

HP Business Notebooks

Enabling Battery Health Manager in Your Environment



HP Battery Health Manager is a BIOS level setting designed to mitigate exposure to key factors that can accelerate degradation and chemical aging over time in notebook batteries. This setting is available in most HP Business Notebooks. This whitepaper will cover the multiple ways that HP Battery Health Manager can be enabled on your HP Business Notebooks in your install base.

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Lithium-Ion Batteries & Battery Degradation

As with all batteries, lithium-ion polymer batteries can degrade over time, causing the battery to become less efficient. Over time, measured amounts of battery degradation is normal and accounted for in the design of the battery and the notebook. However, specific factors can accelerate battery degradation, resulting in reduced battery life and performance. Two such factors are:

- Keeping the battery consistently in a high state-of-charge over a long period of time. Charging a notebook, without ever removing it from AC power and allowing the battery to discharge, consistently leaves the lithium-ion battery in a high state-of-charge. This creates additional stress on the battery.
- Exposure to high temperatures (above 35°C / 95°F).

HP Battery Health Manager Overview

Available in most HP Business Notebooks, the HP Battery Health Manager is a BIOS level setting designed to help mitigate the exposure of the notebook battery to key factors that can accelerate battery swelling over time—such as, high state-of-charge and long-term exposure to elevated temperatures. Based on usage environment and/or the age of the notebook, HP recommends that customers enable HP Battery Health Manager to one of the two options below.

Let HP Manage My Battery Charging: This setting dynamically changes how the system charges the battery based upon usage conditions and temperature over time. This setting:

- Is ideal in mixed-use environments where the notebook is regularly taken off of AC power and the battery is allowed to discharge.
- Takes the guesswork out of the process for your organization.
- Should be used on all new notebooks or notebooks that are less than a year old.

Maximize My Battery Health: This setting limits the maximum state-of-charge on the notebook battery to 80%, which has been proven to optimize battery health and helps mitigate battery swelling due to high state-of-charge. This setting:

- Is ideal in environments where the notebooks are continually plugged into AC power and seldom removed and allowed to discharge (including remote office environments).
- Should be used on notebooks that are one-year old or older (older systems may have been exposed to accelerating factors such as high state-of-charge over time).

Important Experience Change to **Maximize My Battery Health** – Fall 2021

- For HP devices running older versions of their BIOS firmware, the 'Maximize My Battery Health' setting results in the Windows Icon Tray displaying a maximum battery charge level of 80% when the battery is fully charged. For devices running the latest HP BIOS firmware, operating with the 'Maximize My Battery Health' setting will result in the Windows Icon Tray displaying a maximum charge level of 100% when fully charged.
- The 'Maximize My Battery Health' feature limits a battery's then-current full charge capacity to 80% for optimized battery health. However, for a simpler user experience, we have enabled the battery indicator within Windows to show a full charge of 100%.
- The latest version of HP Power Manager (version 2.1.24), comes equipped with the option to allow users to enable 'Maximize My Battery Health' from the HP Power Manager Windows application. This change allows users to promote battery health without entering the device's BIOS settings in the F10 menu. Users may opt to use the convenient HP Power Manager Windows application to manage their battery preferences or make the changes in the F10 BIOS menu.

BIOS Requirements

HP Battery Health Manager is available on all HP Business Notebooks from 2016 to today. If HP Battery Health Manager is not shown in your BIOS (F10 > Advanced > Power Management Options), then you will need to update your BIOS to the minimum requirement for your platform(s). To identify the minimum BIOS version that contains HP Battery Health Manager, please visit: <https://support.hp.com/us-en/document/c06179452>

HP Client Management Solutions

HP offers a number of tools that make managing your install base simple, including, but not limited to:

- HP Manageability Integration Kit (MIK) for Microsoft System Center Configuration Manager
- HP BIOS Configuration Utility

These utilities can be found on our Client Management Solutions download page:

<https://www8.hp.com/us/en/ads/clientmanagement/download.html>

Enabling / Changing Settings in HP Battery Health Manager

Customers with HP Battery Health Manager in their BIOS can update their Battery Health Manager settings manually or by using one of the Microsoft or HP client manageability tools. It is important that customers proactively enable the correct settings of the HP Battery Health Manager based upon the usage environment and/or the age of the notebooks in their install base.

While newer systems from HP have the HP Battery Health Manager enabled at the factory, older notebooks will require these settings to be manually enabled to ensure your install base is protected.

HP Tools

Customers with HP Battery Health Manager in their BIOS can update their Battery Health Manager settings with these HP utilities:

1. HP Client Management Script Library (CMSL)
2. HP MIK for System Center Configuration Manager (SCCM)
3. HP Bios Configuration Utility (BCU)
4. HP Battery Health Manager BIOS Setting Update
5. HP Image Assistant (HPIA)
6. HP System Software Manager (SSM)
7. HP Client Updates Catalog
8. HP Support Assistant

HP Client Management Script Library (CMSL)

Customers using Microsoft PowerShell can use the HP CMSL and a single command from a built-in module to change the setting in HP Battery Health Manager.

Important Note:

To use the script library, it must be installed on the client device and the PowerShell execution policy must be appropriately set. For more information, please see the HP CMSL online documentation and FAQ located at:

<https://developers.hp.com/hp-client-management/doc/FAQ>

Usage:

The following examples show some of the capabilities of HP CMSL. A comprehensive list of HP CMSL HP BIOS setting options and commands is available online at: <https://developers.hp.com/hp-client-management/doc/understanding-hp-bios-settings>

- To obtain the current BIOS setting for HP Battery Health Manager, use the CMSL Get-HPBIOSSettingValue command:

```
> Get-HPBIOSSettingValue 'battery health manager'
```

- To set HP Battery Health Manager to “Let HP manage my battery charging,” use the Set-HPBiosSettingValue command:

```
> Set-HPBiosSettingValue -name "Battery Health Manager" -value "Let HP manage my battery charging"
```

- Additionally, if desired, the latest BIOS revision can be retrieved from HP with the Get-HPBIOSUpdates CMSL command. For details, visit <https://developers.hp.com/hp-client-management/doc/get%E2%80%90hpbiosupdates>. This example uses Get-HPBIOSUpdates to download the most recent BIOS release, flash it on the target system, and suspends BitLocker drive encryption for one reboot. Please note that updating to the most current BIOS will automatically change the default setting from “Maximize My Battery Duration” to “Let HP Manage My Battery Charging” on older systems with HP Battery Health Manager.

```
> Get-HPBIOSUpdates -Flash -bitlocker suspend -Yes
```

- Get-HPBIOSUpdates also supports a download switch that will download the BIOS file for use with the Update-HPFirmware command:

```
> Get-HPBIOSUpdates -download
```

- Once a BIOS capsule BIN file has been downloaded, a client system can be updated with the Update-HPFirmware command (for details, visit <https://developers.hp.com/hp-client-management/doc/update%E2%80%90hpfirmware>), which can update the system firmware from a capsule or BIOS BIN file:

```
> Update-HPFirmware [-File <FileInfo>] [[-Password] <String>] [[-Quiet]] [[-Bitlocker] <String>] [[-FilenameHint] <String>] [[-Force]]
```

For more information on the capabilities of how the HP Client Management Script Library (HP CMSL) can help you manage HP platforms and additional examples please refer to the documentation at: <https://developers.hp.com/hp-client-management/doc/FAQ>

HP MIK for System Center Configuration Manager (SCCM)

The MIK for Microsoft’s SCCM console adds significant management capability to SCCM. One of these additional capabilities is the ability to deploy BIOS settings policies. MIK documentation can be found at: <https://ftp.hp.com/pub/caps-softpag/cmit/whitepapers/HP%20Manageability%20Integration%20Kit%20User%20Guide.pdf>

The HP MIK consists of two components, which can be found at <https://ftp.hp.com/pub/caps-softpag/cmit/HPMIK.html>. These components are:

- A console plug-in
- A client-side set of Windows Management Instrumentation (WMI) providers

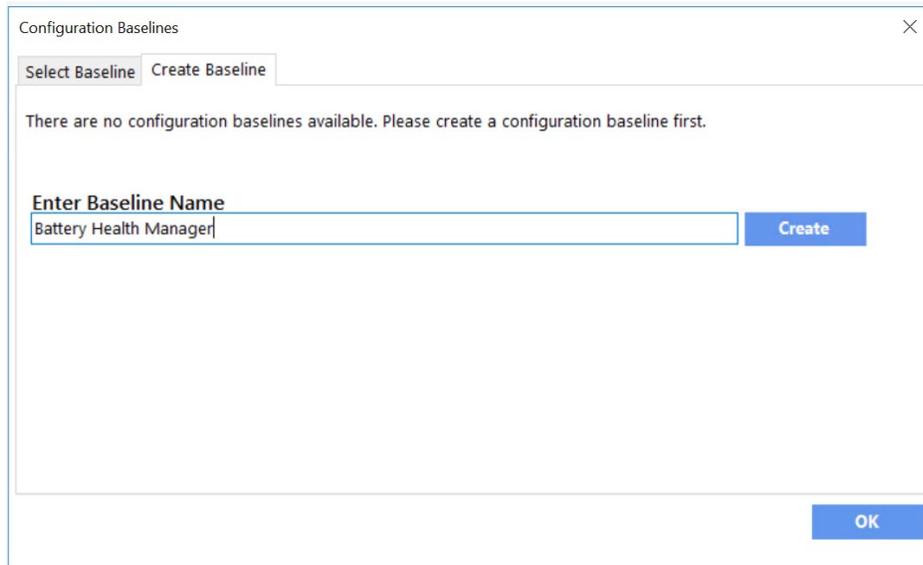
Important Note:

- Both components are required to manage HP systems. The console plug-in helps create management policies; the client-side WMI providers must be installed on the managed clients to apply the policies.
- Once the MIK console is installed, it can be used to enforce a BIOS setting change. The MIK client must be installed on systems intended to be managed by the MIK.

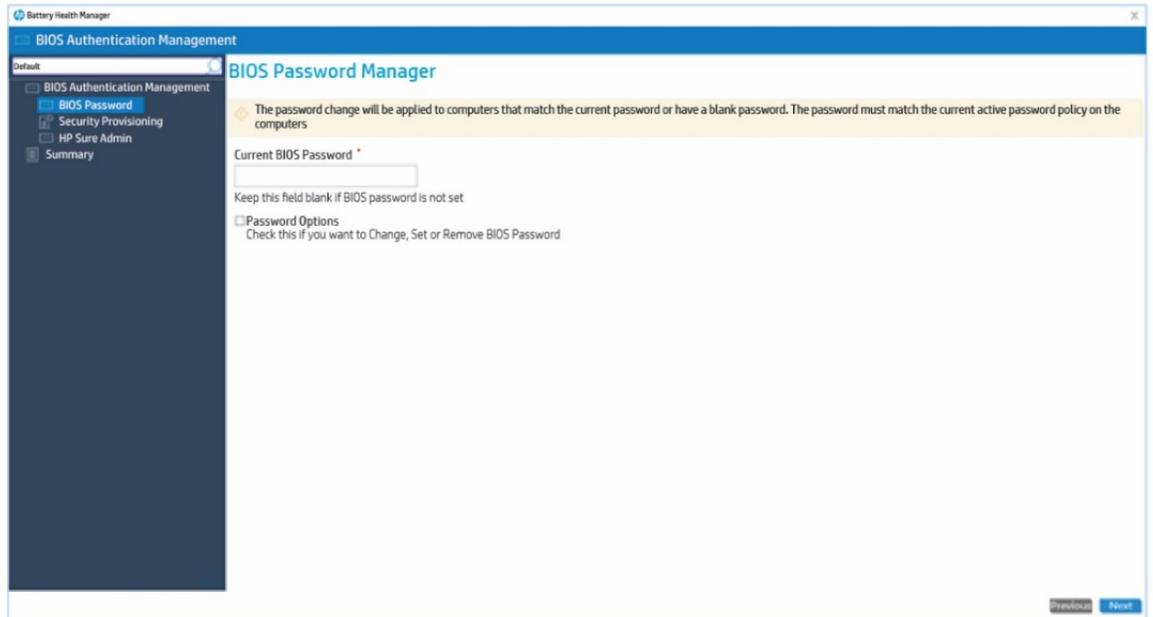
Usage:

To use the MIK to change the Battery Health Manager BIOS setting:

1. Open the SCCM console.
2. Navigate to **Assets and Compliance**.
3. Expand the **HP Manageability Integration Kit** tree and select **BIOS Configuration**.
4. In the right-hand side pane, select **Create Policy**.
5. On the **Configuration Baselines** pop-up, enter a baseline name, and then select **Create**.



7. Enter the appropriate BIOS authentication options into the **BIOS Authentication Management** wizard (for details on various options, please see the section for **HP BIOS Authentication** in [MIK Documentation](#)).



8. On the **Summary** screen, review the policy and, if correct, click **Save Policy**.

Battery Health Manager

BIOS Authentication Management

Default

- BIOS Authentication Management
- BIOS Password
- Security Provisioning
- HP Sure Admin
- Summary**

Summary

Almost done. Let's make sure all settings are correct.

Settings	Values	Actions
<ul style="list-style-type: none"> BIOS Password 2 Setting(s) BIOS Password Manager Action Current BIOS Password 	<ul style="list-style-type: none"> Enter Current BIOS Password Not Set 	<ul style="list-style-type: none"> Edit Edit
<ul style="list-style-type: none"> Security Provisioning 3 Setting(s) Select provisioning type Signing Key Key Enrollment Certificate 	<ul style="list-style-type: none"> Initial provisioning 	<ul style="list-style-type: none"> Edit Edit Edit
<ul style="list-style-type: none"> HP Sure Admin 3 Setting(s) Enable Enhanced BIOS Authentication Mode 	<ul style="list-style-type: none"> Disabled 	<ul style="list-style-type: none"> Edit

Previous Save Policy

Battery Health Manager

HP BIOS Configuration

Default

- HP BIOS Configuration**
- Summary

Category View List View

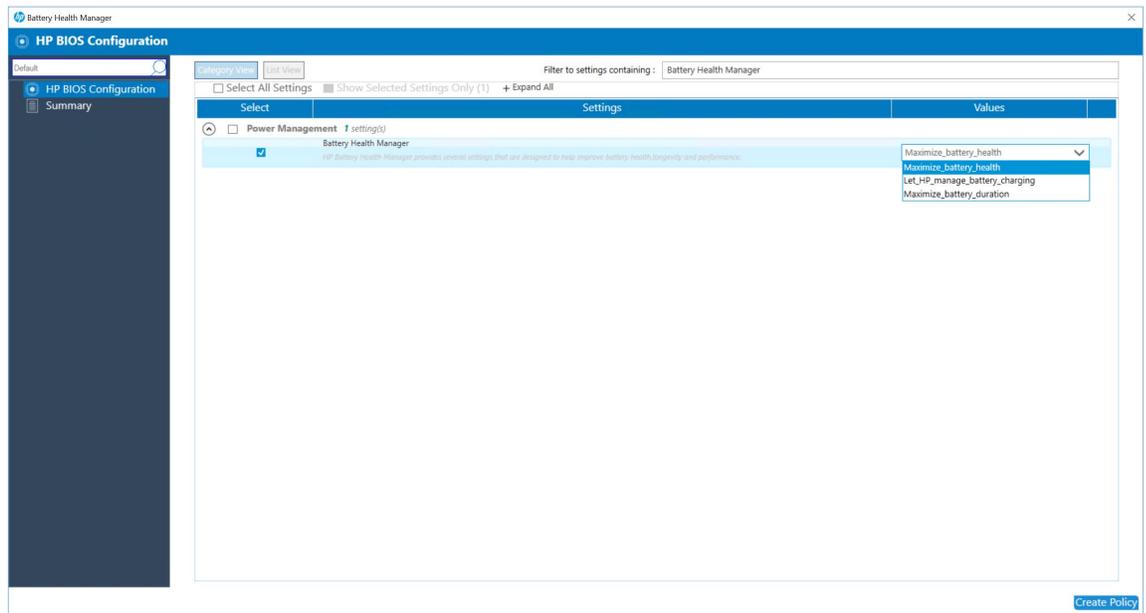
Filter to settings containing: Battery Health Manager

Select All Settings Show Selected Settings Only (0) + Expand All

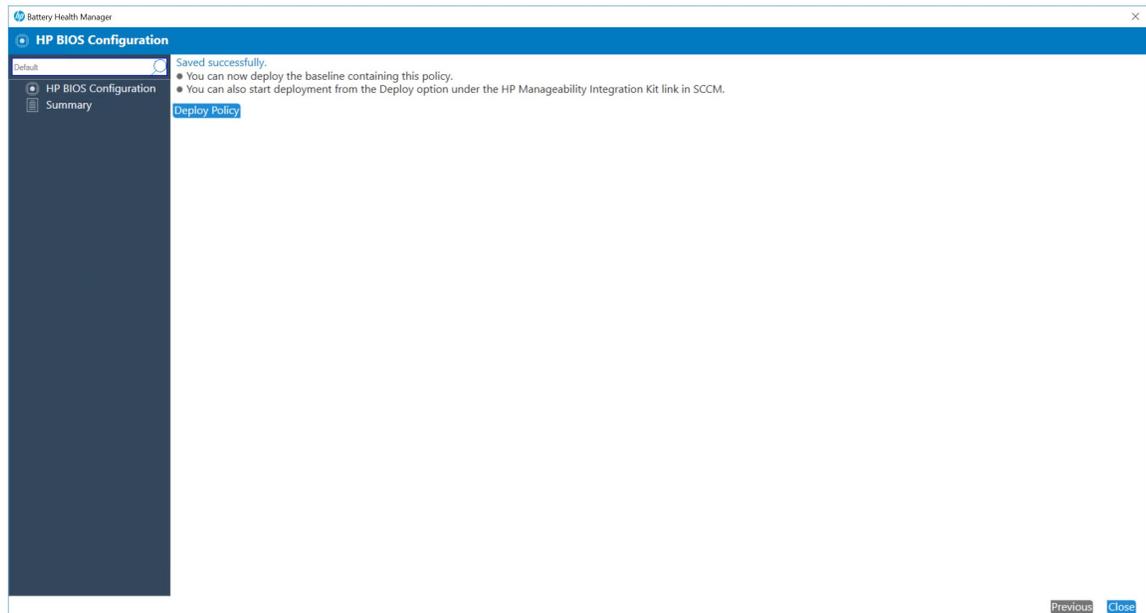
Select	Settings	Values
<ul style="list-style-type: none"> <input type="checkbox"/> Power Management 1 setting(s) <input type="checkbox"/> Battery Health Manager 	<ul style="list-style-type: none"> HP Battery Health Manager provides several settings that are designed to help improve battery health, longevity and performance. 	<ul style="list-style-type: none"> Maximize_battery_health

Create Policy

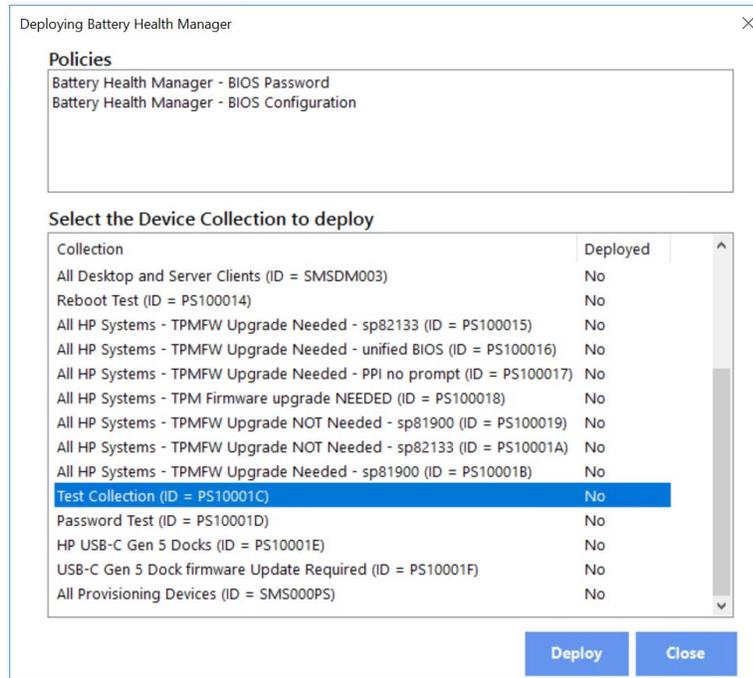
10. Check the box next to **Battery Health Manager**, and then select **Let_HP_manage_battery_charging** from the drop-down arrow on the right-hand side of the screen.



12. Review the **Summary** screen and, if correct, click **Save Policy**.
13. To deploy the policy, click **Deploy Policy**.



14. Select the desired collection, and then click **Deploy**.



The HP BCU can be used to change the settings of the HP Battery Health Manager via a REPSET file. The REPSET file is a text file that contains the BIOS setting data formatted in such a way that it can be utilized by BCU.

Usage:

- The following example shows how to perform a command line execution of BCU with a REPSET file:

```
> BiosConfigUtility64.exe /set:biosfile.txt
```

- The REPSET file contains formatted BIOS setting information. The following example shows the data needed to change the HP Battery Health Manager setting:

Biosfile.txt contents:

```
Bios BIOSConfig 1.0  
  
;  
  
Battery Health Manager  
  
    Maximize my battery health  
  
    *Let HP manage my battery charging  
  
    Maximize my battery duration
```

Note:

- "Biosfile" is the file name created for this example and is not mandatory—the actual name of the file is not important.
- Use <tab> instead of <spaces> for each entry at the beginning of a line.

A detailed user guide for HP BCU and how to create and use a REPSET file is available online at:
https://ftp.hp.com/pub/caps-softpaq/cmit/whitepapers/BIOS_Configuration_UTILITY_User_Guide.pdf

HP Battery Health Manager BIOS Setting Update

The recommended BIOS setting change is also available as a SoftPak to be run interactively or silently via other tools such as:

- HP Image Assistant
- HP System Software Manager
- Microsoft Endpoint Configuration Manager with HP Client Updates Catalog

The SoftPak contains the following files:

File Name	Description
BatteryHealthManager.exe	The tool to update <i>Battery Health Manager</i> BIOS setting value (the tool)
Install.exe	The executable that will add the tool and related file to the appropriate program files folder. If a 64-bit operating system: %Program Files (x86)%\HP\HP Battery Health Manager Patch If a 32-bit operating system: %Program Files%\HP\HP Battery Health Manager Patch
Install.cmd	The helper command file
Readme.txt	The detailed documentation on the tool

Important Note:

- If the system has a BIOS Administrator password (Setup Password) enabled or HP Sure Admin configured, then BatteryHealthManager.exe will not be able to change the Battery Health Manager BIOS setting.

To make this change on a system that has a BIOS Administrator password (Setup Password) or HP Sure Admin configured, then please follow recommended steps in: <https://developers.hp.com/hp-client-management/blog/improving-battery-health-battery-health-manager>
- The BatteryHealthManager.exe tool requires administrator rights to run.
- By default, this tool only runs once, unless the **/FORCE** parameter is provided. When the Softpak is executed, the **/FORCE** parameter is added.

Usage:

1. Open the folder containing the application.
2. Right-click the tool to run as an administrator.
 - a. An alternate method is to run as a typed-in command line. Example: C:\Program Files (x86)\HP\HP Battery Health Manager Patch\BatteryHealthManager.exe
3. The output will confirm if the patch was successfully installed or if it is not applicable (see return codes section for non-applicable scenarios).

Return Codes:

File Name	Description
0	Success - BIOS setting has been applied successfully or Patch not applicable
32	Generic error
33	Exception occurred
34	Access denied
35	Registry operation failed
36	WMI operation failed

Registry Patch Status Codes:

When BatteryHealthManager.exe tool runs, it will log a status code in the registry key
HKEY_LOCAL_MACHINE\SOFTWARE\HP\HP Battery Health Manager Patch\Status.

Status	Description
0	BIOS setting has been applied successfully
3	Non-HP system
4	No batteries
5	Non-HP Commercial BIOS; this patch requires an EliteBook, Elite x2, ProBook, Pro x2, Mobile Workstation, Mobile Thin Client, or Zhan 66 BIOS
7	Skip patch - BIOS admin password has been set
8	Skip patch - Sure Admin has been enabled
9	Battery Health Manager BIOS setting is not available; please update to latest BIOS

The next three sections show the SoftPaaS in different HP tools for additional convenient adoption options.

HP Image Assistant (HPIA)

HPIA provides recommendations to help you develop, maintain, and support PC images for an optimal Windows performance. HPIA documentation can be found at: <https://ftp.hp.com/pub/caps-softpaq/cmit/whitepapers/HPIAUserGuide.pdf>

Important Note:

To ensure that the BIOS setting will exist on supported systems, BIOS updates may need to be installed first. Then restart the system and apply the BIOS setting update.

Usage:

HPIA has two options for this procedure:

- Analyze Image: HPIA analyzes the current system and gives appropriate recommendations of firmware, driver and software updates.
- Download SoftPaqs: HPIA can provide updates for selected system(s) and operating system(s) when no analysis of a specific system is required.

Analyze Image

When running the HPIA Analyze Image option, HPIA will recommend the BIOS setting update for the appropriate systems and operating systems, as in the screenshot below.

Components	Comments	Target Image	Reference Image	SoftPaq	Installation Type	Installation Notes
BIOS Settings						
Setup Password	Set BIOS password to improve se	Not Set	Set			
Software						
HP Notifications	HP install recommended	Not Installed	1.1.25.1	sp107474	Unattended	
System Default Settings for Windows 10	HP install recommended	Not Installed	1.4.14	sp106092	Unattended	
Firmware						
HP Battery Health Manager BIOS Setting Update	HP install critical	Not Installed	1.0.2.1	sp110138	Unattended	
Drivers						
Intel(R) UHD Graphics	HP update recommended	26.20.100.7985	27.20.100.8190	sp195567	Unattended / INF	
Standard PS/2 Keyboard	HP update recommended	10.0.18362.3	11.1.4.0	sp102813	Unattended / INF	
Intel(R) Display Audio	HP update recommended	10.27.0.8	10.27.0.9	sp102562	Unattended / INF	
Intel(R) Wi-Fi 6 AX201 160MHz	HP update critical	21.80.2.1	21.110.1.1	sp107264	Unattended / INF	
Intel(R) Serial IO GPIO Host Controller - INT3400	HP update recommended	30.100.1816.3	30.100.2070.7	sp197505	Unattended / INF	
Intel(R) IPS5 I2C Controller #0 - 02E8	HP update recommended	10.1.27.3	30.100.2020.7	sp102705	Unattended / INF	
Intel(R) IPS5 I2C Controller #1 - 02E9	HP update recommended	10.1.27.3	30.100.2020.7	sp102705	Unattended / INF	
Synaptics F57604 Touch Fingerprint Sensor with PurePr...	HP update recommended	6.0.12.1110	6.0.23.1110	sp107321	Unattended / INF	
Mobile Broadband Firmware Device	HP update recommended	10.0.18362.1	18660.5001.235.74.01	sp194125	Unattended	
HP HD Camera	HP update recommended	5.0.8.25	5.0.8.29	sp102582	Unattended / INF	
HP IR Camera	HP update recommended	5.0.8.25	5.0.8.29	sp102582	Unattended / INF	
Intel(R) Wireless Bluetooth(R)	HP update recommended	21.70.0.3	21.110.0.3	sp107300	Unattended / INF	

Note: If the system has an old BIOS version and a new BIOS update is recommended, please click the *BIOS Settings* tab (check both **The Same** and **Different** boxes, and then search for **battery health**).

If the Target Image setting value is **Maximize my battery duration**, the update can be downloaded and installed with other updates. As in the screenshot below, click **Download**, and then select the desired options.

If there is no Battery Health Manager setting:

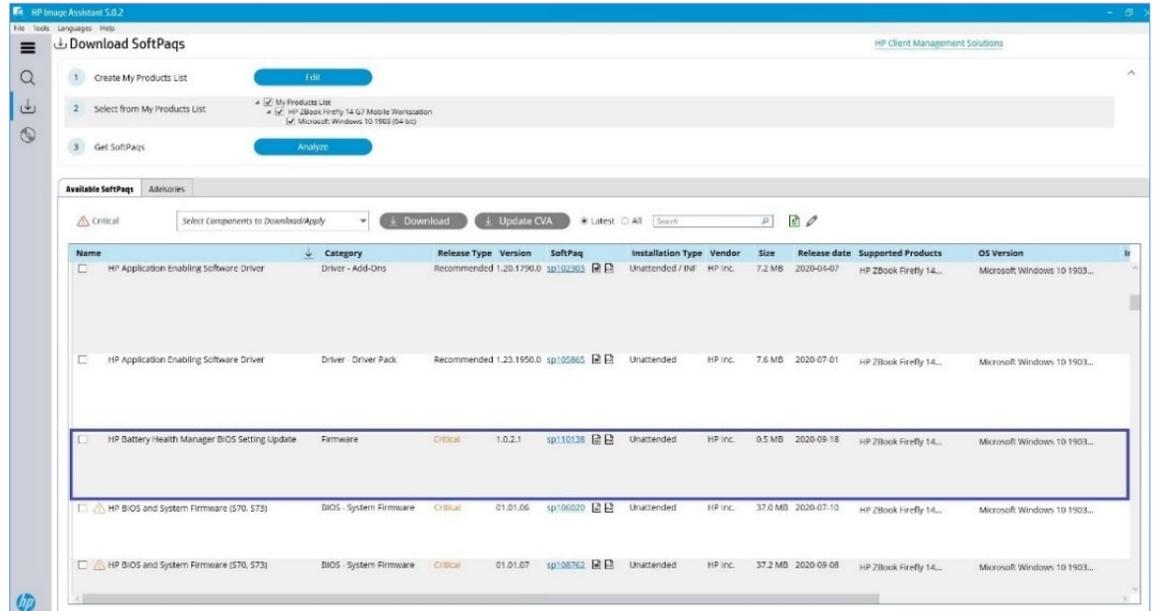
1. Select the BIOS update recommended by HPIA.
2. Download and install the BIOS update.
3. Restart the system for the BIOS update to take effect.
4. Run HPIA again and verify that the setting exists.
5. Then apply the HP Battery Health Manager BIOS Setting Update, as in the screenshot below.

Name	Path	Value
Battery Health Manager	\Advanced\Built-In Device Options	Target Image: Maximize my battery duration Reference Image: Let HP manage my battery charging

Please note the category Firmware if you are filtering on specific categories on the command line in environments that run HPIA command line as part of a script or task sequence or scheduled task.

Download SoftPaqs

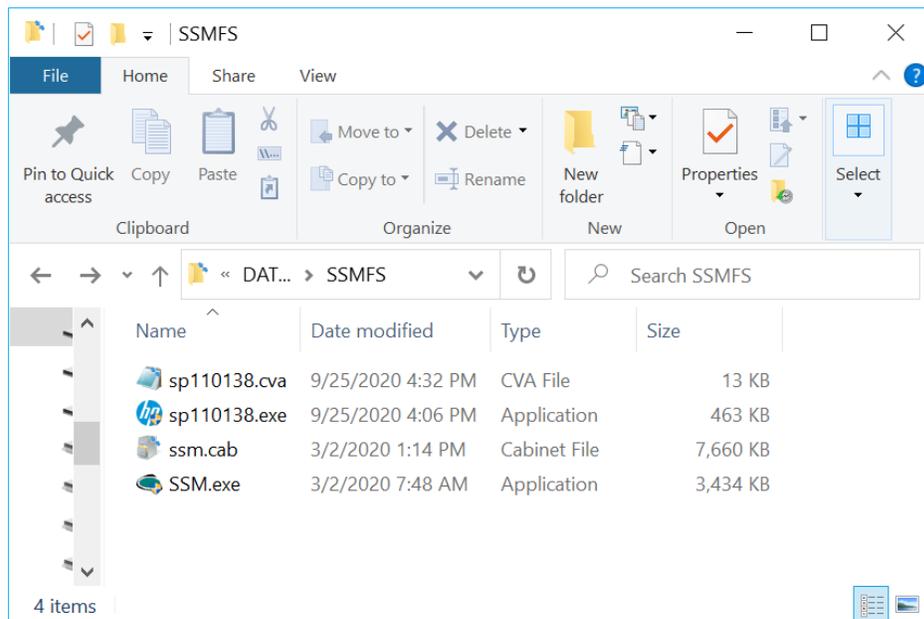
When Download SoftPaqs is selected instead of analyzing a client system, this update will be in the list of recommended SoftPaqs for the systems that need the update as in the screenshot below. Be sure to download it and apply it to the supported systems.



HP System Software Manager (SSM)

HP SSM is a lightweight utility to help the installation of multiple applicable SoftPaqs on an HP system. The utility is used with a file store containing SSM files and all desired SoftPaqs for supported systems. The SSM checks for applicability and then installs the applicable SoftPaqs. For more information about SSM usage and configuration, please see: http://ftp.hp.com/pub/caps-softpaq/cm/whitepapers/SSM_UserGuide.pdf

The following screenshot shows a simple example of an SSM file store with Battery Health Manager BIOS Setting Update SoftPaq files.



- SSM.exe can be run locally or from a network drive. For example:

```
> C:\SSMFS\SSM.exe c:\SSMFS /accept
```

```
> \\myserver\SSMFS\SSM.exe \\myserver\SSMFS /accept
```

For environments that do not apply the latest BIOS updates regularly, it is recommended to update BIOS to the latest version, restart systems for the latest BIOS to take effect to ensure the existence of this BIOS setting, then apply this SoftPkg.

HP Client Updates Catalog

HP Client Updates Catalog is available in:

- **Third-Party Software Update Catalogs** node of Microsoft Endpoint Configuration Manager (MECM)
- System Center Updates Publisher (SCUP)

Important Note:

This setup requires Microsoft Windows Server Update Services (WSUS) and the appropriate configuration. Please see the following link for further information on MECM software update management and necessary configuration:

<https://docs.microsoft.com/en-us/mem/configmgr/sum/>

Please see the following link for information on how to enable third-party software updates, third-party catalog subscription, and synchronization:

<https://docs.microsoft.com/en-us/mem/configmgr/sum/deploy-use/third-party-software-updates>

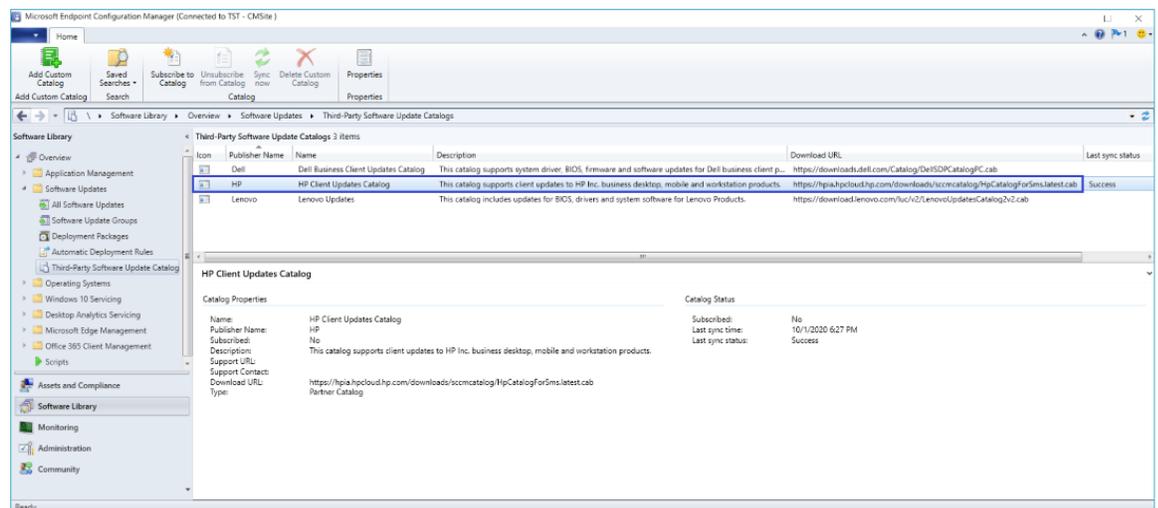
The following Updates Publisher software can also be used to import the catalog instead of catalog subscription directly in MECM:

<https://docs.microsoft.com/en-us/mem/configmgr/sum/tools/updates-publisher>

Usage:

Third-Party Software Update Catalogs node of MECM

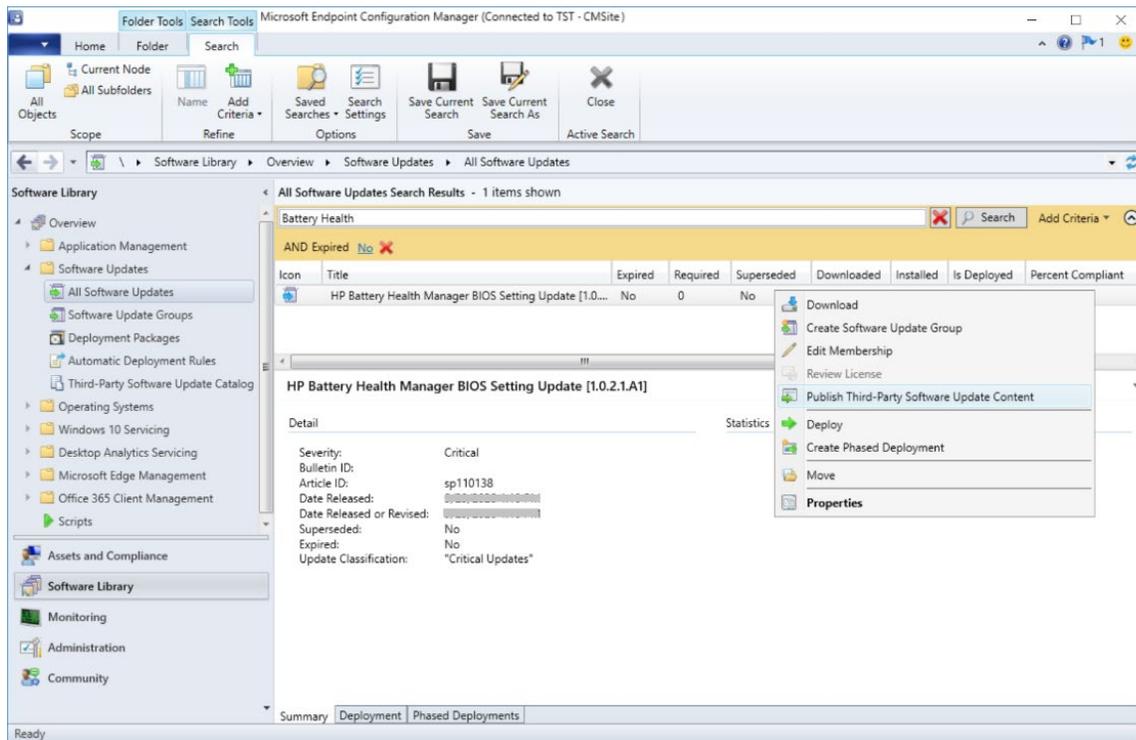
HP Client Updates Catalog will include HP Battery Health Manager BIOS Setting Update as a software update. In MECM console, the catalog is available for subscription and sync, as in the screenshot below.



After the catalog has been subscribed and sync'd between WSUS and MECM (please see Microsoft links mentioned previously for detailed synchronization steps), metadata-only updates (with a blue arrow icon) are available in the console:

1. In the **Software Library**, select **All Software Updates** to view available updates on the right-hand side pane.
2. Add **Criteria**.
3. Select **Expired**.

4. Click **Add**.
5. Change the value to **No**.
6. Enter **Battery Health** in the **Search** box.
7. Right-click **Battery Health Manager** update, and then select **Published Third-Party Software Update Content**, as in the screenshot below.

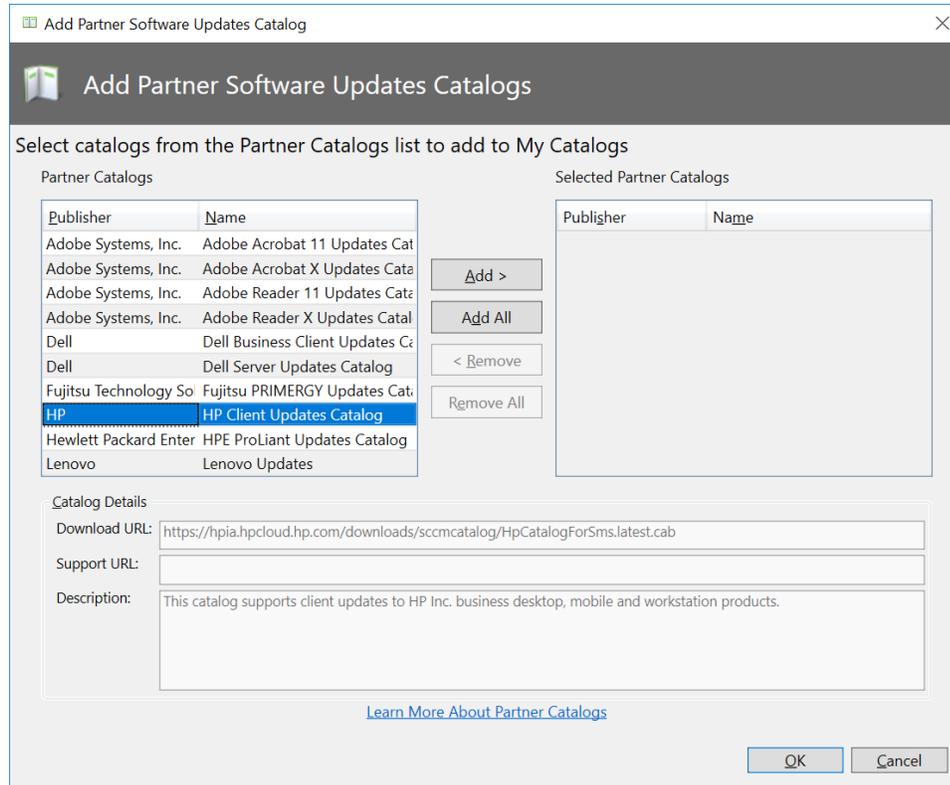


Once the update has been downloaded to WSUSContent folder of the top-level software update point, start the software update synchronization process:

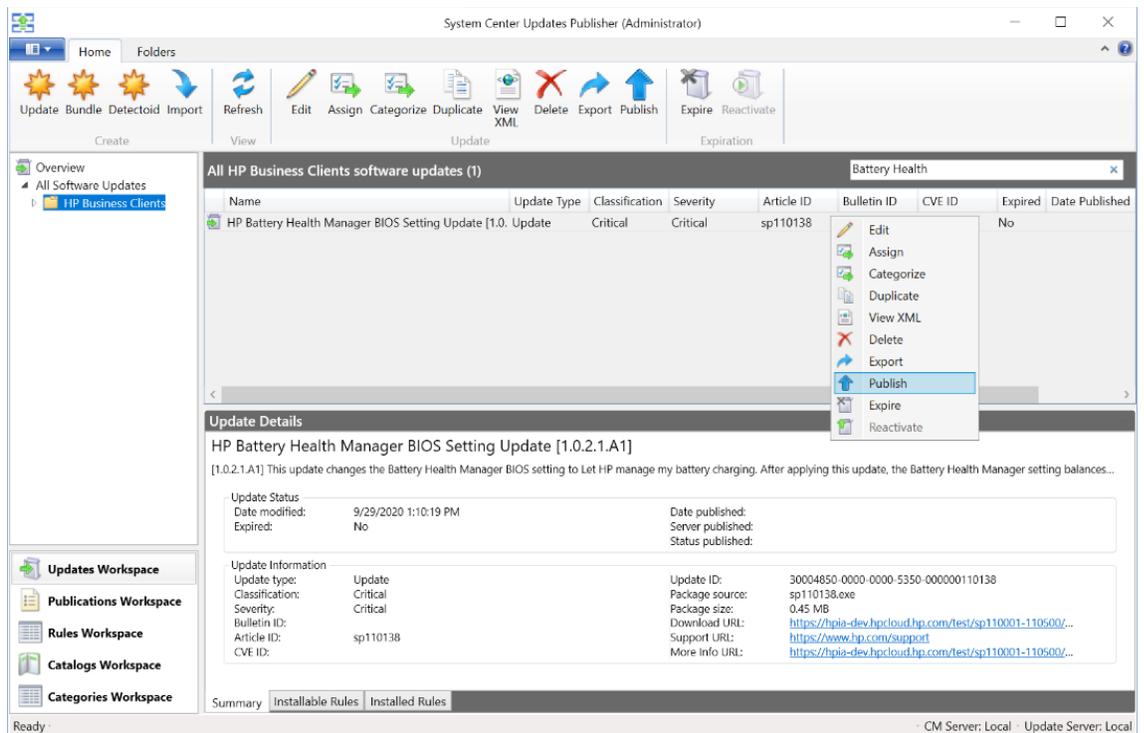
1. In the **Software Library**, select **All Software Updates**.
2. Select **Synchronize Software Updates**.
3. Click **Yes** to confirm the initiation of the software synchronization process.
4. Once the synchronization is completed and the update is ready for deployment, the icon will change to a green arrow.
5. Then follow the Microsoft instructions to deploy the software updates at: <https://docs.microsoft.com/en-us/mem/configmgr/sum/deploy-use/deploy-software-updates>

SCUP

Another method to import HP Client Updates catalog is via SCUP. The catalog can be added and imported in SCUP.



1. In the **Catalogs Workspace**, select **Add Catalogs**.
2. Select **HP Client Updates Catalog**.
3. Click **Add**.
4. Click **OK**.
5. Right-click the added catalog, and then select **Import**.
6. Click **Next**, and then select **Approve the certificate of HP Client Updates Catalog**.
7. Click **Next**, and then select **Approve content certificates as needed**.
8. Click **Next**.
9. Upon completion of the import, click **Close**.
10. After the import, select **Updates Workspace**.
11. Search for **Battery Health**.
12. Right-click the desired update, and then select **Publish**, as in the screenshot below.
13. Follow the instructions on the publish dialog to complete the publishing.



14. In the Microsoft Endpoint Configuration Manager console, go to **Software Library**.
15. Select **All Software Updates**.
16. Select **Synchronize Software Updates**.
17. Click **Yes** to confirm the initiation of the software synchronization process.

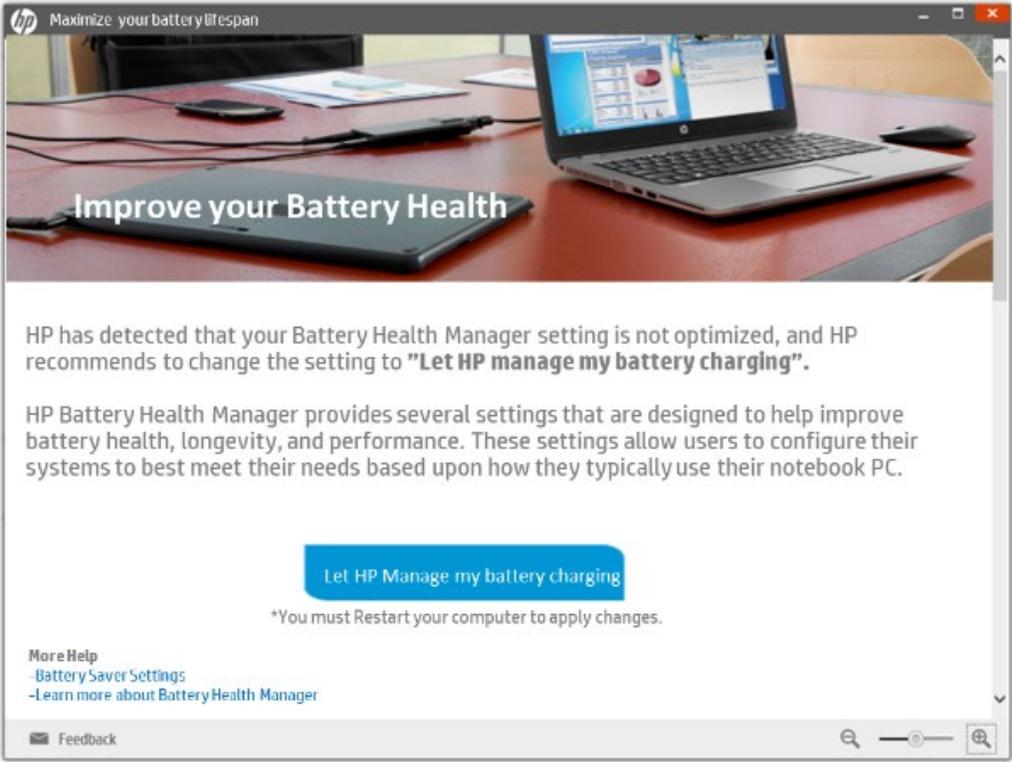
Once the synchronization is completed, the update will be available for scanning and deployment. Follow the Microsoft instructions to deploy the software updates at: <https://docs.microsoft.com/en-us/mem/configmgr/sum/deploy-use/deploy-software-updates>

HP Support Assistant

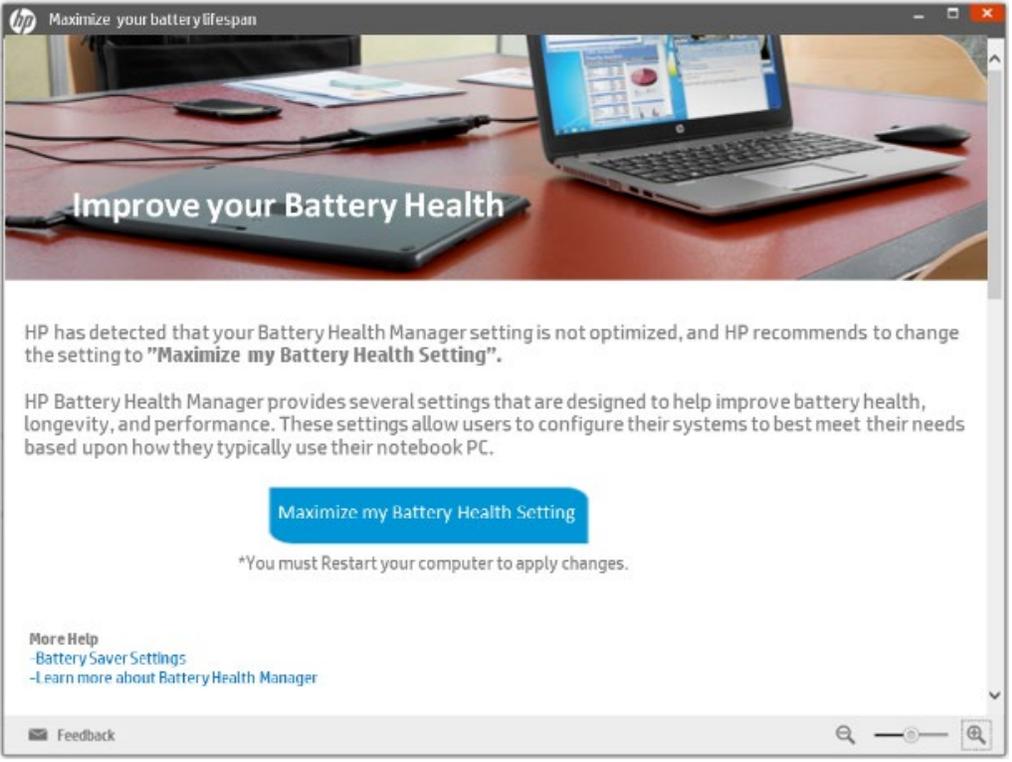
Customers running HP Support Assistant will receive a message to enable HP Battery Health Manager on their system. Through HP Support Assistant, users have the ability to select the HP Battery Health Manager recommended setting by selecting the setting and restarting their device.

Based upon the age of their notebook, users will receive one of these two options:

Let HP Manage My Battery Charging: Customers will be asked to enable HP Battery Health Manager to the “Let HP Manage My Battery Charging” setting if their notebook is less than a year old.



Maximize My Battery Health: Customers will be asked to enable HP Battery Health Manager to the “Maximize My Battery Health” setting if their notebook is more than a year old.



Users can download, install, and learn more about the HP Support Assistant by visiting: <https://support.hp.com/us-en/document/c03467905>

Please note that changing your setting to Maximize My Battery Health will limit the charge capacity of the battery to 80%.

Microsoft PowerShell and WMI

Customers with HP Battery Health Manager in their BIOS can update their Battery Health Manager Settings using PowerShell in conjunction with WMI commands.

A PowerShell script can be created that utilizes WMI calls to make the changes to the HP Battery Health Manager settings in the BIOS. The following example shows the WMI commands that shows the current value, changes it, and then shows the new accepted value:

```
# Change BIOS setting for "Battery Health Manager" BIOS setting

# Class HP_BIOSSetting: is used to display settings
# Class HP_BIOSSettingInterface: is used to modify settings

$namespace = 'root/hp/instrumentedBIOS'
$classname = 'HP_BIOSSetting'
$classinterface = 'HP_BIOSSettingInterface'

$BIOS_BattHealthSetting = "Battery Health Manager"
$BIOS_BattHealthSettingNewValue = "Let HP manage my battery charging"
$BIOS_BattHealthSettingCurrValue = $null

# Find the setting, Show the current value
$BIOS_BattHealthSettingCurrValue = Get-WmiObject -Namespace $namespace -Class $classname |
    Where-Object {$_.Name -eq $BIOS_BattHealthSetting }

Write-Output "Current setting:",$BIOS_BattHealthSettingCurrValue.Value.split(",")
<#
    Modify BIOS setting $BIOS_BattHealthSetting to new setting
    Use the HP_BIOSSettingInterface, method SetBIOSSetting()
#>
$BIOS_BattHealthSettingCurrValue = (Get-WmiObject -Namespace $namespace -Class
$classinterface).SetBIOSSetting($BIOS_BattHealthSetting, $BIOS_BattHealthSettingNewValue) >
null

# Find the Setting, Show the new value
$BIOS_BattHealthSettingCurrValue = Get-WmiObject -Namespace $namespace -Class $classname |
    Where-Object {$_.Name -eq $BIOS_BattHealthSetting }

Write-Output "New setting:",$BIOS_BattHealthSettingCurrValue.Value.split(",")
```

Windows Update KB (KB4583263)

HP has worked with Microsoft to deliver an HP solution that will detect if select HP Business Notebooks are using an older setting of “Maximize My Battery Duration” and do not have HP Battery Health Manager set to the recommended “Let HP Manage My Battery Charging” setting. The Windows Update KB will enable HP Battery Health Manager and set the recommended setting of “Let HP Manage My Battery Charging.” Windows Update KB will only impact those systems that already have HP Battery Health Manager in the BIOS and will not update the BIOS. In addition, the Windows Update KB will not be applied on a system that has F10 BIOS Password set or where HP Sure Admin is enabled.

More information about the Windows Update KB can be found on Microsoft’s website at:

<https://docs.microsoft.com/en-us/windows-server/administration/windows-server-update-services/manage/wsus-and-the-catalog-site>

Manually via F10

The HP Battery Health Manager settings are located in the BIOS and can be accessed by pressing F10 during startup.

1. Turn off the computer, and then connect the power cord (if it is not already connected).
2. Turn on the computer, and then repeatedly press the **F10** key to open the BIOS Setup Utility.
3. Using the arrow keys, select **Advanced**, and then select **Power Management Options**.
4. Click the **Battery Health Manager** drop-down menu to review the setting options.
5. Depending upon your work environment and the age of the client system (as detailed earlier in the HP Battery Health Manager Overview section), select the appropriate setting from these two options:
 - Let HP Manage My Battery Charging
 - Maximize My Battery Health

Summary

Any of these programmatic or manual methods should provide an easy process for making the necessary BIOS changes to HP Battery Health Manager in supported HP Business Notebooks.

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