Dell Pro 24 All-in-One

QC24251

Reimaging Guide for Windows 11 IoT Enterprise LTSC 2024

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Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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1

Installation overview

CAUTION: This reimaging guide is designed for system administrators. Do not attempt to reimage your computer if you are not an administrator or if you are unsure of the procedures. Failure to follow instructions may result in permanent data loss.

NOTE: The information that is provided in this guide is only applicable to computers with the Windows 11 IoT Enterprise LTSC 2024 operating system installed.

NOTE: Dell Technologies recommends that you download and install the device drivers from the Dell Drivers & Downloads website. Installing device drivers from a non-Dell website can cause computer performance issues or corrupt operating system files. It can also cause blue screen errors, unexpected shutdowns, or infect your computer with malicious software.

Use the Dell OS Recovery Tool to create a USB recovery drive that can be used to reinstall the version of operating system installed in the computer.

2

Introduction

CAUTION: This reimaging guide is designed for system administrators. Do not attempt to reimage your computer if you are not an administrator or are unsure of the procedures. Failure to follow instructions may result in permanent data loss.

NOTE: The information that is provided in this guide is only applicable to computers with Windows11 IoT Enterprise LTSC 2024 operating system installed.

Reimaging is the process of removing all software on the computer and reinstalling the removed software. Reimaging is required when software in the computer is corrupted or damaged. It can also be used as a means of removing harmful and malicious software in your computer. This reimaging guide provides the steps that are required for reimaging your computer.

This guide assists you in installing Dell Technologies-recommended software stack and settings, drivers, and applications, which are tested and validated on the computer. The installation of the listed drivers and applications as described in the guide enhances the optimal performance of your computer.

Dell Technologies also provides drivers and applications that are not included with the operating system. These drivers are required to enable the following solid-state drives (SSDs):

- 256 GB PCIe SSD
- 512 GB PCIe SSD
- 1024 GB PCIe SSD
- 2048 GB PCIe SSD and larger capacity size PCIe SSDs

It is always recommended to reimage on a newly installed operating system and not from any previous image-build. Ensure that the BIOS settings, including SATA configurations and modes, are set appropriately and use the latest drivers and applications when reimaging the computer.

3

Updating or resetting the BIOS

Clearing CMOS settings

If flashing your computer with the latest BIOS update results in your computer being unable to boot, a BIOS reset is necessary. Clearing the CMOS settings will reset the BIOS to factory settings. For more information about clearing the CMOS settings, go to Dell Support Site and see your computer's *Owner's Manual*.

Trusted Platform Module (TPM) security

TPM must be enabled in the BIOS setup program for it to be deployed on the computer. Follow these steps to enable and configure the TPM:

1. Turn on or restart your computer.
2. Press F2 when the Dell Technologies logo is displayed on the screen to enter the BIOS setup program.
   The BIOS setup program is displayed.
3. On the left pane, select **Security**.
4. Select or clear any of the following options to enable or disable it, respectively:
   - **TPM state (Enabled or Disabled)**:
     - **Enabled**: The BIOS will enable the TPM during Power-On-Self-Test (POST), and it can be accessed by the operating system.
     - **Disabled**: The BIOS will not enable the TPM during Power-On-Self-Test (POST), and it cannot be accessed by the operating system.
   - **TPM 2.0 security On**: The TPM is enabled and activated.
   - **Clear**: The BIOS clears the information that is stored in the TPM.
5. Save the settings and exit.

4

Steps to configure USB key for ISO Imaging

Pre-requisites for ISO Imaging

1. Download the appropriate Windows 11 IoT Enterprise LTSC 2024 operating system ISO image from Dell Support Site page.

   NOTE: Download the .zip file and extract the iso file out of the .zip file. Make sure that the iso file is unlocked before configuring the USB Key.

2. Download and install the Dell OS Recovery Tool, available for Microsoft Windows only.
3. A USB flash drive with a minimum of 32 GB of available space.
4. Administrator user rights and at least 64 GB of available hard drive space to download the Dell operating system recovery image.
5. A wired network connection for network stability is recommended.
6. It is recommended to disable any anti-virus software during the download.

Download and install the Dell OS Recovery Tool

1. Launch the Dell OS Recovery Tool and click **INSTALL**.

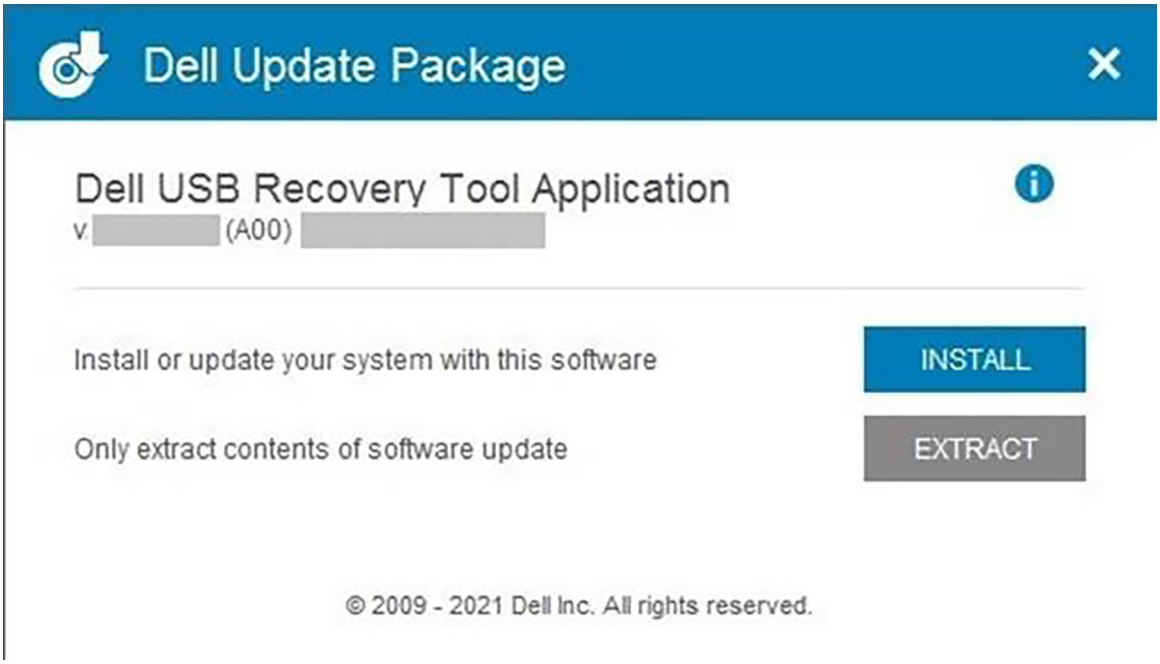

Figure 1. Dell USB Recovery Tool Application

2. Click **CLOSE** and launch the application from the desktop shortcut.

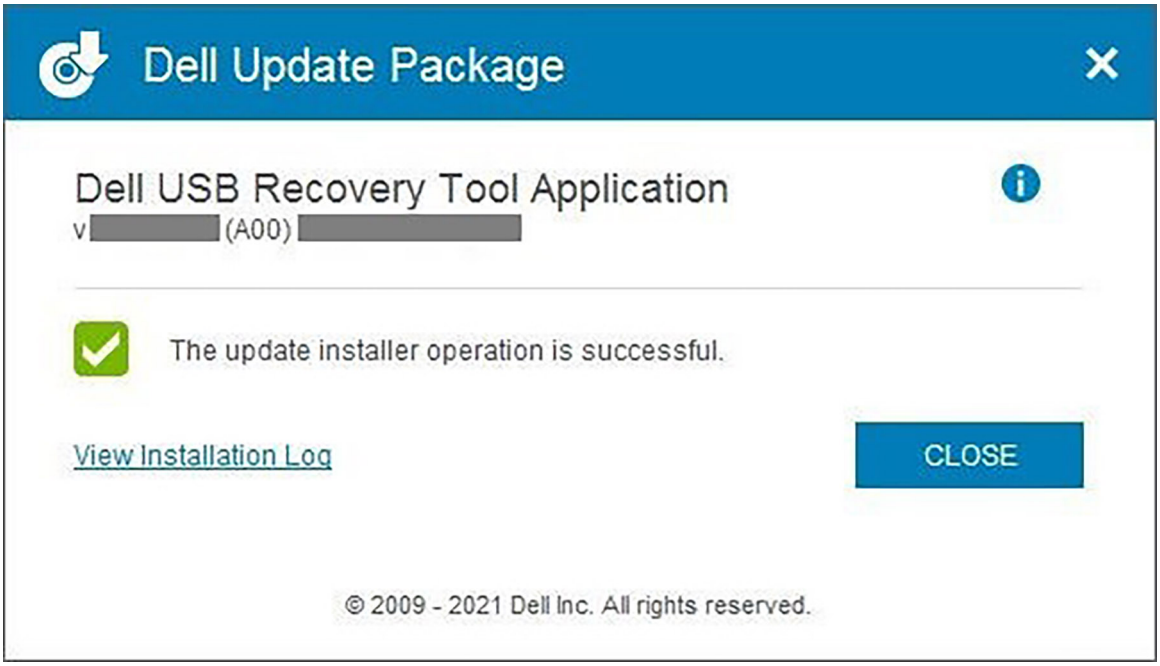

Figure 2. Dell USB Recovery Tool Application

3. Select **SWITCH TO ADVANCED RECOVERY** displayed at the bottom of the tool.

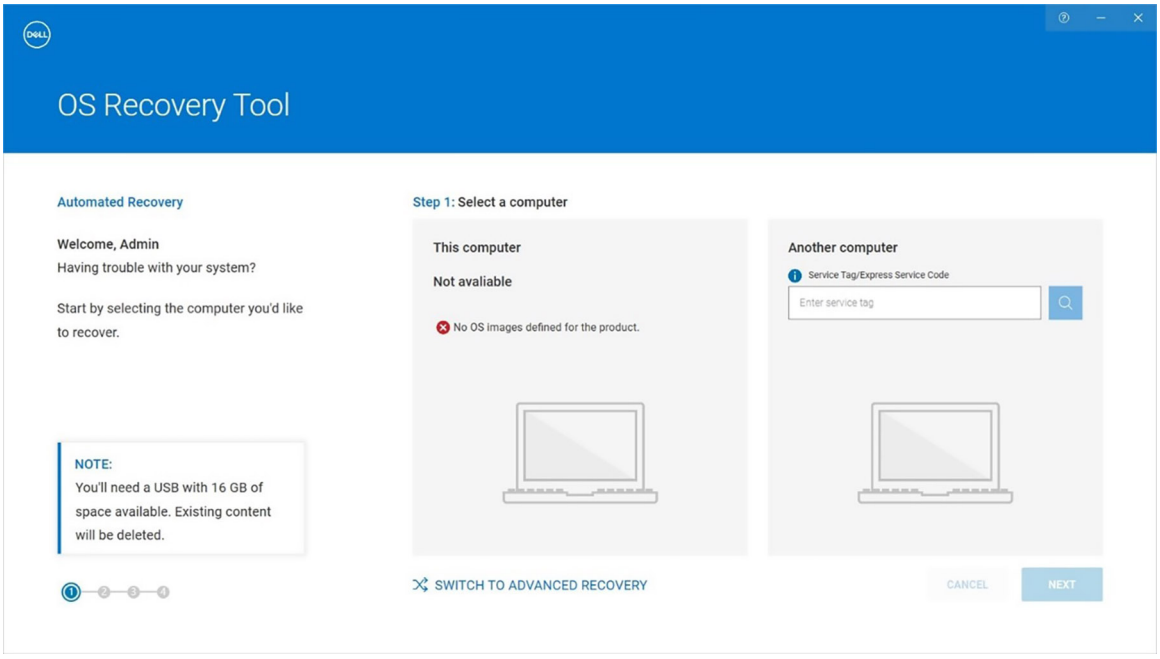

Figure 3. OS Recovery Tool

4. In **Select an OS image**, browse to the downloaded ISO image and click **NEXT**.

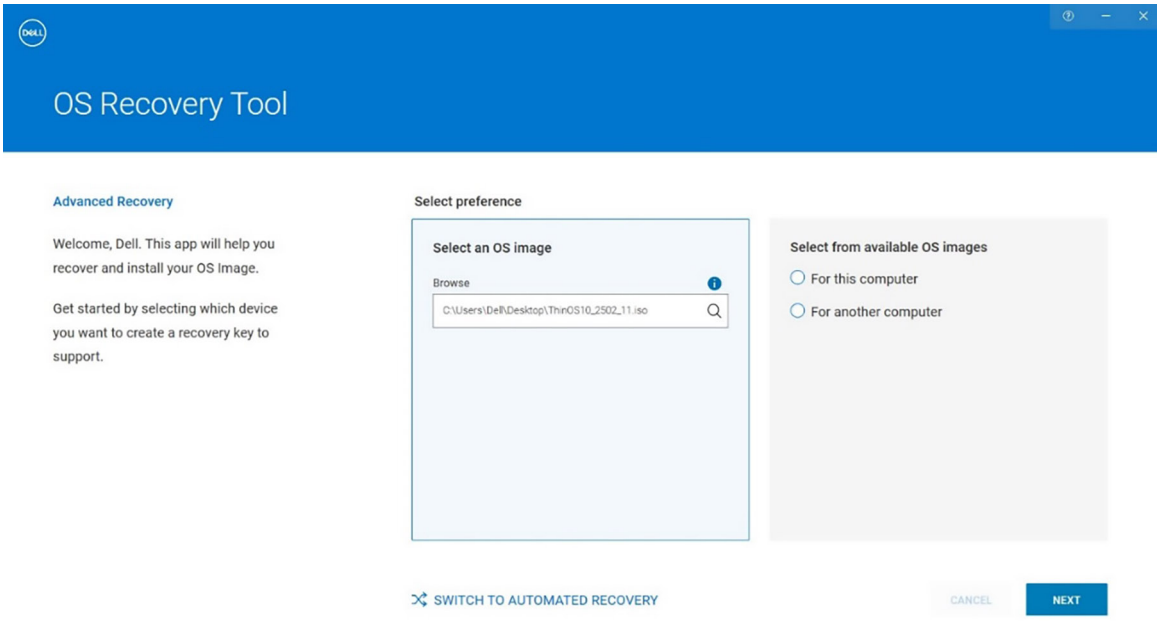

Figure 4. Upload the ISO file

5. Click **BURN OS**.

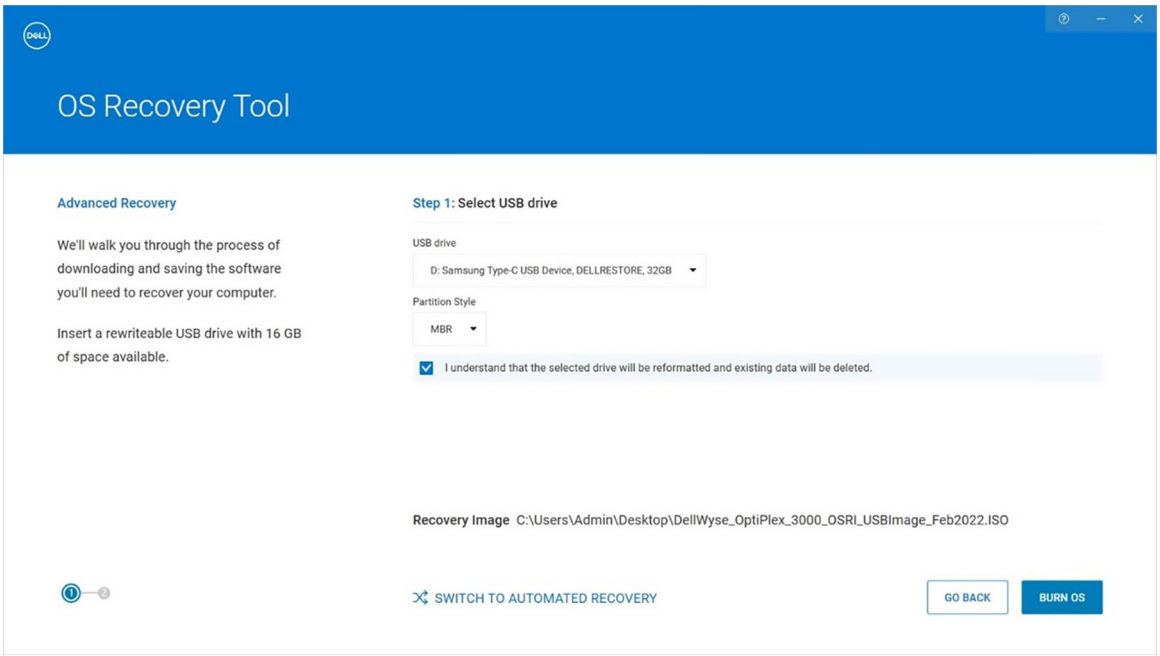

Figure 5. Burn OS

6. Wait for the image registration to complete and click **Close**.

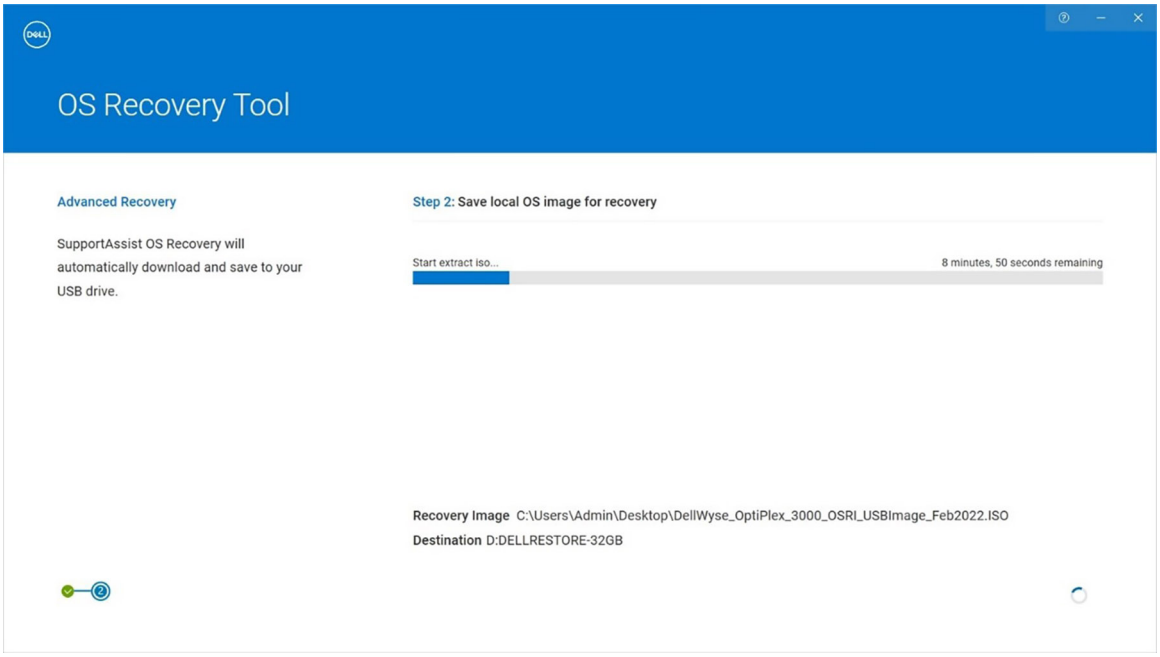

Figure 6. Image registration

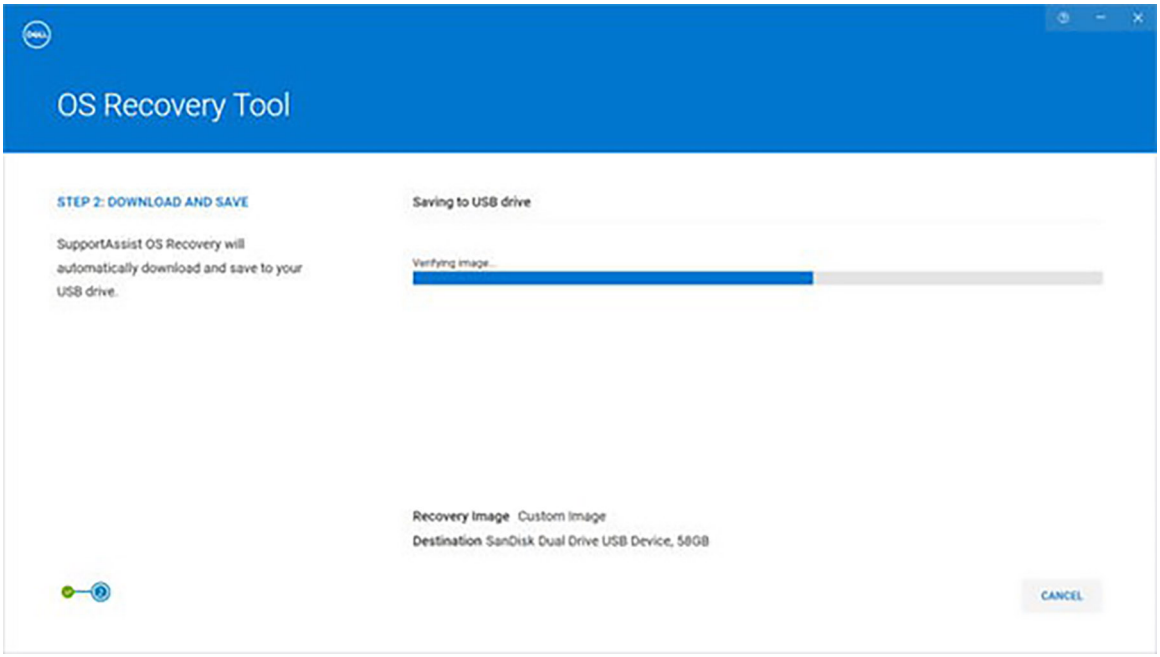

Figure 7. Image registration

7. This completes the Recovery USB drive creation. Remove the USB drive.

5

Reimaging or Deploying the recovery image created in a USB drive

1. Insert the **Windows11 IoT OS Recovery USB Key** into the USB port of the designated computer.
2. Power on the computer.
3. Press **F2** to enter **BIOS setup**.
4. Enter the BIOS admin password for any required changes. The default password is “Fireport”.

   NOTE: The screenshots depict an example of the BIOS screen on a different platform. The version information varies depending on the application used for installation. The screens may also differ slightly based on the BIOS version of your device.

5. Navigate to the **Integrated Devices** section on the BIOS menu and ensure that **Enable USB Boot Support** is enabled. This option is enabled by default.

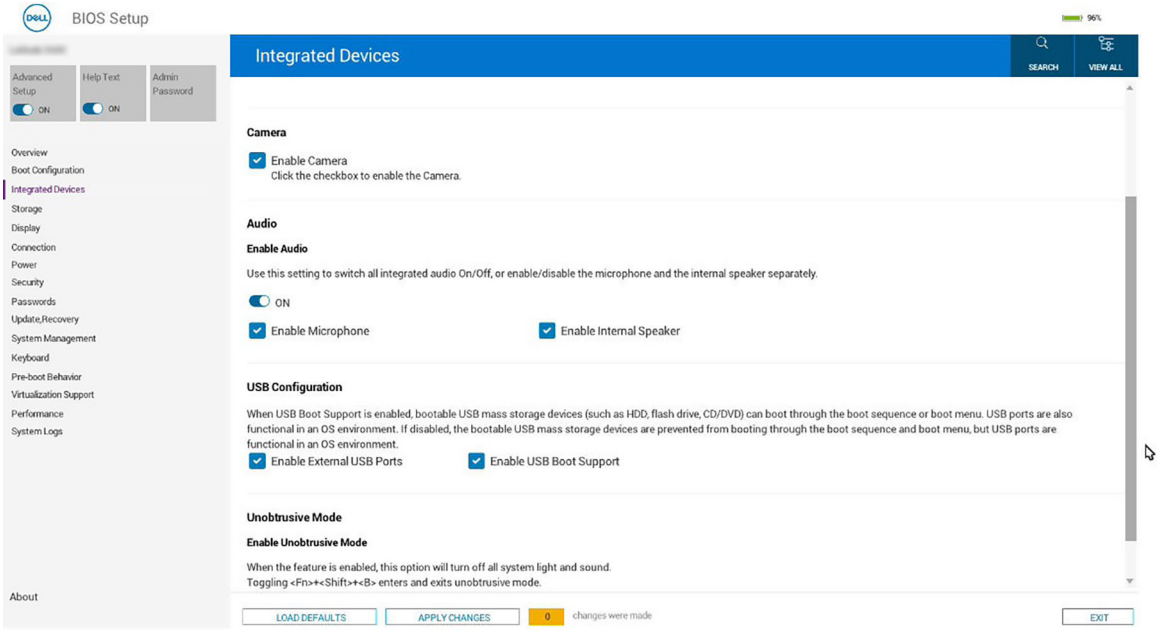

Figure 8. Enable USB boot support

6. Navigate to the **Storage** section on the BIOS menu and enable the **RAID On** option under **SATA/NVMe Operations** is enabled. This option is enabled by default.

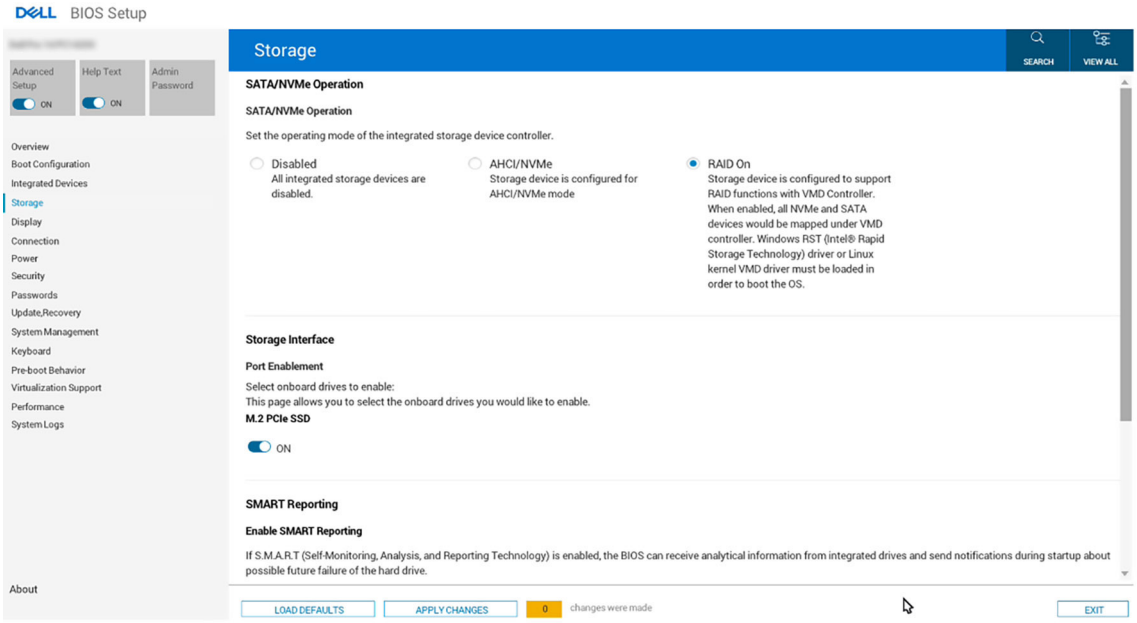

Figure 9. Enable RAID On option

7. Navigate to the **VirtualizationSupport** section on the BIOS menu. Under **DMA Protection**, set **Enable Pre-Boot DMA Support** and **Enable OS Kernel DMA Support** options to **OFF**.

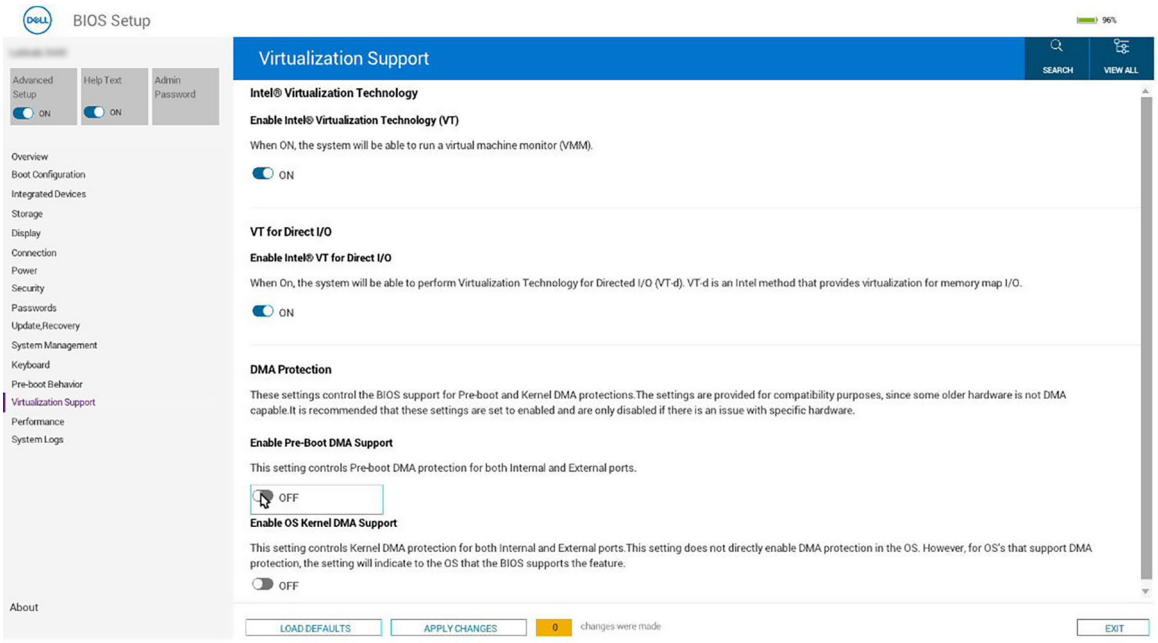

Figure 10. VirtualizationSupport

8. Select **APPLY CHANGES** and then click **EXIT**.
9. When the computer reboots, press **F12** to trigger the **Boot Menu** and select the bootable **Windows 11 IoT OS Recovery USB Key** and then press **Enter**.

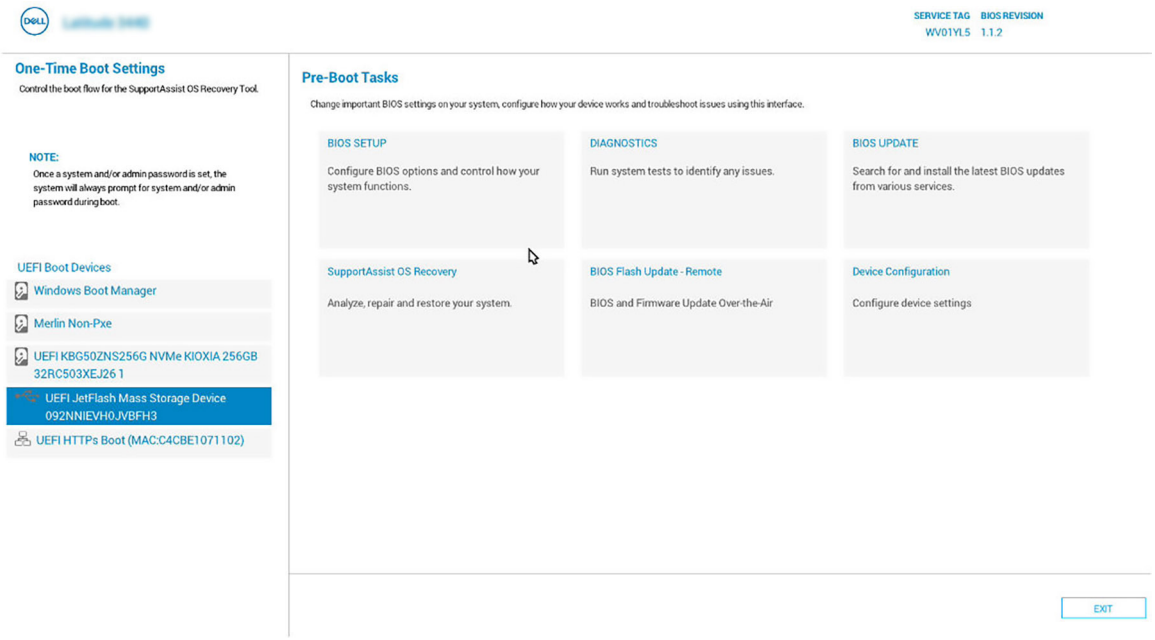

Figure 11. Boot Menu

10. The computer boots up and launches the **Dell Imaging Manager**. Click **Apply Image**.

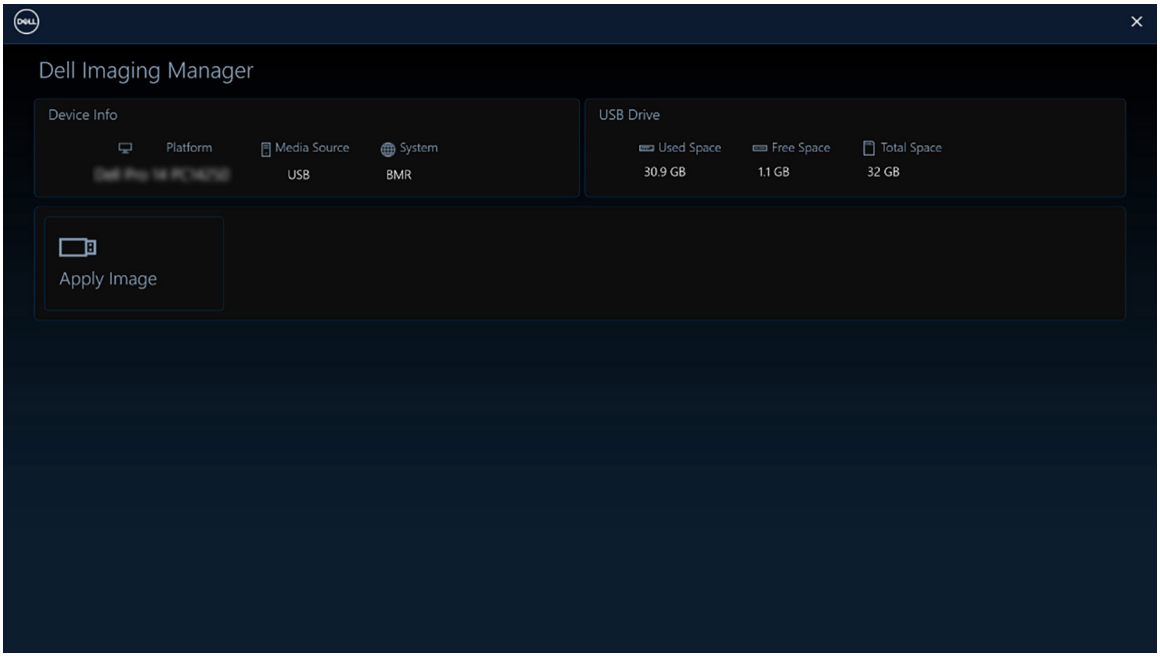

Figure 12. Dell Imaging Manager

11. Select the **Windows 11 IoT Enterprise LTSC 2024 image**. Click **Apply Image**.

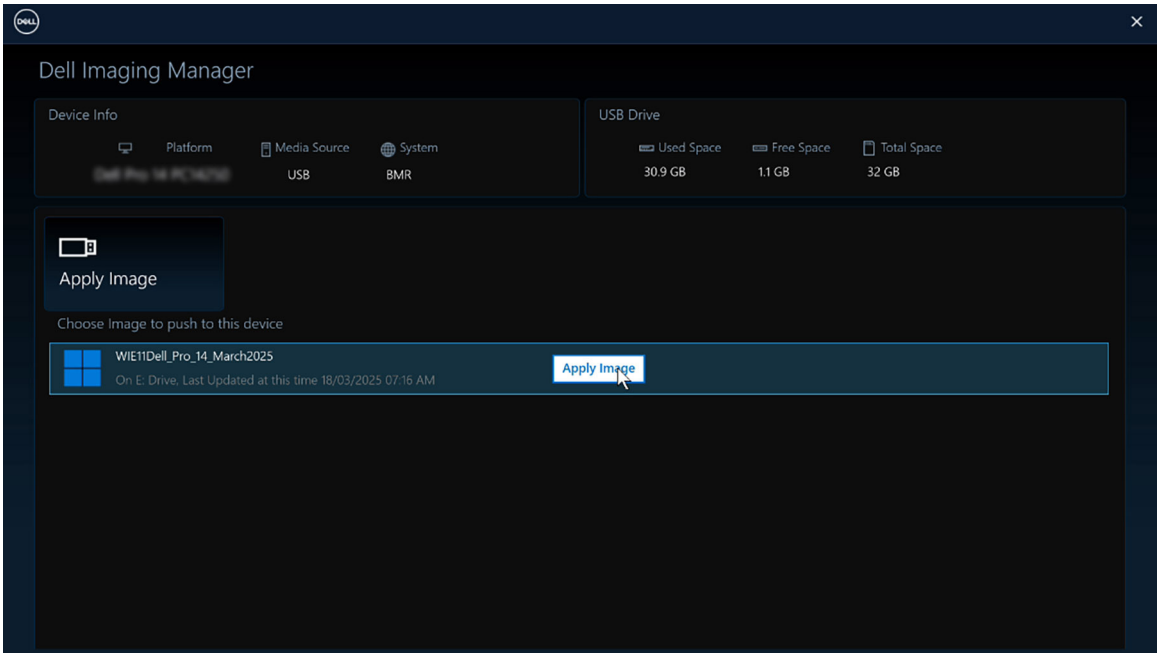

Figure 13. Windows 11 IoT Enterprise LTSC 2024 image

NOTE: The image displayed above is an example. The screen will show the image you created on the USB key.

12. The **Confirm Applying New System Image** window appears. Click **Yes, Proceed**.

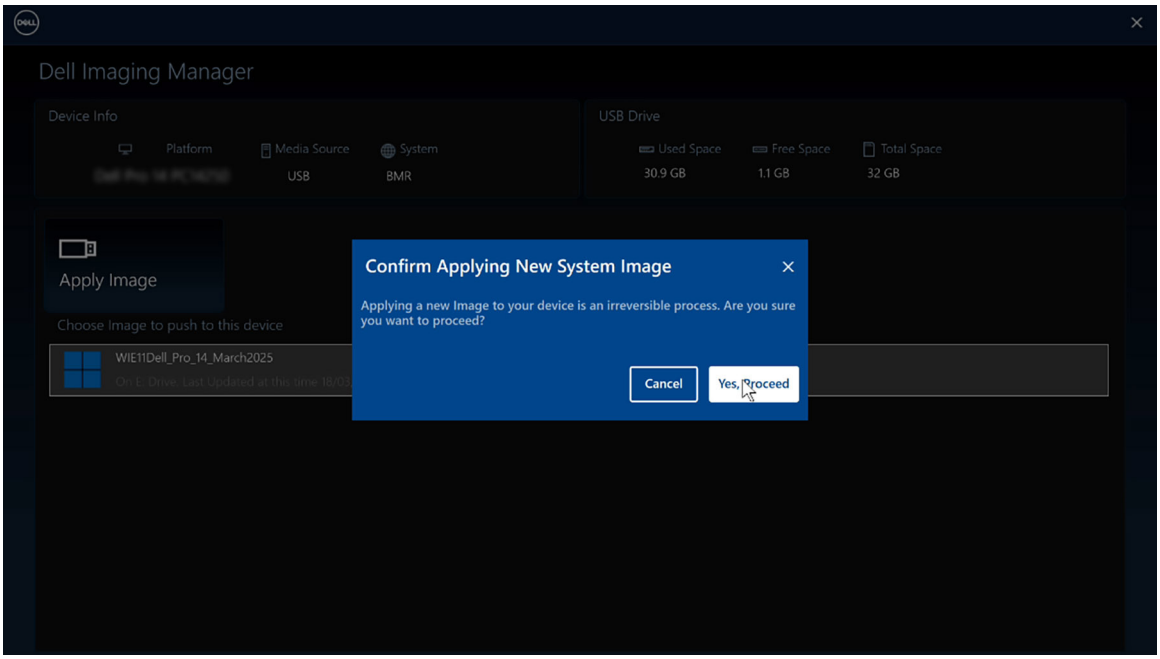

Figure 14. Confirm Applying New System Image

13. The computer enters recovery mode and displays progress indicators for the image application process.

Figure 15. Recovery mode

14. A message will prompt you to remove the USB key. Please remove the USB key.

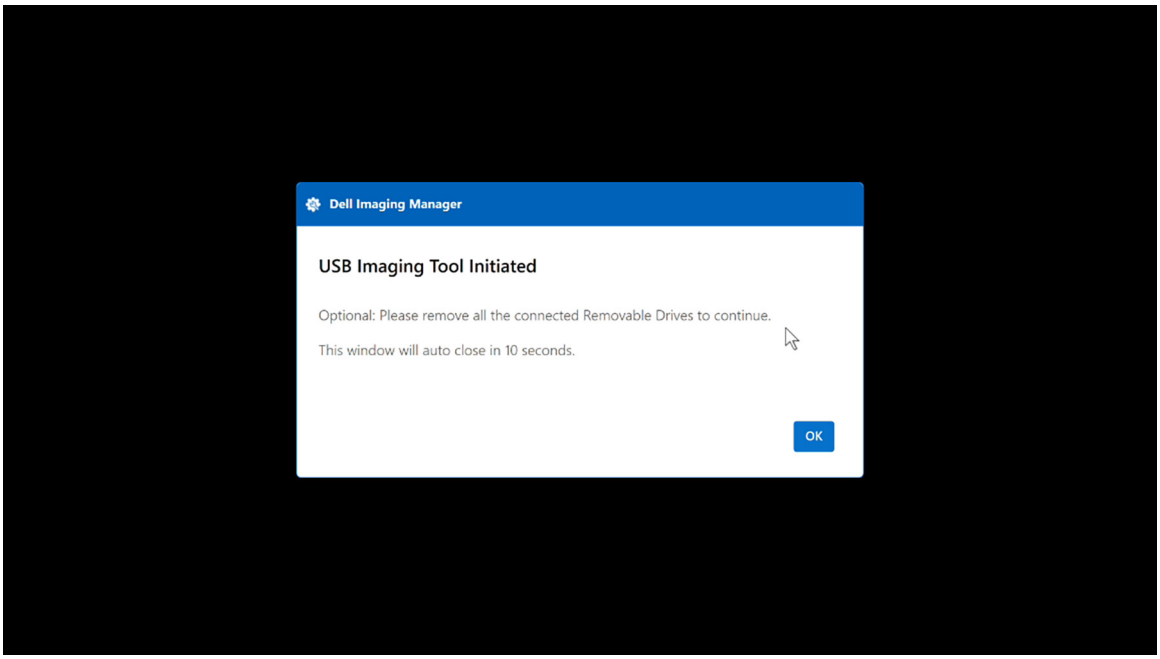

Figure 16. Remove the USB Key

15. The postimaging process begins after a short period.

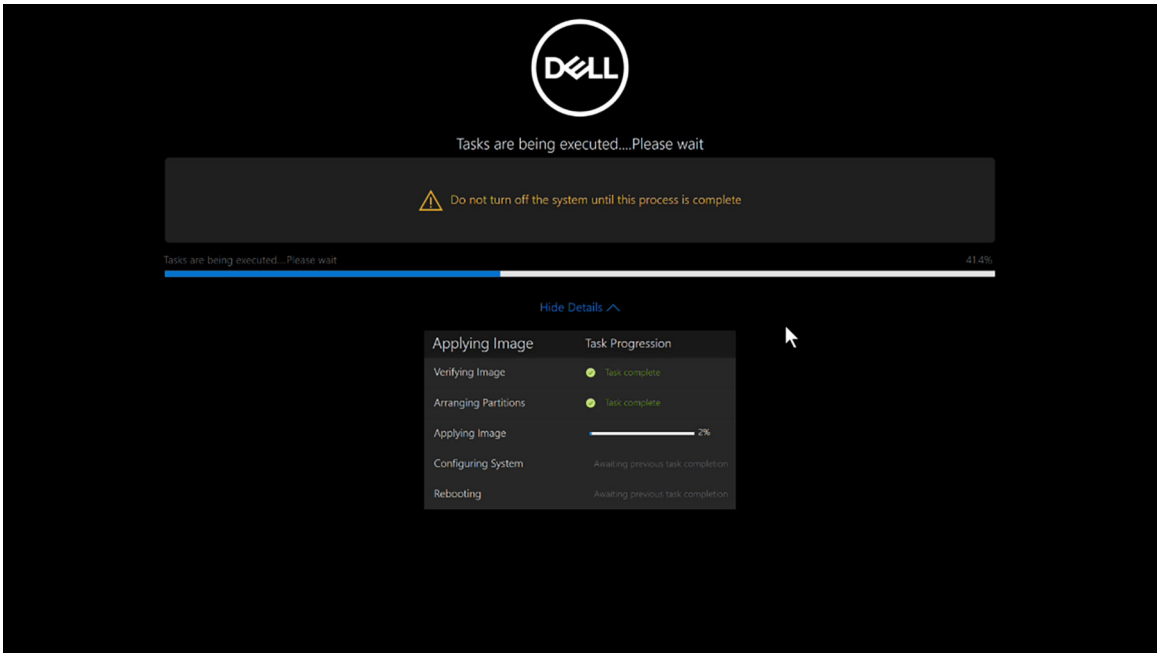

Figure 17. Post-imaging process

16. Once the installation is complete, the device boots to the desktop.

6

Capturing an image to the created USB drive

1. Log in to the device as an administrator.
2. Disable the Write Filter:
   a. Double-click the Dell Wyse WF Disable icon on the desktop.
   b. The Write Filter is disabled and the device restarts.
3. Log in as an administrator again.
4. Insert the **Windows 11 IoT Recovery USB Key** into the USB port of the designated computer.
5. Go to **This PC**. Double-click the partition of the **Windows11 IoT OS Recovery USB Key**.
6. Inside the partition, double-click the **DIM_USB** folder.

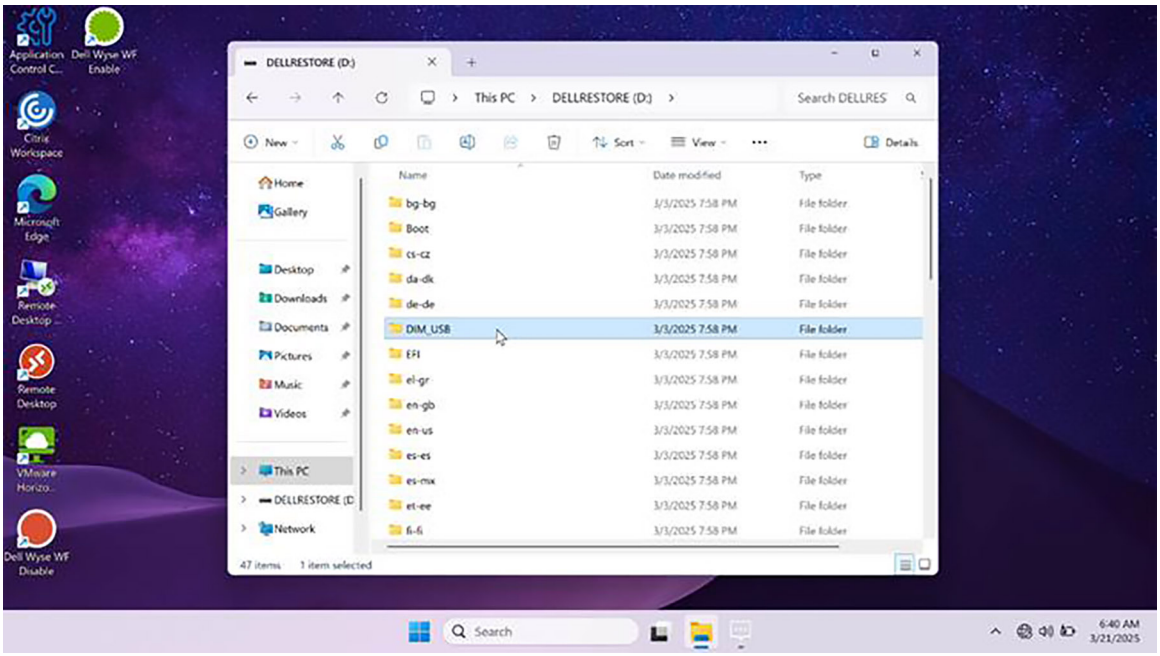

Figure 18. DIM_USB

7. Launch the **DIM.USBImaging.exe** file to open the **Dell Imaging Manager** screen.

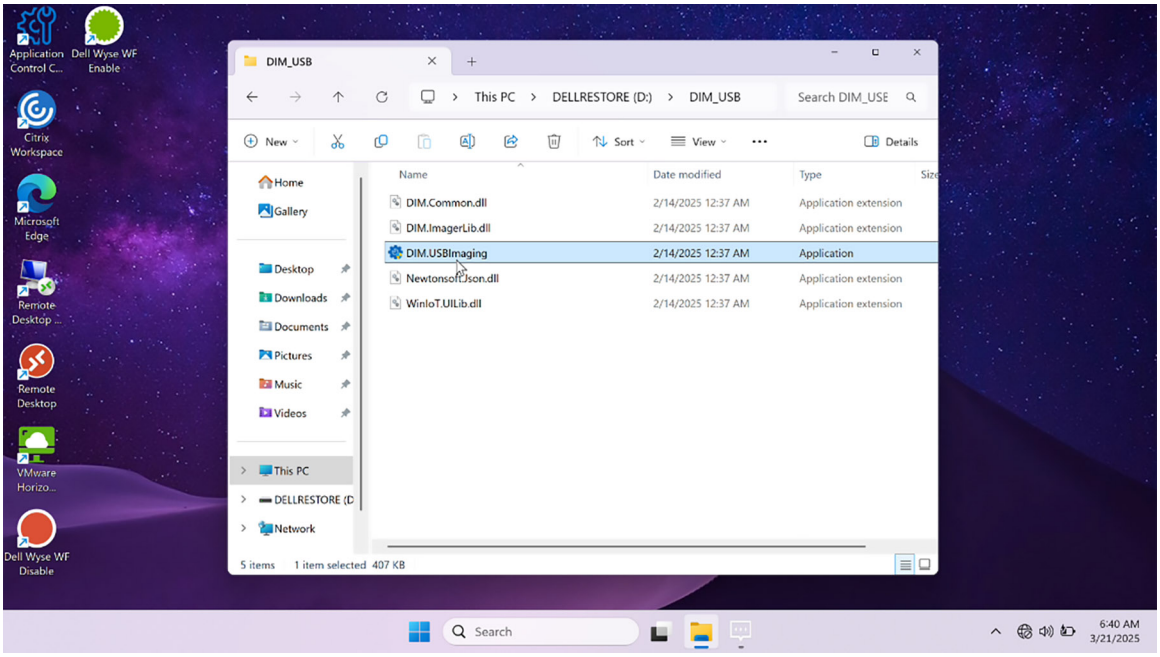

Figure 19. Launch Dell Imaging Manager screen

8. Click **Capture Image**.

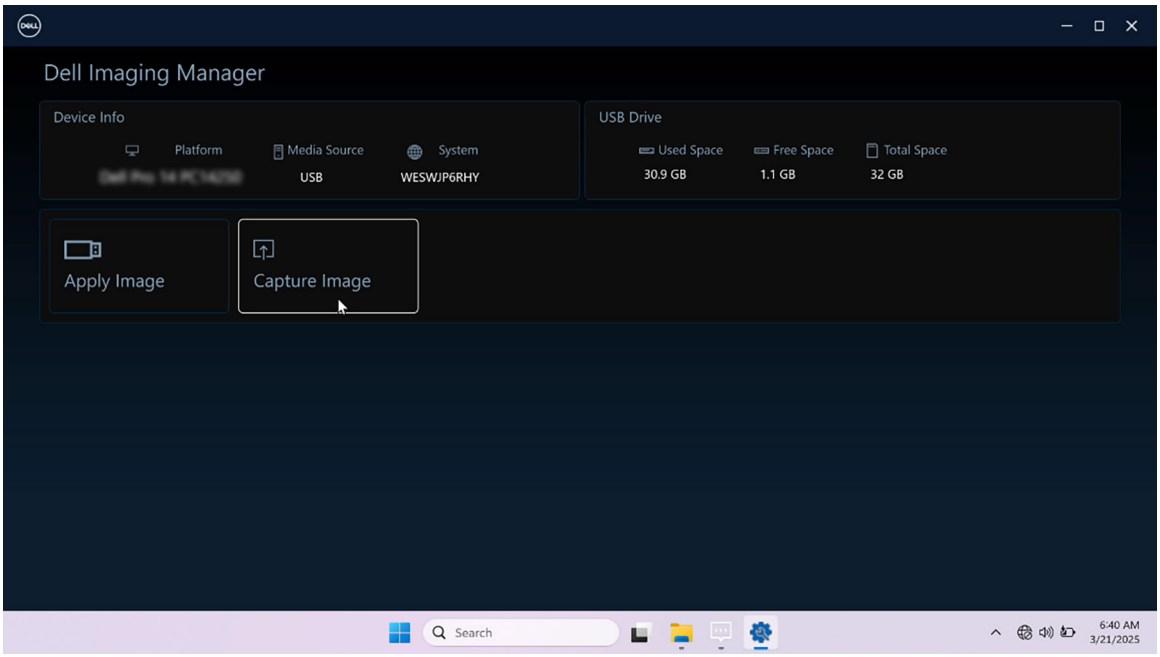

Figure 20. Capture Image

9. Click **Create a system image**.

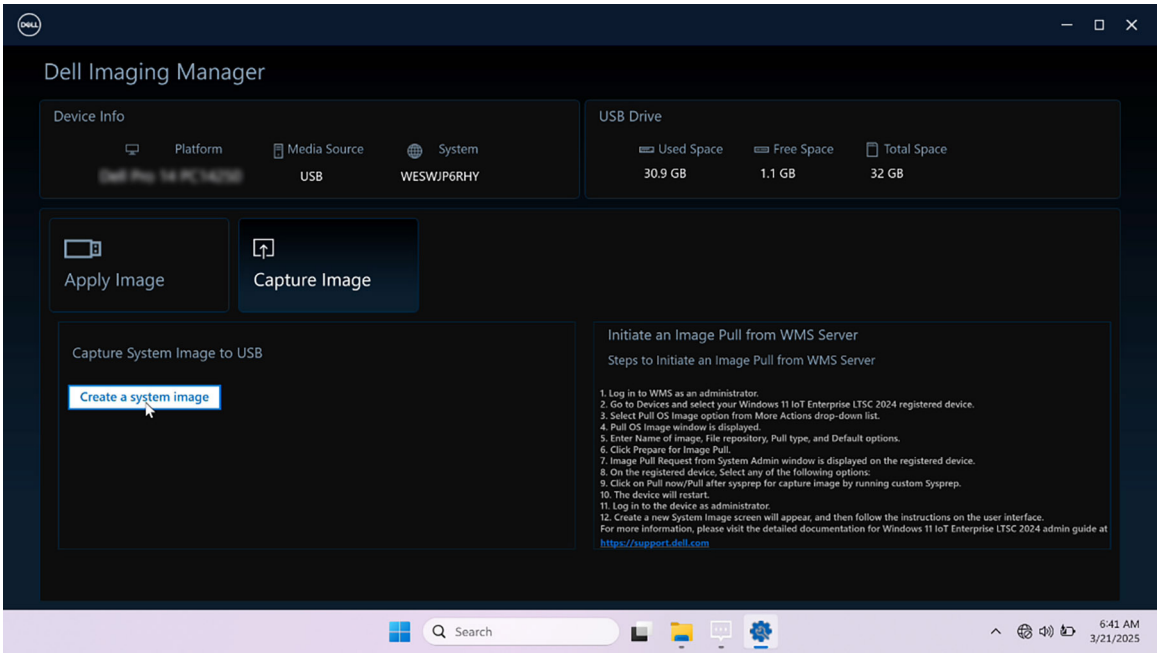

Figure 21. Create a system image

10. In **Select Drive and Capture Image** screen, click **Yes, Proceed**.

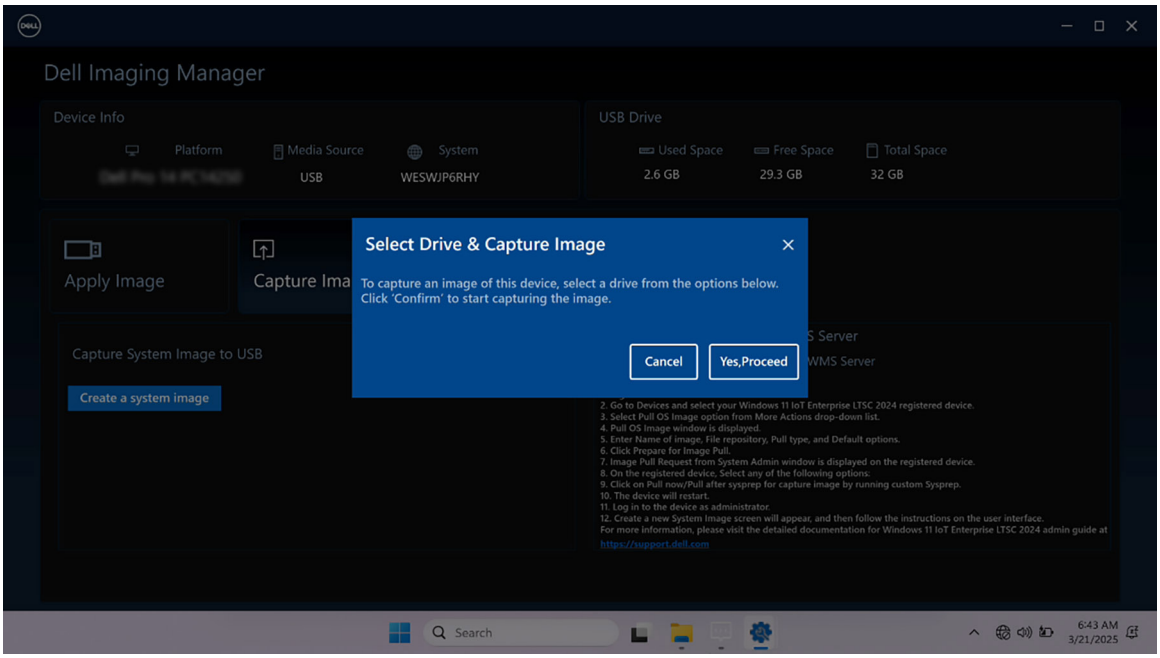

Figure 22. Select Drive and Capture Image

11. Select a removable drive for capturing and click **Confirm.**

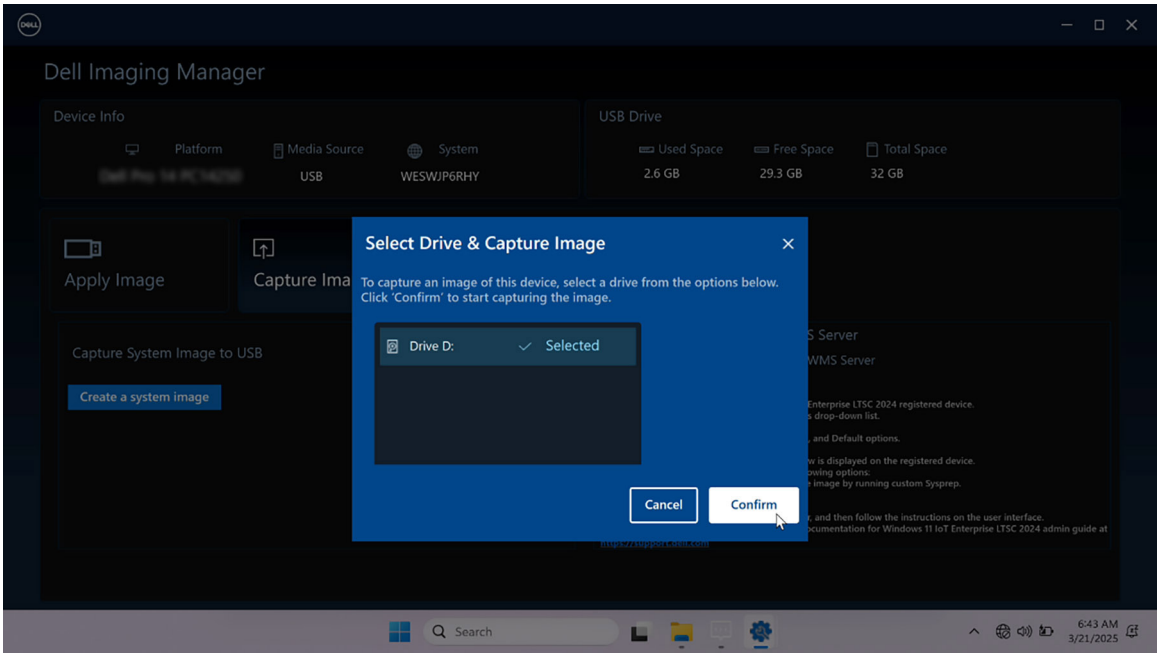

Figure 23. Select drive and capture image

12. The **Create a new System Image** screen appears. Click **Capture Image**.

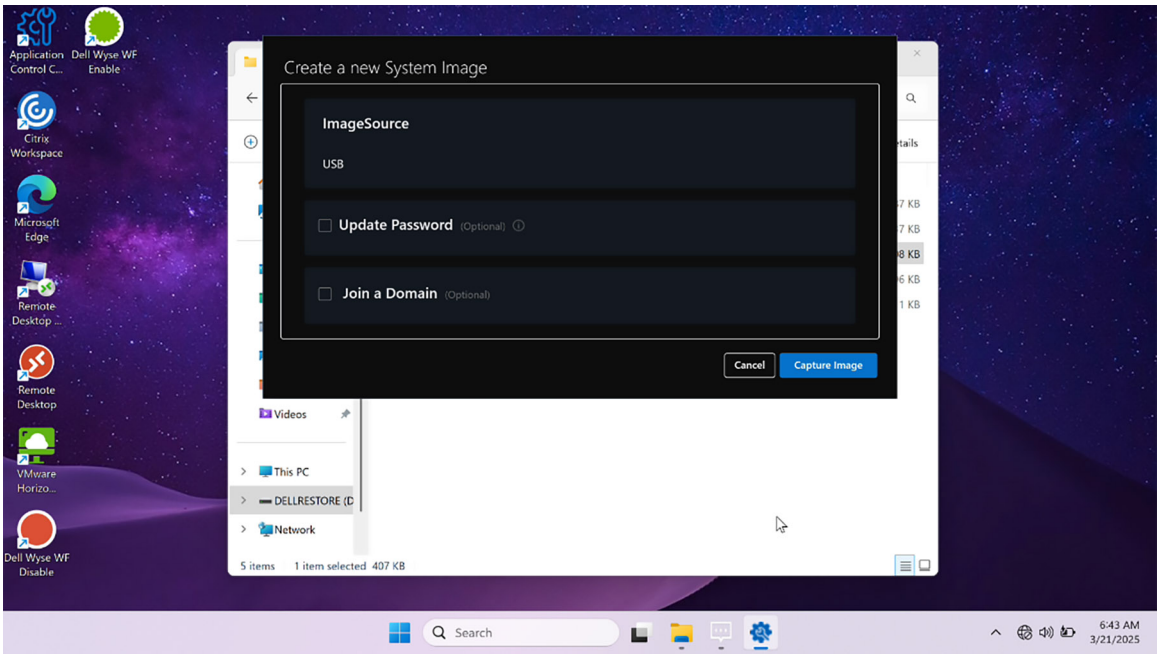

Figure 24. Create a new System Image

13. The device reboots and initiates the pre-sysprep process. Once the post-sysprep process is complete, it successfully captures the image to the **USB Key**.

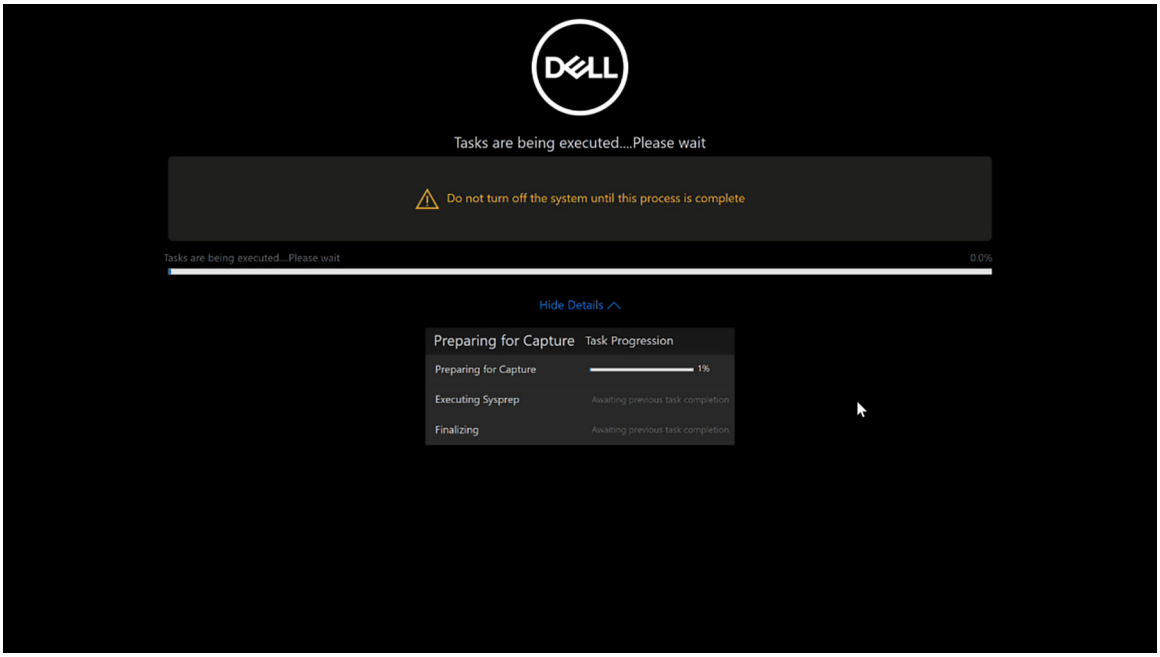

Figure 25. pre-sysprep process

7

Reinstalling drivers and applications

Drivers and applications are software that enable operating systems to communicate with the hardware devices and software in your computer. Devices such as video and sound cards require drivers to function correctly, and enable users to adjust hardware settings.

Device-specific drivers may have to be downloaded and installed separately. Dell Technologies recommends that you download the device drivers for your Dell Technologies computer from Drivers & Downloads.

Applications must be downloaded and installed separately. Dell Technologies recommends that you download the required applications for your Dell Technologies computer from the Dell Download Center.

Displaying drivers and applications on your computer

1. Turn on your computer.
2. Go to Dell Support Site.
3. In the **Search support** field, enter the Service Tag, Serial Number, Service Request, Model, or Keyword of your computer, and then click **Search**.

   NOTE: If you do not have the Service Tag, Serial Number, Service Request, Model, or Keyword, use the SupportAssist feature to automatically identify your computer. You can also click **Browse all products** to manually browse for your computer.

4. Click **Drivers & downloads**.
5. In the **Operating system** drop-down, select the operating system that is installed on your computer to get a list of the drivers and applications available for your computer.

8

Getting help and contacting Dell

Self-help resources

You can get information and help on Dell products and services using these self-help resources:

Table 1. Self-help resources

Self-help resources	Resource location
Information about Dell products and services	Dell Site
Tips	
Contact Support	In Windows search, type `Contact Support`, and press Enter.
Online help for operating system	Windows Support Site Linux Support Site Windows IoT Enterprise
Access top solutions, diagnostics, drivers and downloads, and learn more about your computer through videos, manuals, and documents.	Your Dell computer is uniquely identified using a Service Tag or Express Service Code. To view relevant support resources for your Dell computer, enter the Service Tag or Express Service Code at Dell Support Site. For more information about how to find the Service Tag for your computer, see Locate the Service Tag on your computer.
Dell knowledge base articles	1. Go to Dell Support Site. 2. On the menu bar at the top of the Support page, select **Support** > **Support Library**. 3. In the Search field on the Support Library page, type the keyword, topic, or model number, and then click or tap the search icon to view the related articles.

Contacting Dell

To contact Dell for sales, technical support, or customer service issues, see Dell Support Site.

NOTE: Availability of the services may vary depending on the country or region, and product.

NOTE: If you do not have an active Internet connection, you can find contact information in your purchase invoice, packing slip, bill, or Dell product catalog.