



# Manage shelf components

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# Manage shelf components

## View hardware components

The Hardware page provides sorting and filtering functions that make it easier to find components.

### Steps

1. Select **Hardware**.
2. Use the functions described in the following table to view hardware components.

Function	Description
Front and back shelf views	To switch between front and back shelf views, select either <b>Show back of shelf</b> or <b>Show front of shelf</b> from the far right (the link that appears depends on the current view). The front view shows drives and any empty drive bays. The back view shows the controllers, and any IOM (ESM) modules, power/fan canisters, or empty controller bays. At the bottom of the page, you can also select <b>Show all front</b> or <b>Show all back</b> .
Drive view filters	<p>If the storage array contains drives with different types of physical and logical attributes, the <b>Hardware</b> page includes drive view filters. These filter fields help you quickly locate specific drives by limiting the drive types displayed on the page. Under <b>Show drives that are...</b>, click the filter field on the left (by default, shows <b>Any drive type</b>) to see a drop-down list of physical attributes (for example, capacity and speed). Click the filter field on the right (by default, shows <b>Anywhere in the storage array</b>) to see a drop-down list of logical attributes (for example, volume group assignment). You can use these filters together or separately.</p> <div data-bbox="506 1220 561 1318"></div> <p>If the storage array contains drives that all share the same physical attributes, the <b>Any drive type</b> field on the left does not appear. If the drives are all in the same logical location, the <b>Anywhere in the storage array</b> field on the right does not appear.</p>
Legend	The components are displayed in certain colors to depict their role states. To expand and collapse the descriptions of these states, click <b>Legend</b> .
Show status icon details	The status indicators can include text descriptions for availability states. Click <b>Show status icon details</b> to show or hide this status text.
Shelf/shelf icons	Each shelf view provides a list of related commands, along with properties and status. Click <b>Shelf</b> to see a drop-down list of commands. You can also select one of the icons along the top to see status and properties for individual components: controllers, IOMs (ESMs), power supplies, fans, temperature, batteries, and SFPs.

Function	Description
Shelf order	The shelves can be rearranged on the Hardware page. Use the up and down arrows on the top right of each shelf view to change the top/bottom order of shelves.

## Show or hide component status

You can display status descriptions for drives, controllers, fans, and power supplies.

### Steps

1. Select **Hardware**.
2. To see either the back or front components:
  - If you want to see the controller and power/fan canister components, but the drives are displayed, click **Show back of shelf**.
  - If you want to see the drives, but the controller and power/fan canister components are displayed, click **Show front of shelf**.
3. To view or hide pop-over status descriptions:
  - If you want to see a pop-over description of the status icons, click **Show status icon details** at the upper right of the shelf view (select the check box).
  - To hide the pop-over descriptions, click **Show status icon details** again (clear the check box).
4. If you want to see full status details, select the component in the shelf view, and then select **View settings**.
5. If you want to view the descriptions of the colored components, select **Legend**.

## Switch between front and back views

The Hardware page can show either the front view or the back view of the shelves.

### About this task

The back view shows the controllers/IOMs and the power-fan canisters. The front view shows the drives.

### Steps

1. Select **Hardware**.
2. If the graphic shows the drives, click **Show back of shelf**.

The graphic changes to show the controllers instead of the drives.
3. If the graphic shows the controllers, click **Show front of shelf**.

The graphic changes to show the drives instead of the controllers.
4. Optionally, you can select **Show all front** or **Show all back**, located at the bottom of the page.

## Change view order of shelves

You can change the order of shelves displayed on the Hardware page to match the

physical order of shelves in a cabinet.

#### Steps

1. Select **Hardware**.
2. From the top right of a shelf view, select the up or down arrows to rearrange the order of shelves shown on the Hardware page.

## Turn on shelf locator light

To find the physical location of a shelf shown on the Hardware page, you can turn on the shelf's locator light.

#### Steps

1. Select **Hardware**.
2. Select the drop-down list for the Controller Shelf or Drive Shelf, and then select **Turn on locator light**.

The locator light for the shelf turns on.

3. When you have physically located the shelf, return to the dialog box and select **Turn off**.

## Change shelf IDs

The shelf ID is a number that uniquely identifies a shelf in the storage array. Shelves are numbered consecutively, beginning with either 00 or 01, on the top left of each shelf view.

#### About this task

The controller firmware automatically assigns the shelf ID, but you can change that number if you want to create a different ordering scheme.

#### Steps

1. Select **Hardware**.
2. Select the drop-down list for the Controller Shelf or Drive Shelf, and then select **Change ID**.
3. In the Change Shelf ID dialog box, select the drop-down list to display available numbers.

This dialog box does not display IDs currently assigned to active shelves.

4. Select an available number, and then click **Save**.

Depending on the number you selected, the shelf order may be rearranged on the Hardware page. If desired, you can use the up/down arrows on the top right of each shelf to readjust the order.

## View shelf component status and settings

The Hardware page provides status and settings for shelf components, including the power supplies, fans, and batteries.

#### About this task





The available components depend on the type of shelf:









- **Drive shelf** — Contains a set of drives, power/fan canisters, input/output modules (IOMs), and other supporting components in a single shelf.
- **Controller shelf** — Contains a set of drives, one or two controller canisters, power/fan canisters, and other supporting components in a single shelf.

## Steps

1. Select **Hardware**.
2. Select the drop-down list for the Controller Shelf or Drive Shelf, and then select **View Settings**.

The Shelf Components Settings dialog box opens, with tabs that show the status and settings related to the shelf components. Depending on the type of shelf selected, some tabs described in the table might not appear.

Tab	Description
Shelf	<p>The <b>Shelf</b> tab shows the following properties:</p> <ul style="list-style-type: none"> <li>• <b>Shelf ID</b> — Uniquely identifies a shelf in the storage array. The controller firmware assigns this number, but you can change it by selecting <b>Shelf &gt; Change ID</b>.</li> <li>• <b>Shelf path redundancy</b> — Specifies whether connections between the shelf and the controller have alternate methods in place (Yes) or not (No).</li> <li>• <b>Current drive types</b> — Shows the type of technology built into the drives (for example, a SAS drive that is secure-capable). If there is more than one drive type, both technologies are shown.</li> <li>• <b>Serial number</b> — Shows the serial number of the shelf.</li> </ul>
IOMs (ESMs)	<p>The <b>IOMs (ESMs)</b> tab shows status of the input/output module (IOM), which is also called an environmental service module (ESM). It monitors the status of the components in a drive shelf and serves as the connection point between the drive tray and the controller.</p> <p>Status can be Optimal, Failed, Optimal (Miswire), or Uncertified. Other information includes the firmware version and the configuration settings version.</p> <p>Select <b>Show more settings</b> to see the maximum and current data rates, and the state of the card communication (either Yes or No).</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid #ccc; padding: 5px; margin-right: 10px;">  </div> <p>You can also view this status by selecting the IOM icon , next to the Shelf drop-down list.</p> </div>
Power Supplies	<p>The <b>Power Supplies</b> tab shows the status of the power supply canister and the power supply itself. Status can be Optimal, Failed, Removed, or Unknown. It also shows the part number of the power supply.</p> <div style="display: flex; align-items: center; margin-top: 10px;"> <div style="border: 1px solid #ccc; padding: 5px; margin-right: 10px;">  </div> <p>You can also view this status by selecting the Power Supply icon , next to the Shelf drop-down list.</p> </div>

Tab	Description
Fans	<p>The <b>Fans</b> tab shows the status of the fan canister and the fan itself. Status can be Optimal, Failed, Removed, or Unknown.</p> <p> You can also view this status by selecting the Fan icon , next to the Shelf drop-down list.</p>
Temperature	<p>The <b>Temperature</b> tab shows the temperature status of the shelf components, such as the sensors, controllers, and power/fan canisters. Status can be Optimal, Nominal temperature exceeded, Maximum temperature exceeded, or Unknown.</p> <p> You can also view this status by selecting the Temperature icon , next to the Shelf drop-down list.</p>
Batteries	<p>The <b>Batteries</b> tab shows the status of the controller batteries. Status can be Optimal, Failed, Removed or Unknown. Other information includes the battery age, days until replacement, learn cycles, and weeks between learn cycles.</p> <p> You can also view this status by selecting the Batteries icon , next to the Shelf drop-down list.</p>
SFPs	<p>The <b>SFPs</b> tab shows status of Small Form-factor Pluggable (SFP) transceivers on the controllers. Status can be Optimal, Failed, or Unknown.</p> <p>Select <b>Show more settings</b> to see the part number, the serial number, and the vendor of the SFPs.</p> <p> You can also view this status by selecting the SFP icon , next to the Shelf drop-down list.</p>

3. Click **Close**.

## Update battery learn cycles

A learn cycle is an automatic cycle for calibrating the smart battery gauge. The cycles are scheduled to start automatically, at the same day and time, in 8-week intervals (per controller). If you want to set a different schedule, you can adjust the learn cycles.

### About this task

Updating the learn cycles affect both controller batteries.

### Steps

1. Select **Hardware**.
2. Select the drop-down list for the Controller Shelf, and then select **View settings**.
3. Select the **Batteries** tab.

4. Select **Update battery learn cycles**.

The Update Battery Learn Cycles dialog box opens.

5. From the drop-down lists, select a new day and time.

6. Click **Save**.



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