



Viewing and Updating the Software Image

Sections in this chapter provide instructions on the following procedures:

- [Viewing the Software Image Version, page 4-1](#)
- [Updating the Software Image, page 4-4](#)
- [Deleting a Software Image, page 4-9](#)

You can update the software image on all cards in the chassis at once, or on individual cards. You typically perform these operations when:

- A new software image is made available by Cisco
- Checking periodically for updates
- Adding a new module to your server switch
- Installing the chassis, if the pre-installed image is already out of date



Note

It is possible to have different versions of software installed on different slots. To update an individual Fibre Channel or Ethernet gateway, perform the steps as described here, but you do not need to reboot the chassis. After the copy and installation, you can enable and disable an individual gateway to activate the new image.

You can view and update the software image using the CLI or with the Element Manager.

Viewing the Software Image Version

This section describes how to obtain and interpret the information you need while updating the software image. You need to know the following:

- The version of the software image you have running on each module
- Whether or not the same version of the software image runs on each module
- Whether or not the most current software image you have is the most current available
- Whether or not you have images that you have downloaded but not yet installed
- Whether or not you have obsolete images that can be deleted

Viewing the Software Image Version with the CLI

Use the CLI to view software versions on the chassis as follows:

- Step 1** To view the primary software image version for all cards in the chassis, use the show **card-inventory** command, as shown in the following example:

```
SFS-3012R# show card-inventory
=====
Card Resource/Inventory Information
=====
      slot-id : 1
      used-memory : 77040 (kbytes)
      free-memory : 50272 (kbytes)
      used-disk-space : 45048 (kbytes)
      free-disk-space : 57331 (kbytes)
      last-image-source : TopspinOS-2.0.0/build495
      primary-image-source : TopspinOS-2.0.0/build495
      image : TopspinOS-2.0.0/build495
      cpu-descr : PPC 440GP Rev. C - Rev 4.129 (pvr 4012 0481)
      fpga-firmware-rev : 6
      ib-firmware-rev : 200000000

      slot-id : 10
      used-memory : 47676 (kbytes)
      free-memory : 34948 (kbytes)
      used-disk-space : 8909 (kbytes)
      free-disk-space : 33361 (kbytes)
      last-image-source : TopspinOS-2.0.0/build495
      primary-image-source : TopspinOS-2.0.0/build495
      image : TopspinOS-2.0.0/build495
<output truncated>
```

Interpret the display as follows:

- Look for the **primary-image-source** field for each slot. The slots are identified in [Figure 1-3 on page 1-4](#).
- Determine whether or not any slot has a software image version (**primary-image-source**) that is older than the others. This slot will need its image updated.
- Compare your most recent image with the most recent image available. Check the Cisco.com site or your ftp site for details about image availability. Consider updating to the newer image, if available.
- If you need to download a new image, note the amount of memory and disk space available. Check also the file size of the new image that you will download from the Cisco.com website or from the ftp site and determine whether or not you need to create space.
- Examine the files listed in the image field of the display. Any file listed in the image field that is neither the last-image-source nor the primary-image-source is a candidate for deletion.

- Step 2** Use the **dir image** command to view all existing boot images on the chassis, and determine whether or not they are currently installed, as shown in the following example:

```
SFS-3012R> enable
SFS-3012R# dir image
=====
Existing Boot-Images on System
=====
slot date-created size file-name
-----
1 Tue Nov 25 18:46:32 2003 30695264 Topspin360-TopspinOS-2.0.0-build212.img
```

```

1 Tue Nov 25 19:34:08 2003 19228160 TopspinOS-2.0.0/build211
1 Tue Nov 25 19:32:16 2003 15539200 TopspinOS-2.0.0/build212
SFS-3012R#

```

Interpret the display as follows:

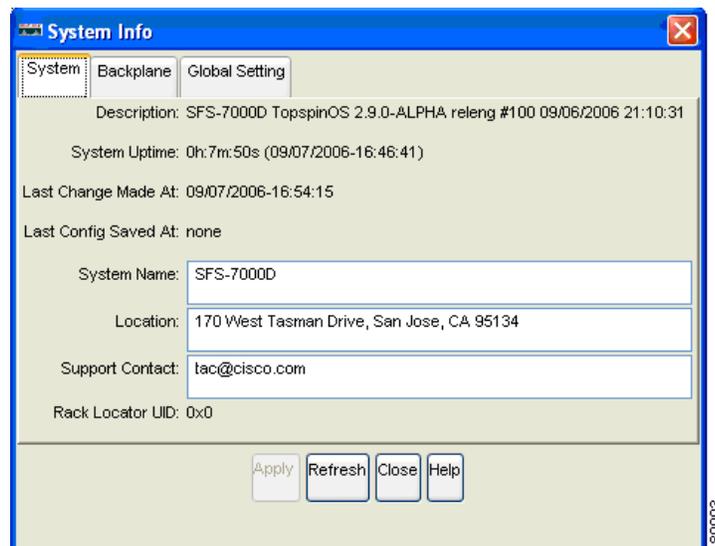
- a. Identify files that have been installed and the files that have been downloaded but not installed:
 - A **.img** file is an image file that is not installed.
 - An installed image file has a slash (/) in the name.
- b. Determine if the version of any uninstalled (.img) file is the version that you need to install. If it is, then you do not need to download it again.
- c. Determine whether any uninstalled file is obsolete. An obsolete file is a candidate for deletion.

Viewing the Software Image Version with the Element Manager GUI

Use the Element Manager GUI to view the software version(s) on the chassis as follows:

- Step 1 Launch Element Manager.
- Step 2 View the software version of the controller:
 - a. Select **Maintenance > System Info** to view the version of software installed on the controller, as shown in [Figure 4-1](#).

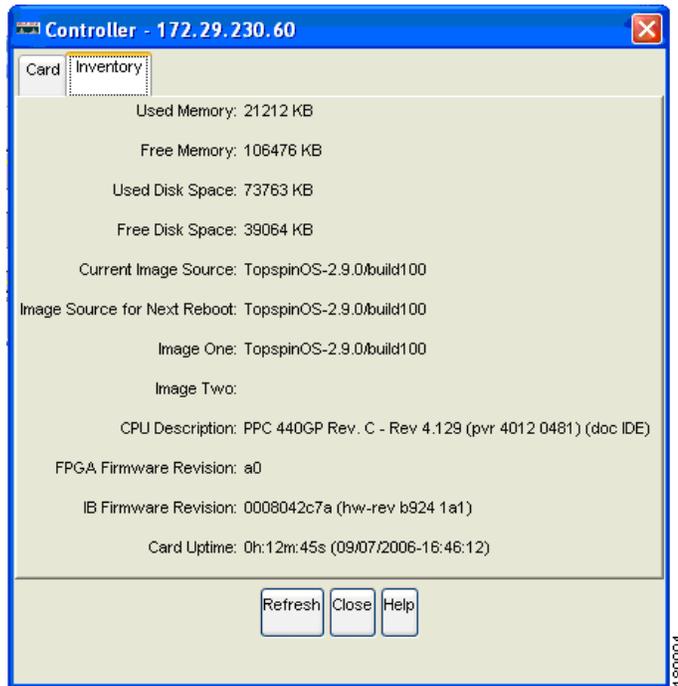
Figure 4-1 Viewing the Software Image Version of the Controller Module



- b. Note the software image version identified in the Description field and compare it with the most recent version available on the CCO website or your FTP site. Consider updating to the newer version, if one is available.

- Step 3** View the software version on individual cards in the chassis:
- Double-click on any module in the main GUI.
 - Click the **Inventory** tab. The properties window appears for that module, as shown in [Figure 4-2](#).

Figure 4-2 Viewing Current Image of an Individual Module



- View the **Current Image Source** field. If you find a module that has a different image from the others, you can update a single module by re-installing the image on the chassis, but reboot only the module that needs to be updated.

Updating the Software Image

This section provides instructions on how to update the software image using either the CLI or Element Manager. These procedures include variances depending on whether you are updating the entire chassis with a new version or updating one gateway to bring it inline with the rest.

Updating the Software Image with the CLI

Use the CLI to update the software image as follows:

Step 1 Copy the image to the chassis controller.



Note Perform this step only if the .img file containing the desired software image is not already on the controller. This situation usually occurs when updating the entire chassis to a new software version, although it is possible that the software version already exists on the chassis but has not yet been installed. If you are updating a single module to bring it into line with the other modules, then it is usually not necessary to download the .img file again, unless it has been removed from the controller.

To update the version of software image for the server switch, you need to copy the image to the server switch. This task can be accomplished through the CLI using FTP and the following **copy** command syntax:

```
copy ftp://<remote-login>:<remote-passwd>@<remote-system>/<filename>.img [<slot-number of the controller>]:image:<filename>.img
```

This example shows the copy operation:

```
SFS-3012R# copy ftp://bob:mypassword@10.0.0.5/Topspin-360-TopspinOS-2.1.0-build497.img
image:Topspin-360-2.1.0-build497.img
TopspinOS-2.1.0-build497.img
```

Step 2 Activate the image. After downloading the image file to the chassis controller, you must install it for it to become active. The **install** command installs the specified image file into the system.

Before running the install command, ensure that the following conditions are true:

- Image files have been copied into the image file-system.
- The file name must have the .img extension.
- All cards must have an oper-status of “Up”.

In the privileged-execute mode, enter the following command syntax:

```
install image:image-file-name.img
```

This example shows that the **install** command was successful:

```
SFS-3012R# install image:Topspin-360-TopspinOS-2.1.0-build497.img
*****operation completed successfully
```



Note If you do not have enough available memory to install an additional image, delete an old image. See the [“Deleting a Software Image” section on page 4-9](#).

Step 3 Specify the new boot image to be used.

- a. Find the name of your new system image by entering the **dir image** command. Copy the name of the new image.

- b. Enter **boot-config primary-image-source**, and then paste the copied image file name, as shown in the following example:

```
SFS-3012R# configure
SFS-3012R(config)# boot-config primary-image-source TopspinOS-2.1.0/build497
SFS-3012R(config)# exit
```

- Step 4** Reboot the chassis using the **reload** command.



Note You can also use the **card shutdown** and **card no shutdown** commands to reboot an individual module if you do not need to update the entire chassis.

```
SFS-3012R# reload
```

- Step 5** Save the system configuration when prompted, and confirm that you wish to proceed with the reload, as shown in the following example:

```
System configuration has been modified. Save?
[yes(default)/no/* .cfg] yes
Proceed with reload? [confirm]
SFS-3012R#
```

- Step 6** Following reboot, use the **show card-inventory** command to view the new primary image for all cards and verify the update.

Updating the Software Image with the Element Manager GUI

Use Element Manager to update the software image as follows:

- Step 1** Launch the Element Manager GUI.
- Step 2** Select **Maintenance > File Management**. The **File Management** window appears.



Note Perform steps 3 and 4 only if the **.img** file containing the required image is not on the controller. This situation usually occurs when updating the entire chassis to a new software version, although it is possible that the software version already exists on the chassis but has not yet been installed. If you are updating a single module to bring it into line with the other modules, then it is usually not necessary to download the **.img** file again, unless it has been removed from the controller.

- Step 3** Click the **Import** button.
The **Import File** window appears.

Figure 4-3 Copying an Image File to the Server Switch

- a. Select **Image** from the **File Type** drop-down menu.
- b. Click the **Remote FTP Server** radio button from the **Copy From** section (or click the **Remote SCP Server** radio button if you will download from an SCP server).
- c. Enter the name or IP address of the FTP server from which to copy the file in the **Server Name or IP Address** field.
- d. Enter the network name of a recognized user in the **User Name** field.
- e. Enter the password for the specified user in the **Password** field.
- f. Enter the path and name of the image file on the FTP server in the **File Path and Name** field. Image file names must include the “.img” extension.
- g. Enter a local file name in the **Copy To** field for saving the image on the controller module. The local file name must have a .img extension.

- Step 4** Click the **Copy** button to copy the file onto the controller of the server switch. Wait until the transfer is complete. The window will automatically refresh to show the latest copied image file.
- Step 5** Activate the image. After downloading the image file to the chassis controller, it must be installed to become active.

Before activating the image, ensure that the following conditions are true:

- The file name has the .img extension.
- All cards have an oper-status of “Up”.

Activate the image as follows:

- Click on the desired .img file in the **File Management** window.
- Click the **Install** button.
- Click **Yes** to the warning asking if you wish to proceed.

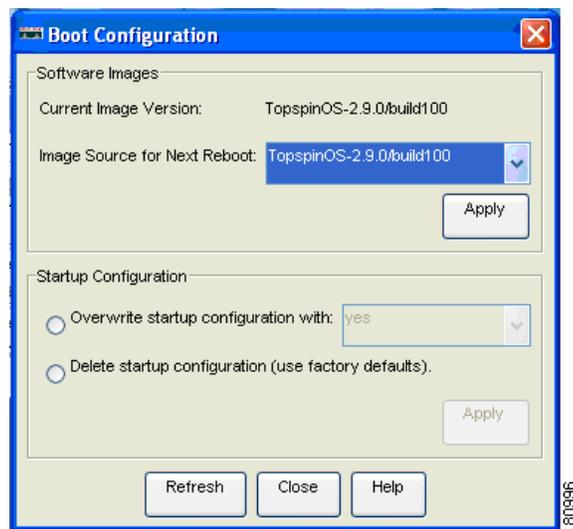


Note

If you do not have enough available memory to install an additional image, delete an old image. See the “[Deleting an Image with the Element Manager GUI](#)” section on page 4-10.

- Step 6** Specify the new boot image to be used.
- Select **Maintenance-> Boot Config....**The **Boot Configuration** window appears, as shown in [Figure 4-4](#).

Figure 4-4 Specifying the Boot Configuration



- Select the new boot image from the **Image Source for Next Reboot** drop-down menu.
- Click the **Apply** button.

- Step 7** Reboot the chassis.



Note

You can update the software on an individual gateway by enabling and disabling the gateway.

- Select **Maintenance-> Reboot**

- b. Click *yes* in the **Save changes to the system configuration** dialog box.
 - c. Click **Ok** in the **The chassis will now be rebooted** dialog box.
-

Deleting a Software Image

The following files are candidates for deletion through either the CLI or the Element Manager:

- `.img` files. A `.img` file is an image file that is not installed.
- An installed image file that is neither the last loaded image (the current image) nor the image specified during boot configuration as the image source for the next reboot. These files are identified by the CLI **show card-inventory** command as:
 - `last-image-source`
 - `primary-image-source`

These files are specified by the Element Manager as:

- Current Image Version
- Image Source for Next Reboot



Caution

Do not delete the last loaded image or the image specified during boot configuration as the image source for the next reboot.

Deleting an Image with the CLI

Delete an image (`.img` file) from the switch using the **delete** command with the following syntax:

```
delete [slot-number:]file-system:file
```

The following example deletes an image file from slot 1. (Slots 1 and 14 can contain controller cards.)

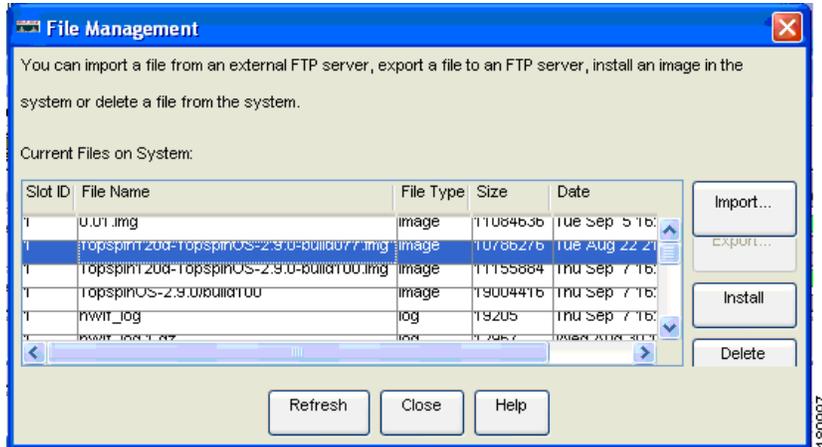
```
SFS-3012R# delete 1:image:Topspin360-TopspinOS-2.0.0-build488.img  
Delete file 14:Topspin360-TopspinOS-2.0.0-build488.img? [yes(default) | no] yes  
*****
```

Deleting an Image with the Element Manager GUI

Delete a software image with Element Manager as follows:

- Step 1 Select **Maintenance > File Management**.
- Step 2 Click on the .img file that you want to delete, as shown in [Figure 4-5](#).

Figure 4-5 Deleting an Image File



- Step 3 Click the **Delete** button.
- Step 4 Click **Yes** in the Delete file? dialog box.