDrive.





Entering License Key

AMD StoreMI does not require a license key, as it checks for an AMD TRX40, X399, 400-Series or 500-Series chipset motherboard when the system boots.

StoreMI Top Level Menu Options

Depending on the current system configuration, you will be presented with one of two menus after your run the StoreMI wizard.



The first option comes up if no StoreMI TierDrives are present and gives you the option of creating a StoreMI TierDrive by tiering your fast and capacity storage devices. In addition, if you choose, you can enable RAM Cache at the same time the tier is created.

The second option comes up if a StoreMI TierDrive is already present. It will allow you to change your existing tier settings. You can change the RAM Cache settings as well, either enabling or disabling it, depending on your current configuration.

MD StoreMI 1.5.0.21400RC	– 🗆 X	AMD StoreMI 1.5.0.21400RC	– 🗆 X
Tier Status: No TierDrive Tiers	Create Tier	Tier Status: 1 TierDrive (1 bootable)	Change Tier Settings
RAM Cache Status: Off	Create Tier and Enable RAM Cache	RAM Cache Status: Off	Enable RAM Cache
<u>License</u>	Quick Help	License	<u>Quick Help</u>

StoreMI TierDrive Does Not Exist					
Top Level	Secondary	Description	Requirements		
Menu	Menu				
	Bootable Tier (Select "YES")	Add a blank drive to an existing Windows OS boot drive	 Windows OS installed on a HDD or SSD¹ 		
Create Tier (Optionally			 Blank Drive No existing StoreMI TierDrive 		
Enable Cache During	Non Bootable Tier	Add a blank drive to another blank drive or to a non-boot	1. At most one non-boot drive with data in a Windows file system		
Creation)	(Select "NO")	drive with data	 At least one blank drive No existing StoreMI TierDrive 		

	sts		
Top Level	Secondary	Description	Requirements
Menu	Menu		
	Move All Data to Slow Media	Migrate all data to the slow drive in a tier and release the fast drive from the FuzeDrive. This action does not remove the software.	A 2-disk StoreMl TierDrive exists
Change Tier Settings	Delete Data Tier	Deletes all of the data on a non- boot tier. Data should be backed up prior to this action as all data on tier will be lost.	An existing non-boot tier exists. This function is not allowed on a boot tier.
	Tier Media	Change how disk is reported to	A StoreMI TierDrive exists

¹ Up to the licensed SSD Capacity size: 256GB



	Reported to OS	operating system between SSD or HDD	
Enable RAM	Change RAM	Enables or disables 2GB/4GB of	A StoreMI TierDrive exists
Cache	Cache Settings	RAM Cache	

Create Bootable StoreMI TierDrive

If starting with a fresh Windows install, the OS can be installed on either the HDD or SSD. An SSD that exceeds this limit will be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

While installing the OS on the HDD initially simplifies the process, it is important to note that your initial performance will occur at HDD speeds. Once StoreMI's Machine Intelligence learns how you use your system, you will quickly start seeing the performance of the SSD.

Loading the OS on the SSD initially provides immediate SSD performance, and as the system learns your usage patterns, it will move your infrequently used applications to the HDD.

If the existing boot drive is an HDD and a new blank SSD or NVMe drive is available, this option will enable the user to convert the existing boot drive to a StoreMI. Alternatively, if the boot drive is already an SSD or NVMe drive, it will allow an existing boot drive's capacity to be expanded by adding a larger HDD or SSD. If the fast tier SSD is larger than the licensed capacity of 256GB then any capacity greater than 256GB will be carved out into a separate volume.

If this option is grayed out, then the minimum requirements to convert the boot drive have not been met. For example, there are no blank unused SSDs or HDDs available

Boot Drive	Blank Drive	What is Created
HDD	SATA SSD or NVMe SSD	A StoreMI TierDrive is created with a capacity approximately equal to the HDD plus the licensed SSD capacity limit ² or size of the SSD, whichever is less. The performance will increase to the native SSD rates for frequently accessed data and programs.
SATA SSD or NVMe SSD	HDD	If less than or equal to the 256GB SSD capacity limit, a StoreMI TierDrive is created with a capacity approximately equal to the HDD plus the licensed SSD capacity limit or size of the SSD, whichever is less. Performance will continue at SSD rates for frequently accessed data and programs.
SATA SSD	NVMe SSD	A StoreMI TierDrive is created with a capacity approximately equal to the SATA SSD plus the licensed SSD capacity limit or size of the NVMe SSD, whichever is less. The performance will increase to the native NVMe SSD rates for frequently accessed data and programs.
NVMe SSD	SATA SSD	StoreMI TierDrive that is the approximate sum of the NVMe SSD and SATA SSD capacity. The capacity of the boot volume will increase to the size of the NVMe

The software will support the following conversions:

² Licensed SSD Capacity is 256GB



and SSD combined. Performance will continue at NVMe rates for frequently accessed data and programs.

Appendix A illustrates both pre and post StoreMI conversion scenarios and what to expect to see in standard applications such as Windows Disk Manager.

In the remainder of the document, NVMe SSD and SATA SSDs are referred to as simply an SSD.

Adding SSD to Existing HDD Boot Drives

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI scans your system and only display those options that are available to you based on your system's configuration.

Case A: Tier created without enabling RAM Cache

Step 1: Select "Create Tier" and confirm by selecting "Yes".

AMD StoreMI 1.5.0.21400RC	– 🗆 X	AMD StoreMI 1.5.0.21400RC	– 🗆 X
Tier Status: No TierDrive Tiers	Create Tier	Tier Status: No Tie AMD StoreMI 1.5.0.21400RC	×
RAM Cache Status: Off	Create Tier and Enable RAM Cache	RAM Cache Statu Create tier using Boot Drive? No	IAM Cache
License	Quick Help	License Quick He	Quick Help

Step 2: Choose the drives to create a StoreMI TierDrive.

Create Bootable TierDrive X							
irive in th select the	ie system Boot dri	n into a tie	e drive to t	ive device.	n the Boot drive.		
Fast	Slow	Drive	Туре	Capacity	Name		Status
	~	1	HDD	9314 GiB	WDCWD10 0EFAX-68LHPN0)	BootDrive C:
V		0	SSD	476 GiB	NVMe PM961NVMeSAMSUN	IG512GB	
		2	HDD	14 GiB	SanDisk. CruzerBlade		Data D: non-SATA US
	E	Back			Create]	Quick Help

All of the drives that are available in the system will be displayed. The boot drive is noted as



such in the "Status" column. The "Type" of drive, HDD or SSD, is also listed. In the example above, the Operating System is on the HDD, and it is being combined with a blank SSD. Choose the HDD as the slow drive and the SSD as the fast drive. Note, if you make a mistake, and chose the wrong drives as the slow and fast drives, an error message will provide a warning.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool, making sure to back up any important data on the drives beforehand.

File Action	View Help								
⊨ ⇔ ╦ [
/olume	Layout	Туре	File System	Status	Capacity	Free Spa	% Free	1	
(C:)	Simple	Basic	NTES	Healthy (B		441.39 GB	95 %		
= (D;)	Simple	Basic	FAT32	Healthy (P		14.88 GB	100 %		
(Disk 1 partitio)		Basic		Healthy (E		99 MB	100 %		
New Volume (Basic	NTFS	Healthy (P		476.81 GB	100 %		
Recovery	Simple	Basic	NTES	Healthy (529 MB	138 MB	26 %		
Disk 0 Basic 476.92 GB Online	New Volume (E 476.92 GB NTFS Healthy (Primary				Open				
Basic 476.92 GB	476.92 GB NTFS		(C:) 465.13 GB NT Healthy (Boc	TFS st, Page File, Cra	Explore Mark P Chang	artition as Act e Drive Letter a			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB	476.92 GB NTFS Healthy (Primary Recovery 529 MB NTFS	Partition) 99 MB	465.13 GB N		Explore Mark P Chang sh Format	artition as Act e Drive Letter a			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB	476.92 GB NTFS Healthy (Primary Recovery 529 MB NTFS	Partition) 99 MB	465.13 GB N		Sh Explore Sh Format	artition as Act e Drive Letter a t Volume			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB Online	476.92 GB NTFS Healthy (Primary S29 MB NTFS Healthy (OEM P	Partition) 99 MB	465.13 GB N		Explore Mark P Chang sh Forma Extend Shrink	artition as Act e Drive Letter a t Volume Volume			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB Online Disk 2 Removable 14.91 GB	476.92 GB NTFS Healthy (Primary Recovery 529 MB NTFS	Partition) 99 MB	465.13 GB N		Sh Explore Sh Format	artition as Act e Drive Letter a t Volume Volume			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB Online Disk 2 Removable 14.91 GB	476.92 GB NTFS Healthy (Primary 529 MB NTFS Healthy (OEM P	99 MB Healthy (Ef	465.13 GB N		sh Formal Extend Shrink Add M	artition as Act e Drive Letter a t Volume Volume			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB Online Disk 2	476.92 GB NTFS Healthy (Primary 529 MB NTFS Healthy (OEM P (D:) 14.91 GB FAT32	99 MB Healthy (Ef	465.13 GB N		sh Formal Extend Shrink Add M	lartition as Act e Drive Letter a t Volume Volume irror Volume			
Basic 476.92 GB Online Disk 1 Basic 9313.98 GB Online Disk 2 Removable 14.91 GB	476.92 GB NTFS Healthy (Primary 529 MB NTFS Healthy (OEM P (D:) 14.91 GB FAT32	99 MB Healthy (Ef	465.13 GB N		Sh Formal Extend Shrink Add M Delete	lartition as Act e Drive Letter a t Volume Volume irror Volume			

Step 3: Transform the Boot Drive and Reboot. Once the appropriate drive has been selected, click **Create** to start the conversion process.

🙍 AMD StoreMI 1.5.0.21400	RC	- 🗆 X
Tier Status: No TierDrive T	iers	Create Tier
RAM Cache Status: Off	(i) Transform Boot Drive and Ret	Enable RAM Cache
<u>License</u>		Quick Help



Reboot the system when prompted.

If the system is in UEFI mode, the following should display on reboot before the operating system boots indicating that the boot drive has been successfully transformed into a StoreMI drive.



NOTE: if this display is not visible, ensure that the BIOS is set to boot from the EFI partition on either of the two disks used as part of the StoreMI. Windows Boot Manager will not be visible in the BIOS boot order.

Step 4: Once Windows boots, open Disk Manager to verify the system has correctly booted from the StoreMI and to access the volume expand capability of Windows. The example shown below is for a 120GB SSD being added to an existing 1TB hard disk boot drive.

Disk 0 Basic 1039.27 GB Online	499 MB Healthy (Recovery F Healthy (EFI S: Healthy (Boot, Page File, Crash Dump, Primary P
Disk 1 Basic 111.79 GB Online	3 N Healthy (OEM Partition)
Disk 2 Basic 931.51 GB Online	3 M Healthy (OEM Partition)

STEP 5: If not automatically completed, manually expand the boot volume to use the new capacity added by the SSD by right clicking on the C: partition in Disk Manager and selecting **Extend Volume**



telp	File System RAW RAW	Status Healthy (R Healthy (E Healthy (Healthy (Healthy (Healthy (Capacity 450 MB 100 MB 3 MB 2794.52 GB 2794.52 GB 3 MB	Free Spa 450 MB 100 MB 3 MB 2794.52 2794.52				
imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic	RAW	Healthy (R Healthy (E Healthy (Healthy (Healthy (Healthy (450 MB 100 MB 3 MB 2794.52 GB 2794.52 GB	450 MB 100 MB 3 MB 2794.52	100 % 100 % 100 % 100 %			
imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic	RAW	Healthy (R Healthy (E Healthy (Healthy (Healthy (Healthy (450 MB 100 MB 3 MB 2794.52 GB 2794.52 GB	450 MB 100 MB 3 MB 2794.52	100 % 100 % 100 % 100 %			_
imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic		Healthy (E Healthy (Healthy (Healthy (Healthy (100 MB 3 MB 2794.52 GB 2794.52 GB	100 MB 3 MB 2794.52	100 % 100 % 100 %			
imple Basic imple Basic imple Basic imple Basic imple Basic imple Basic		Healthy (Healthy (Healthy (Healthy (3 MB 2794.52 GB 2794.52 GB	3 MB 2794.52	100 % 100 %			
imple Basic imple Basic imple Basic imple Basic imple Basic		Healthy (Healthy (Healthy (2794.52 GB 2794.52 GB	2794.52	100 %			
imple Basic imple Basic imple Basic imple Basic		Healthy (Healthy (2794.52 GB					
imple Basic imple Basic imple Basic		Healthy (2794.52				
imple Basic imple Basic	PAW		3 MB					
imple Basic	P AIA/			3 MB	100 %			
			119.24 GB	119.24 GB				
	NTES	Healthy (Healthy (B	119.24 GB	119.24 GB 2732.58	100 %			
1B hy (Recovery Partition	100 MB Healthy (EFI Sy			Crish Dump, P	rimary Partition)	Open Explore		
						Mark Partition as Active		
2794.52 GB RAV Healthy (OEM F						Mark Partition as Active Change Drive Letter and Paths Format Extend Volume		
						Change Drive Letter and Paths Format		
						Change Drive Letter and Paths Format Extend Volume		
	Partition)					Change Drive Letter and Paths Format Extend Volume John Volume Add Mirror		
hy (Healthy (OEM F	Partition)					Change Drive Letter and Paths Format Extend Volume Shirki Volume		
hy (Healthy (OEM F	Partition)					Change Drive Letter and Paths Format Extend Volume John Volume Add Mirror		
			B 100 MB 🚺 2793.96 G	B 100 MB (2793.96 GB NTFS	B 100 MB (2793.96 GB NTFS	B 100 MB (2793.96 GB NTFS	B 100 MB 2793.96 GB NTFS Average Partition Open Open	B 100 MB (2793.96 GB NTFS ny (Recovery Partition) Open Open

In the extend dialog box, leave the defaults as-is if using all the capacity and click next.

E Disk Manage			- I ×	Disk Management							- 🗆 X
** =	🛛 📼 🖻 🖳 🐻 📼			** [
Volume	Leyout Type Simple Besic Simple Besic Simple Basic Simple Basic Simple Basic Simple Basic Simple Basic Simple Basic	Tele System Status Copecty Free System : Strine Heahbyt, E. 450 MB 454 MB 1055 Heakbyt, E. 400 MB 400 MB 100 NB Sold Status Extend Volume Wood Select Data You can use searce on reve of new datasets leaves the vulues. You can use searce on reve on reve datasets leaves the number of a boot rystem Annotaine Select Datasets	×	Velume = (C.) = (Disk 0 pertrien 1) = (Disk 0 pertrien 2) = (Disk 1 pertrien 2) = (Disk 1 pertrien 2) = (Disk 2 pertrien 1) = (Disk 2 pertrien 2) = (Disk 2 pertrien 2)	Simple Simple Simple Simple Simple Simple	Type File S Basic NTFS Basic Basic Basic Basic Basic Basic Basic Basic Basic Basic Basic RAW Basic RAW	Healthy (R. Healthy (E. Healthy (Healthy (Healthy (Healthy (100 MB 3 MB 2794.52 GB 2794.52 GB 3 MB 119.24 GB	Prec Spa % Prec 2835.58 97 % 450 MB 100 % 100 MB 100 % 3 M8 100 % 2794.52 100 % 3 M8 100 % 3 M8 100 % 19.24 G8 100 % 119.24 G8 100 %		
Disk 0 Basic 2909.73 GB Online Disk 1 Basic 2794.52 GB Online	450 MB Healthy (Recovery Partition 3 MB (2794.52 GB RAW Healthy (C Healthy (OEN Par	Image: Control of Con	523.06 Wallocated	Dine F Disk 1 Basic 2794.52 GB 3	50 MB fealthy (Recove MB 2794.) fealthy Healt	ry Partition) 52 GB RAW hy (DEM Partition)	100 MB Healthy (EFI System P		GB NTFS (Boot, Page File, Crash D	amp, Primary Partition	
- Dick 2 Basic 119.24 GB Online	3 MB Healthy (Healthy (OEM Par	(Box Nees) Curvet			MB 119.24 lealthy Health	4 GB RAW hy (OEM Partition)					
Unallocated	Primary partition			Unallocated Pri	imary partition						

The C: on the StoreMI is now expanded to use the SSD capacity and ready for use.

Case B: Tier created with RAM Cache Enabled

You also have the option at create time to enable 2GB of RAM Cache. This option will dedicate 2GB of your system memory as a Read Cache. Note that the option to enable or disable RAM Cache can also be changed any time after the creation of the Tiered Drive using the system utilities. (This will be detailed in a later section)



MD StoreMI 1.5.0.21400RC	- 🗆 X
Tier Status: No TierDrive Tiers	C reate Tier
RAM Cache Status: Off	Create Tier and Enable RAM Cache
<u>License</u>	Quick Help

IMPORTANT: StoreMI may need to optimize the hibernate file to ensure it is stored on a SATA device attached to the primary SATA controller. Ensure these are complete BEFORE rebooting to ensure hibernate and shutdown operates properly. This process may take up to 30 minutes or more depending on system RAM size and the HDD speed. This typically occurs when converting NVMe SSD boot drives or non-primary SATA controller SSD boot drives e.g. M.2 SATA boot devices. Float the mouse pointer over the StoreMI icon in the system tray to verify of the process is complete.

The remainder of the install process is the same as Case A: Tier created without enabling RAM Cache

Utilizing the Additional Capacity Over the 256GB SSD Limit

The StoreMI software supports up to 256GB fast tier capacity. A device that exceeds this limit will be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

This will result in a new device appearing in the Disk Manager that may be formatted and used as temporary storage.

IMPORTANT: A carve out SSD drive created using excess capacity over the license limit will be deleted whenever a Move All Data to Slow Tier operation is completed and the SSD removed. For this reason, ensure that any important data stored on this temporary drive is backed up before performing the transition.

Example: a 512GB blank NVMe drive is added to a 1TB HDD.



The result is a bootable 1.25TB StoreMI and a ~256GB virtual SSD device that may be formatted as a new data Disk 3 as illustrated in the following screen capture.

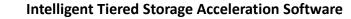
	m 🛩 🛛	1	1	1.		1				
Volume	Layout		File S		Capacity	Free Sp	% Free			
- (C:)	Simple		NTFS	Healthy (B		875.67 GB	94 %			
 (Disk 0 partition (Disk 0 partition) 				Healthy (Healthy (3 MB 931.51 GB	100 %			
 (Disk 0 partition (Disk 0 partition 			RAW	Healthy (100 %			
 (Disk 0 partition (Disk 1 partition 			POAVV	Healthy (R		450 MB	100 %			
- (Disk 1 partition				Healthy (E		100 MB	100 %			
- (Disk 2 partition				Healthy (3 MB	100 %			
- (Disk 2 partition				Healthy (232.88 GB	100 %			
- (Disk 2 partition	2) Simple	Basic	RAW	Healthy (232.88 GB	232.88 GB	100 %			
			-						-	
			_	Initialize Disk				×		
Disk 0 Basic				You must initialize a di Select disks:	sk before Logical Dis	sk Manager can a	ccess it.			
931.51 GB	3 MB	931.51 GB RA	w	Disk 3						
Online	Healthy (Healthy (OEM		UISK 3						
Disk 1 Basic				Use the following partit	ion style for the sele	cted disks:		_	-	
1057.48 GB	450 MB		100 MI	O MBR (Master Boot	Record)				125.98 GB	
Online		lecovery Partiti	Health	GPT (GUID Partition	n Table)				Unallocated	
				Note: The GPT partition Windows.	n style is not recogni	zed by all previou	s versions of			
- Disk 2				windows.						
Basic 232.89 GB	2.140	222.00 CD D4				OK	Canor	el		
Online	3 MB Healthy (232.88 GB RA Healthy (OEM						_		
O Disk 3										
Inknown										
102.88 GB	102.88 GB									
Not Initialized	Unallocate	ed								
CD-ROM 0										
DVD (D:)										

Adding an SSD with Capacity Greater than 256GB to an Existing HDD Boot Drive

The procedure for adding an SSD larger than 256GB to an existing HDD boot drive is similar to adding a 256GB or smaller SSD. The difference being in how the StoreMI creates the drive.

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI will scan your system and only display those options that are available to you based on your system's configuration.

Step 1: Select "Create Tier" and confirm by selecting "Yes".





MD StoreMI 1.5.0.21400RC	– 🗆 X	MMD StoreMI 1.5.0.21400RC - X
Tier Status: No TierDrive Tiers	Create Tier	Tier Status: No Tie AMD StoreMI 1.5.0.21400RC X
		Yes Create tier using Boot Drive?
RAM Cache Status: Off	Create Tier and Enable RAM Cache	RAM Cache Statu
License	<u>Quick Help</u>	License Quick Help

Step 2: Choose the drives that you would like to use in your tier.

Fast	slow	Drive	Type	Capacity	Name	Status
Fasi	SIUW	1 Drive	HDD		WDCWD10 0EFAX-68LHPN0	BootDrive C:
r		0	SSD		NVMe PM961NVMeSAMSUNG512GB	BooiDrive C.
		2	HDD		SanDisk, CruzerBlade	Data D: non-SATA

Note in the graphic above that the SSD, Drive 0, is larger than the 256GB Fast Tier limit. The following message will be displayed notifying you that the fast drive capacity limit has been exceeded and the a carved VDRIVE will be created. This drive can be seen by the Disk Manager and can be used as a normal drive

Create	carved VDRIVE ×
?	The fast drive, Drive0, has a capacity, 476GiB greater than the fast license capacity 256GiB. Because of this, a VDRIVE will be created with the remainder of Drive0. This drive can be seen in Disk Manager and Device Manager and can be used as a normal drive Create the carved VDRIVE?
	<u>Y</u> es <u>N</u> o



Step 3: Select YES. The system will display what your new drive configuration will look like.

•••		-			e capacity shown in the line below. t to create the TierDrive.	
Fast	Slow	Drive	Туре	Capacity	Name	Status
			Tier	9568 GiB	AMD T00StoreMI	BootDrive C:
~		⊢ 0	SSD	256 GiB	NVMe PM961NVMeSAMSUNG512GB	StoreMI T00 Fast
	~	L-1	HDD	9314 GiB	WDCWD10 0EFAX-68LHPN0	StoreMI T00 Slow
			VDRIVE	218 GiB	AMD VDRIVE	
~		L 0	SSD	218 GiB	NVMe PM961NVMeSAMSUNG512GB	StoreMI T00 Fast
		Back			Next	Quick Hel

In this example, the new StoreMI Tiered Drive (Boot Drive C:) is made from a 934BG HDD plus 256GB of the SSD. The total capacity of the StoreMI drive is 9568GB. The new VDRIVE is 218GB.

Step 4: Select Next and the new TierDrive will be created. You will see the message below.

MD StoreMI 1.5.0.21400	RC		_		×
Tier Status: No TierDrive 1	iers	Cre	ate Tier		
RAM Cache Status: Off	i Transform E	3oot Drive and Reboot	Enable RAN	I Cache	
<u>License</u>				Quick He	<u>elp</u>

Expand the Capacity of an Existing SSD Boot Drive

If the boot drive is an SSD, the software provides the ability to expand the capacity of the boot drive by adding a large capacity HDD or SSD and increasing the overall size of the boot volume.

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI will scan your system and only display those options that are available to you based on your system's configuration.



Step 1: Select "Create Tier". Select an available blank SSD or HDD from the options presented.

MD StoreMI 1.5.0.21400RC	– 🗆 X
Tier Status: No TierDrive Tiers	Create Tier
RAM Cache Status: Off	Create Tier and Enable RAM Cache
<u>License</u>	Quick Help

Step 2: Choose the drive to create a StoreMI TierDrive with.

		t support		u ansionn wiu	the Boot drive.	
Fast	Slow	Drive	Туре	Capacity	Name	Status
	V	1	HDD		WDCWD10 0EFAX-68LHPN0	
~		0	SSD		NVMe PM961NVMeSAMSUNG512GB	BootDrive C:
$\mathbf{\nabla}$		2	HDD	14 GiB	SanDisk. CruzerBlade	

If the SSD is larger than 256GB, the following message will be displayed notifying you that the fast drive capacity limit has been exceeded and the a carved VDRIVE will be created. This drive can be seen by the Disk Manager and can be used as a normal drive

Create	carved VDRIVE ×
?	The fast drive, Drive0, has a capacity, 476GiB greater than the fast license capacity 256GiB. Because of this, a VDRIVE will be created with the remainder of Drive0. This drive can be seen in Disk Manager and Device Manager and can be used as a normal drive Create the carved VDRIVE?
	<u>Y</u> es <u>N</u> o

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool.



Step 3: Transform the Boot drive and Reboot. Once the appropriate drive has been selected, click **Transform** to start the conversion process.

AMD StoreMI 1.5.0.21400	RC		-		×
Tier Status: No TierDrive T	ers	Create ×	Fier		
RAM Cache Status: Off	Transform Boot D	rive and Reboot	ble RAN	1 Cache	
<u>License</u>				<u>Quick H</u>	

Reboot the system when prompted.

Step 4: If not automatically completed by the software, you may manually extend the size of your new StoreMI with additional capacity added by the SSD or HDD using Windows Disk Manager as described in the earlier section for accelerating a HDD in steps 4 and 5.

T Disk Manage			k Management – 🗆 🗙
♦ ⇒ □□			Action Yew Help
Volume Disk 0 partitie (Disk 0 partitie (Disk 1 partitie (Disk 1 partitie (Disk 1 partitie (Disk 2 partitie (Disk 2 partitie (Disk 2 partitie (Disk 2 partitie (Disk 2 partitie)	tion 23 Simple Data Heathy (L. 100.M8 100.M8 100.% tion 10 Simple Baric Heathy (L. 201.M8 3.04.8 0.05.% tion 23 Simple Baric Heathy (L. 201.42.68) 2.794.52 100.% tion 23 Simple Baric Heathy (L. 201.42.68) 2.794.52 100.% tion 35 Simple Baric Heathy (L. 201.42.68) 2.794.52 10.9% tion 35 Simple Baric Heathy (L. 201.42.68) 2.794.52 10.9% tion 35 Simple Baric Heathy (L. 31.42.68) 10.9%	Volume = (C) = (Disk 0 = (Disk 1 = (Disk 1 = (Disk 1 = (Disk 1 = (Disk 2 = (Disk	e Layout Type File System Status Capacity Free Spa % Free
- Disk 0 Basic 2909.73 GB Online	AD MS Mathy (Bacovery Part Heathy (ET Syst. 1 East of 1175 Heathy (East heathy (East heathy (East heathy (East heath heath) Friend) 1 Heathy (East heath) (East heath) (East heath heath) (East heath heath) (East heath)	Pink Basic 2009.73 C Online	73 GB 450 MB 100 MB 2009.19 GB NTFS
- Disk 1 Basic 2794.52 GB Online	3 MSI 225453 (26 MAW Mashiy Heathy (CDM Partilion)	Thisk Basic 2794.52 C Online	12 GB 3 I//B 2794.52 GB RAW
- Disk 2 Basic 119.24 GB Online	3 MB 11224 GR RAW Healby (ICBM Partition)	■ Disk Basic 119.24 Gf Online	168 3 MB 119,24 GB RAW
Unallocated	I Primary partition	Unation Unation	Rocated Primary partition

Example: Adding a 3TB HDD to an existing 120GB SATA SSD boot drive.

Accelerate or Expand a Non-boot Drive

To accelerate a non-boot drive with an existing partition on it, or combine two blank drives, run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI will scan your system and only display those options that are available to you based on your system's configuration.

STEP 1: Select the "Create Tier" option and then "No" on the following screen.



MD StoreMI 1.5.0.21400RC	- 🗆 X	AMD StoreMI 1.5.0.21400RC - 🗆 🗙
Tier Status: No TierDrive Tiers	Create Tier	Tier Status: No Tie AMD StoreMI 1.5.0.21400RC X
RAM Cache Status: Off	Create Tier and Enable RAM Cache	RAM Cache Statu
License	Quick Help	License Quick Help

STEP 2: Select your drives. Unavailable drives, such as the Boot drive or USB drives will be grayed out and will not be able to be selected. Drives with partitions will say "Data" and the drive letter. Only one of the two drives may have data on it. Click the "Create" button.

	_							
Ø	Create	e Non-Bo	otable Tie	rDrive				×
			w drives					
						. Use Create tier using Boot Drive inst	ead.	
			t support		I may not be s	elected.		
ľ	Fast	Slow	Drive	Type	Capacity	Name		Status
Ŀ	Fast	SIOW	Dilve	HDD		ST310005 24AS	Data F:	alalus
H			4	HDD		WDCWD10 03FZEX-00MK2A0	Data D:	
Ŀŀ			5	HDD		WDCWD40 EZRZ-00GXCB0	BootDriv	e C:
II.			6	HDD		ST4000DM 000-1F2168		non-SATA US
			0	SSD	465 GiB	NVMe WDS500G2X0C-00L350		
			1	SSD	232 GiB	NVMe SamsungSSD960EVO250GB	(
Ľ			2	SSD	232 GiB	NVMe SamsungSSD960EVO250GB	(
Ι.								
Γ			Back			Create		Quick Help
Ľ			Juon			create		denow freip

STEP 3: The screen will identify how the new StoreMI TierDrive will appear. If satisfied, click the "Next" button. Any existing drives will temporarily go offline while they are converted to a StoreMI TierDrive. Appendix A, example A5, shows the Disk Manager configuration after converting a Data D: drive to a TierDrive. If both drives had no partitions, a new StoreMI TierDrive with no allocated partitions will appear in the Disk Management tool.

🙍 AMD	StoreMI	1.5.0.2152	ORC					×
					e capacity shown in the line below t to create the TierDrive.	N.		
Fast	Slow	Drive	Туре	Capacity	Name		Status	
			Tier	1159 GiB	AMD T00StoreMI		Data F:	
~		⊢1	SSD	232 GiB	NVMe SamsungSSD960EV025	i0GB	StoreMI T00 Fast	
	~	i= 3	HDD	931 GiB	ST310005 24AS		StoreMI T00 Slow	
	E	lack			Next		Quick He	lp.

STEP 4: Use the Windows Disk Management tool to format and use the new StoreMI virtual disk that is created.

Convert StoreMI Tiered Drive To Single

The StoreMI utility may be used to remove all acceleration using the "Move all data to slow media" option and return the system to utilize just the single HDD (or slow tier device) as a single



disk drive.

This will free up any existing SSD to be used for other purposes and also support replacing the SSD with a different one if necessary. This action will also remove the RAM cache.

Note: this does not uninstall the software. It simply detaches the fast tier so a new fast tier device may be attached.

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI scans your system and only display those options that are available to you based on your system's configuration.

Step 1: Select "Change Tier Settings"

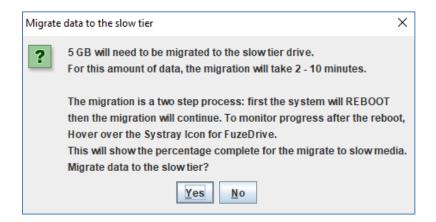
AMD StoreMI 1.5.0.21400RC	– 🗆 X
Tier Status: 1 TierDrive (1 bootable)	Change Tier Settings
RAM Cache Status: Off	Enable RAM Cache
<u>License</u>	<u>Quick Help</u>

Step 2: Select the Tiered Drive which you want to move all the data to the slow tier. Select the Move all data to slow tier option.

🖉 Delete	a or Modif	fv Tier				>
an o'cicti		y				,
Select tie	r to delete	e or modif	y.			
Drives th	at are par	t of Storel	MI may not be	selected.		
Select	Drive	Туре	Capacity		Name	Status
(🗹)	3	TDD	9567 GiB	AMD T00Store	MI	BootDrive C: G: H: I: 2GB
	⊢0	SSD	476 GiB	NVMe PM961N	NVMeSAMSUNG512GB	T00StoreMI Fast
	⊢1	HDD	9314 GiB	WDCWD10 0E	FAX-68LHPN0	T00StoreMI Slow
	2	HDD	218 GiB	AMD VDRIVE0	2	Data D: E: F: Carved Driv
	<u>∟</u> 0	SSD	476 GiB	NVMe PM961N	NVMeSAMSUNG512GB	InVdrive
elect O	peration				Move all data to slow med	lia
					No change to tier configur	ration
					Move all data to slow med	ia
ïer med	ia type re	eported to	00\$		Virtual SSD	•
	Ba	ack		Мо	dify	Quick Help



Step 3: Select the "Modify" button. The following message will appear.



By hovering the cursor over the StoreMI icon in the Systray, you can easily monitor the progress of the migration.

IMPORTANT: The system will reboot, so save any important work. Also, any carve out SSD drive created using excess capacity over the license limit will be deleted whenever a StoreMI is removed. For this reason, ensure that any important data stored on the temporary drive is backed up before performing the above operation.

When the "Move All Data to Slow Media" operation is selected, all data on the StoreMI Drive is moved to the slower media. The Enmotus configuration utility will attempt the shrink the last partition on the StoreMI Drive. If the shrink operation is not successful, user interaction may be needed to migrate data to a different drive in the system. 2GB of Meta data for the StoreMI Drive is also retained during this operation. If manually shrinking or moving partitions before running "Move All Data to Slow Media", please shrink partitions and move partitions so that the fast media capacity plus 2GB is unallocated. When the manual shrink is completed, Windows Disk Management Tool will show the right section of the StoreMI Drive as "unallocated ". The Move All Data to Slow Media operation works for configurations where there are multiple partitions on a StoreMI Drive. When the capacity of the fast media plus 2GB is free the "Move All Data to Slow Media" operation will proceed smoothly.

Delete Tier

The Delete Tier feature can be used to delete a StoreMI Data drive. All data on the drive will be destroyed so it is important to Backup your data before completing this operation. This feature DOES NOT work on a Boot Drive.

Step1: Select "Change Tier Settings".



MD StoreMI 1.5.0.21400RC	- 🗆 X
Tier Status: 1 TierDrive (1 bootable)	Change Tier Settings
RAM Cache Status: Off	Enable RAM Cache
<u>License</u>	Quick Help

Step 2: Choose the Data Tier you wish to delete. The Tier will be marked as "Data" in the status column. Choose "Delete Tier" option in the Select Operation drop down menu

Delete	e or Modif	fy Tier			
Select tie	r to delet	e or modif	fv		
			iy. MI may not be	e selected.	
Select	Drive	Туре	Capacity	Name	Status
2	7	TDD	1160 GiE	AMD T00StoreMI	Data F:
	⊢1	SSD	232 GiE	NVMe SamsungSSD960EVO250GB	T00StoreMI Fast
	L3	HDD	931 GiE	3 ST310005 24AS	T00StoreMI Slow
elect O	peration			Delete Tier	
ielect O	peration				ration
ielect Oj	peration			Delete Tier No change to tier configu Move all data to slowme	
				No change to tier configu Move all data to slow me	
		eported to	0 0 \$	No change to tier configu	
		eported to	0 O S	No change to tier configu Move all data to slow me	

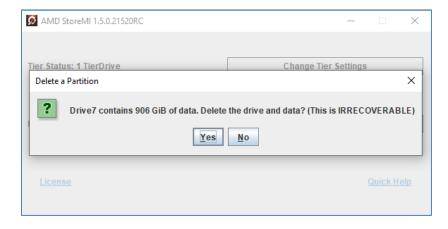
After choosing Modify, you will be presented with a confirmation screen. Choose yes if you wish to continue

🙍 AMD StoreMI	1.5.0.2152(DRC		-		×
Tier Status: 1 Ti	erDrive Delete a	Tier	Change Tie	er Settings X	6	
RAM Cache Sta		You are about to delete	TierDrive Drive7. Are you	ı sure?	-	
<u>License</u>					<u>Quick He</u>	



Step 3: The next screen shows you how much data will be deleted from the Data Drive. Make sure your data is backed up if you wish to keep the data.

NOTE: This is irrecoverable and ALL DATA ON THE DRIVE WILL BE DELETED.



The final screen shows you the drives in your system after the Delete Data operation.

Drive	Туре	Capacity	Name	Status
3	HDD	931 GiB	ST310005 24AS	
4	HDD	931 GiB	WDCWD10 03FZEX-00MK2A0	Data D:
5	HDD	3726 GiB	WDCWD40 EZRZ-00GXCB0	BootDrive C:
6	HDD	3726 GiB	ST4000DM 000-1F2168	Partition non-SATA
0	SSD	465 GiB	NVMe WDS500G2X0C-00L350	
1	SSD	232 GiB	NVMe SamsungSSD960EVO250GB	
2	SSD	232 GiB	NVMe SamsungSSD960EVO250GB	
		202 0.2		

Configuration of StoreMI Tiered Drive when Starting Remove Operation





Configuration of StoreMI Tiered Drive after Remove Operation is Completed



Some situations may require the use of a partition movement tool. Enmotus can recommend MiniTool's Partition Wizard, a free Home-use tool for these types of operations.

Change Settings

Use the change settings option in the StoreMI utility to change the following modes:

- RAM cache on/off
- VirtualSSD or VirtualHDD setting

Change RAM Cache Settings

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI's *Machine Intelligence* will scan your system and only display those options that are available to you based on your system's configuration.

AMD StoreMI 1.5.0.21400RC	– 🗆 X
Tier Status: 1 TierDrive (1 bootable)	Change Tier Settings
RAM Cache Status: Off	Enable RAM Cache
<u>License</u>	Quick Help

Select the Enable RAM Cache Setting. The drop down menu gives you the option or RAM Cache Off or 2G Cache. Select 2G Cache and hit the Create button.



c X
figuration for TierDrive Drive3
RAM Cache off 🔹
RAM Cache off 2G Cache

Change Declared Disk Type Settings

Run the StoreMI Wizard as detailed in the "Configure StoreMI" section above. StoreMI's *Machine Intelligence* will scan your system and only display those options that are available to you based on your system's configuration.

AMD StoreMI 1.5.0.21400RC	- 🗆 X
Tier Status: 1 TierDrive (1 bootable)	Change Tier Settings
RAM Cache Status: Off	Enable RAM Cache
<u>License</u>	Quick Help

rives th Select	Drive	Туре	Capacity	Name	Status
	3	TDD	9567 GiB	AMD T00StoreMI	BootDrive C:
	⊢0	SSD	476 GiB	NVMe PM961NVMeSAMSUNG512GB	T00StoreMI Fast
	L-1	HDD	9314 GiB	WDCWD10 0EFAX-68LHPN0	T00StoreMI Slow
	2	HDD	218 GiB	AMD VDRIVE02	Carved Drive
	L 0	SSD	476 GiB	NVMe PM961NVMeSAMSUNG512GB	InVdrive
lect O	peration			No change to tier config	uration
elect O	peration			No change to tier config	uration

Change StoreMI Declared Disk Type

A StoreMI may be optionally declared to the operating system as either a virtual SSD or a virtual HDD.

In the case of the virtual SSD, this will support features such as TRIM commands when supported by the operating system. In this mode, StoreMI boot and data drives will be managed the same way as SSDs by Windows i.e. they will not be subject to defragmentation during the Windows background optimization processes. This is the default and preferred mode.

If the type is changed to Virtual HDD, then the StoreMI will be managed by the Windows OS as the same way hard drives are and will be subject to background defragmentation operations automatically performed by the OS.

Checking StoreMI Status

A system tray utility is provided for quick access to the StoreMI software status. In the lower right-hand corner of the desktop, either float over the StoreMI icon to see basic information about the StoreMI or right click to gain access to several high-level control functions to start and stop the StoreMI activity.



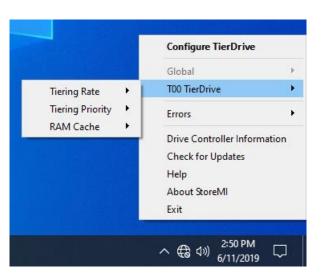
When floating the cursor over the the StoreMI icon, you can see how much data has been promoted since the creation of the tier, and you can also see how much data is in the queue to be promoted to the fast tier.

Configuring StoreMI Using Systray Utility

The systray application may also be used as a shortcut for several other configuration or status functions, as well as turning the promotion/tiering functions off while running backups.

Right Click on the StoreMI icon in the sytray to display all of the configuration options.





	StoreMI Systray Configu	iration Options
Configure TierDrive	Launches the StoreMI Utility	
T00 Tier Drive	Allows you to change StoreMI	configuration settings
	Tiering Rate	The tiering rate setting specifies how
		often data is moved and at what activ-
		ity thresholds
		Agressive
		Normal
		Slow
		• Off
	Tiering Priority	Priority determines the CPU priority being
		used for application vs tiering operation
		• High
		Medium
		• Low
		• Off
	RAM Cache	Enables or disables RAM Cache feature
		• 2G
		• Off
Errors	Adjust error reporting	
	Disable Errors and Warnings	
	Clear Error Flags	
Drive Controller	Provides details on the drive of	controller
Information		
Check for Updates	•	dated version of StoreMI available
Help	Provides additional help scree	
About StoreMI	Provides information about the	
		nformation about your system for
	additional support	



Installing a New Operating System

When installing a new OS and reinstalling the StoreMI software, it will be necessary to properly clean the disk drives before they can be seen by the Windows setup procedure.

If installing Windows via the standard USB or DVD setup disk method, on reaching the point where Windows prompts to select the disk to install the OS to, the disks may not be visible or may show partitions showing the AMD "EnTier_ESP" partitions. It's important to note that using the Windows setup **Delete** option is insufficient to clean the disks properly.

Follow the instructions in **Appendix B** or consult the AMD online knowledge base at AMD.com/support to ensure the disks are fully cleaned.

Uninstalling StoreMI Software

A StoreMI system reformats the Windows raw disks in order to function properly. Once formatted, there is no supported way to revert back to the original boot drive as the data is spread across multiple drives.

Completely uninstalling the software is therefore not possible for bootable StoreMI TierDrives without utilizing a third-party OS migration tool.

StoreMI may be uninstalled using standard Windows uninstall options via the setup or control panel. However, special steps are required if the StoreMI is a boot drive.

IMPORTANT: Backup all important data or the entire operating system BEFORE attempting to uninstall StoreMI entirely from the system as the following operations will result in the data on the StoreMI being deleted.

Step 1a: Backup or migrate any important data currently stored on the StoreMI drive to a separate disk drive using a commercially available data migration tool. Another blank hard disk or SSD attached to the system SATA controller is highly recommended for this step NOT a USB drive as we will need to be able to boot from this drive in later steps (unless the USB drive is transferable to the motherboard SATA ports).

OR

Step 1b: If using a 2-drive StoreMI configuration, convert the system to a single disk using the StoreMI **Remove StoreMI** option. This will free up the SSD which may be used to clone the StoreMI contents to. Note, check there is enough room for the OS to fit on the SSD before performing this operation.



Step 2: Boot the system from the migrated disk created in step 1a or 1b. Check the boot drive is operating as expected and the StoreMI is no longer the boot drive.

Step 3: Click on the Windows icon, type "StoreMI" to search for the AMD StoreMI utility and run the utility

IMPORTANT: The following step will erase all data from the StoreMI:

Step 4: Select "Change Settings" then "Delete" to remove the StoreMI, free the original drive(s) and make them usable by Windows.

Step 5: Uninstall the AMD StoreMI software from the cloned boot drive.

The system will no longer contain any StoreMI TierDrives.

Troubleshooting

Software will not install - Not licensed for this hardware message

Check your system meets the minimum requirements outlined in the Pre-Install Checklist. This version of the software will only run on AMD TRX40, X399, 400-Series or 500-Series chipset motherboard.

AMD RAID is installed on the system and StoreMI will not convert the boot drive

Bootable RAID systems are not supported by the StoreMI software.

My system no longer hibernates

If your system supports multiple storage controllers (use Microsoft Device Manager or the AMD installer utility to determine how many there are), hibernate may not be possible in all combinations. When using all SATA devices, ensure that all StoreMI disk devices are attached to the same SATA controller on the motherboard whenever possible.

StoreMI utility reports reserved partition and cannot transform my boot drive

Open Microsoft Disk Manager and check if there is a reserved partition on the boot drive after the primary C: boot volume.

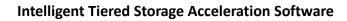
Disk 0 Basic 978.07 GB	100 MB	(C:) 929.64 GB NTFS	1.76 GB
Online	Healthy (EFI Sy	Healthy (Boot, Page File, Crash Dump, Primary Par	Healthy (Recovery Partitic

If a reserved partition exists, then use a third-party tool to reduce the size of the C: partition by 3 or 4GB, and move the Recovery Partition to fill the 3-4GB capacity gap created between the C: and the reserved partition, then repeat the StoreMI utility operation.

See <u>www.AMD.com/support</u> knowledge base for additional information.

My issue is not addressed here ...

See <u>www.AMD.com/support</u> for additional information in the online FAQ and knowledge base which may contain more up to date information.







Appendix A: Example Drive Configurations and StoreMI Options

Pre-Convert Example Configurations

AMD StoreMI		D	Disk Manager Drive Configuration
A1.		😨 Disk Managemi	10 Congregation (Congregation Congregation Congre
MD StoreMI 1.5.0.21400RC		File <u>A</u> ction <u>V</u> ie	
		Volume	Layout Type File System Status Capacity Free Spa % Free
		System Reserved	Simple Basic NTFS Healthy (B 237.94 GB 200.83 GB 84 % sd Simple Basic NTFS Healthy (S 549 MB 163 MB 30 %
Tier Status: No TierDrive Tiers	Create Tier		
RAM Cache Status: Off Cre	ate fier and Enable RAM Cache	Basic 238.47 GB	System Reserved (C3) 549 MB NTF5 (237.94 GB NTF5
		Online	Healthy (System, Active, Prime Healthy (Boot, Page File, Crash Dump, Primary Partition)
		ODisk 1	
License	Quick Help	Unknown 3726.02 GB Not Initialized	3726.02 GB Unallocated
		TYOL ITRUBIZED	Unallocated
		Olisk 2 Unknown 111.79 GB	
		111.79 GB Not Initialized	111.79 GB Unallocated
SSD Boot Drive (C:)			
Blank SSD - available	tor slow tier for C 👘 👘	Olisk 3 Unknown 3726.02 GB	3726.02 GB
2x Blank HDDs – both		Not Initialized	Unallocated
			<u>-</u>
tier for boot drive or i	new non-bootable	Unallocated	Primary partition
StoreMI			
A2.		📅 Disk Managem	and the second sec
MD StoreMI 1.5.0.21400RC		File Action Vie	ew Help
		Volume	Layout Type File System Status Capacity Free Spa % Free
		 (C:) DATA (D:) System Reserves 	Simple Batic NTFS Healthy (B 237,94 GB 200,83 GB 84 % Simple Batic NTFS Healthy (P 3725,90 GB 3725,61 100 % Id Simple Batic NTFS Healthy (S 54 PM B 163 MB 30 %
Tier Status: No TierDrive Tiers	Create Tier	System Reserved	а зитрие више и и гэ неакту (з зну ило гоз ило зи за
		- Disk 0	
RAM Cache Status: Off Cre	ate Her and Enable RAM Cache	Basic 238,47 GB	System Reserved (C) 549 MB NTFS 237.94 GB NTFS
		Online	Healthy (System, Active, Primi Healthy (Boot, Page File, Crash Dump, Primary Partition)
		ODisk 1	
<u>License</u>	Quick Help	Unknown 3726.02 GB Not Initialized	3726.02 GB Unallocated
		Olisk 2 Unknown 111.79 GB	
		111.79 GB Not Initialized	111.79 GB Unallocated
SSD Boot Drive (C:)		= Disk 3	
HDD DATA Drive (D:)			
		Basic 3725.90 GB	DATA (D:) 3725.90 GB NTFS
()		Basic 3725.90 GB Online	DATA (D9) 1725/90 GB NTFS Heattry (Primary Partition)
Blank HDD - available	for slow tier	3725.90 GB	3725.90 GB NTFS
 Blank HDD - available Blank SSD - available 	for slow tier	3725.90 GB	J72539.06 HTFS Healthy (Pimary Partition)
Blank HDD - available	for slow tier	3725.90 GB Online	J72539.06 HTFS Healthy (Pimary Partition)



A3.	
AMD StoreMI 1.5.0.21400RC - 🗆 🗙	the Action Area Helb
	Volume Layout Type File System Status Capacity Free Spa % Free
	- (C:) Simple Basic NTFS Healthy (B., 237.94 GB 200.83 GB 84 %
Tier Status: No TierDrive Tiers Create Tier	DATA (D:) Simple Basic NTFS Healthy (P 3725.90 GB 3725.61 100 % DATA2 (E:) Simple Basic NTFS Healthy (P 111.79 GB 111.68 GB 100 %
	System Reserved Simple Basic NTFS Healthy (S 549 MB 163 MB 30 %
RAM Cache Status: Off Create Tier and Enable RAM Cache	-Disk 0
	Basic System Reserved (C) 238.47 GB 549 MB NTFS 237.94 GB NTFS
	Online Healthy (System, Active, Prime Healthy (System, Active, Prime)
License Quick Help	*O Disk 1 Unknown
	3726.02 GB 3726.02 GB Unallocated
	Unanotated
	- Disk 2
SSD Boot Drive (C:)	Basic DATA2 (E) 111.79 GB 111.79 GB NTFS
	Online Healthy (Primary Partition)
HDD DATA Drive (D:)	
. ,	Disk 3 Basic DATA (D:)
SSD DATA2 Drive (E:)	3725.90 GB 3725.90 GB NTFS Online Healthy (Primary Partition)
Blank HDD (available for slow tier)	Theory (Through Announ)
	Unallocated Primary partition
	_ Onencacca _ Primery percent
ΔΛ	🖅 Disk Management - 🗆 X
A4.	Eile Action View Help
A4	
	File Action View Help Image: Status Image: Status Capacity Volume Layout Type File System Status Capacity
AMD StoreMI 1.5.0.21400RC - X	File Action Yiew Help
	Elle Action Yiew Help Image: Status Image: Status Capacity Free Span, % Free Volume Layout Type File System Status Capacity Free Span, % Free Image: Status CO Simple Basic NTFS Healthy (B., 237.94 GB 200.83 GB 84% Image: Simple Basic NTFS Healthy (F., 375.99 GB 372.50 LB 103 MB 30%
MAD StoreMI 1.5.0.21400RC — X	File Action Yiew Help
AMD StoreMI 1.5.0.21400RC - X	Elle Action Yiew Help Image: Status Image: Status Capacity Free Span, % Free Volume Layout Type File System Status Capacity Free Span, % Free Image: Status CO Simple Basic NTFS Healthy (B., 237.94 GB 200.83 GB 84% Image: Simple Basic NTFS Healthy (F., 375.99 GB 372.50 LB 103 MB 30%
AMD StoreMI 1.5.0.21400RC - X	Elle Action Yiew Help Image: Constraint of the state of the stat
AMD StoreMI 1.5.0.21400RC - X	Elle ≜ction Yee Help Image: System Layout Type File System Status Capacity Free Spa., % Free Image: Color Simple Basic NTFS Healthy (B., 2754) 6B 200.83 GB 64.% System Reserved Simple Basic NTFS Healthy (G., 375.96 GB 3725.61 L., 100 % Image: NTFS Healthy (G., 397.86 GB 3725.61 L., 100 % 103.46 B 30%, 50 % Image: NTFS Healthy (G., 397.86 GB 3725.61 L., 100 % 100 %
AMD StoreMI 1.5.0.21400RC - X	Elle Action Yele Help Image: Second State Image: Second State Type File System Status Capacity Firee Spa., % Free Volume Largout Type File System Status Capacity Firee Spa., % Free = DATA (D) Simple Basic NTFS Healthy (B., 275.95 GB 220.23 GB 64 % = System Reserved Simple Basic NTFS Healthy (C., 354 MB 163 MB 30 % = VIDEO (E) Simple Basic NTFS Healthy (P., 3725.90 GB 3725.61 100 % = Disk 0 System Reserved [C3] 227.94 GB NTFS 227.94 GB NTFS
AMD StoreMI 1.5.0.21400RC - X	File Action Yiew Help Image: Status Image: Status Capacity Free Spa., % Free Volume Layout Type File System Status Capacity Free Spa., % Free Image: Status Capacity Free Spa., % Free Status Capacity Free Spa., % Free Image: Status Status Capacity Free Spa., % Free Status Capacity Free Spa., % Free Image: Status Status Transitive Transitive Transitive Status
AMD StoreMI 1.5.0.21400RC – × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache	Clip Action Yiew Help Image: Status Image: Status Capacity Free Spa., % Free Volume Layout Type File System Status Capacity Free Spa., % Free Image: Status Simple Basic NTF5 Healthy (B., 275.96 GB 372.561., 100 % Image: System Reserved Simple Basic NTF5 Healthy (C., 372.590 GB 372.561., 100 % Image: VIDEO (E) Simple Basic NTF5 Healthy (P., 372.590 GB 372.561., 100 % Image: VIDEO (E) Simple Basic NTF5 Healthy (P., 372.590 GB 372.561., 100 % Image: VIDEO (E) Simple Basic NTF5 Healthy (P., 372.590 GB 372.561., 100 % Image: VIDEO (E) Simple Basic NTF5 Healthy (P., 372.590 GB 372.561., 100 % Image: VIDEO (E) Simple Basic NTF5 Healthy (Boot, Page File, Crash Dump, Primary Partition)
AMD StoreMI 1.5.0.21400RC - X	Eile Action Yole Help Image: System Layout Type File System Status Capacity Free Spa., 1% Free Image: Color Simple Basic NTFS Healthy (B., 2724) 68 200.83 GB 64.7% Image: Display the System Reserved Simple Basic NTFS Healthy (C., 372590 GB 3725.61 100 % Image: Display the System Reserved Simple Basic NTFS Healthy (P., 3725.90 GB 3725.61 100 % Image: Display the Reserved Signed Reserved Signed Reserved Signed Reserved Signed Reserved Sady Cold System Reserved Signed Reserved Signed Reserved Signed Reserved Sady Cold Sady Cold Sady Cold Display (Sock Page File, Crash Dump, Primary Partition) Signed Reserved Sady Cold Disk 1 WINFO (File) File Signed Reserved Signed Reserved
AMD StoreMI 1.5.0.21400RC – × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache	Ele Action Yele Help Action Yele Help Help Help Simple Basic NTFS Healthy (B., 237.94 GB 200.83 GB 64.7% Simple Basic NTFS Healthy (B., 237.94 GB 200.83 GB 64.7% Simple Basic NTFS Healthy (C., 354 MB 103 MB Simple Basic NTFS Healthy (P., 3725.90 GB 3725.61 100 % Stormal Basic NTFS Healthy (P., 3725.90 GB 3725.61 100 % Stormal Basic NTFS Healthy (P., 3725.90 GB 3725.61 100 % Stormal Basic NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Healthy (System, Active, Primu Healthy (Boot, Page File, Crash Dump, Primary Partition) Disk 1
AMD StoreMI 1.5.0.21400RC – × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache	Elle Action Yole Help Image: System Control Image: System Status Capacity Free Spa., 1% Free Image: System Reserved Simple Basic NTFS Healthy (B., 237.54 GB 200.83 GB 64.7%, 100.% Image: System Reserved Simple Basic NTFS Healthy (C., 372.59 GB 123.56 I., 100.% Image: System Reserved Simple Basic NTFS Healthy (C., 39.04 GB 372.56 I., 100.% Image: System Reserved Simple Basic NTFS Healthy (D., 372.50 GB 372.56 I., 100.% Image: System Reserved Sign Reserved
AMD StoreMI 1.5.0.21400RC – X Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help	File Action View Help Image: Second State Volume Layout Type Image: Second State Simple Basic NTFS Image: Simple Basic NTFS Healthy (B., 2754) 68 200.23 08 64 % Image: Simple Basic NTFS Healthy (B., 2754) 06 372.50 1 100 % Image: Simple Basic NTFS Healthy (P., 372590 06 372.561 100 % Image: VIDEO (E) Simple Basic NTFS Healthy (P., 3725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (P., 3725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (Boot, 725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (Boot, 725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (Boot, 725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (Boot, 725.90 06 372.561 100 % Image: Simple Basic NTFS Healthy (Boot, 725.90 06 372.561 100 % Image: Simple Basic Simple Basic Simple Basic <
AMD StoreMI 1.5.0.21400RC – × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache	Ele & doin Yiew Help Image: Second State Image: Second State Status Capacity Free Spa., % Free Volume Layout Type Image: Second State Status Capacity Free Spa., % Free Image: Second State Simple Basic NTFS Healthy (B., 275.90 G8 275.50 L 100 % Image: System Reserved Simple Basic NTFS Healthy (P., 3725.90 G8 3725.61 100 % Image: System Reserved Simple Basic NTFS Healthy (P., 3725.90 G8 3725.61 100 % Image: System Reserved Simple Basic NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: System Reserved Sign MB NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: System Reserved Sign R NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: System Reserved Sign R NTFS Healthy (Primary Partition) Image File, Crash Dump, Primary Partition) Image: System Reserved Sign R NTFS Healthy (Primary Partition) Image File, Crash Dump, Primary Partition)
AMD StoreMI 1.5.0.21400RC – × Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help SSD Boot Drive (C:)	Elie Action Yiele Volume Layout Type Understand Environment Environment DATA (D) Simple Basic System Reserved Simple Basic WIDEO (E) Simple Basic System Reserved Simple Basic System Reserved Simple Basic Start Sign Reserved Sign Reserved ICO Sign Reserved ICO Sign Reserved Online Sign Reserved ICO Sign Reserved ICO ICO
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help SSD Boot Drive (C:) HDD DATA Drive (D:)	File Action Yele Healthy Volume Loyout Type The second Somple Basic NTFS Healthy (B., 275.90 GB 202.81 B System Reserved Simple Basic NTFS Healthy (C., 354 MB Sola O System Reserved Simple Simple 100 % Basic System NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) — Disk 1 Basic Sign MB NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) — Disk 1 Basic Sign AB NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) — Disk 1 Basic Sign AB NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Unknown 111.79 GB Unalloccated Unalloc
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help SSD Boot Drive (C:) HDD DATA Drive (D:)	File Action Yele
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help License SSD Boot Drive (C:) HDD DATA Drive (D:) HDD DATA Drive (E:)	Disk 0 System Reserved 2364/7 GB System Reserved 237/2 AG B MTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) = Disk 1 Trype GB 0 Online Trype GB 0 Online 111/79 GB 0 Unallocated Unallocated
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help SSD Boot Drive (C:) HDD DATA Drive (D:)	Elie Action Yole Help Image: System Status Capacity Free Spa., 15; Free Image: System Reserved Simple Basic 202,53:00 GB 372,59:00 GB <
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help > SSD Boot Drive (C:) > HDD DATA Drive (D:) > HDD DATA Drive (E:) > Blank SSD (available for fast tier for D: or	Elie Action Yole Help Image: System Status Capacity Free Spa., 15; Free Image: System Reserved Simple Basic 202,53:00 GB 372,59:00 GB <
AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help License SSD Boot Drive (C:) HDD DATA Drive (D:) HDD DATA Drive (E:)	Elie Action Yole Help Image: System Status Capacity Free Spa., 15; Free Image: System Reserved Simple Basic 202,53:00 GB 372,59:00 GB <
 AMD StoreMI 1.5.0.21400RC - × Tier Status: No TierDrive Tiers Create Tier RAM Cache Status: Off Create Tier and Enable RAM Cache License Quick Help SSD Boot Drive (C:) HDD DATA Drive (D:) HDD DATA Drive (E:) Blank SSD (available for fast tier for D: or 	File Action Yeve Help Image: Second State Layout Type The System Status Capacity Free Span, % Free Image: Second State Simple Basic NTFS Healthy (B., 27,54) 6B 200,31 6B 64 % System Reserved Simple Basic NTFS Healthy (P., 372,59) 6B 372,561 100 % Image: Second State Simple Basic NTFS Healthy (P., 372,59) 6B 372,561 100 % Image: Second State Simple Basic NTFS Healthy (P., 372,59) 6B 372,561 100 % Image: Second State Simple Basic NTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: Second State Sign MR Preserved (C) 227 G G MTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: Second State Sign MR Preserved (C) 227 G G MTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: Second State Sign MR Preserved (C) 227 G G MTFS Healthy (Boot, Page File, Crash Dump, Primary Partition) Image: Second State Sign MR Preserved Sign MR Preserved Sign MR Preserved Sign MR Preserved



Post Conversion Examples

A5.	EDisk Management – D X
MD StoreMI 1.5.0.21400RC - X	File Action View Help
Tier Status: 1 TierDrive (1 bootable)	Volume Layout Type File System Status Capacity Free Spa. % Free = (C) Simple Basic NTFS Heathy (B. 2274 GB 200.81 GB 84 % = DATA(D) Simple Basic NTFS Heathy (B. 238.37 CB 303.37.2 100 % = DATA(D) Simple Basic NTFS Heathy (B. 343.37 CB 300.9 = System Reserved Simple Basic NTFS Heathy (B. 554 MB 103.MB 30 % = VDEO (E) Simple Basic NTFS Heathy (P. 3725.50 GB 3725.61 100 %
RAM Cache Status: Off Enable RAM Cache	Disk 0 Basic Saystem Reserved Say MR NTTS Orline Say MR NTTS Healthy (System, Active, Prim Healthy (Boot, Page File, Crash Dump, Primary Partition)
License Quick Help	Disk 1 Basic VIDEO (E) 372590 GB NIFS Online Healthy (Primary Partition)
SSD Boot Drive (C:)	Basic Contine
 HDD DATA Drive (E:) StoreMI DATA Drive (D:) 	- Disk 3 Basic Doline
	Disk 4 Data (D) 383.67 GB 383.67 GB Healthy (Primary Partition) Healthy (Primary Partition)
A6.	Unallocated Primary parition
AMD StoreMI 1.5.0.21400RC - X Tier Status: 1 TierDrive (1 bootable) Change Tier Settings	Image: Constraint of the system Status Capacity Free Volume Layout Type File System Status Capacity Free Image: Simple Simple Basic NTFS Healthy (B., 2017.46.08 2010.23., 98.% System Reserved Simple Basic NTFS Healthy (B., 3725.90.68 3725.61., 100.%
RAM Cache Status: Off Enable RAM Cache	Disk 0 Basic Orline
License Quick Help	Olk 1 Back VIDEO (E) 3725 90 GB VIDEO (E) 3725 90 GB Online 3725 90 GB NTTS Healthy (Primary Partition) *0 Dick 2 ************************************
 StoreMI Boot Drive (C:) HDD DATA Drive (E:) Blank unused SSD 	Unkoom 111.79 GB 111.79 GB 111.79 GB Datic stated 11.79 GB Basic Orline "Disk 4 System Reserved Spolvak 60 System Reserved Spolvak 60 System Reserved Spolvak 60 Spolvak 60
	Online Healthy System, / Healthy (Boot Page File, Crash Dump, Prime Unallocated Value)



Appendix B: Cleaning Disks Previously Used as a StoreMI during Windows Setup

IMPORTANT: The following steps will completely erase all data from the drives. Ensure you have backed up all important data before using the following commands. Also ensure that you have selected the correct drive. Remove any drives that are not required for the installation if necessary to avoid confusion so that you only have the 1 or 2 drives used as a StoreMI connected, along with the USB or DVD Windows setup drive.

For EFI, the previously used disks will be labeled "EnTier_ESP" in the Windows disk select window. In the above example Drive 0 is one of the drives in question for example. Identify the other also (scroll down).

If you used your drives as data only with StoreMI, we will need to identify them using Diskpart as they will not be visible in the Windows disk selection menu.

STEP 1: From the disk selection menu in the Windows setup process (where Windows asks where to install the OS to), press Shift and F10 keys at the same time to open a command line prompt.

STEP 2: Type diskpart, then type list disks.

Administrat	or: X:\windows\system3	2 cmd eve - d	isknart			
	Windows [Version					
:\Sources	>diskpart					
	DiskPart version					
icrosoft I	DiskPart Vension	10.0.102	:40			
	(C) 1999-2013 Mi	crosoft C	orporatio	n.		
n compute	r: MINWINPC					
ISKPART>	list disk					
Disk ###	-	c1				
DISK ###	Status	Size	Free	Dyn	Gpt	
Disk Ø		931 GB			*	
Disk 1		111 GB			*	
Disk 2	Online				*	
DISK 3	Online	28 GB	0 B			
ISKPART>						
and a second second second	A DESCRIPTION OF A DESC					

For our example, we have three disks. Disk 0 and 2 were previously used as StoreMI devices. Drive 1 is an extra data drive we are also going to clean while in diskpart.

STEP 3: Identify the Disks previously used as a StoreMI. Use the size of the disk if necessary and take special care NOT to accidentally select the Windows setup USB disk (for our example, Disk 3 above) or any other drives you may have left attached. It is highly recommended if you see multiple drives and you cannot clearly identify which were the StoreMI raw disks, shutdown your machine and disconnect any data drives or drives you do not want to touch, then reboot. They can be reattached later.



STEP 4: Select each of the disks and clean (i.e. delete all data and metadata off) them as follows (for the example above, disk 0 and 2 were the disks needed to be cleaned):

```
DISKPART> select disk 0
DISKPART> clean
DISKPART> select disk 2
DISKPART> clean
```

optionally for our example:

DISKPART> select disk 1 DISKPART> clean

then type DISKPART> exit

STEP 5: Close the command prompt window and return to the setup disk select menu

STEP 6: Refresh the disk select window to show the clean drives. Any legacy BIOS mode or data StoreMIs should now correctly appear as empty drives and all StoreMI metadata will be safely removed.



DISCLAIMER

The information contained herein is for informational purposes only, and is subject to change without notice. While every precaution has been taken in the preparation of this document, it may contain technical inaccuracies, omissions and typographical errors, and AMD is under no obligation to update or otherwise correct this information. Advanced Micro Devices, Inc. makes no representations or warranties with respect to the accuracy or completeness of the contents of this document, and assumes no liability of any kind, including the implied warranties of noninfringement, merchantability or fitness for particular purposes, with respect to the operation or use of AMD hardware, software or other products described herein. No license, including implied or arising by estoppel, to any intellectual property rights is granted by this document. Terms and limitations applicable to the purchase or use of AMD's products are as set forth in a signed agreement between the parties or in AMD's Standard Terms and Conditions of Sale. AMD, the AMD Arrow logo, AMD Ryzen Logo, AMD StoreMI Logo, and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other product names used in this publication are for identification purposes only and may be trademarks of their respective companies.

© 2019 Advanced Micro Devices, Inc. All rights reserved.