APPENDIX 1

# Catalyst 3560 and 3560-C3750 2960, 2960-S, and 2960-C Switch Bootloader Commands

During normal bootloader operation, you are not presented with the bootloader command-line prompt. You gain access to the bootloader command line if the switch is set to manually boot up, if an error occurs during power-on self test (POST) DRAM testing, or if an error occurs while loading the operating system (a corrupted Cisco IOS image). You can also access the bootloader if you have lost or forgotten the switch password.

**Note** The default switch configuration allows an end user with physical access to the switch to recover from a lost password by interrupting the bootup process while the switch is powering up and then entering a new password. The password recovery disable feature allows the system administrator to protect access to the switch password by disabling part of this functionality and allowing the user to interrupt the bootup process only by agreeing to set the system back to the default configuration. With password recovery disabled, the user can still interrupt the bootup process and change the password, but the configuration file (config.text) and the VLAN database file (vlan.dat) are deleted. For more information, see the software configuration guide for this release.

You can access the bootloader through a switch console connection at 9600 bps.

Unplug the switch power cord, and press the switch **Mode** button while reconnecting the power cord. You can release the **Mode** button a second or two after the LED above port 1X goes off. You should then see the bootloader *Switch:* prompt.The bootloader performs low-level CPU initialization, performs POST, and loads a default operating system image into memory.

# boot

Use the **boot** bootloader command to load and boot up an executable image and to enter the command-line interface.

**boot** [**-post** | **-n** | **-p** | *flag*] *filesystem:/file-url ...*

## Syntax Description

| | |
|---|---|
| **-post** | (Optional) Run the loaded image with an extended or comprehensive power-on self-test (POST). Using this keyword causes POST to take longer to complete. |
| -n | (Optional) Pause for the Cisco IOS debugger immediately after launching. |
| -p | (Optional) Pause for the JTAG debugger right after loading the image. |
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */file-url* | (Optional) Path (directory) and name of a bootable image. Separate image names with a semicolon. |

## Defaults

The switch attempts to automatically boot up the system by using information in the BOOT environment variable. If this variable is not set, the switch attempts to load and execute the first executable image it can by performing a recursive, depth-first search throughout the flash file system. In a depth-first search of a directory, each encountered subdirectory is completely searched before continuing the search in the original directory.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

When you enter the **boot** command without any arguments, the switch attempts to automatically boot up the system by using the information in the BOOT environment variable, if any. If you supply an image name for the *file-url* variable, the **boot** command attempts to boot up the specified image.

When you set bootloader **boot** command options, they are executed immediately and apply only to the current bootloader session. These settings are not saved for the next bootup operation.

Filenames and directory names are case sensitive.

## Examples

This example shows how to boot up the switch using the *new-image.bin* image:

```
switch: boot flash:/new-images/new-image.bin
```

After entering this command, you are prompted to start the setup program.

## Related Commands

| Command | Description |
|---|---|
| set | Sets the BOOT environment variable to boot a specific image when the **BOOT** keyword is appended to the command. |

# cat

Use the **cat** bootloader command to display the contents of one or more files.

**cat** *filesystem*:*/file-url ...*

## Syntax Description

| | |
|---|---|
| *filesystem*: | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */file-url* | Path (directory) and name of the files to display. Separate each filename with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

If you specify a list of files, the contents of each file appears sequentially.

## Examples

This example shows how to display the contents of two files with sample output:

```
switch: cat flash:/new-images/info flash:env_vars
version_suffix: image-version
version_directory: image-name
image_name: image-name.bin
ios_image_file_size: 6398464
total_image_file_size: 8133632
image_feature: IP|LAYER_3|PLUS|MIN_DRAM_MEG=128LAYER_2|MIN_DRAM_MEG=64
image_family:switch-family
info_end:
BAUD=57600
MANUAL_BOOT=no
```

## Related Commands

| Command | Description |
|---|---|
| **more** | Displays the contents of one or more files. |
| **type** | Displays the contents of one or more files. |

# copy

Use the **copy** bootloader command to copy a file from a source to a destination.

**copy** [**-b** *block-size*] *filesystem***:/***source-file-url filesystem***:/***destination-file-url*

## Syntax Description

| | |
|---|---|
| **-b** *block-size* | (Optional) This option is used only for internal development and testing. |
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| **/***source-file-url* | Path (directory) and filename (source) to be copied. |
| **/***destination-file-url* | Path (directory) and filename of the destination. |

## Defaults

The default block size is 4 KB.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

Directory names are limited to 45 characters between the slashes (/); the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

Filenames are limited to 45 characters; the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

If you are copying a file to a new directory, the directory must already exist.

## Examples

This example show how to copy a file at the root:

```
switch: copy flash:test1.text flash:test4.text
.
File "flash:test1.text" successfully copied to "flash:test4.text"
```

You can verify that the file was copied by entering the **dir** *filesystem***:** bootloader command.

## Related Commands

| Command | Description |
|---|---|
| **delete** | Deletes one or more files from the specified file system. |

# delete

Use the **delete** bootloader command to delete one or more files from the specified file system.

**delete** *filesystem***:/***file-url* ...

## Syntax Description

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| **/***file-url* | Path (directory) and filename to delete. Separate each filename with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

The switch prompts you for confirmation before deleting each file.

## Examples

This example shows how to delete two files:

```
switch: delete flash:test2.text flash:test5.text
Are you sure you want to delete "flash:test2.text" (y/n)?y
File "flash:test2.text" deleted
Are you sure you want to delete "flash:test5.text" (y/n)?y
File "flash:test2.text" deleted
```

You can verify that the files were deleted by entering the **dir flash:** bootloader command.

## Related Commands

| Command | Description |
|---|---|
| **copy** | Copies a file from a source to a destination. |

# dir

Use the **dir** bootloader command to display a list of files and directories on the specified file system.

**dir** *filesystem***:/***file-url ...*

## Syntax Description

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */file-url* | (Optional) Path (directory) and directory name whose contents you want to display. Separate each directory name with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Directory names are case sensitive.

## Examples

This example shows how to display the files in flash memory:

```
switch: dir flash:
Directory of flash:/

    3  -rwx        1839   Mar 01 2002 00:48:15  config.text
   11  -rwx        1140   Mar 01 2002 04:18:48  vlan.dat
   21  -rwx          26   Mar 01 2002 00:01:39  env_vars
    9  drwx         768   Mar 01 2002 23:11:42  html
   16  -rwx        1037   Mar 01 2002 00:01:11  config.text
   14  -rwx        1099   Mar 01 2002 01:14:05  homepage.htm
   22  -rwx          96   Mar 01 2002 00:01:39  system_env_vars
   17  drwx        192    Mar 06 2002 23:22:03  imnage-name

15998976 bytes total (6397440 bytes free)
```

Table 1-1 describes the fields in the display.

*Table 1-1 dir Field Descriptions*

| Field | Description |
|---|---|
| 2 | Index number of the file. |
| -rwx | File permission, which can be any or all of the following:<br>• d—directory<br>• r—readable<br>• w—writable<br>• x—executable |
| 1644045 | Size of the file. |
| <date> | Last modification date. |
| env_vars | Filename. |

## Related Commands

| Command | Description |
|---|---|
| **mkdir** | Creates one or more directories. |
| **rmdir** | Removes one or more directories. |

# flash_init

Use the **flash_init** bootloader command to initialize the flash file system.

**flash_init**

## Syntax Description

This command has no arguments or keywords.

## Defaults

The flash file system is automatically initialized during normal system operation.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

During the normal bootup process, the flash file system is automatically initialized.

Use this command to manually initialize the flash file system. For example, you use this command during the recovery procedure for a lost or forgotten password.

# format

Use the **format** bootloader command to format the specified file system and destroy all data in that file system.

**format** *filesystem***:**

**Syntax Description**

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |

**Command Modes**

Bootloader

**Command History**

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

**Usage Guidelines**

**Caution** Use this command with care; it destroys all data on the file system and renders your system unusable.

# fsck

Use the **fsck** bootloader command to check the file system for consistency.

**fsck** [**-test** | **-f**] *filesystem***:**

## Syntax Description

| | |
|---|---|
| **-test** | (Optional) Initialize the file system code and perform extra POST on flash memory. An extensive, nondestructive memory test is performed on every byte that makes up the file system. |
| **-f** | (Optional) Initialize the file system code and perform a fast file consistency check. Cyclic redundancy checks (CRCs) in the flashfs sectors are not checked. |
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |

## Defaults

No file system check is performed.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

To stop an in-progress file system consistency check, disconnect the switch power and then reconnect the power.

## Examples

This example shows how to perform an extensive file system check on flash memory:

```
switch: fsck -test flash:
```

# help

Use the **help** bootloader command to display the available commands.

**help**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

You can also use the question mark (?) to display a list of available bootloader commands.

# memory

Use the **memory** bootloader command to display memory heap utilization information.

**memory**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Examples

This example shows how to display memory heap utilization information:

```
switch: memory
Text:   0x00700000 - 0x0071cf24 (0x0001cf24 bytes)
Rotext: 0x00000000 - 0x00000000 (0x00000000 bytes)
Data:   0x0071cf24 - 0x00723a0c (0x00006ae8 bytes)
Bss:    0x0072529c - 0x00746f94 (0x00021cf8 bytes)
Stack:  0x00746f94 - 0x00756f94 (0x00010000 bytes)
Heap:   0x00756f98 - 0x00800000 (0x000a9068 bytes)

Bottom heap utilization is 22 percent.
Top heap utilization is 0 percent.
Total heap utilization is 22 percent.
Total bytes: 0xa9068 (692328)
Bytes used: 0x26888 (157832)
Bytes available: 0x827e0 (534496)

Alternate heap utilization is 0 percent.
Total alternate heap bytes: 0x6fd000 (7327744)
Alternate heap bytes used: 0x0 (0)
Alternate heap bytes available: 0x6fd000 (7327744)
```

Table 1-2 describes the fields in the display.

*Table 1-2 memory Field Descriptions*

| Field | Description |
|---|---|
| Text | Beginning and ending address of the text storage area. |
| Rotext | Beginning and ending address of the read-only text storage area. This part of the data segment is grouped with the Text entry. |
| Data | Beginning and ending address of the data segment storage area. |
| Bss | Beginning and ending address of the block started by symbol (Bss) storage area. It is initialized to zero. |

*Table 1-2 memory Field Descriptions (continued)*

| Field | Description |
|---|---|
| Stack | Beginning and ending address of the area in memory allocated to the software to store automatic variables, return addresses, and so forth. |
| Heap | Beginning and ending address of the area in memory that memory is dynamically allocated to and freed from. |

# mkdir

Use the **mkdir** bootloader command to create one or more new directories on the specified file system.

**mkdir** *filesystem***:/***directory-url ...*

## Syntax Description

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */directory-url* | Name of the directories to create. Separate each directory name with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Directory names are case sensitive.

Directory names are limited to 45 characters between the slashes (/); the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

## Examples

This example shows how to make a directory called Saved_Configs:

```
switch: mkdir flash:Saved_Configs
Directory "flash:Saved_Configs" created
```

This example shows how to make two directories:

```
switch: mkdir flash:Saved_Configs1 flash:Test
Directory "flash:Saved_Configs1" created
Directory "flash:Test" created
```

You can verify that the directory was created by entering the **dir** *filesystem***:** bootloader command.

## Related Commands

| Command | Description |
|---|---|
| **dir** | Displays a list of files and directories on the specified file system. |
| **rmdir** | Removes one or more directories from the specified file system. |

# more

Use the **more** bootloader command to display the contents of one or more files.

**more** *filesystem*:*/file-url ...*

## Syntax Description

| | |
|---|---|
| *filesystem*: | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */file-url* | Path (directory) and name of the files to display. Separate each filename with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

If you specify a list of files, the contents of each file appears sequentially.

## Examples

This example shows how to display the contents of two files:

```
switch: more flash:/new-images/info flash:env_vars
version_suffix: image-version
version_directory: image-name
c3750-ipservices-mz.122-25.SEBc2960-lanbase-mz.122-25.FXc3560-ipservices-mx.122-25.SEB
image_name:image-name.bin
ios_image_file_size: 6398464
total_image_file_size: 8133632
image_feature: IP|LAYER_3|PLUS|MIN_DRAM_MEG=128LAYER_2|MIN_DRAM_MEG=64switch-family
info_end:
BAUD=57600
MANUAL_BOOT=no
```

## Related Commands

| Command | Description |
|---|---|
| **cat** | Displays the contents of one or more files. |
| **type** | Displays the contents of one or more files. |

# rename

Use the **rename** bootloader command to rename a file.

**rename** *filesystem*:*/source-file-url filesystem*:*/destination-file-url*

## Syntax Description

| | |
|---|---|
| *filesystem*: | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */source-file-url* | Original path (directory) and filename. |
| */destination-file-url* | New path (directory) and filename. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

Directory names are limited to 45 characters between the slashes (/); the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

Filenames are limited to 45 characters; the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

## Examples

This example shows a file named *config.text* being renamed to *config1.text*:

```
switch: rename flash:config.text flash:config1.text
```

You can verify that the file was renamed by entering the **dir** *filesystem*: bootloader command.

## Related Commands

| Command | Description |
|---|---|
| copy | Copies a file from a source to a destination. |

# reset

Use the **reset** bootloader command to perform a hard reset on the system. A hard reset is similar to power-cycling the switch, clearing the processor, registers, and memory.

**reset**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Examples

This example shows how to reset the system:

```
switch: reset
Are you sure you want to reset the system (y/n)?y
System resetting...
```

## Related Commands

| Command | Description |
|---|---|
| boot | Loads and boots up an executable image and enters the command-line interface. |

# rmdir

Use the **rmdir** bootloader command to remove one or more empty directories from the specified file system.

**rmdir** *filesystem***:***/directory-url* ...

## Syntax Description

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| */directory-url* | Path (directory) and name of the empty directories to remove. Separate each directory name with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Directory names are case sensitive and limited to 45 characters between the slashes (/); the name cannot contain control characters, spaces, deletes, slashes, quotes, semicolons, or colons.

Before removing a directory, you must first delete all the files in the directory.

The switch prompts you for confirmation before deleting each directory.

## Examples

This example shows how to remove a directory:

```
switch: rmdir flash:Test
```

You can verify that the directory was deleted by entering the **dir** *filesystem***:** bootloader command.

## Related Commands

| Command | Description |
|---|---|
| **dir** | Displays a list of files and directories on the specified file system. |
| **mkdir** | Creates one or more new directories on the specified file system. |

# set

Use the **set** bootloader command to set or display environment variables, which can be used to control the bootloader or any other software running on the switch.

**set** *variable value*

## Syntax Description

| | |
|---|---|
| *variable value* | Use one of these keywords for *variable and value*: |
| | **MANUAL_BOOT**—Decides whether the switch automatically or manually boots up. |
| | Valid values are 1, yes, 0, and no. If it is set to no or 0, the bootloader attempts to automatically boot up the system. If it is set to anything else, you must manually boot up the switch from the bootloader mode. |
| | **BOOT** *filesystem***:/***file-url*—A semicolon-separated list of executable files to try to load and execute when automatically booting up. |
| | If the BOOT environment variable is not set, the system attempts to load and execute the first executable image it can find by using a recursive, depth-first search through the flash: file system. If the BOOT variable is set but the specified images cannot be loaded, the system attempts to boot up the first bootable file that it can find in the flash file system. |
| | **ENABLE_BREAK**—Decides whether the automatic bootup process can be interrupted by using the Break key on the console. |
| | Valid values are 1, yes, on, 0, no, and off. If it is set to 1, yes, or on, you can interrupt the automatic bootup process by pressing the Break key on the console after the flash file system has initialized. |
| | **HELPER** *filesystem***:/***file-url*—A semicolon-separated list of loadable files to dynamically load during the bootloader initialization. Helper files extend or patch the functionality of the bootloader. |
| | **PS1** *prompt*—A string that is used as the command-line prompt in bootloader mode. |
| | **CONFIG_FILE flash:/***file-url*—The filename that Cisco IOS uses to read and write a nonvolatile copy of the system configuration. |
| | **BAUD** *rate*—The rate in bits per second (bps) used for the console. The Cisco IOS software inherits the baud rate setting from the bootloader and continues to use this value unless the configuration file specifies another setting. The range is from 0 to 4294967295 bps. Valid values are 50, 75, 110, 150, 300, 600, 1200, 1800, 2000, 2400, 3600, 4800, 7200, 9600, 14400, 19200, 28800, 38400, 56000, 57600, 115200, and 128000. |
| | The most commonly used values are 300, 1200, 2400, 9600, 19200, 57600, and 115200. |
| | **HELPER_CONFIG_FILE** *filesystem***:/***file-url*—The name of the configuration file to be used by the Cisco IOS helper image. If this is not set, the file specified by the CONFIG_FILE environment variable is used by all versions of Cisco IOS that are loaded, including the helper image. This variable is used only for internal development and testing. |

## Defaults

The environment variables have these default values:

MANUAL_BOOT: No (0)

BOOT: Null string

ENABLE_BREAK: No (Off or 0) (the automatic bootup process cannot be interrupted by pressing the Break key on the console).

HELPER: No default value (helper files are not automatically loaded).

PS1: switch:

CONFIG_FILE: config.text

BAUD: 9600 bps

HELPER_CONFIG_FILE: No default value (no helper configuration file is specified).

SWITCH_NUMBER: 1

SWITCH_PRIORITY: 1

**Note** Environment variables that have values are stored in the flash file system in various files. The format of these files is that each line contains an environment variable name and an equal sign followed by the value of the variable. A variable has no value if it is not listed in this file; it has a value if it is listed in the file even if the value is a null string. A variable that is set to a null string (for example, " ") is a variable with a value. Many environment variables are predefined and have default values.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Environment variables are case sensitive and must be entered as documented.

Environment variables that have values are stored in flash memory outside of the flash file system.

Under normal circumstances, it is not necessary to alter the setting of the environment variables.

The MANUAL_BOOT environment variable can also be set by using the **boot manual** global configuration command.

The BOOT environment variable can also be set by using the **boot system** *filesystem***:/***file-url* global configuration command.

The ENABLE_BREAK environment variable can also be set by using the **boot enable-break** global configuration command.

The HELPER environment variable can also be set by using the **boot helper** *filesystem***:/***file-url* global configuration command.

The CONFIG_FILE environment variable can also be set by using the **boot config-file flash:/***file-url* global configuration command.

The HELPER_CONFIG_FILE environment variable can also be set by using the **boot helper-config-file** *filesystem***:/***file-url* global configuration command.

The HELPER_CONFIG_FILE environment variable can also be set by using the **boot helper-config-file** *filesystem***:/***file-url* global configuration command.

The SWITCH_NUMBER environment variable can also be set by using the **switch** *current-stack-member-number* **renumber** *new-stack-member-number* global configuration command.

The SWITCH_PRIORITY environment variable can also be set by using the **switch** *stack-member-number* **priority** *priority-number* global configuration command.

The bootloader prompt string (PS1) can be up to 120 printable characters except the equal sign (=).

## Examples

This example shows how to change the bootloader prompt:

```
switch: set PS1 loader:
loader:
```

You can verify your setting by using the **set** bootloader command.

## Related Commands

| Command | Description |
|---|---|
| **unset** | Resets one or more environment variables to its previous setting. |

# type

Use the **type** bootloader command to display the contents of one or more files.

**type** *filesystem***:/***file-url* ...

## Syntax Description

| | |
|---|---|
| *filesystem***:** | Alias for a flash file system. Use **flash:** for the system board flash device. |
| **/***file-url* | Path (directory) and name of the files to display. Separate each filename with a space. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Filenames and directory names are case sensitive.

If you specify a list of files, the contents of each file appears sequentially.

## Examples

This example shows how to display the contents of two files:

```
switch: type flash:/new-images/info flash:env_vars
version_suffix: image-version
version_directory:image-name
image_name:image-name .bin
ios_image_file_size: 6398464
total_image_file_size: 8133632
image_feature: IP|LAYER_3|PLUS|MIN_DRAM_MEG=128LAYER_2|MIN_DRAM_MEG=64switch-family
info_end:
BAUD=57600
MANUAL_BOOT=no
```

## Related Commands

| Command | Description |
|---|---|
| **cat** | Displays the contents of one or more files. |
| **more** | Displays the contents of one or more files. |

# unset

Use the **unset** bootloader command to reset one or more environment variables.

**unset** *variable* ...

## Syntax Description

| | |
|---|---|
| *variable* | Use one of these keywords for *variable*:<br>**MANUAL_BOOT**—Decides whether the switch automatically or manually boots up.<br>**BOOT**—Resets the list of executable files to try to load and execute when automatically booting up. If the BOOT environment variable is not set, the system attempts to load and execute the first executable image it can find by using a recursive, depth-first search through the flash file system. If the BOOT variable is set but the specified images cannot be loaded, the system attempts to boot up the first bootable file that it can find in the flash file system.<br>**ENABLE_BREAK**—Decides whether the automatic bootup process can be interrupted by using the Break key on the console after the flash file system has been initialized.<br>**HELPER**—A semicolon-separated list of loadable files to dynamically load during the bootloader initialization. Helper files extend or patch the functionality of the bootloader.<br>**PS1**—A string that is used as the command-line prompt in bootloader mode.<br>**CONFIG_FILE**—Resets the filename that Cisco IOS uses to read and write a nonvolatile copy of the system configuration.<br>**BAUD**—Resets the rate in bits per second (bps) used for the console. The Cisco IOS software inherits the baud rate setting from the bootloader and continues to use this value unless the configuration file specifies another setting.<br>**HELPER_CONFIG_FILE**—Resets the name of the configuration file to be used by the Cisco IOS helper image. If this is not set, the file specified by the CONFIG_FILE environment variable is used by all versions of Cisco IOS that are loaded, including the helper image. This variable is used only for internal development and testing. |

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Usage Guidelines

Under normal circumstances, it is not necessary to alter the setting of the environment variables.

The MANUAL_BOOT environment variable can also be reset by using the **no boot manual** global configuration command.

The BOOT environment variable can also be reset by using the **no boot system** global configuration command.

The ENABLE_BREAK environment variable can also be reset by using the **no boot enable-break** global configuration command.

The HELPER environment variable can also be reset by using the **no boot helper** global configuration command.

The CONFIG_FILE environment variable can also be reset by using the **no boot config-file** global configuration command.

The HELPER_CONFIG_FILE environment variable can also be reset by using the **no boot helper-config-file** global configuration command.

The bootloader prompt string (PS1) can be up to 120 printable characters except the equal sign (=).

## Examples

This example shows how to reset the prompt string to its previous setting:

```
switch: unset PS1
switch:
```

## Related Commands

| Command | Description |
|---|---|
| set | Sets or displays environment variables. |

# version

Use the **version** boot loader command to display the bootloader version.

**version**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

Bootloader

## Command History

| Release | Modification |
|---|---|
| 12.1(11)AX | This command was introduced. |
| 12.1(19)EA1 | This command was introduced. |
| 12.2(25)FX | This command was introduced. |

## Examples

This example shows how to display the bootloader version:

```
switch: version
C3750 Boot Loader (C3750-HBOOT-M) Version 12.1(11)AX
C2960 Boot Loader (C2960-HBOOT-M) Version 12.2(25)FX
C3560 Boot Loader (C3560-HBOOT-M) Version 12.1(19)EA1
Compiled Wed 05-Mar-08 10:11 by engineer
```