DELLTechnologies

Dell Pro 14 Plus/Dell Pro 14 Plus 2-in-1 PB14250/PB14250 2-in-1

Re-imaging Guide for Windows

DELLTechnologies

Notes, cautions, and warnings

(i) **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.**

Contents

Installation overview

⚠️ **CAUTION: This section of the re-imaging guide covers driver installation and driver updates and is designed for system administrators. Do not attempt to install or update drivers on the system 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:** Information provided in this guide is only applicable to computers shipped with Windows 11 operating system.

ⓘ **NOTE:** Dell 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 system performance issues, corrupt operating system files, blue screen errors, unexpected shutdowns, or infect your computer with malicious software.

Device drivers must be updated when you reinstall the operating system using either a CD, DVD, USB key, or when you are facing networking, graphics, sound or other hardware-related problems. Dell recommends that you install or update device drivers if you have performed a factory reset of your Dell computer using the Dell Backup and Recovery application or other factory-reset methods. This ensures that you have the latest device drivers installed on your computer and that the devices function optimally.

Installing or updating device drivers may lead to the following improvements:

- Increases in system performance
- Patched security risks
- Expanded compatibility
- Fixed device issues
- Support for new features

However, if your computer is operating normally and there are no driver issues or updates being prompted by Windows, driver updates may be unnecessary. Updating drivers unnecessarily may create new problems.

Review the importance of each driver update on the Dell Drivers & Downloads page before assessing the need to continue with an update.

Introduction

⚠️ **CAUTION: This re-imaging guide is designed for system administrators. Do not attempt to reimage the 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 shipped with Window 11 operating system.

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 re-imaging guide provides the steps that are required for reimaging your computer.

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

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

- 2 TB PCIe SSD
- 1 TB PCIe SSD
- 512 GB PCIe SSD
- 256 GB PCIe SSD

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

Order of reinstallation

ⓘ **NOTE:** Some drivers and application installation steps may not be applicable, depending on the configuration of the computer you have ordered.

To achieve optimal performance, install the drivers and applications in the following sequence:

1. **BIOS**: The BIOS enables the operating system to be loaded into the memory and enables the initial setup process on your computer.
2. **Windows operating system**: The operating system controls the system's hardware to be a base on which other software can operate on.
3. **Intel chipset driver**: Allows Windows to communicate and adjust settings on components on the system board which includes:
   - Intel Chipset Device Software Driver
   - Intel Management Engine Components Installer
   - Intel Serial IO Driver
   - Intel HID Event Filter Driver
   - Intel Thunderbolt Controller Driver

     ⓘ **NOTE:** This driver is only applicable if you decide to downgrade the operating system to Windows 10. If you downgrade your computer from Windows 11 to Windows 10 22H2, Dell Technologies support will follow the Microsoft Windows 10 End of Support plan.

   - Intel Dynamic Tuning Driver
   - Intel Integrated Sensor Solution Driver
   - Intel Platform Monitoring Technology Driver
   - Intel Innovation Platform Framework Driver
   - Intel AI Boost Driver
   - Intel Processor Power Management Utility
4. **Networking and communication drivers**, which include:
   - Wireless Local Area Network (WLAN) adapter driver: Enables and enhances the wireless adapter.
   - Bluetooth driver: Enables and enhances the Bluetooth adapter.
   - Onboard Local Area Network (LAN) driver

     ⓘ **NOTE:** The Onboard LAN driver is only applicable for computers shipped with Intel Core Ultra 200U Series/Intel Core 100U and 200U Series processors.

5. **Critical Microsoft Knowledge Base (KB) updates**: Microsoft updates that fix and optimize the operating system. For more information, see Windows release information.
6. **Intel Rapid Storage Technology (IRST)**: Enables and enhances data storage virtualization for the storage drives installed in the computer.

   ⓘ **NOTE:** IRTS is only applicable for computers shipped with Intel Core Ultra 200U Series/Intel Core 100U and 200U Series processors.

7. **Graphics driver**:
   - Enhances and optimizes video performance.
   - Enables and provides additional functionality not included in the native Microsoft VGA driver, including:
     - User-customizable power management features
     - Portability and behavioral profiles
     - Multiple-monitor support
8. **Camera driver**: Intel 2D Imaging/USB IO/Vision Driver for Camera
9. **Audio driver**: Enables and enhances the audio controller.
10. **Security driver**: Dell ControlVault3 driver and firmware
11. **Dell applications**, which include:

- Dell Command Update application
- Dell Optimizer (DO)

Updating or resetting the BIOS

Updating the BIOS in Windows

It is recommended to update the BIOS is Windows when an update is available or when you replace the system board.

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

   (i) **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.

3. Click **Drivers & Downloads**.
4. From the **Operating system** drop-down list, select the operating system that is installed on your computer.
5. From the **Category** drop-down list, select **BIOS**.
6. Select the latest version of BIOS, and click **Download** to download the BIOS file for your computer.
7. After the download is complete, browse the folder where you saved the BIOS update file.
8. Double-click the BIOS update file icon and follow the on-screen instructions.

   For more information, see the Knowledge Base article 000124211 at Dell Support Site.

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 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 2.0 security On**: The TPM is enabled and activated.
   - **Clear**: The BIOS clears the information stored in the TPM.

5. Save the settings and exit.

Reinstalling the operating system

The Windows operating system is validated for use on this computer. You can reset or reinstall the operating system under different scenarios. For more information about reinstalling the operating system, see the knowledge base article 000192698 at the Dell Support Site.

(i) **NOTE: For computers shipped with Intel Core Ultra 200V series and RGB+IR camera configuration,** if you are installing Windows 10 22H2 or Windows 11 23H2, you may encounter symptoms such as unresponsive USB devices. For more information, see the knowledge base article 000274680 at the Dell Support Site.

For installing Windows on Intel 12th Generation or later computers using ISO images, see the knowledge base 000184834 at the Dell Support Site.

Before attempting a reinstall of your operating system, Dell Technologies recommends that you backup all the data on your computer. Search for more information about Windows backup at the Microsoft Knowledge Base article.

Reinstalling drivers and applications

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

The Windows operating system includes drivers for most devices, but device-specific drivers may have to be downloaded and installed separately. Dell Technologies recommends that you download the device drivers for your computer from Drivers & Downloads.

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

Displaying drivers and applications on your computer

1. Turn on your computer.
2. Go to the 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**.

   (i) **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. From the **Operating system** drop-down list, select the Windows operating system that is installed on your computer to get a list of the drivers and applications available for your computer.

Reinstallation sequence for drivers and applications

Driver installation is critical after reinstalling the Windows operating system on your Dell computer. Install the drivers in the correct sequence for your computer to function correctly. In some scenarios, you may have to reinstall or update the device driver if you are encountering issues with a specific device.

For more information, see the Dell knowledge base article 000132394 at the Dell Support Site.

(i) **NOTE:** The Windows operating system includes touchpad drivers; no other touchpad-driver installation is required.

(i) **NOTE:** The Windows operating system includes the webcam driver; no additional webcam-driver installation is required. For video capture or streaming, users can install the webcam software available from third-party providers.

Dell Technologies recommends installing drivers or applications in the following sequence.

Intel chipset device software

The Windows operating system may not include the updated Intel chipset device software for Dell computers. The Intel chipset device software is available at the Dell Support Site.

Downloading and installing the chipset driver

1. Turn on the computer.
2. Go to the 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**.

   (i) **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. From the **Category** drop-down list, select **Chipset**.
6. Click **Download** to download the chipset driver for your computer.
7. After the download is complete, go to the folder where you saved the chipset driver file.
8. Double-click the chipset driver file icon and follow the on-screen instructions.

Critical Microsoft Knowledge Base (KB) updates

Dell Technologies recommends installing all the latest available KB updates on your computer. KB updates are automatically downloaded and installed when Windows Updates are enabled and can also be manually downloaded and installed from the Microsoft support site. For more information, see Windows 11 - release information .

Intel Rapid Storage Technology (IRST) for computers shipped with Intel Core 100U, Intel Core 200U, and Intel Core Ultra 200U Series processors

The IRST software package enables and enhances high-performance SATA/NVMe RAID capabilities for supported operating systems. The IRST software package provides added protection against data loss in the event of a hard drive failure, and supports the configuration of multiple features, including:

● Configuration and maintenance of RAID 0/1
● Intel VMD support from 11th Generation platforms (see How to Enable Intel VMD Capable Platforms for RAID or Intel Optane Memory Configuration with the Intel RST Driver).

The following conditions must be met before you can install IRST on your computer.

● Your computer has a RAID I/O controller hub (ICH). If your computer does not have a RAID ICH, you cannot install IRST unless a third-party RAID controller card is installed.
● Your RAID controller is enabled by default.

> ⚠ **CAUTION: If an operating system is already installed, changing the SATA/NVMe settings in the BIOS Setup may cause your computer to display a blue screen and an error code, followed by a system reboot. To change settings, reinstall the operating system.**

Downloading and installing the IRST driver

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. From the **Category** drop-down list, select **Storage**.
6. Click **Download** to download the IRST driver for your computer.
7. After the download is complete, go to the folder where you have saved the IRST driver file.
8. Double-click the IRST driver file icon and follow the on-screen instructions.

Graphics

The Windows operating system includes the VGA-graphics driver only. For optimal graphics performance, install the Dell graphics driver applicable to your computer from the Dell Support Site.

Downloading and installing the graphics driver

1. Turn on your computer.
2. Go to the 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**.

4. Click **Drivers & Downloads**.
5. From the **Category** drop-down list, select **Video**.
6. Click **Download** to download the preferred graphics driver for your computer.
7. After the download is complete, go to the folder where you saved the graphics driver file.
8. Double-click the graphics driver file icon and follow the on-screen instructions.

Intel 2D Imaging/USB IO/Vision Driver for Camera

The Windows operating system does not include the Intel 2D Imaging/USB IO/Vision Driver for Camera driver recommended by Dell on Intel camera solution configuration. Install the Camera driver available for download from the Dell Support Site.

Downloading and installing the Camera driver

1. Turn on your computer.
2. Go to the 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. From the **Category** drop-down list, select **Camera**.
6. Click **Download** to download the preferred camera driver for your computer.
7. After the download is complete, go to the folder where you saved the camera driver file.
8. Double-click the camera driver file icon and follow the on-screen instructions.

Audio

The Windows operating system does not include the audio driver recommended by Dell. Install the HD audio driver available for download from the Dell Support Site.

Downloading and installing the audio driver

1. Turn on your computer.
2. Go to the 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. From the **Category** drop-down list, select **Audio**.
6. Click **Download** to download the preferred audio driver for your computer.
7. After the download is complete, go to the folder where you saved the audio driver file.
8. Double-click the audio driver file icon and follow the on-screen instructions.

Dell ControlVault3 Plus Driver and Firmware

Dell ControlVault3 Plus Driver and Firmware contain software that protects data in your computer from disclosure or modification. The software package is available at the Dell Support Site.

Downloading and installing the Dell ControlVault3 Plus Driver and Firmware

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. From the **Category** drop-down list, select **Security**.
6. Click **Download** to download the preferred software package for your computer.
7. After the download is complete, go to the folder where you have saved the Dell ControlVault3 Plus Driver and Firmware.
8. Double-click the Dell ControlVault3 Plus Driver and Firmware icon and follow the on-screen instructions.

Dell Optimizer

Dell Optimizer is an application that is designed to enhance computer performance and productivity by optimizing settings for power, battery, display, collaboration touchpad, and presence detection. It also provides access to applications purchased with your new computer.

For more information, see Dell Optimizer User's Guide at Dell Support Site.

Wireless Local Network (WLAN) drivers

The Windows operating system does not provide native-device driver support for WLAN controllers on Dell computers. To obtain wireless network functionality, install the relevant WLAN drivers from the Dell Support Site.

Downloading and installing the Wi-Fi driver

1. Turn on the computer.
2. Go to the 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. From the **Category** drop-down list, select **Network, Ethernet & Wireless**.
6. Click **Download** to download the preferred Wi-Fi controller and Bluetooth drivers for your computer.
7. After the download is complete, go to the folder where you saved the driver files.
8. Double-click the file icon of each driver file, and follow the on-screen instructions.

Dell Thunderbolt Dock WD22TB4

The Dell Thunderbolt Dock WD22TB4 is a device that links all your electronic devices to your computer using a Thunderbolt 4 (Type-C) cable interface. Connecting the computer to the docking station enables you to access to all peripherals such (mouse, keyboard, stereo speakers, external hard drive, and large-screen displays) without having to plug each device into the computer.

> ⚠️ **CAUTION: You must update your computer's BIOS and the Dell Docking Station drivers to the latest version available on Dell support site before using the docking station. Older BIOS versions and drivers could result in the docking station not being recognized by your computer or not functioning optimally.**

For more information about the drivers required for the Dell Thunderbolt Dock WD22TB4, see Dell Support Site.

.NET Framework

The .NET Framework is a software framework from Microsoft, which is bundled with Windows operating systems. The .NET Framework is intended to be used by applications created for the Windows platform.

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
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.