Dell Power Manager
User's Guide
Opmerkingen, voorzorgsmaatregelen, en waarschuwingen

- **OPMERKING**: Een OPMERKING duidt belangrijke informatie aan voor een beter gebruik van het product.

- **WAARSCHUWING**: EEN WAARSCHUWING duidt potentiële schade aan hardware of potentiële gegevensverlies aan en vertelt u hoe het probleem can worden vermeden.

- **GEVAAR**: Een GEVAAR-KENNISGEVING duidt op een risico op schade aan eigendommen, lichamelijk letsel of overlijden.

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Inleiding

Dell Power Manager software biedt vereenvoudigde en efficiënte energiebeheeropties voor Dell laptops en tablets waarop het Windows 10-besturingssysteem wordt uitgevoerd.

Onderwerpen:

- Belangrijke functies
- Access Dell Power Manager

Belangrijke functies

- Batterijgegevens - Statusinformatie weergeven voor maximaal zes batterijen, afhankelijk van de mogelijkheden van het systeem, en batterij-instellingen wijzigen of een aangepaste batterij-instelling maken.
- Geavanceerd opladen - Opladen van de batterij beheren om de levensduur van de batterij te verlengen.
- Piekbelasting - Stroomverbruik reduceren door het systeem automatisch op batterijstroom over te schakelen gedurende bepaalde tijden van de dag, zelfs als het systeem op een directe stroombron is aangesloten.
- Temperatuurbeheer - Hiermee beheert u de instellingen voor processor en ventilator, met als doel het beheren van prestaties, oppervlakte-temperatuur van het systeem en ventilatorgeluid.
- Batterijverlenger - Batterijlading besparen door het verlagen van het vermogensniveau van de CPU, de helderheid van het scherm en de verlichting van het toetsenbord en door het dempen van audio.
- Waarschuwingeninstellingen - Hiermee herstelt u de standaard waarschuwingeninstellingen.

Access Dell Power Manager

To open the Dell Power Manager application, 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.
NOTE: If a non-Dell battery is attached to your system, the battery graphic is displayed as orange color.

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) and scroll down to see any additional batteries your system may contain.

You can also order a replacement battery.

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

Topics:

- Battery health
- Battery settings
- Battery charge status

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Filled icons]</td>
<td>Excellent — Battery is operating at maximum capacity.</td>
</tr>
<tr>
<td>![Partial filled icon]</td>
<td>Good — Battery can charge normally; however, you may notice reduced operating time because long-term battery life is decreasing.</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>⚪ ⚪ ⚪ ⚪</td>
<td>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.</td>
</tr>
<tr>
<td>⚪ ⚪ ⚪ ⚪</td>
<td>Poor — Battery no longer provides sufficient power. It is recommended that you replace this battery.</td>
</tr>
<tr>
<td>⚪ ⚪ ⚪ ⚪</td>
<td>Battery no longer operates, or battery status cannot be determined. It is recommended that you replace the battery.</td>
</tr>
</tbody>
</table>

**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 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.

### Select 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 access battery setting 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.

### Create 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>
<thead>
<tr>
<th>Code</th>
<th>Power Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>🟢🟦🟦🟦</td>
<td>80–100 percent</td>
</tr>
<tr>
<td>🟢🟦🟦</td>
<td>60–79 percent</td>
</tr>
<tr>
<td>🟢🟦</td>
<td>40–59 percent</td>
</tr>
<tr>
<td>🟢</td>
<td>20–39 percent</td>
</tr>
<tr>
<td>🟢</td>
<td>0–19 percent</td>
</tr>
</tbody>
</table>

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:** Als de uren die zijn toegewezen aan Piekbelasting en Geavanceerd opladen overlappen, heeft Piekbelasting voorrang. Batterijen worden tijdens piekbelastingsuren niet opgeladen.

### Enable 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 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:** Als de uren die zijn toewezseen aan Piekbelasting en Geavanceerd opladen overlappen, heeft Piekbelasting voorrang. Batterijen worden tijdens piekbelastingsuren niet opgeladen.

Enable 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.

   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.
To save your changes, click **OK** or to discard them, click **CANCEL**.
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>
<thead>
<tr>
<th>Table 3. Thermal setting options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Setting</strong></td>
</tr>
<tr>
<td>Optimized</td>
</tr>
<tr>
<td>Cool</td>
</tr>
<tr>
<td>Quiet</td>
</tr>
<tr>
<td>Ultra performance</td>
</tr>
</tbody>
</table>

**NOTE:** Enabling or disabling the Ultra performance mode, displays a notification on your system.

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**

Perform the following to change the thermal management setting:

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

Topics:
- Extend battery charge
- Turn off battery extender

### Extend 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.

### Turn 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.
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:** The alert settings function only if the service is installed.

**NOTE:** To enable or disable the display of specific alerts, click Continue to display this message or Do not display this message again options respectively.

### Restore alert defaults

Perform the following steps to restore the alert defaults:

1. Click the Alerts Settings tab in the left pane.
2. Click Restore Alert Settings. This feature restores the display of an alert if you previously clicked the Do not display this message again option.
   A confirmation dialog window displays the message Are you sure you want to restore all alert settings?
3. Click Yes to continue or Cancel to abort.
Install, uninstall, and upgrade Dell Power Manager

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

Dell Power Manager is factory-installed on supported systems. If you do not have Dell Power Manager installed on your system, you can install it from the Dell support site or from the Microsoft Store.

Dell Power Manager Service Installer is released as a Dell Update Package (DUP) available at Dell.com/support and Dell Update Catalog.

You can install, uninstall, and upgrade Dell Power Manager using the Dell Update Package.

**NOTE:** This service installer supports only 64-bit operating systems and is available only for the Windows 10 operating system.

Topics:
- Install Dell Power Manager from the Microsoft Store
- Install Dell Power Manager from the Dell support site
- Install Dell Power Manager using the command prompt
- Uninstall Dell Power Manager
- Uninstall Dell Power Manager using the command prompt

### Install Dell Power Manager from the Microsoft Store

Perform the following to install Dell Power Manager:

1. Open Microsoft Store from the Windows Start menu, and sign in to the Store.
2. Select Search, and find Dell Power Manager.
3. On the Dell Power Manager page, select Install.
   The Dell Power Manager application is installed in your system.
4. Click Launch.
   A message is displayed to confirm whether you want to install the service.
5. Select Download.
   Dell Power Manager is launched and the service is installed in your system. You can now configure the power management capabilities of your system.

**NOTE:** If you select Skip, instead of all the supported features of the application, only the battery information of your system is displayed in the application.

### Install Dell Power Manager from the Dell support site

To install Dell Power Manager, you have to download and extract the Dell Update Package (DUP) from Dell.com/support.

Perform the following steps to install Dell Power Manager from support site:

1. Go to Dell.com/support.
2. Download the DUP.EXE file.
3. Double-click the *.EXE file to start the installation wizard.
4. Follow the steps in the wizard until you complete the installation or upgrade.
Install Dell Power Manager using the command prompt

1. **NOTE:** Ensure that you extract the Dell Update Package (DUP), and then navigate to the setup.exe file.

2. **NOTE:** 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.

To install Dell Power Manager, run the following commands:

- **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>"
  ```

- **Standard install with verbose logging**
  
  ```
  DPM_Setup<os_arch>_3_3_0.exe /v"/l*vx <log_file_path>"
  ```
  
  For example:
  
  ```
  DPM_Setup64_3_3_0.exe /v"/l*vx C:\Users\Administrator\Desktop\installlog.txt"
  ```

- **Silent install**

  ```
  DPM_Setup<os_arch>_3_3_0.exe /s /v"/qn"
  ```
  
  For example:
  
  ```
  DPM_Setup64_3_3_0.exe /s /v"/qn"
  ```

- **Silent install with verbose logging**

  ```
  DPM_Setup<os_arch>_3_3_0.exe /s /v"/l*vx <log_file_path> /qn"
  ```
  
  For example:
  
  ```
  DPM_Setup64_3_3_0.exe /s /v"/l*vx C:\Users\Administrator\Desktop\installlog.txt /qn"
  ```

### Uninstall Dell Power Manager

Perform the following steps to uninstall Dell Power Manager:

1. **Open the Windows Start menu, and search for Apps and Features.**

   The list of applications and features available on the system appears.

2. **Search for Dell Power Manager Service and select Uninstall.**

   Dell Power Manager is uninstalled from your system.

   **NOTE:** Uninstalling the Dell Power Manager Service also uninstalls the application from your system.

   **NOTE:** In Windows 7, uninstall the application using the Windows Programs and Features option available in the Control Panel. However, in Windows 10, uninstall the application using the Apps and Features option available in Settings.
Uninstall Dell Power Manager using the command prompt

To uninstall Dell Power Manager using the `setup.exe` file, run the following command:

```
DPM_Setup<os_arch>_3_3_0.exe /x
```

For example:

```
DPM_Setup64_3_3_0.exe /x
```
View 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.