



How to install optane memory under MSI HDD image



TOP PLAYER · TOP CHOICE



Prepare



- System is must be support optane memory.
- OS is form MSI and used MSI HDD image.
- Please use MSI utliity - BurnRecovery for creating recovery disk first or backup all data first.
- It will be lost F3 recovery function after creating optane memory.

Step:



- A. Install Optane Memory.
 - B. Remove RST Driver.
 - C. Flash BIOS to v9xx.
 - D. Delete Recovery Partition.
 - E. Enable Optane Memory.
 - F. Into BIOS to Load Default Again.
-
- Note A: Combine Unallocated Partition with D Partition.
 - Note B: How to Disable Optane Memory.



A. Install Optane Memory

Step 1: Install Optane Memory

- Please install Optane Memory with M.2 PCIE SSD only port.
- Don't install with M.2 PCIE/SATA SSD port.

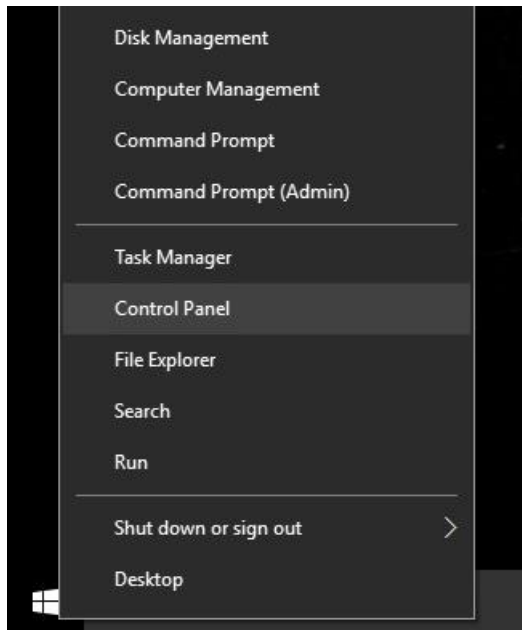




B. Remove RST Driver

Step 1: Control Panel from Quick Access Menu

- **Access Control Panel from the Quick Access Menu.**
- Press **Windows+X** or right-tap the lower-left corner to open the Quick Access Menu, and then choose **Control Panel** in it.



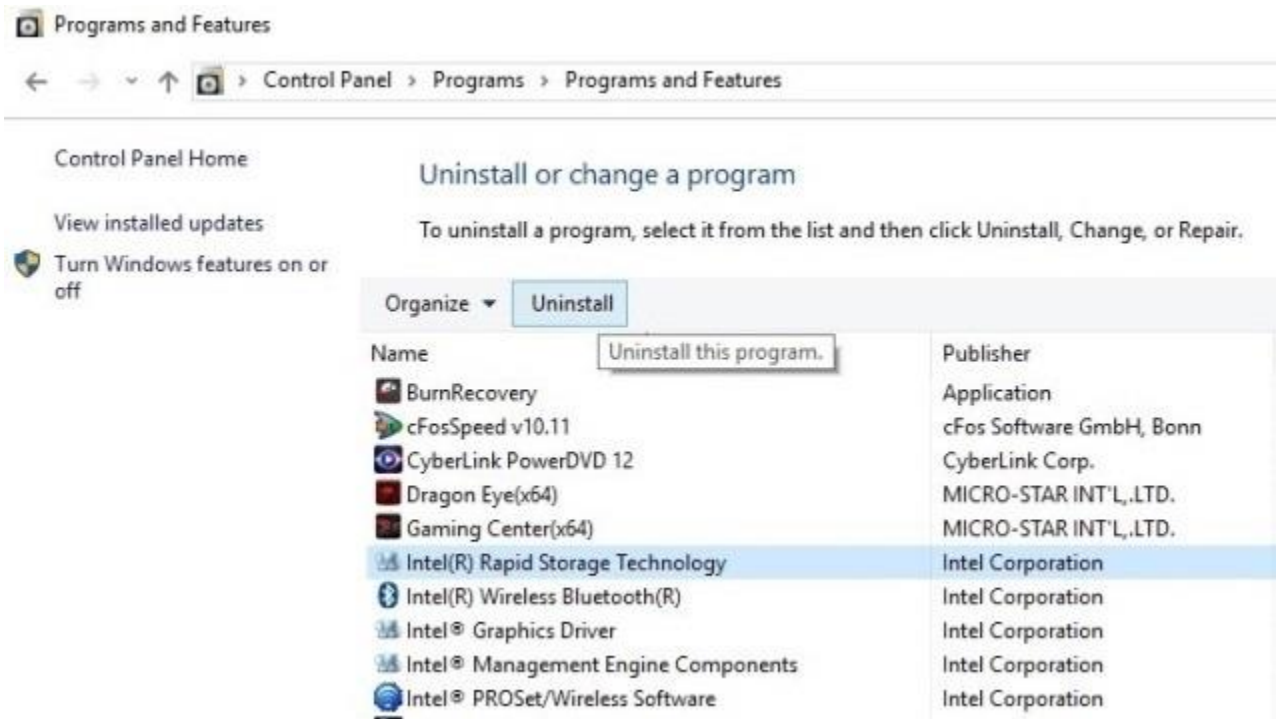
Step2: Open Control Panel

- Click **Uninstall a program**.



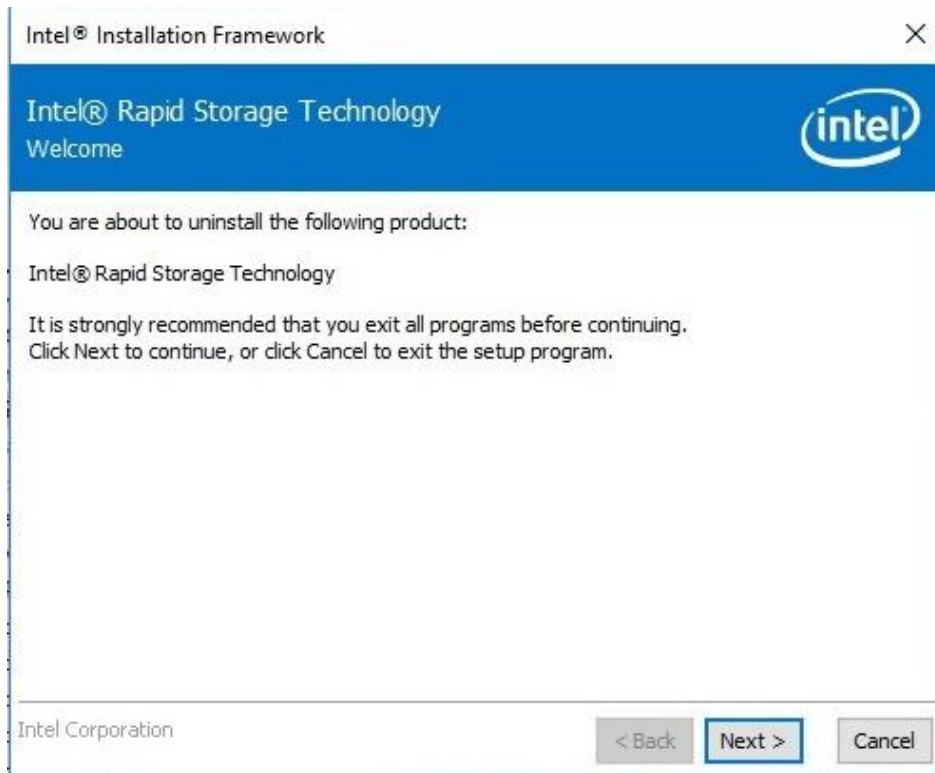
Step3: Uninstall RST driver

- Choose **Intel Rapid Storage Technology** and then click **Uninstall** button.



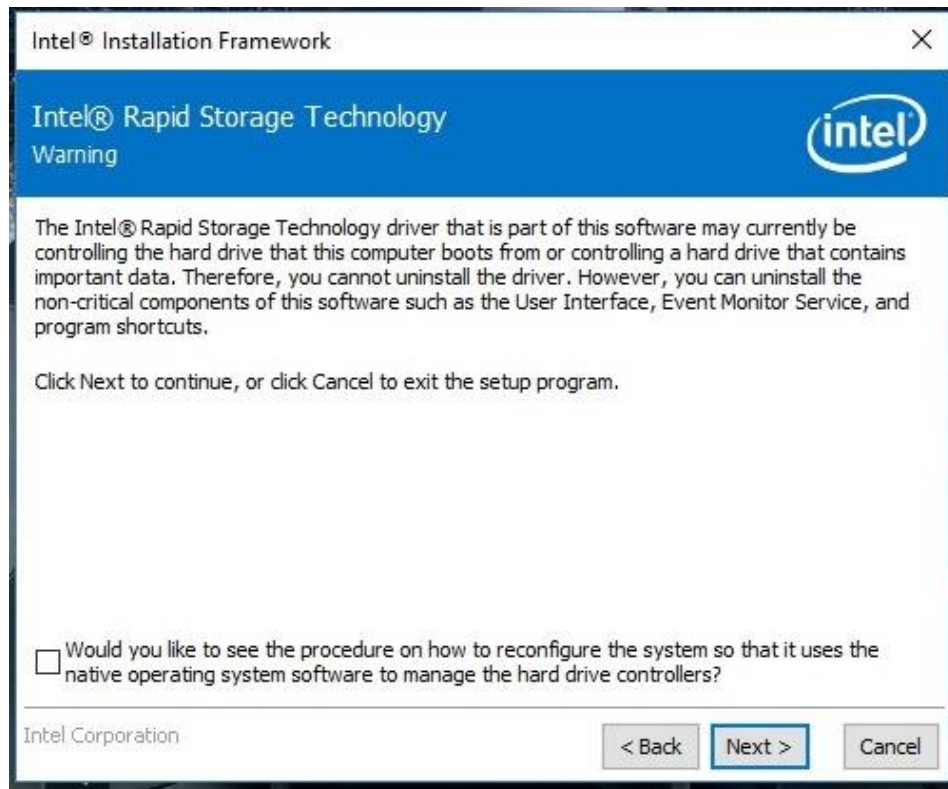
Step4: Welcome for Uninstalling

- Click **Next** button.



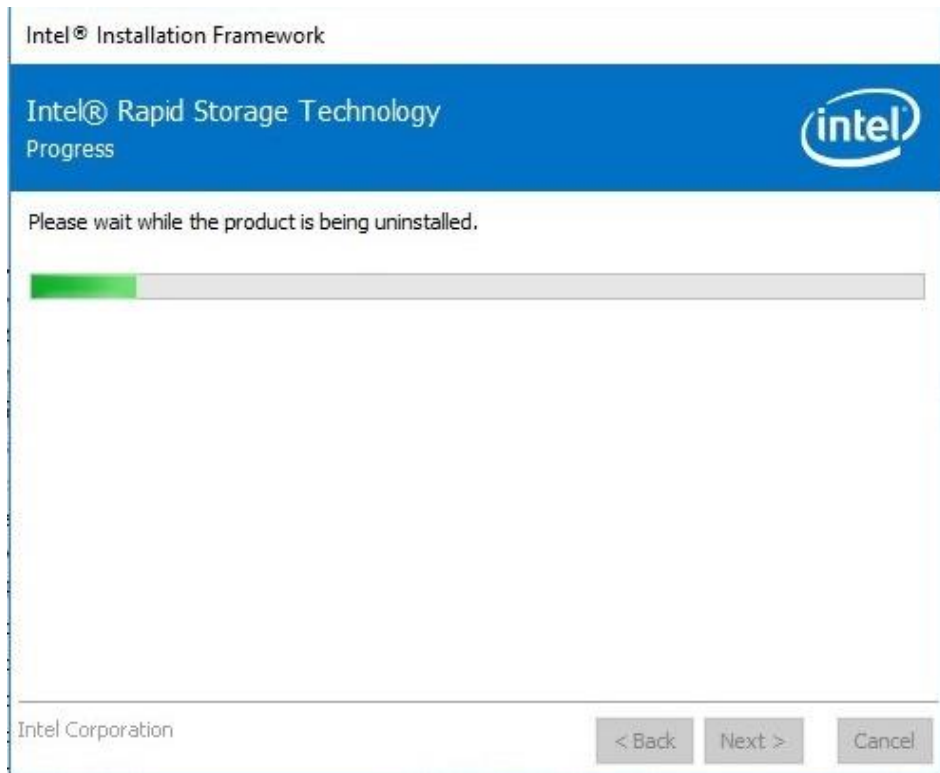
Step5: Warning for Uninstalling

- Click **Next** button.



Step6: Uninstalling Progress

- Please wait.



Step7: Complete for Uninstalling Progress

- Select **Yes** and click **Finish** to restart this system.



- **7 Ways to Open Control Panel in Windows 10:**
- <https://www.isunshare.com/windows-10/7-ways-to-open-control-panel-in-windows-10.html>
- **5 Ways To Open Control Panel In Windows 10**
- <http://www.intowindows.com/5-ways-to-open-control-panel-in-windows-10/>
- **How to open Control Panel in Windows 10**
- <http://www.thewindowsclub.com/open-control-panel-in-windows-10>



C. Flash BIOS to v9xx

Flash BIOS



- SOP that how to flash BIOS and BIOS file are on MSI website and please check SOP on special note.

Special Note:

How to make a bootable flash disk and to flash BIOS, please click [here](#).
Please to load optimized default first after flashing BIOS.

For Windows 7 /Windows 8/ Windows 8.1/ Windows 10 [SOP](#)

[We suggest using Chrome, Firefox 3.0 or IE 9.0 above browsers to download BIOS, Drivers, etc.](#)

Flash BIOS



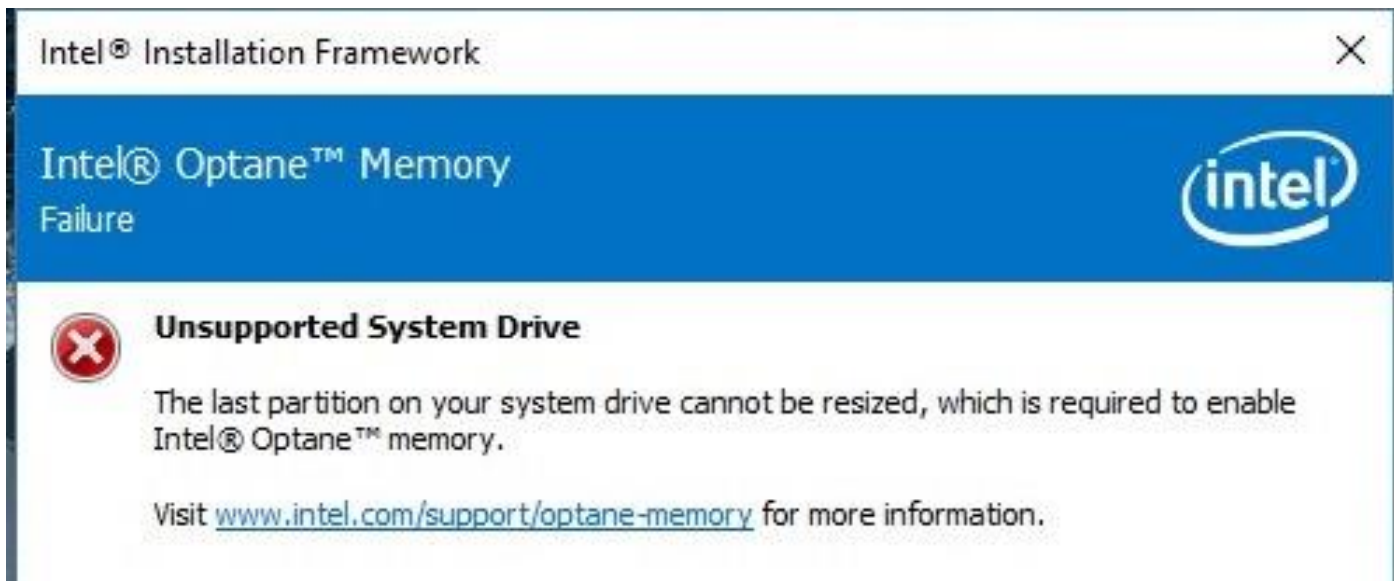
- Step 1: Flash BIOS to v9xx.
- Step 2: Into BIOS setup after flashing BIOS.
- Step 3: Please press **F6** button for loading default.
- Step 4: Please modify two setting value as below:
BIOS \ Setting \ Advanced \ Integrated Peripherals \
SATA Mode: **AHCI mode**
M.2/Optane Genie: **Disabled**
- Step 5: Please press **F10** button for saving changes and exit.
And then system should be into OS normally after restart.



D. Delete Recovery
Partition

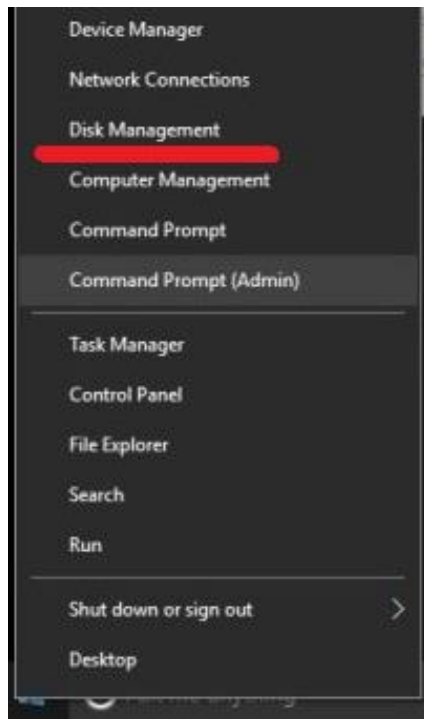
Purpose

- Make last partition can be resized in original disk.



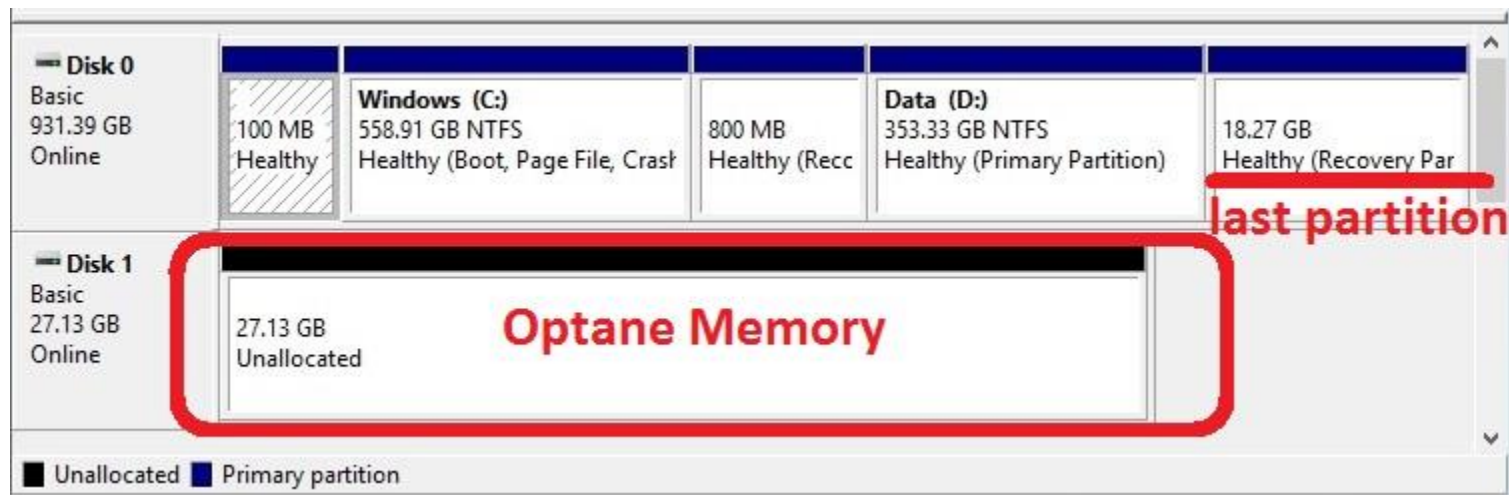
Step1: Disk manager from Quick Access Menu

- Press **Windows+X** or right-tap the lower-left corner to open the Quick Access Menu, and then choose **Disk Management** in it.



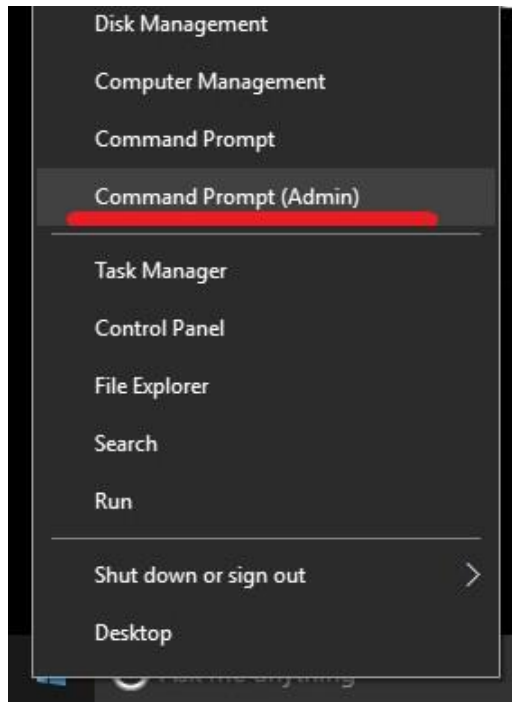
Step2: Disk Management

- Check disk state.
- Last partition is recovery partition(18.27GB) so will be deleted it.
- This space of last partition maybe is different.



Step3: Command Prompt from Quick Access Menu

- Press **Windows+X** or right-tap the lower-left corner to open the Quick Access Menu, and then choose **Command prompt(Admin)** in it.



Step4: Use disk part for delete partition

- Input: **diskpart**
- Input: **list disk**
- Input: **select disk 0**
Disk 0 is original disk.

```
Administrator: Command Prompt - diskpart
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Windows\system32>diskpart

Microsoft DiskPart version 10.0.14393.0

Copyright (C) 1999-2013 Microsoft Corporation.
On computer: DESKTOP-UMDARFK

DISKPART> list disk

Disk ###  Status         Size           Free           Dyn  Gpt
-----  -
Disk 0    Online        931 GB         0 B            *
Disk 1    Online        27 GB         27 GB          *

DISKPART> select disk 0

Disk 0 is now the selected disk.

DISKPART> list partition
```

Step4: Use disk part for delete partition

- Input: **list partition**
- Input: **Select partition 6**
Partition 6 is recovery.
Around 18GB as page 21.
- Input: **delete partition override**
- Then recovery partition has been deleted.

```
Administrator: Command Prompt - diskpart

DISKPART> list partition

Partition ###  Type                Size      Offset
-----
Partition 1    System              100 MB    1024 KB
Partition 2    Reserved            128 MB    101 MB
Partition 3    Primary             558 GB    229 MB
Partition 4    Recovery            800 MB    559 GB
Partition 5    Primary             353 GB    559 GB
Partition 6    Recovery             18 GB    913 GB

DISKPART> select partition 6

Partition 6 is now the selected partition.

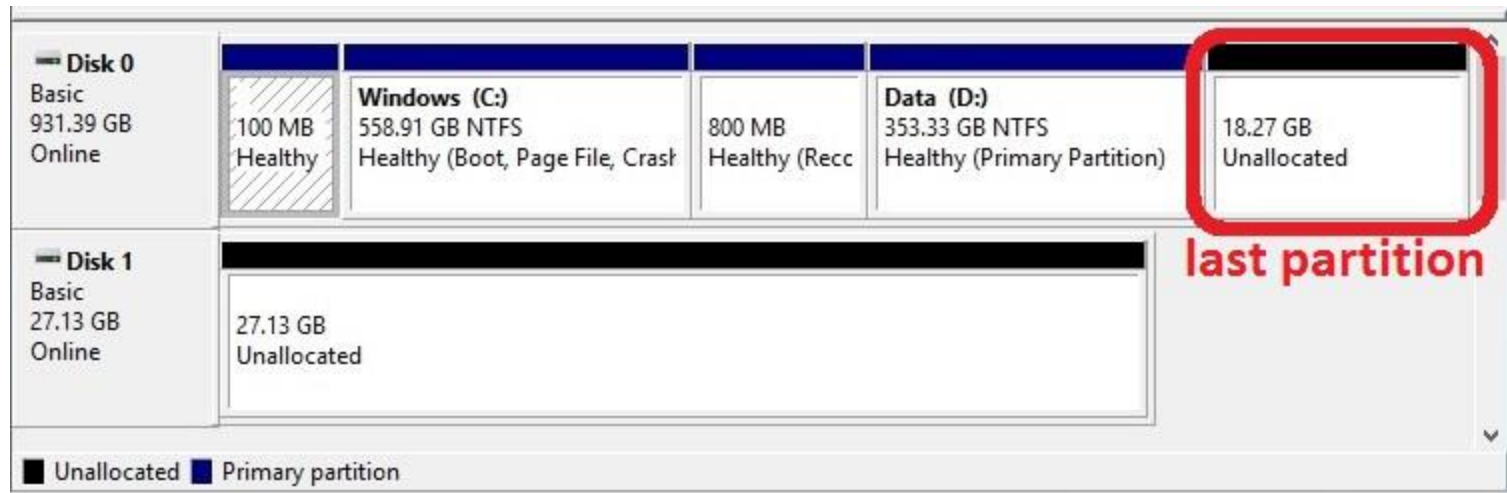
DISKPART> delete partition override

DiskPart successfully deleted the selected partition.

DISKPART>
```

Step5: Check Disk Management again

- Check disk state again
- Last partition(Recovery Partition) has been deleted.





E. Enable Optane
Memory

Step1: Download Intel Setup Optane Memory Tool

- Boot system up and download Intel Setup Optane Memory tool.
- Downloads for Intel® Optane™ Memory
- <https://downloadcenter.intel.com/product/99745/Intel-Optane-Memory>
- Download Intel tool – **SetupOptaneMemory.exe**
- <https://downloadcenter.intel.com/download/26730/Intel-Rapid-Storage-Technology-Intel-RST-?product=99745>

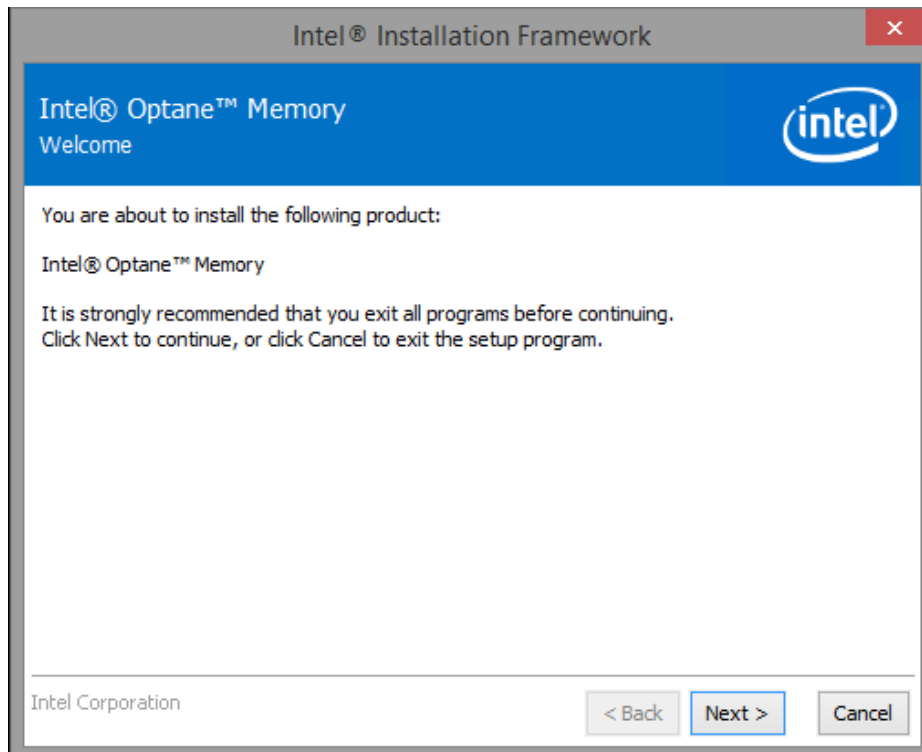
Step2: Open Intel Setup Optane Memory Tool

- Please double click **SetupOptaneMemory.exe**.
- Then click **Yes** button.



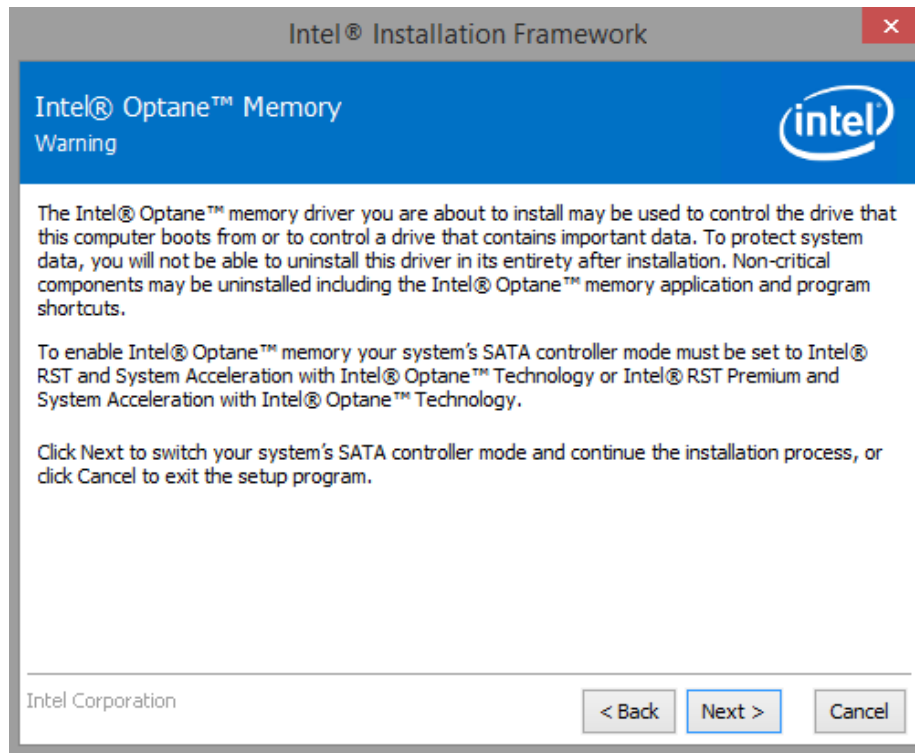
Step3: Welcome Screen

- Please click **Next** button under Welcome screen.



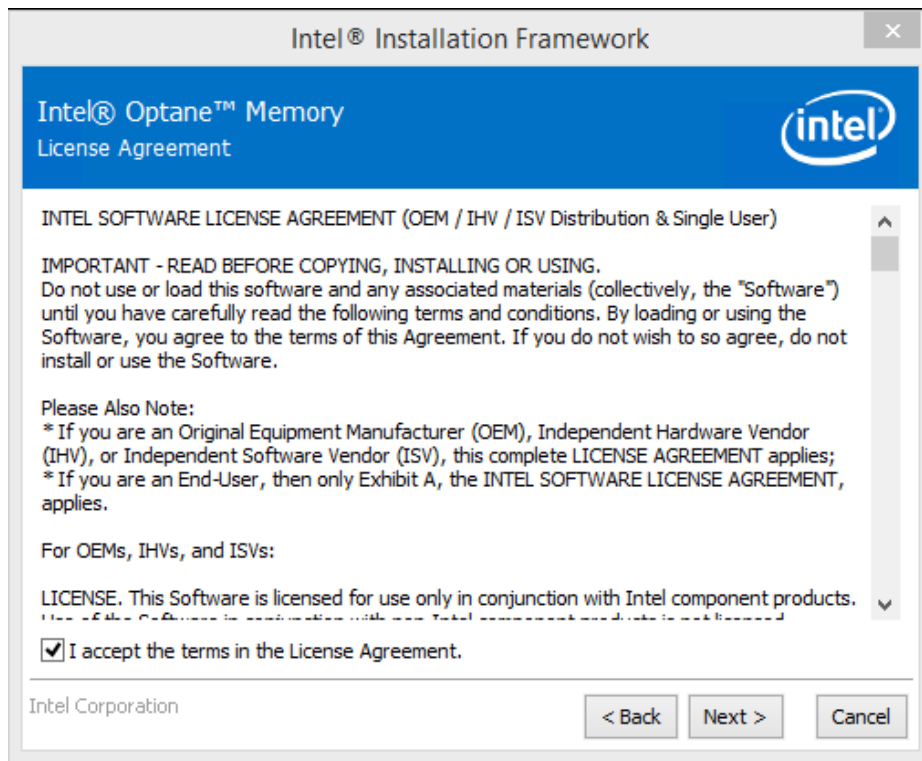
Step4: Warning Screen

- Please click **Next** button in Warning screen.



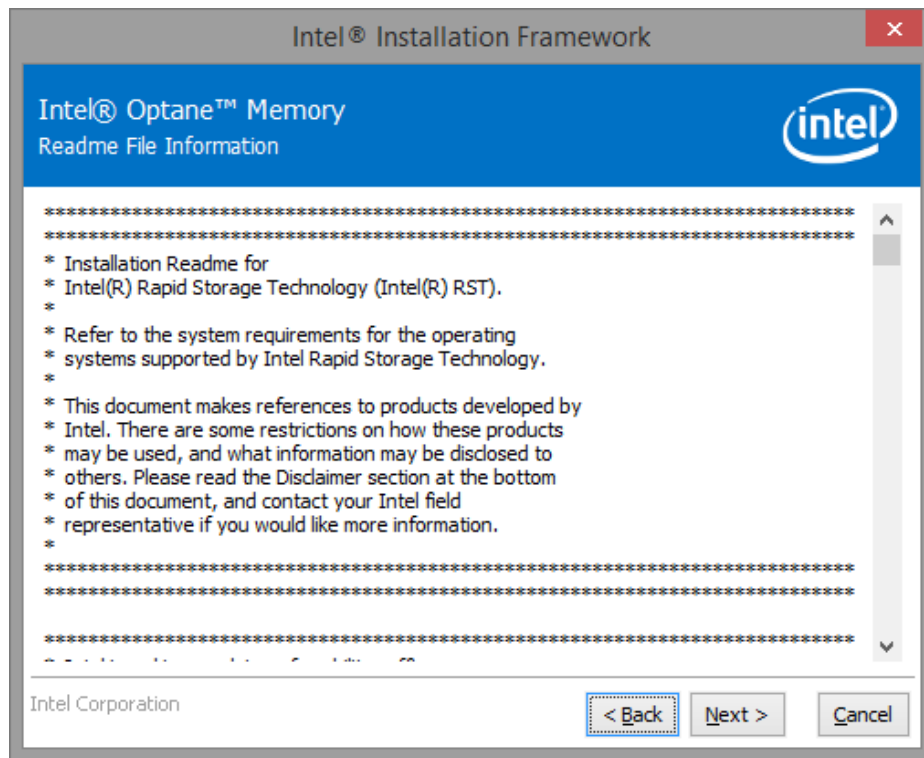
Step5: License Agreement Screen

- **Accept the license agreement** and click **Next** to continue.



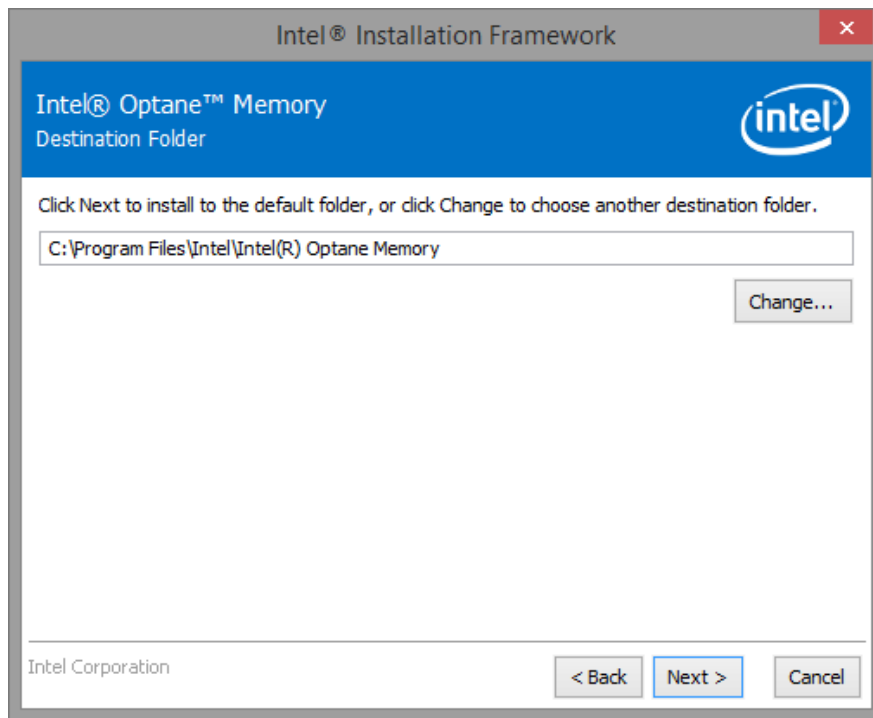
Step6: Readme File Information

- Read and click **Next** to continue.



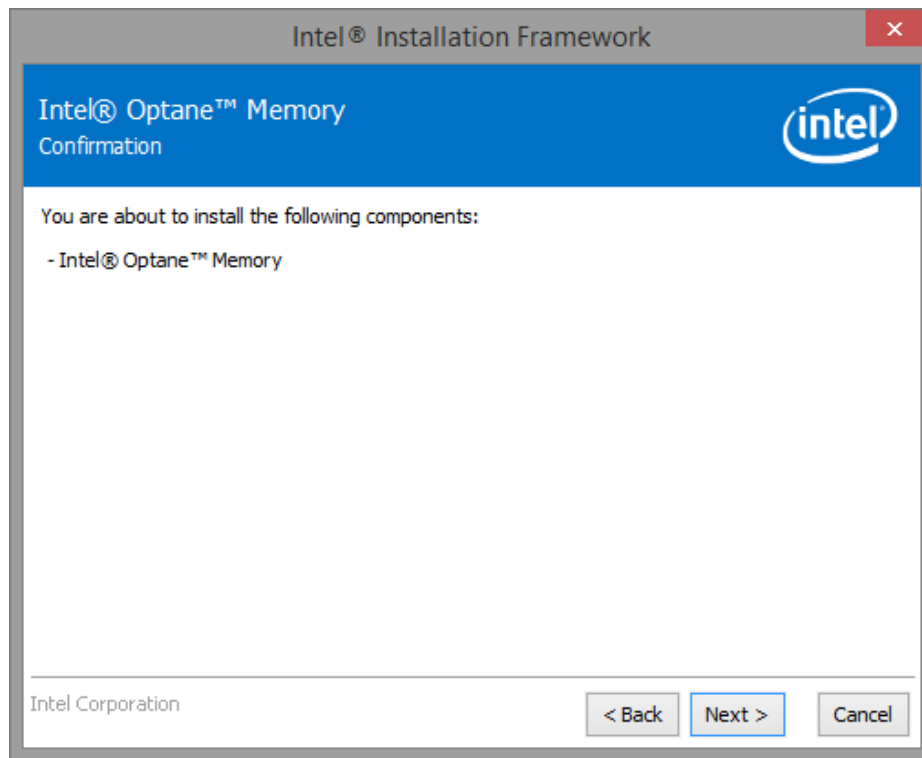
Step7: Destination Folder

- Specify the destination folder to install the Intel® Optane™ memory application and click **Next** to continue.



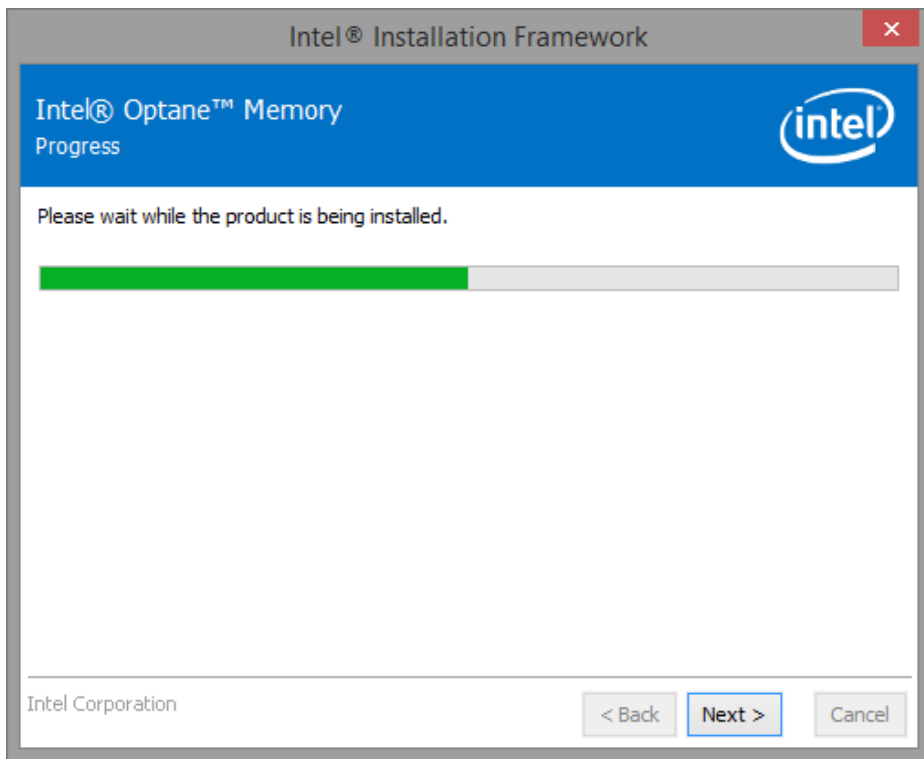
Step8: Confirmation Screen

- Click **Next** to continue.



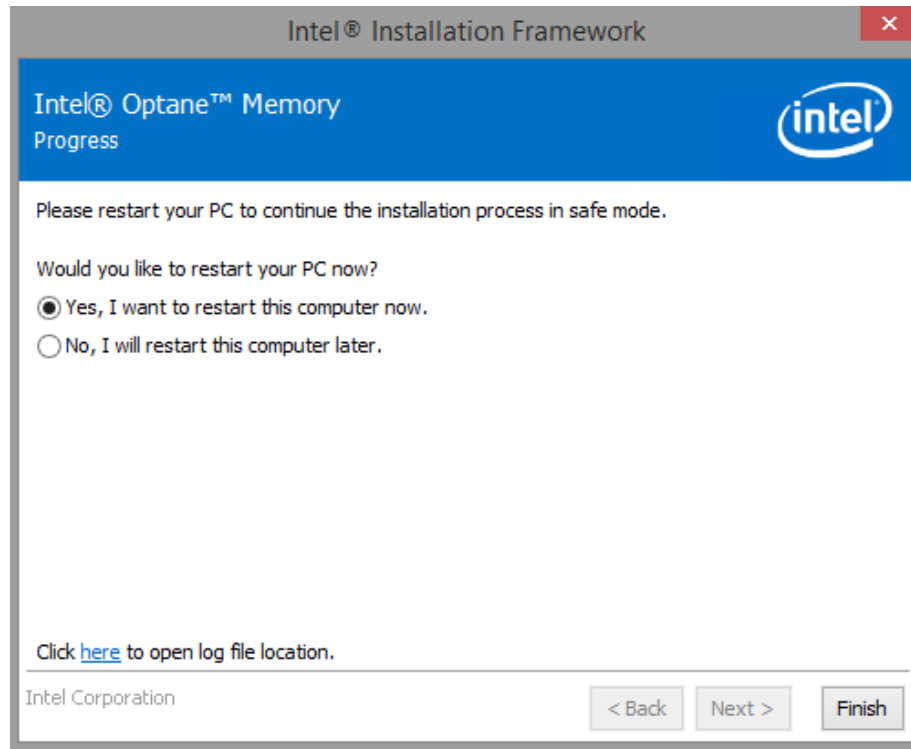
Step9: Progress Screen

- Installation is now in progress, once finished the next screen will appear.



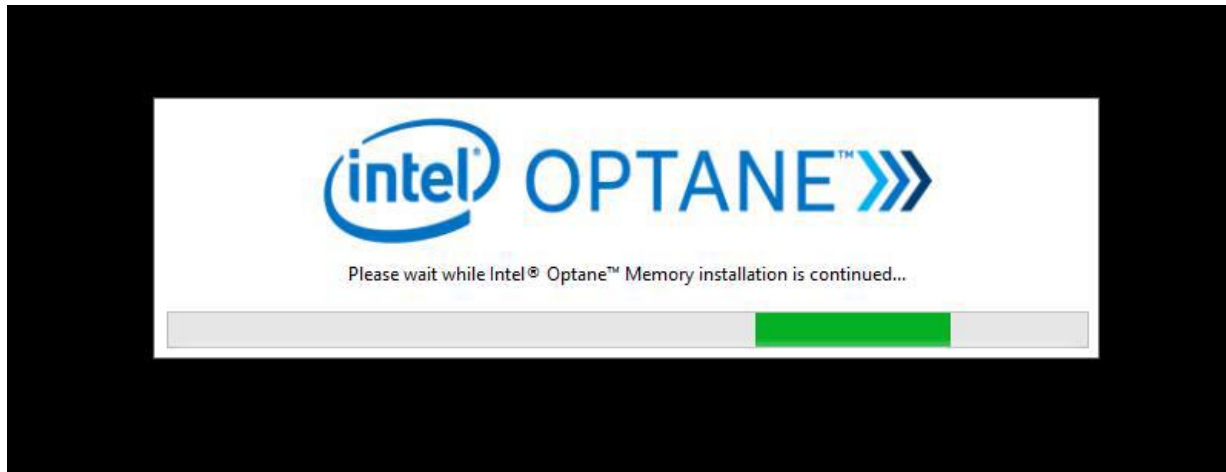
Step 10: Restart to Safe Mode

- Select **Yes** and click **Finish** to restart your system in safe mode.



Step 11: Restarting

- After restarting the system, installation will continue in safe mode.
- After completing installation there will be another automatic restart of system.
- After the second restart you can use Intel® Optane memory application as described.



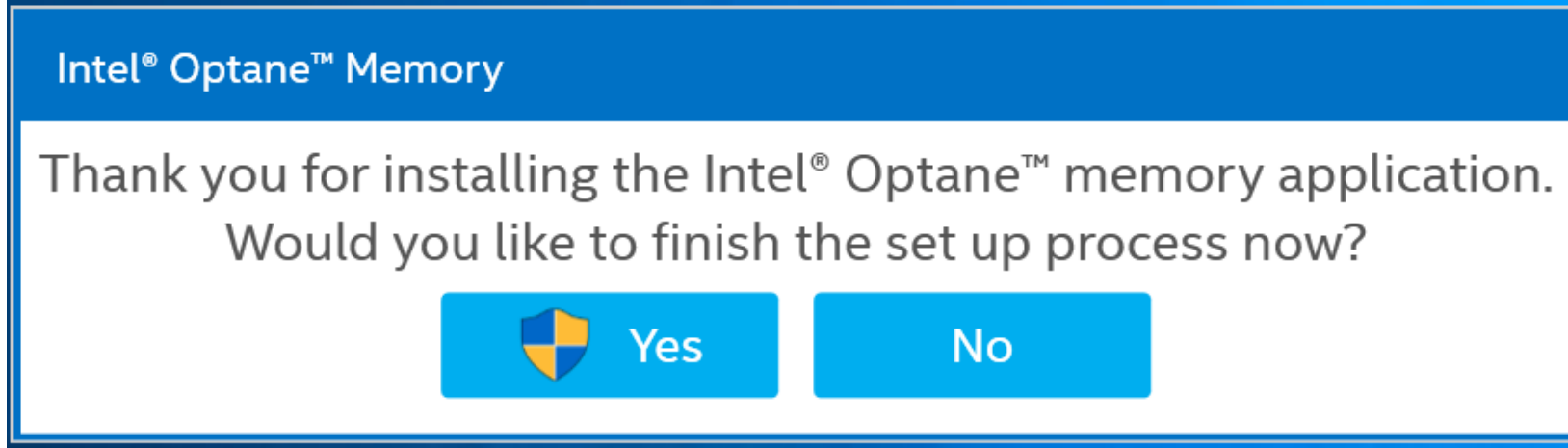
Step 11: Restarting



- **Note:** After the second restart, the Intel® Optane™ memory application may take several seconds to pop up. If the the Intel® Optane™ memory application does not pop up automatically, it can be launched manually by searching for 'Intel® Optane™ memory in Windows* File Search.

Step 12: Install Optane Memory Application

- This popup appears after installing the package and restarting the system. (Please wait one minutes after restarting.)
- If you click “**Yes**”, application will open with the view from figure below.



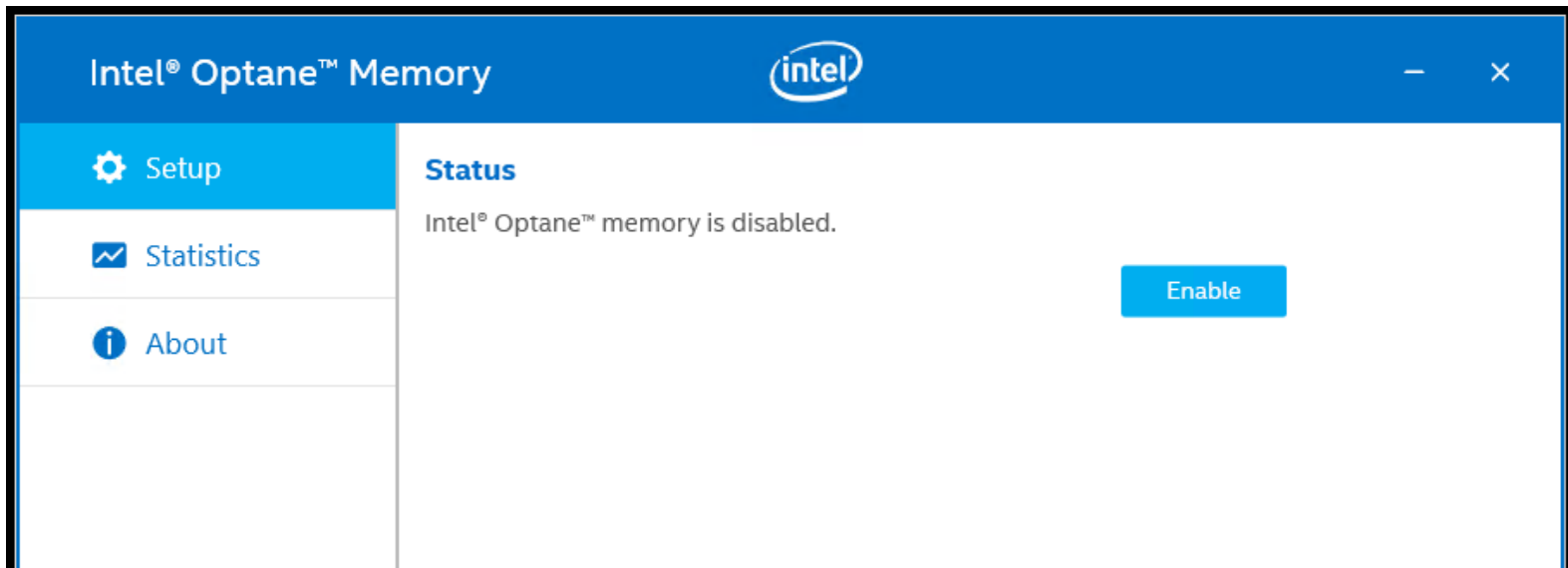
Step 13: Do You Want to Allow This Application

- Please click “**Yes**”.



Step 14: Enable View

- This view will only appear when there is only one Intel® Optane™ memory module installed in your system.
- Click **Enable** to enable Intel® Optane™ memory.

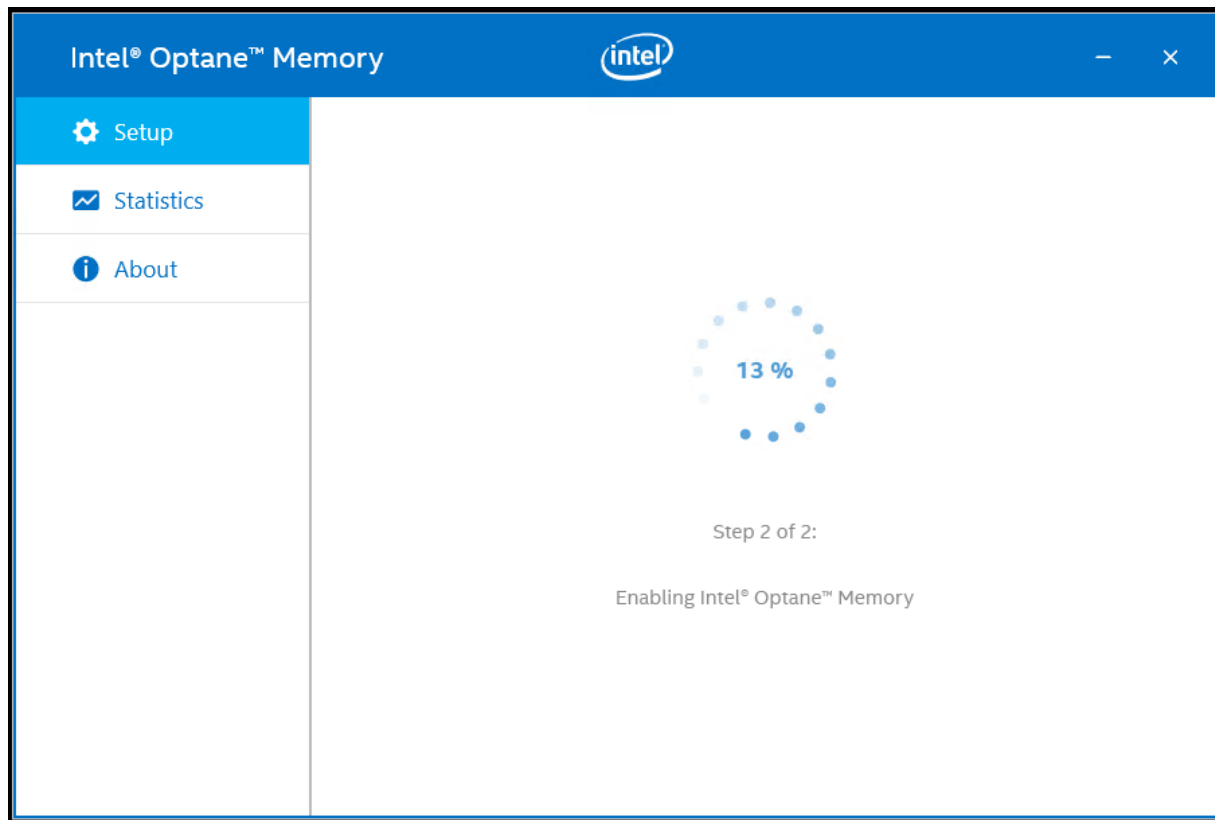


Step 15: Warning View

- Click **YES** button.

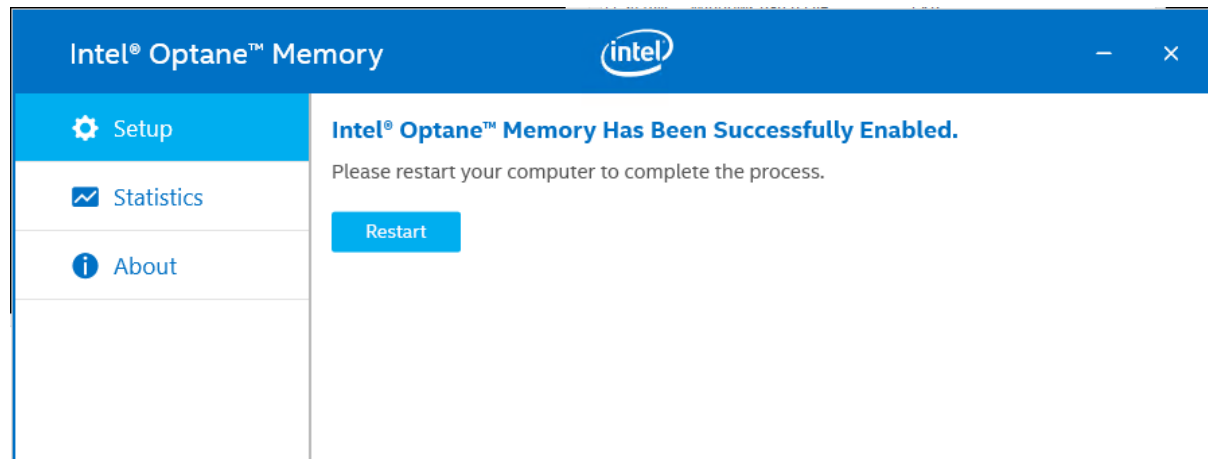


Step 16: Enabling Progress Screen



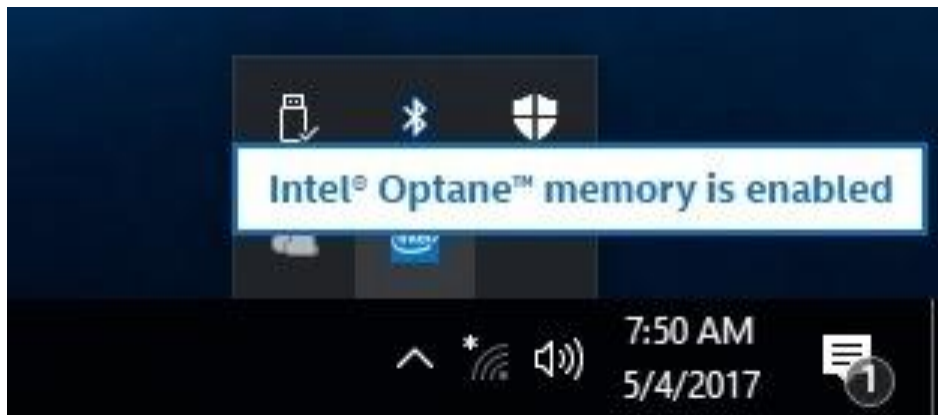
Step 17: Reboot Screen

- Occurs after enabling is completed. Please Click **Restart** button.



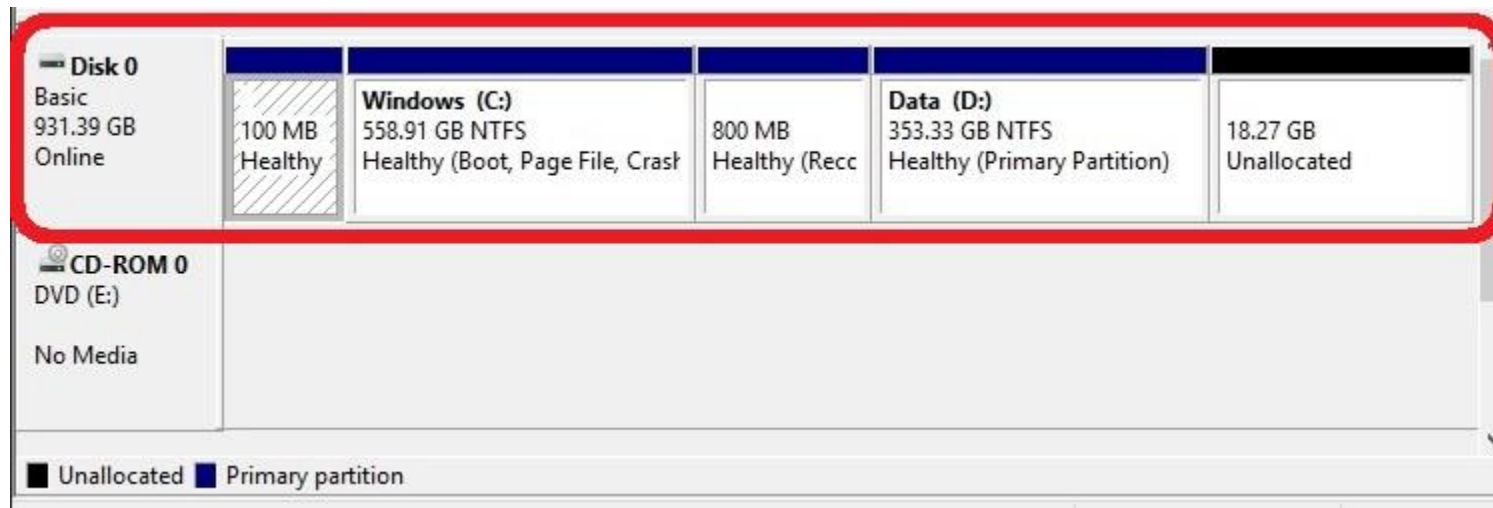
Step 18: Check Optane Memory

- After clicking restart button, restart of the system will occur.
- After restarting your computer Intel® Optane™ memory is fully set up.
- The Intel® Optane™ memory application at any time by searching for 'Intel® Optane™ memory' in the Windows* search bar.



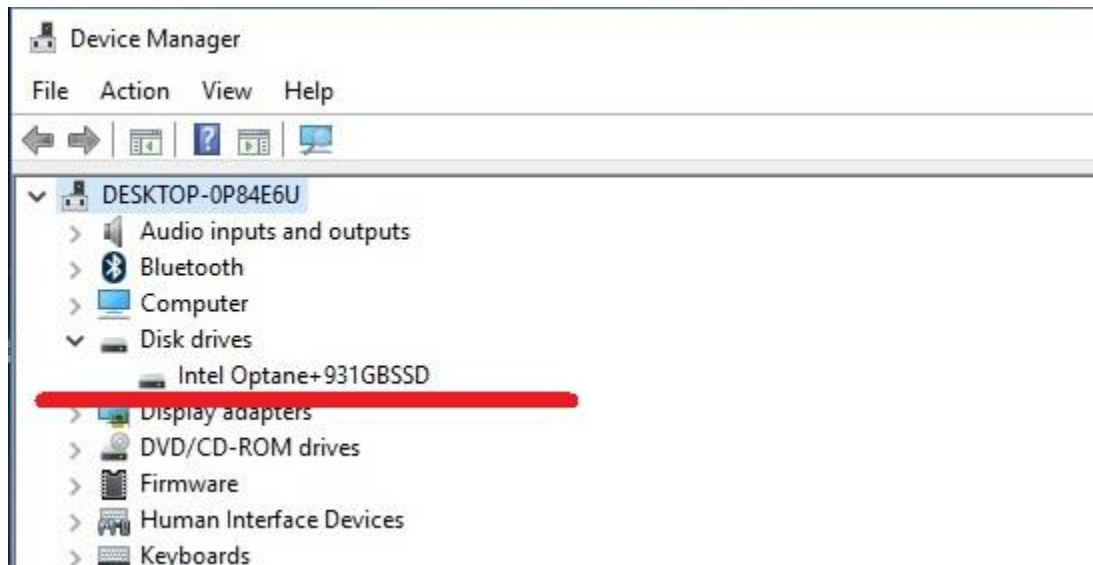
Step 19: Check it on Disk Management

- It will be showed one disk.
- Optane Memory has been combined with original disk.



Step20: Check it on Device Management

- It will be showed one disk on disk drives.



Reference



- **User and Installation Guide for Intel® Optane™ Memory**
- <http://www.intel.com/content/www/us/en/support/memory-and-storage/intel-optane-memory/000023989.html>

Note: Optane Memory

1 Introduction

尋找
PCIe

1.1 Overview

This section describes the requirements for installing and enabling Intel® Optane™ memory, please refer to the below sections for detailed requirements:

1. Supported 7th Gen Intel® Core™ processor and chipset.
2. M.2 type 2280 connector on a PCH Remapped PCIe* Controller and Lanes in a x2 or x4 configuration with B-M keys that meet NVMe* Spec 1.1
3. System BIOS that supports the Intel® Rapid Storage Technology (Intel® RST) 15.5 driver
4. Windows* 10 64bit or above installed on a supported storage device (Hard drive, SATA SSD or SSHD)
5. Intel® Optane™ memory module.
6. A supported storage device (Hard drive, SATA SSD or SSHD) with Windows* 10 64bit installed, formatted for GPT partition and at least 5MB of continuous unallocated space at the end of the boot volume.
7. PCH SATA controller mode set to a supported mode
8. The most recent Intel® Rapid Storage Technology 15.5 or later driver available at downloadcenter.intel.com.

Note: Disabled Optane Memory

- If you want to remove Optane Memory, please disable it first.
- If not disabled it, OS will be lost some file and cannot into OS normally.



F. Into BIOS to Load
Default Again

Flash BIOS



- Step 1: Into BIOS setup
- Step 3: Please press **F6** button for loading default.
- Step 5: Please press **F10** button for saving changes and exit.
And then system should be into OS normally.
- Please double confirm setting value of “M.2/Optane Genie” to **Enabled** as below:
BIOS \ Setting \ Advanced \ Integrated Peripherals \
M.2/Optane Genie: **Enabled**



Note A: Combine
Unallocated Partition
with D Partition

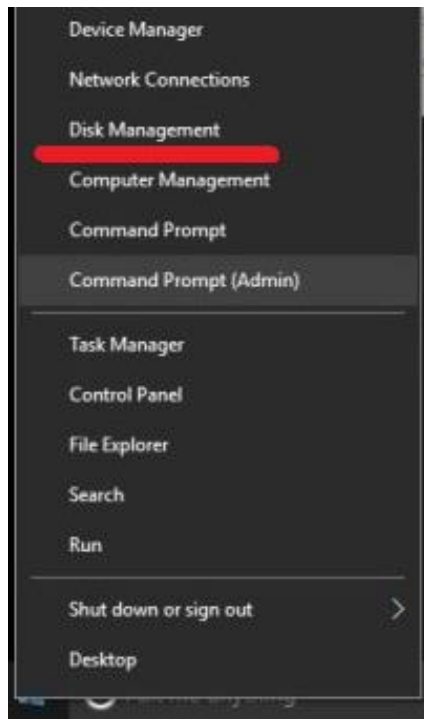
Remind



- If you don't care this unallocated partition, please skip this steps.

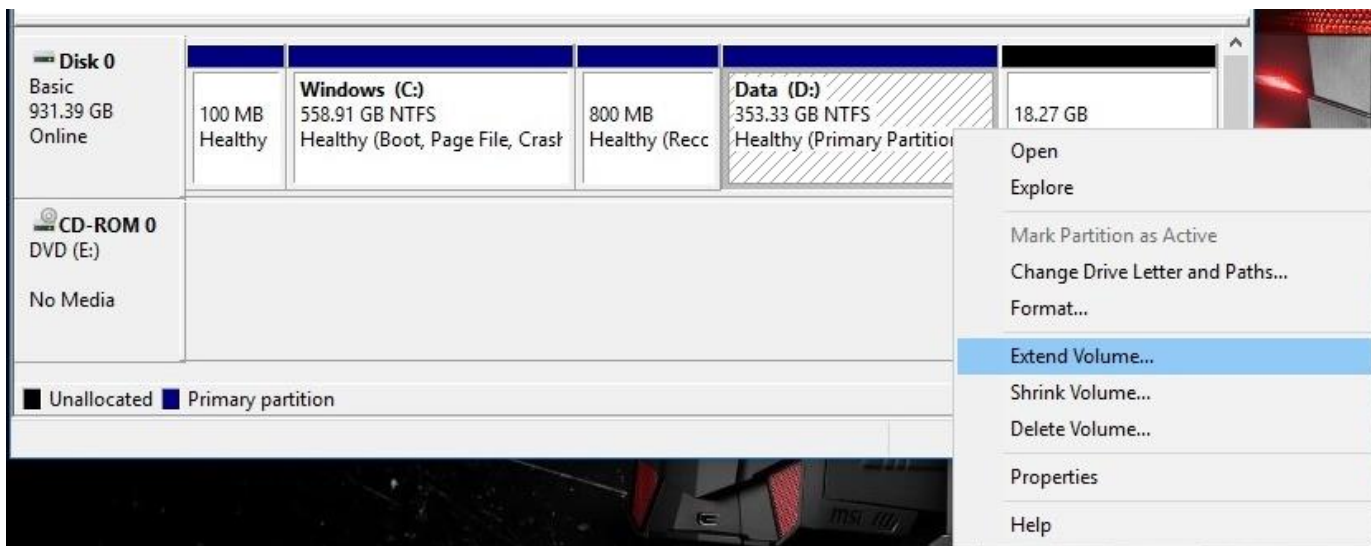
Step1: Disk manager from Quick Access Menu

- Press **Windows+X** or right-tap the lower-left corner to open the Quick Access Menu, and then choose **Disk Management** in it.



Step2: Disk Management

- **Right click** on D partition, and then click **Extend Volume**.
- This starts the Extend Volume Wizard.



Step3: Welcome to the Extend Volume Wizard

- Click **Next** button.



Step4: Select Disks

- Click **Next** button.

Extend Volume Wizard

Select Disks

You can use space on one or more disks to extend the volume.

You can only extend the volume to the available space shown below because your disk cannot be converted to dynamic or the volume being extended is a boot or system volume.

Available:

Selected:

380517

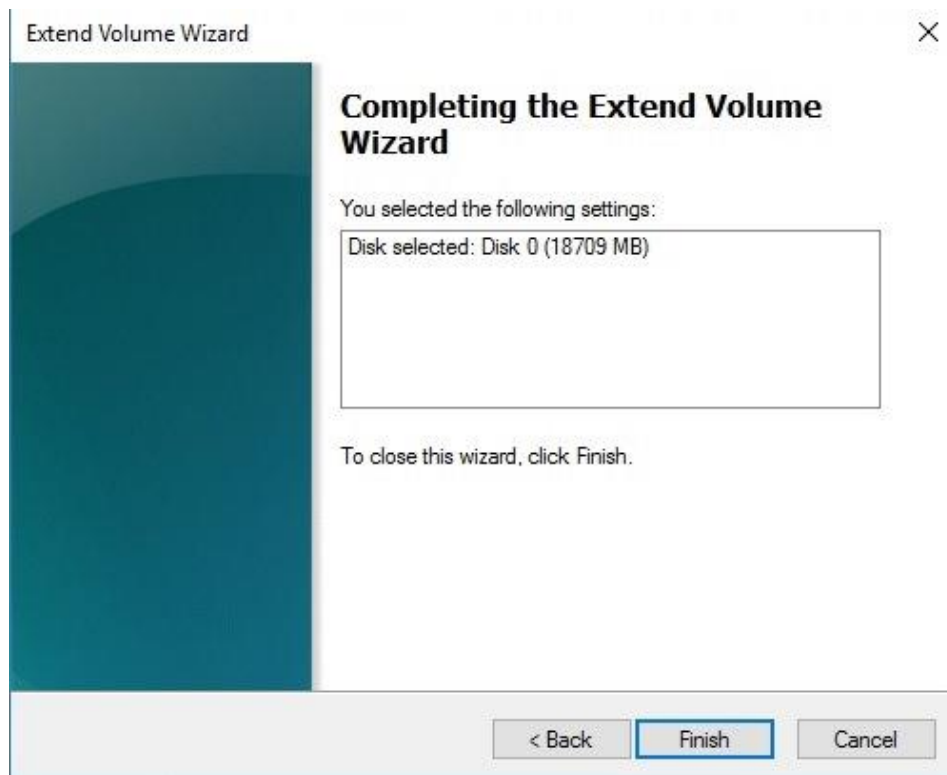
18709

18709

< Back Next > Cancel

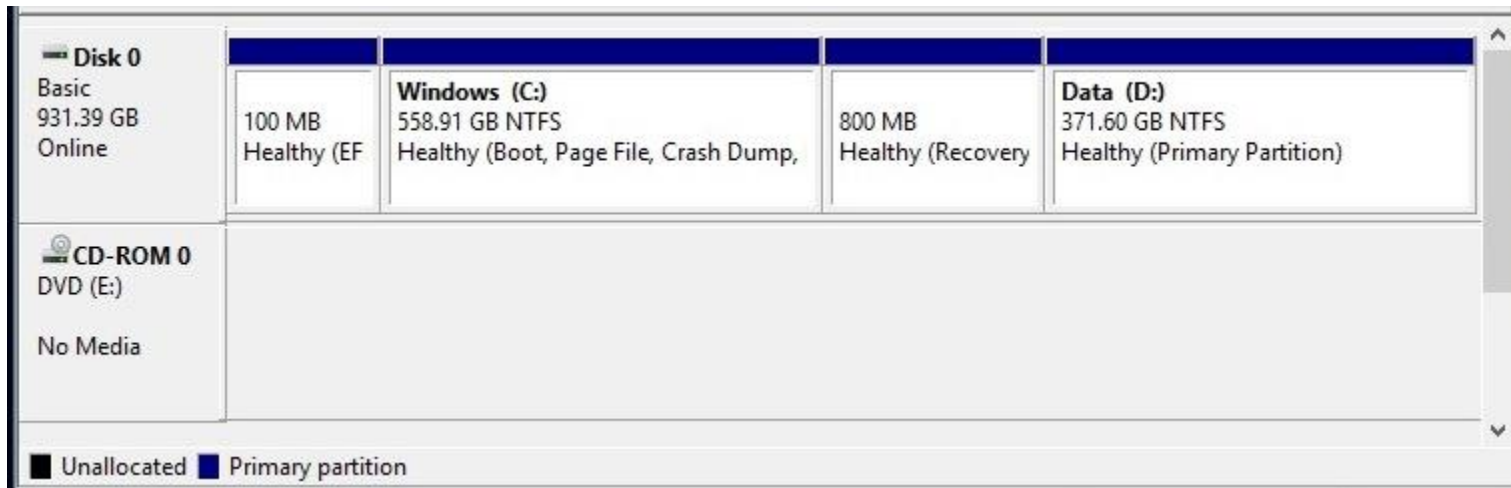
Step5: Completing the Extend Volume Wizard

- Please click **Finish** button.



Step6: Check Disk Management again

- This unallocated partition has been combined with D partition.
- Size of D partition is form 353.33GB to 371.60GB.

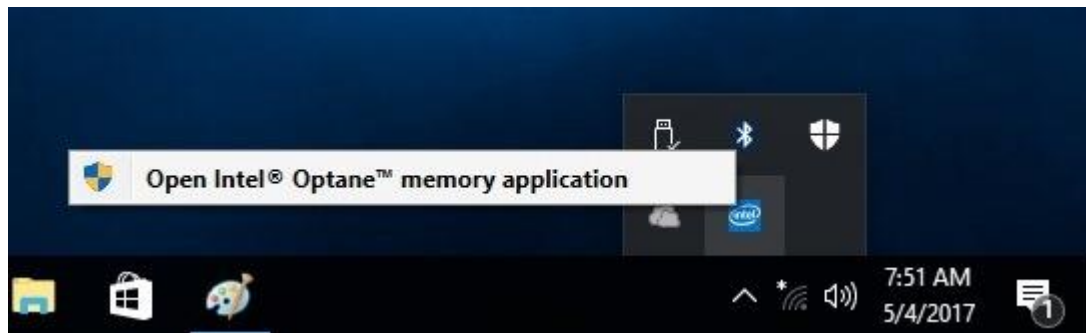




Note B: How to Disable
Optane Memory

Step A: Open Intel Optane Memory Application

- Please click “open Intel® Optane™ memory Application” in the Windows* search bar.



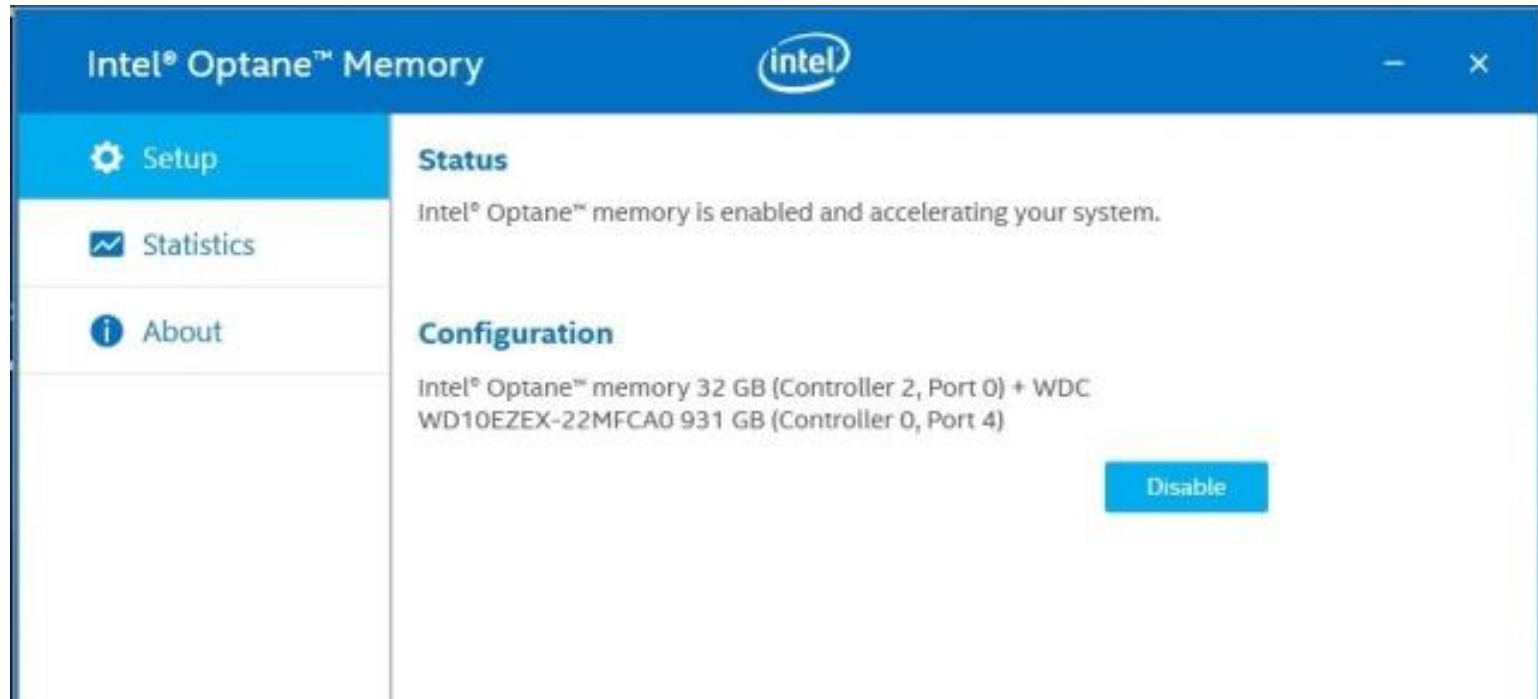
Step B: Do You Want to Allow This Application

- Please click “**Yes**”.



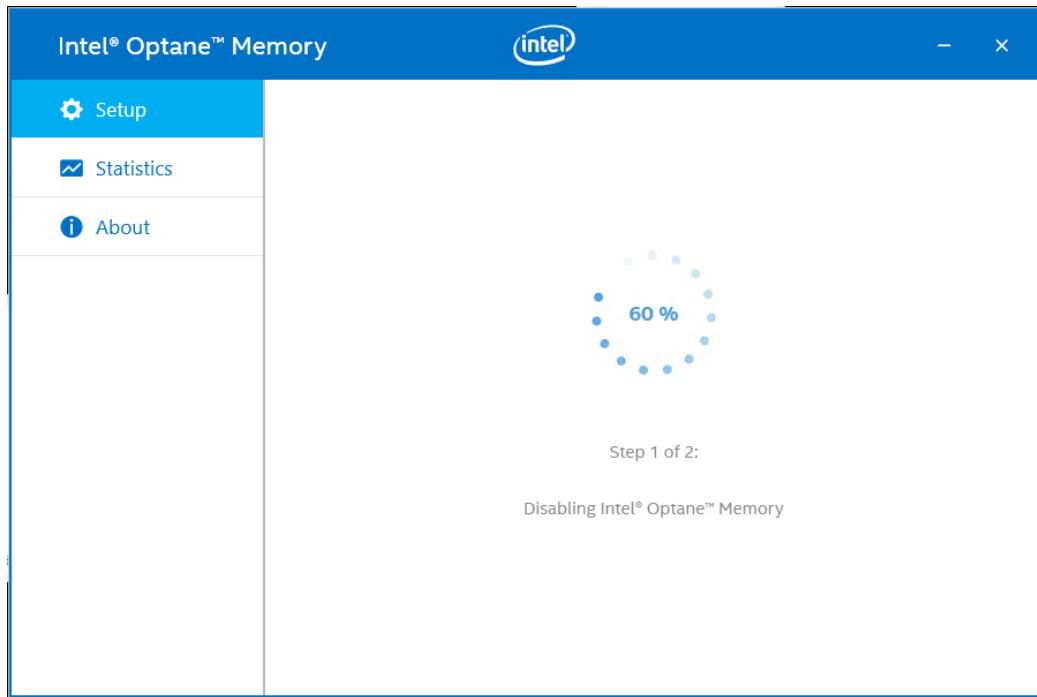
Step C: Disable Optane Memory

- Please choose “**Setup**” screen and then click **Disable** button.



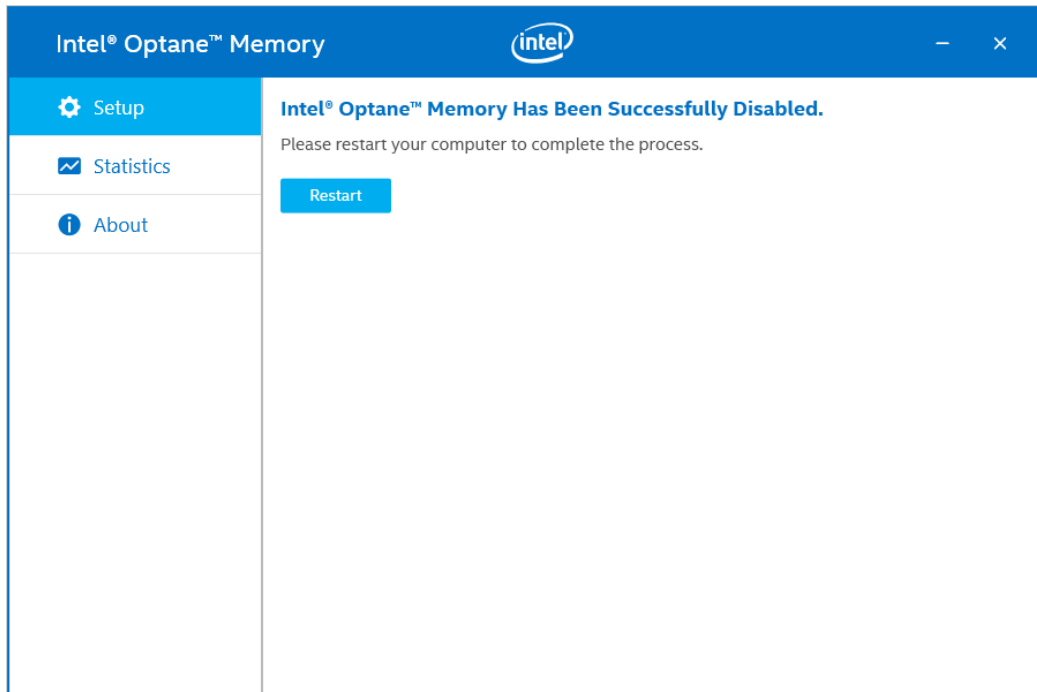
Step D: Progress Screen

- Progress screen for disabling Intel® Optane™ memory. The screen from step 3 will appear after the disable operation finishes.



Step E: Reboot Screen

- Click **Restart** button.
- After clicking restart button the system will be restarted.





msi[®]

NO.1 IN  GAMING

Thank You Very Much for Your Attention