Dell Power Manager
Version 3.0 User Guide

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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Introduction

Dell Power Manager software provides simplified and efficient power management capabilities for the Dell notebooks and tablets running on Windows 10 operating systems.

Key Features

- Battery Information– Display health information for up to six installed batteries, depending on system capabilities, and edit battery settings or create a custom battery setting.
- Advanced Charge – Control battery charging to prolong battery life.
- Peak Shift – Reduce power consumption by automatically switching the system to battery power during certain times of the day, even when the system is plugged into a direct power source.
- Thermal Management – Control processor and cooling fan settings to manage performance, system surface temperature, and fan noise.
- Battery Extender – Conserve battery charge by affecting CPU power level, screen brightness and keyboard illumination levels, and by muting audio.
- Alert Settings – Allows you to restore the default alert settings.

Accessing the Software

To open the Dell Power Manager user interface, click the **Windows Start** button, and then do one of the following:

- Click **All Apps → Dell Power Manager**.
- Type **Dell Power Manager** in the **Search programs and files** box. In the search results, click the application to start it.

  NOTE: This software is available only on Windows 10 Operating System.

Battery Information

📝 **NOTE: If a non-Dell battery is attached to your system, the battery graphic will be orange.**

Dell Power Manager provides detailed information about your system's batteries, including:

- Whether your system is plugged in or using battery power
- Percentage of your system's total battery power remaining
- Peak Shift and Battery Extender status, if applicable
- Battery Health
- Battery Charge Status
- Battery Settings
- Battery type (Standard, Extended Warranty, or Enhanced)
- Connection (Primary, Battery Slice, or Modular Bay)
- Manufacturer
- Dell battery (Yes or No)
- Serial number
- PPID (Piece Part ID)

📝 **NOTE: PPID may not always display.**

The software supports a maximum of six batteries. To see the details of a particular battery, click the battery number (for example, Battery #1, Battery #2). Scroll down to see any additional batteries your system may contain.

You can even order a replacement battery.

To order a replacement battery, click on 🔲 icon at the top of the left pane.

Battery Health

Battery health indicates the amount of charge that is available to a system. In general, a battery's health decreases over time at a rate that depends on how often the battery is used and the conditions under which it is used.

Battery Health is indicated using the heart icon followed by a set of four circular icons. The number of circular icons that are filled indicates the battery health.

Table 1. Battery health indicator codes

Code	Description
●●●●	Excellent — Battery is operating at maximum capacity.
●●●○	Good — Battery can charge normally; however, you may notice reduced operating time because long-term battery life is decreasing.

⬤⬤◯◯ (yellow)	Fair — Battery can charge normally; however, it is near the end of its usable life. It is recommended that you purchase a new battery soon.
⬤◯◯◯ (red)	Poor — Battery no longer provides sufficient power. It is recommended that you replace this battery.
◯◯◯◯	Battery no longer operates, or battery status cannot be determined. It is recommended that you replace the battery.

> **NOTE: Health information is available only if the Dell batteries are attached to your system.**

Battery Settings

Dell Power Manager enables users to select a Battery Setting that is optimized for specific system usage patterns. For example, some settings focus on extending battery life, while others provide fast charge times.

> **NOTE: Battery settings can be modified only if the Dell batteries are attached to your system.**

Available settings may be limited depending on the battery. Possible battery settings include:

- **Standard** — Fully charges the battery at a moderate rate. This setting provides a balanced approach to extending battery life while still providing a reasonably fast charging time. Recommended for users who frequently switch between battery and external power sources.
- **ExpressCharge**™ — Quickly charges the battery using Dell fast-charge technology. Recommended for users who need the battery to charge quickly. If the system is powered off, then the battery typically charges to 80 percent within one hour and 100 percent in two hours. Charge time may be longer if the system is powered on.

  > **NOTE: The ExpressCharge™ setting may cause battery health to diminish more quickly than other settings.**

- **Primarily AC** — Extends battery life by lowering the charge threshold, so that the battery never charges to 100 percent capacity. Recommended for users who primarily operate the system while plugged into an external power source.
- **Adaptive** — Automatically optimizes battery settings based on the user's typical patterns. Recommended for users who want to "set it and forget it."
- **Custom** — User selects when the battery starts and stops charging. Recommended for advanced users.

Selecting A Battery Setting

1. On the **Battery Information** page, click the battery that you want to change (such as Battery #1 or Battery #2).

   > **NOTE: If Advanced Charge is enabled, you can only affect battery settings through the Advanced Charge screen.**
2. Click **Settings**.
3. Select a pre-configured battery setting, or select **Custom** to define your own settings.

   > **NOTE: Available settings may be limited depending on the battery.**
4. Click **OK** to save your changes, or click **CANCEL** to discard them.

Creating A Custom Battery Setting

The **Custom** battery setting enables users to define when a battery starts and stops charging. This setting is recommended for advanced users who are familiar with battery charging cycles.

> **NOTE: There should be a minimum difference between the Start Charging and Stop Charging values specified in your system's BIOS.**

1. Go to the **Battery Setting** page, and then click **Custom**.
2. Under **Start Charging**, move the slider to the percentage threshold at which the battery begins charging, or enter a number in the text box.

For example, entering `60` causes the battery to start charging when it depletes to 60 percent of the total available charge.

3. Under **Stop Charging**, move the slider to the percentage threshold at which the battery stops charging, or enter a number in the text box.

   For example, entering `90` causes the battery to stop charging when it reaches 90 percent of the total available charge.

4. Click **OK** to apply your settings, or click **CANCEL** to discard your changes and return to the **Battery Information** page.

Battery Charge Status

View a battery's charge status quickly by referring to the battery charge status indicator codes displayed beside the battery number on the **Battery Information** screen. For precise information on the percentage charged as well as the battery's charging and AC connection status, see the **Charge Status** information displayed below the battery number and directly below the battery graphic.

Table 2. Battery charge status indicator codes

Code	Power Remaining
●●●●	80–100 percent
●●●○	60–79 percent
●●○○	40–59 percent
●○○○	20–39 percent
○○○○	0–19 percent

NOTE: Charge Status is available only if Dell batteries are attached to your system.

Advanced Charge

Advanced Charge is an optional feature that prolongs the usable life of a system's batteries by charging them to full capacity only once per day, prior to the **Start of day** you establish when you Enable Advanced Charge. For the remainder of the day, Advanced Charge keeps batteries in a lower charge state that is better for storage, even when the system is plugged into a direct power source.

> **NOTE: If the hours assigned to Peak Shift and Advanced Charge overlap, then Peak Shift takes priority. Batteries will not charge during Peak Shift hours.**

Enabling Advanced Charge

Advanced Charge is not enabled by default. When Advanced Charge is enabled, the feature applies to all batteries in the system, and individual battery configuration is disabled.

1. Click the **Advanced Charge** tab in the left pane.

   > **NOTE: Hover your cursor over the icon if you want to see further information on Advanced Charge.**
2. To enable Advanced Charge, click the toggle at the top of the page to the **On** position.
3. Click the toggle for each day of the week to enable or disable Advanced Charge for each day.

   If you enable the Advanced Charge feature, you must configure the feature for at least one day.
4. To set the times of day when Advanced Charge is active and inactive, click **Settings**.

   > **NOTE: If you have not enabled Advanced Charge for a particular day, that day will not display on the Time Settings page, and you will not be able to set the Advanced Charge schedule for that day. Go back to the main Advanced Charge page and enable Advanced Charge for that particular day.**
5. In the **Time Settings** screen, click a day of the week. In the main portion of the page, you can use either the circular slider or the drop-down menus to set the time.

   > **NOTE: You can select times in 15-minute increments—for example, you can enter `11:15 AM` or `9:30 PM`.**

   The circular slider represents a 24-hour period. To use the circular slider:

   a. Slide the **Start of day** thumb control to the start time of a typical workday.
   b. Slide the **End of day** thumb control to the end time of a typical workday.

   > **NOTE: The segment of time displayed in blue represents the work period, or when the system is active.**

   Alternatively, you can use the drop-down menus to set the times:

   a. Select a time for **Start of day**.
   b. Select a time for **End of day**.
6. Select the **Copy the same settings to multiple days** check box. In the left pane, select the days to which these settings apply.
7. Click **OK** to save your settings, or click **CANCEL** to discard them.

Peak Shift

Peak Shift is an optional feature that reduces power consumption by automatically switching the system to battery power during certain times of the day, even if the system is plugged into a direct power source. After Peak Shift begins, the system will run on battery power until the combined charge level of all batteries reaches a minimum threshold. See Enabling Peak Shift for instructions on how to change these settings. Then, if the system is plugged in, it is powered by the direct power source; however, the battery will not charge until the Peak Shift ends.

Users can program the start and end times at which the Peak Shift feature is active and inactive each day.

NOTE: If the hours assigned to Peak Shift and Advanced Charge overlap, then Peak Shift takes priority. Batteries will not charge during Peak Shift hours.

Enabling Peak Shift

1. Click the **Peak Shift** tab in the left pane.

   NOTE: Hover your cursor over the **icon if you want to see further information on Peak Shift.**

2. To enable Peak Shift, click the toggle at the top of the page to the **On** position.

   NOTE: Your system BIOS already has a minimum threshold setting below which the system always draws AC power if it is available; this BIOS setting always takes precedence over any setting you enter here.

3. To select the percentage at which the system will **Restore AC power if available system charge falls below**, move the slider.

   For example, selecting 15 percent causes the system to switch from battery to AC power during Peak Shift if the power remaining falls below 15 percent.

   While the system runs as normal on AC (direct) power, the battery does not charge until Peak Shift ends.

4. To enable or disable Peak Shift for a specific day, click the toggle next to each day of the week.

   NOTE: If you have not enabled Peak Shift for a particular day, that day will not display on the Time Settings page, and you will not be able to set an Peak Shift schedule for that day. Go back to the main Peak Shift page and enable Peak Shift for that particular day.

5. To set the time of day when Peak Shift is active, click **Settings**.

6. On the **Time Settings** screen, click a day of the week. Using either the circular slider or the drop-down menus:

   NOTE: You can select times in 15–minute increments—for example, you can enter `11:15 AM` or `9:30 PM`.

   NOTE: The circular slider represents a 24-hour period.

   · **Activate Peak Shift**: Select the time you want Peak Shift to begin.

     NOTE: If you enable Operate only on AC, then the time between starting Peak Shift and operating on AC power is indicated in blue, and the time between starting to operate on AC power and ending Peak Shift is indicated in yellow. Green indicates the period of operation on AC power without charging the battery.

   · **Set a time at which the system begins to operate only on AC power without charging the battery**: Select the **Operate on AC power without charging battery** check box, then select the time that you want the system to start operating on AC power without charging the battery.

   · **End Peak Shift**: Select the time you want Peak Shift to end.

NOTE: The Copy the same settings to multiple days check box is automatically cleared once you leave the page.

7. Select **Copy the same settings to multiple days**. Then, in the left pane, select the days to which these settings apply.
8. To save your changes, click **OK**, or to discard them, click **CANCEL**.

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Thermal Management

📝 **NOTE: If your system does not support thermal settings, then the Thermal Management feature is not available.**

Dell Power Manager allows you to manage your system's processor and cooling fan settings so that you can manage performance, system surface temperature, and fan noise. Each option represents a different balance of these three elements. Choose the configuration that best suits the way you use your system.

⚠ **CAUTION: If a fan has failed, the Thermal Management feature is disabled.**

Table 3. Thermal Setting options

Setting	Description
Optimized	Balances performance, noise, and temperature.
Cool	Cooling fan speed is raised to maintain a cooler system surface temperature. Your system may produce more noise and experience reduced performance.
Quiet	Cooling fan and processor speeds are lowered to reduce fan noise. This configuration may also reduce system performance and raise system surface temperature.
Ultra performance	Both processor and cooling fan speeds are increased to produce higher system performance. This configuration may also produce more noise and higher system surface temperature.

Additional thermal setting options may be available through your operating system. Click **Control Panel** in the **Operating System Power Plan** box in the upper right of the **Thermal Management** page.

See Changing Thermal Management Settings for instructions on changing the thermal settings on your system using Dell Power Manager.

Changing Thermal Management Settings

To change the Thermal Management setting, do the following:

1. Click the **Thermal Management** tab in the left pane.
2. Click the radio button beside the thermal management setting you want to select.

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Battery Extender

Dell Power Manager's Battery Extender feature allows you to conserve battery charge.

📝 **NOTE: If your system does not support Reduce CPU Power (Quiet Thermal Setting), then the Battery Extender feature is not available.**

📝 **NOTE: Battery Extender only reports setting changes you make within the Battery Extender feature. Changes you make within the BIOS and operating system settings that affect battery charge consumption are not reflected within Battery Extender.**

📝 **NOTE: Battery Extender cannot be turned on when you have plugged the system into an electrical outlet.**

- Reduce CPU power level
- Screen brightness level
- Keyboard illumination level
- Mute audio

Use Battery Extender to affect the following:From the Battery Extender tab you can:

- Turn On or Off Battery Extender
- Access the Battery Extender Setting screen
- View your battery settings summary

Extending Battery Charge

Dell Power Manager's Battery Extender feature allows you to change the settings of some system functions that affect your system's battery consumption. To access Battery Extender:

1. Click the **Battery Extender** tab in the left pane.
2. Click the **Settings** button.
3. Click in the box beside the feature you want to affect, and where available, slide the slider or enter a percentage number to adjust the level of change you want to apply.
4. Click **OK** to apply your changes, or click **CANCEL** to discard your changes.
5. Click the toggle to the **On** position.

To restore any settings you have changed using Battery Extender, click **Restore Defaults**.

Turning Off Battery Extender

To turn off the Battery Extender feature:

📝 **NOTE: Turning off Battery Extender causes any setting changes you made to revert to those in effect at the time you turned on Battery Extender.**

1. Click the **Battery Extender** tab in the left pane.
2. Slide the control to the **Off** position.

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Alerts Settings

The Alert Settings feature in Dell Power Manager allows you to restore the default alert settings. Dell Power Manager supports the following types of alerts:

- Adapter Alerts
- Battery Alerts
- Docking Station Alerts
- Other Alerts
- Thermal Alerts

> **NOTE:**
> - This functionality works, only if the Service is installed.
> - Using this feature, you can stop displaying the individual alert by clicking the **Do not display this message again** option, and restore them if required.

Restoring Alert Defaults

To restore the alert defaults:

1. Click the **Alerts Settings** tab in the left pane.
2. Click on the **Restore Alert Settings** button. This feature restores the display of an alert, if you previously clicked the **Do not display this message again** option.
3. A confirmation dialog window pops up displaying the message **Are you sure you want to restore all alert settings?**
4. Click **Yes** to continue or **Cancel** to abort.

Administration

This chapter provides details about Dell Power Manager administrative features, including installation, uninstallation, and upgrade of the software.

Installing, Uninstalling, And Upgrading The Software

Dell Power Manager version 3.0 is factory-installed on supported systems.

There are two components to be installed for the product to function:

- Dell Power Manager Service Installer released as a Dell Update Package (DUP) available at Dell.com/support.
  You can install, uninstall, and upgrade Dell Power Manager using the Dell Update Package.
- Dell Power Manager software available at Windows Store.

> **NOTE: This service installer supports only 64-bit Operating System and is available only on Windows 10 Operating System.**

To install the Dell Power Manager Service, follow the steps mentioned below:

To download and extract the DUP:

> **NOTE: "DUP.exe" is a representation of the DUP file you will download.**

1. Download the DUP.exe file from dell.com/support.
2. Double-click the *.exe file to start the installation wizard.
3. Follow the steps in the wizard until you complete installation, or upgrade.

- Silent install
  ```
  DUP.exe /s
  ```
- Extract the DUP
  ```
  DUP.exe /s /e=C:\extractedDir
  ```
- Change the default log file location to a user-specified path
  ```
  DUP.exe /l="<C:\log path\log.txt>"
  ```

To install Dell Power Manager Service using the setup.exe file:

> **NOTE:**
> - You will need first to extract the DUP, and then navigate to the setup.exe file before proceeding with the following procedures.
> - Variables are italicized and enclosed in angle brackets. For example, for *<os arch>* enter `64` to indicate that you are installing on a 64–bit operating system.

- Standard install with verbose logging

  ```
  DPM_Setup<os_arch>_3_0_0.exe /v"/l*vx <log_file_path>"
  ```

  For example:

  ```
  DPM_Setup64_3_0_0.exe /v"/l*vx C:\Users\Administrator\Desktop\installlog.txt"
  ```

- Silent install

```
DPM_Setup<os_arch>_3_0_0.exe /s /v"/qn"
```

For example:

```
DPM_Setup64_3_0_0.exe /s /v"/qn"
```

- Silent install with verbose logging

```
DPM_Setup<os_arch>_3_0_0.exe /s /v"/l*vx <log_file_path> /qn"
```

For example:

```
DPM_Setup64_3_0_0.exe /s /v"/l*vx C:\Users\Administrator\Desktop\installlog.txt /qn"
```

- Uninstall

```
DPM_Setup<os_arch>_3_0_0.exe /x
```

For example:

```
DPM_Setup64_3_0_0.exe /x
```

> NOTE: Dell recommends uninstalling the application using the Windows Programs and Features screen available from the Control Panel. You can also uninstall the application using the Apps and Features screen available from the System Settings.

To install the complete software application, perform the following:

1. Click the **Windows Store** at the bottom of your screen, and sign in to the Store.
2. Click **Search**, and find **Dell Power Manager**.
3. On the **Dell Power Manager** page, click **Install**.
4. Click **Launch**.

Dell Power Manager launches, and you can now configure the power management capabilities of your system.

To uninstall the DPM Windows Store application, do the following:

1. Click on **Windows Start** button and select the **System Settings**.
2. On the **System Settings** page, select **Apps and Features**.
3. You can see the list of applications and features available on the system.
4. Now search for **Dell Power Manager**, click **Uninstall**.

Troubleshooting

Viewing the Event Log

Dell Power Manager logs errors and events in the Windows Event log.

1. Click the Windows Start button.
2. Click **Control Panel → Administrative Tools**.
3. Double-click the **Event Viewer** to open the application in a new window.
4. In the left pane, expand **Windows Logs**, and then click **Application**.
5. In the right pane, click **Filter Current Log...**.
   The **Filter Current Log** window displays.
6. In the **Event sources** drop-down menu, select **DellCommandPowerManager**.
7. Optionally, select one or more **Event level** options.
8. Click **OK** to display the errors and events of the specified levels.