del

To delete files, use the **del** command.

del *device:filename*

Syntax Description

device:	Name of the device.
filename	Name of the system image or configuration file.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Usage Guidelines

The Catalyst 4000 family, 2948G, and 2980G switches support only the bootflash: Flash device.

A file cannot be undeleted if a valid file with the same name exists. In this case, you must delete the existing one first and then undelete the other file. A file can be deleted or undeleted up to 15 times. To permanently delete all deleted files on a device, use the **squeeze** command. You need to use the **squeeze** command to reclaim the space used by the deleted file.

Examples

This example shows how to delete a file:

```
rommon 1 > del bootflash:cat4000.6-1-1.bin
rommon 2 >
```

Related Commands

squeeze—ROM monitor
undelete—ROM monitor

delete

To delete a file on a Flash device, use the **delete** command.

delete [*file-id*]

Syntax Description

file-id	File to delete, where *file-id* is in the format [[*m*/]*device*:][*filename*].
	m/ = The module where the Flash device is located (such as the standby supervisor engine, an FDDI module, or an ATM module). Module 1 is assumed if no module is specified.
	device: = The device where the file is located. Valid Flash devices are **bootflash:**, **slot0:**, and **slot1:**. The colon (:) is required after the device name.
	filename = The name of the system image or configuration file.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

The Catalyst 4000 family, 2948G, and 2980G switches support only the bootflash: Flash device:

Use the **undelete** (switch) command to recover a deleted file.

A file cannot be undeleted if a valid file with the same name exists. Instead, you must delete the existing one first and then undelete the desired file. A file can be deleted or undeleted up to 15 times. To permanently delete all deleted files on a device, use the **squeeze** (switch) command.

Examples

This example shows how to delete a file from a Flash device:

```
Console> (enable) delete bootflash:switch_config.cfg
Console> (enable)
```

Related Commands

dir—switch
show flash
squeeze—switch
undelete—switch

dir—ROM monitor

To list the files on a Flash device, use the **dir** command.

dir *device*

Syntax Description

device	Name of the Flash device.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Examples

This example shows how to list the files on a Flash device:

```
rommon 1 > dir bootflash:
         File size           Checksum   File name
     14086 bytes (0x3706)     0xa6a84c93    switch_config.cfg (deleted)
      5415 bytes (0x1527)     0x53bbccda    5509_config.cfg
    446464 bytes (0x6d000)    0x8503219d    cat5000-sup3.5-1-1.bin (deleted)
   4231861 bytes (0x4092b5)   0x1d6092f4    cat5000-sup3.5-2-1.bin
rommon 2 >
```

dir—switch

To display a list of files on a Flash device, use the **dir** command.

dir *file-id* [**all** | **deleted** | **long**]

Syntax Description

file-id	File on which to perform the copy action, where *file-id* is of the format [[*m/*]*device***:**][*filename*]. *m/* = The module where the Flash device is located (such as the standby supervisor engine, an FDDI module, or an ATM module). Module 1 is assumed if no module is specified. *device***:** = The device where the file is located. Valid Flash devices are **bootflash:**, **slot0:**, and **slot1:**. You can also specify **tftp:** as the device name. The colon (:) is required after the device name. *filename* = The name of the system image or configuration file.
all	(Optional) Displays all files on the device, including deleted files.
deleted	(Optional) Displays only deleted files.
long	(Optional) Displays files that have not been deleted.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Normal and Privileged

Usage Guidelines

When you use one of the keywords, the system displays file information in long format.

When you omit all keywords, the system displays file information in short format.

Table 2-1 explains the short format output.

Table 2-1 Short Format File Information

Column Heading	Description
#	File index number
length	File length
date/time	Date and time the file was created
name	Filename

Table 2-2 explains the long format output.

Table 2-2 Long Format File Information

Column Heading	Description
#	File index number
ED	Letter to indicate whether the file contains an error (E) or is deleted (D)
type	File type (1 = configuration file, 2 = image file); when the file type is unknown, the system displays a zero or FFFFFFFF in this field
crc	File cyclic redundancy check
seek	Offset into the file system of the next file
nlen	Filename length
length	File length
date/time	Date and time the file was created
name	Filename

Examples

This example shows how to display the file information in short format:

```
Console> (enable) dir
-#- -length- -----date/time------ name
  2  3761580 Jun 14 2000 14:16:05 cat4000.6-1-0-104-ORL.bin
  3  3773884 Jul 10 2000 09:06:25 cat4000.6-1-0-126-ORL.bin

21040 bytes available (11382224 bytes used)
Console> (enable)
```

This example shows how to display the file information in long format:

```
Console> (enable) dir long
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
2 .. ffffffff d69fff2c  781794   25  3761580 Jun 14 2000 14:16:05 cat4000.6-1-0-104-ORL.bin
3 .. ffffffff d3b83f6b  b1add0   25  3773884 Jul 10 2000 09:06:25 cat4000.6-1-0-126-ORL.bin

21040 bytes available (11382224 bytes used)
Console> (enable)
```

This example shows the file with index number 1 deleted:

```
Console> (enable) dir all
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
1 .D ffffffff 9be31a86  3eb168   28  3846376 Jun 14 2000 14:13:10 cat4000-k4.6-1-0-104-ORL.bin
2 .. ffffffff d69fff2c  781794   25  3761580 Jun 14 2000 14:16:05 cat4000.6-1-0-104-ORL.bin
3 .. ffffffff d3b83f6b  b1add0   25  3773884 Jul 10 2000 09:06:25 cat4000.6-1-0-126-ORL.bin

21040 bytes available (11382224 bytes used)
Console> (enable)
```

Related Commands

show flash

disable

To return to Normal mode from privileged mode, use the **disable** command.

disable

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Privileged

Examples

This example shows how to return to Normal mode:

```
Console> (enable) disable
Console>
```

Related Commands

enable

disconnect

To close an active console port or Telnet session, use the **disconnect** command.

disconnect {*ip_addr* | **console**}

Syntax Description

ip_addr	Source IP address or IP alias of the session to disconnect; in dot notation, for example, 101.102.103.104.
console	Deletes an active session on the console port.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

If multiple sessions from the same IP address exist, the system checks if the current session originated from the specified IP address. If the session did not originate from the specified IP address, all Telnet sessions from the address are disconnected. If the session does originate from the specified address, all sessions, other than the current session, are disconnected. The system prompts whether to disconnect the current Telnet session. Enter **n** to remain connected or enter **y** to be disconnected.

Examples

This example shows how to close a Telnet session to host 192.168.255.255 (the 1 in parenthesis indicates the number of active sessions disconnected):

```
Console> (enable) disconnect 192.168.255.255
Telnet session from 192.168.255.255 disconnected. (1)
Console> (enable)
```

This example shows how to close the current console session:

```
Console> (enable) disconnect console
Console session disconnected.
Console> (enable)
```

Related Commands

telnet

download

To copy a software image from a specified host to the Flash memory of the supervisor engine or a designated module, use the **download** command.

download *host file* [*mod*] [**rcp**]

download serial [*mod*]

Syntax Description

host	Name or IP address of the host.
file	Name of the file to be downloaded.
mod	(Optional) Number of the module to receive the downloaded image.
rcp	(Optional) Copies the image from a specified host to Flash memory using rcp.
serial	Downloads the image through the serial (console) port.

Defaults

If no module is specified, the image is dowloaded to all modules for which the image is valid.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

The Catalyst 4000 family switches download new code to the processors using Kermit serial download through the EIA/TIA-232 console port.

The **download** command downloads code to the Flash memory. Catalyst 4000 family switch software rejects an image if it is not a valid image for the module.

The **download serial** command uses Kermit through the serial EIA/TIA-232 console port. The **download serial** command is not allowed from a Telnet session.

Caution After starting the serial download using Kermit, do not attempt to abort the serial download by pressing **Ctrl-C**. Pressing **Ctrl-C** interrupts the download process and might leave the switch in a problematic state. If this occurs, reboot the switch.

If you specify the module number, the download goes to the specified module, but the download will fail if the module is of a different type than is indicated by the download header. If you do not specify the module number, the download goes to all modules of that type.

Note You can use the **download** command as part of a minimal downtime software upgrade. For complete information on performing a minimal downtime software upgrade, refer to the *Software Configuration Guide* for your switch.

The **download serial** command uses the Kermit protocol through the serial EIA/TIA-232 console port. The **download serial** command is not allowed from a console session (the console port must be available for the serial download).

Examples

This example shows how to download a file named cat4000.6-1-2.bin from host called mercury to the supervisor engine module (by default):

```
Console> (enable) download mercury cat4000.6-1-2.bin
Download image cat4000.6-1-2.bin from mercury to module 1FLASH (y/n) [n]? y
\
Finished network single module download. (2418396 bytes)
FLASH on Catalyst:

Type            Address             Location
Intel 28F008    20000000            NMP (P3) 4MB SIM

Erasing flash sector...done.
Programming flash sector...done.
Erasing flash sector...done.
Programming flash sector...done.
The system needs to be reset to run the new image.
Console> (enable)
```

This sample session shows how to connect to a remote terminal from a workstation and how to use the **download serial** command to copy a software image to the supervisor engine module:

```
[At local workstation]
host% kermit
C-Kermit 5A(172) ALPHA, 30 Jun 95, SUNOS 4.0 (BSD)
Type ? or 'help' for help
C-Kermit> set line /dev/ttyb
C-Kermit> c
Connecting to /dev/ttyb, speed 9600.
The escape character is ^ (ASCII 28).
Type the escape character followed by C to get back,
or followed by ? to see other options.

Console> enable
Enter Password:
Console> (enable) set system baud 19200
^\C
[Back at local workstation]
C-Kermit> set speed 19200
/dev/ttyb, 19200 bps
C-Kermit> c
Connecting to /dev/ttyb, speed 19200.
The escape character is ^ (ASCII 28).
Type the escape character followed by C to get back,
or followed by ? to see other options.

Console> (enable) download serial
Download Supervisor image via console port (y/n) [n]? y

Concentrator Boot ROM (Ver 1.00)

Waiting for DOWNLOAD!!
Return to your local Machine by typing its escape sequence
Issue Kermit send command from there[ Send `Filename`]

^\C
[Back at Local System]
```

```
C-Kermit> send c4000_xx.bin
                          SF
c5000_xx.bin => C4000_XX.BIN, Size: 1233266

X to cancel file, CR to resend current packet
Z to cancel group, A for status report
E to send Error packet, Ctrl-C to quit immediately:.................................
.....................................................................................
...... [OK]
ZB
C-Kermit> quit
host%
```

Related Commands

reset—switch
show flash
upload

enable

To activate privileged mode, use the **enable** command. In privileged mode, additional commands are available, and certain commands display additional information.

enable

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Normal

Usage Guidelines

The `(enable)` in the prompt indicates that privileged commands can be entered.

Examples

This example shows how to enter privileged mode:

```
Console> enable
Enter password:
Console> (enable)
```

Related Commands

disable

format

To format a Flash device, use the **format** command. Flash PC cards must be formatted before they can be used.

format [**spare** *spare_num m/*] {*device1:*} [*device2: monlib_filename*]

Syntax Description

spare *spare_num*	(Optional) Number of spare sectors to reserve for use if other sectors fail; valid values are from 0 to 16.
m/	(Optional) Module number of the supervisor engine containing the Flash device.
device1:	Flash device to be formatted. A colon (:) is required after the specified device.
device2:	(Optional) Flash device that contains the *monlib* file to be used to format *device1*:. A colon (:) is required after the specified device.
monlib_filename	(Optional) Name of the *monlib* file to be used to format *device1:*.

Defaults

The number of spare sectors is 0.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

You can reserve up to 16 spare sectors for use when other sectors fail. If you do not reserve spare sectors and later some sectors on the device fail, you will have to reformat the entire Flash device, which will delete all existing data.

The *monlib* file is the ROM monitor library used by the ROM monitor to access files in the Flash file system. The file is also compiled into the system image. In the command syntax, *device1***:** is the device to format and *device2***:** contains the *monlib* file to use.

When you omit the [*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the *monlib* that is bundled with the system software.

When you omit *device2***:** from the [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the named *monlib* file from the default Flash device (specified by the **cd** command).

When you omit *monlib_filename* from the [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the *monlib* file from *device2***:**. When you specify the whole [[*device2***:**][*monlib_filename*]] argument, the system formats *device1***:** using the specified *monlib* file from the specified device.

You can also specify *device1:monlib_filename* as the device and filename to be used, as follows:

format device1: [**device1:** [*monlib_filename*]]

If *monlib_filename* is omitted, the system formats *device1*: using the built-in *monlib* file on the device.

Note When the system cannot find a *monlib* file, the system terminates the formatting process.

Examples

This example shows how to format a Flash device (Flash PC card in slot 1):

```
Console> (enable) format slot1:
All sectors will be erased, proceed (y/n) [n]?y
Enter volume id (up to 31 characters):
Formatting sector 1
Format device slot1 completed.
Console> (enable)
```

help—ROM monitor

To display a list of commands that you can use to set switch features, use the **help** command.

help

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Examples

This example shows how to display the commands list:

```
rommon 1 > help
alias               set and display aliases command
dir                 list files in file system
del                 delete a file
undelete            undelete a file
squeeze             remove deleted files
history             monitor command history
repeat              repeat a monitor command
boot                boot an image from flash/network
clear               clear configurations, use 'clear help' for more info
help                print list of available commands
ping                ping an ip addr
reset               restart the system
set                 show/set environment vars, use 'set help' for more info
show                show config parameters, use 'show help' for more info
sprom               display sprom contents
version             display version info
rommon 2 >
```

history—ROM monitor

To display the command history (the last 16 commands run in the ROM monitor environment), use the **history** command.

history

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Usage Guidelines

For convenience you can use the alias **h** for this command.

Examples

This example shows how to display the command history:

```
rommon 1 > history

1   help
2   break -s 0x20090
3   break -s 10090
4   break -s 0xa0001000
5   cont
6   help
7   dev
8   dir
9   dir bootflash:
10  dis
11  dis 0xa0001000
12  dis 0xbe000000
13  history
rommon 2 >
================================================================================
```

history—switch

To show the contents of the command history buffer, use the **history** command.

history

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Normal

Usage Guidelines

The history buffer size is fixed at 20 commands. See "Chapter 1, "Switch CLI" for more information about the command history feature.

Examples

This example shows how to display the command history and execute the second entry in the command history buffer:

```
Console> history
       1 help
       2 history
Console> !2
history
       1 help
       2 history
       3 history
Console>
```

l2trace

To display the Layer 2 path taken by the packets that start at a specified source address and end at a specified destination address, use the **l2trace** command.

l2trace *src_mac_addr dest_mac_addr* [*vlan*] [**detail**]

l2trace *src_ip_addr dest_ip_addr* [**detail**]

Syntax Description

src_mac_addr	Source MAC address.
dest_mac_addr	Destination MAC address.
vlan	(Optional) Number of the VLAN.
detail	(Optional) Provides detailed information.
src_ip_addr	Source IP address or alias.
dest_ip_addr	Destination IP address or alias.

Defaults

This command has no default settings.

Command Types

Switch command

Command Types

Privileged

Usage Guidelines

All the intermediate devices should be Catalyst 4000, Catalyst 5000, or Catalyst 6000 family switches running Supervisor Engine software release 6.1 or later.

The **l2trace** command displays the Layer 2 path when the specified source and destination addresses belong to the same VLAN. If you specify source and destination address which belong to different VLANs, **l2trace** aborts with an error message.

You must enable CDP on all the Catalyst 4000, 5000, or 6000 family switches in the network.

When the switch detects a device in the Layer 2 path that does not belong to the Catalyst 4000, Catalyst 5000, or Catalyst 6000 family switch, the switch continues to send Layer 2 trace queries and lets them time out.

This command is rejected if you enter a multicast source or destination MAC address.

If a source or destination address belongs to multiple VLANs, you must specify the VLAN to be used for determining the Layer 2 path.

The Layer 2 trace feature is not supported when multiple devices are attached to one port via hubs (for example, when multiple CDP neighbors are detected on a port). When more than one CDP neighbor is detected on the port, **l2trace** is aborted.

If you specify the IP address of the source and destination systems instead of the MAC addresses, the switch looks at the ARP table to determine the IP-address-to-MAC-address mapping of the source and destination systems. If an ARP entry exists for the specified IP address, the corresponding MAC address is used. If no

matching ARP entry exists, the system does an ARP query and tries to resolve the IP address. If this is the case, a restriction is imposed that requires the source and destination systems to be in the same subnet as the switch in order for the ARP query to be resolved.

Examples

This example shows how to display the Layer 2 packet path for the specified source and destination MAC addresses:

```
Console> (enable) l2trace 00-01-22-33-44-55 10-22-33-44-55-66 detail
l2trace vlan number is 10.

00-01-22-33-44-55 found in C5500 named wiring-1 on port 4/1 10Mb half duplex
C5500: wiring-1: 192.168.242.10: 4/1 10Mb half duplex -> 5/2 100MB full duplex
C5000: backup-wiring-1: 192.168.242.20: 1/1 100Mb full duplex -> 3/1-4 FEC attached
C5000: backup-core-1: 192.168.242.30: 4/1-4 FEC attached -> 1/1-2 GEC attached
C6000: core-1: 192.168.242.40: 1/1-2 GEC attached -> 2/1 10MB half duplex.
10-22-33-44-55-66 found in C6000 named core-1 on port 2/1 10MB half duplex.
Console> (enable)
```

This example shows how to display the Layer 2 packet path for the specified source and destination IP aliases:

```
Console> (enable) l2trace user-1-pc user-2-pc detail
Mapping IP address to MAC Address
user-1-pc -> 00-01-22-33-44-55
user-2-pc -> 10-22-33-44-55-66
l2trace vlan number is 10

00-01-22-33-44-55 found in C5500 named wiring-1 on port 4/1 10Mb half duplex
C5500: wiring-1: 192.168.242.10: 4/1 10Mb half duplex -> 5/2 100MB full duplex
C5000: backup-wiring-1: 192.168.242.20: 1/1 100Mb full duplex -> 3/1-4 FEC attached
C5000: backup-core-1: 192.168.242.30: 4/1-4 FEC attached -> 1/1-2 GEC attached
C6000: core-1: 192.168.242.40: 1/1-2 GEC attached -> 2/1 10MB half duplex.
10-22-33-44-55-66 found in C6000 named core-1 on port 2/1 10MB half duplex.
Console> (enable)
```

This example shows how to display a summary of Layer 2 packet path information for the specified source and destination MAC addresses:

```
Console> (enable) l2trace 00-01-22-33-44-55 10-22-33-44-55-66
Starting L2 Trace
sc0 :9.7.0.7 : 3/7
4/16 :9.7.0.2 : 4/10
Console> (enable)
```

This example show how to display a summary of Layer 2 packet path information for the specified source and destination IP addresses:

```
Console> (enable) l2trace 9.7.0.7 9.7.0.6
Starting L2 Trace
sc0 :9.7.0.7 : 3/7
4/16 :9.7.0.2 : 4/10
Console> (enable)
```

meminfo

To display information about the main memory, packet memory, and NVRAM, use the **meminfo** command.

meminfo [**-l**]

Syntax Description

-l	(Optional) Displays the long listing of the supported DRAM configurations.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Usage Guidelines

The hyphen (-) is required with the **-l** option.

Examples

This example shows how to use the **meminfo** command:

```
rommon 1 > meminfo

Main memory size: 16 MB in 32 bit mode.
Available main memory starts at 0xa000e000, size 16328KB
IO (packet) memory size: 25 percent of main memory.
NVRAM size: 32KB
```

ping—ROM monitor

To send ICMP echo-request packets to another node on the network, use the **ping** command.

ping *host*

Syntax Description

host	IP address of the host.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Usage Guidelines

You must enter the IP address of the node because ROM monitor does not support DNS name resolution.

Examples

This example shows how to ping 10.1.1.1:

```
rommon 1 > ping 10.1.1.1
10.1.1.1 is alive
rommon 2 >
```

ping—switch

To send ICMP echo-request packets to another node on the network. You can also use the **ping** command without arguments to configure ping, use the **ping** command.

ping -s *host*

ping -s *host* [*packet_size*] [*packet_count*]

Syntax Description

-s	Causes the **ping** command to send one datagram per second, printing one line of output for every response received.
host	IP address or IP alias of the host.
packet_size	(Optional) Number of bytes in a packet, from 56 to 1472 bytes.
packet_count	(Optional) Number of packets to send; valid values are from 0 to 2,147,483,647.

Defaults

The default settings for **ping -s** are as follows:

- *packet_size* is 56 bytes
- *packet_count* is 2147483647

The default settings for **ping** with no arguments following the host name are as follows:

- *packet_size* is 56 bytes
- *packet_count* is 5
- Wait time is 2 seconds
- Target IP address is none (this is a mandatory field)
- Source address is the host IP address

Command Types

Switch command

Command Modes

Normal Privileged to configure ping.

Usage Guidelines

The following are general **ping** command guidelines:

- A hyphen (-) is required with the **-s** option.
- Pinging stops when you press **Ctrl-C**.
- A continuous ping occurs when packets are generated continuously and are dispatched to the host unless you press **Ctrl-C** to stop pinging.
- Because the switch adds header information, the actual packet size is 8 bytes larger than the size you specify.
- Normal response—The Normal response occurs in 1 to 10 seconds, depending on network traffic.

The following guidelines are for the **ping -s** command:

- The maximum waiting time before timing out is 2 seconds.
- A new ping packet is generated after one second of sending the previous packet, regardless of whether an echo-reply is received.
- A continuous ping occurs if you do not enter a packet count.
- Network or host unreachable—The switch found no corresponding entry in the route table.
- Destination does not respond—If the host does not respond, a “no answer from host” appears in 2 seconds.
- Destination unreachable—This destination gateway indicates that the destination is unreachable.

The following guidelines are for the **ping** command without arguments beyond the IP address:

- The **ping** *ip_address* command is accepted in Normal mode only. The parameters take the default values automatically.
- The target IP address is a mandatory field to be entered.
- The maximum waiting time is configurable.
- A new ping packet is generated only when a echo-reply is received.
- A continuous ping occurs if you enter a packet count of 0.
- Output returns only when a response is received or you press **Return**. This is available in privileged mode only.
- When configuring ping, you must either press **Return** or enter a response. Valid responses and appropriate values are as follows:
  - Target IP address—IP address or host name of the destination node you plan to ping.
  - Number of Packets—Number of ping packets to be sent to the destination address. Valid values are from 0 to 2,147,483,647 (0 specifies continuous ping).
  - Datagram size—Size of the ping packet. Valid values are from 56 to 1472 bytes.
  - Timeout in seconds—Timeout interval. Valid values are from 0 to 3600 seconds.
  - Source IP Address [(default)]—IP address or IP alias of the source.

This example shows how to ping a host with IP alias elvis a single time:

```
Console> ping elvis
!!!!!

-----172.20.52.19 PING Statistics------
5 packets transmitted, 5 packets received, 0% packet loss
round-trip (ms) min/avg/max = 1/1/1
Console>
```

This example shows how to ping a host with the IP alias elvis once per second until you press Ctrl-C to stop pinging:

```
Console> ping -s elvis
ping elvis: 56 data bytes
64 bytes from elvis: icmp_seq=0. time=11 ms
64 bytes from elvis: icmp_seq=1. time=8 ms
64 bytes from elvis: icmp_seq=2. time=8 ms
64 bytes from elvis: icmp_seq=3. time=7 ms
64 bytes from elvis: icmp_seq=4. time=11 ms
64 bytes from elvis: icmp_seq=5. time=7 ms
64 bytes from elvis: icmp_seq=6. time=7 ms
^C
```

```
----elvis PING Statistics----
7 packets transmitted, 7 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 7/8/11
Console>
```

This example shows how to configure ping:

```
Console> (enable) ping

Target IP Address []: 172.20.52.19
Number of Packets [5]: 6
Datagram Size [56]: 75
Timeout in seconds [2]: 1
Source IP Address [172.20.52.18]:
!!!!!!

----172.20.52.19 PING Statistics----
6 packets transmitted, 6 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 1/1/1
Console> (enable)
```

Related Commands

set interface
set ip route—switch
show interface—switch
show ip route—switch

pwd

To display the current default Flash device, use the **pwd** command.

pwd [*mod*]

Syntax Description

mod	(Optional) Module number of the supervisor engine for which to display the current default Flash device.

Defaults

If you do not provide a module number, the active supervisor engine is used.

Command Types

Switch command

Command Modes

Privileged

Examples

This example shows how to display the current default Flash device:

```
Console> pwd
bootflash
Console> cd
Default flash device set to slot0.
Console> pwd
slot0
Console>
```

quit

To exit a CLI session, use the **quit** command.

quit

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Normal

Usage Guidelines

The **exit** and **logout** command aliases perform the same function as the **quit** command.

Examples

This example shows how to exit a CLI session:

```
Console> quit
Connection closed by foreign host.
host%
Console>
```

reconfirm vmps

To apply the current dynamic port VLAN membership assignments with the VMPS server, use the **reconfirm vmps** command.

reconfirm vmps

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

VMPS database changes are not conveyed automatically to switches participating in VMPS. Therefore, after making a VMPS database change, use this command on VMPS clients and servers to apply the database changes.

Examples

This example shows how to apply the current dynamic port VLAN membership with VMPS:

```
Console (enable) reconfirm vmps
reconfirm process started
Use 'show dvlan statistics' to see reconfirm status
Console (enable)
```

Related Commands

set vmps server
show dvlan statistics
show vmps
show vmps statistics

repeat

To repeat a command, use the **repeat** ROM monitor command.

repeat [*num* | *string*]

Syntax Description

num	(Optional) Number of the command (from the command history buffer list).
string	(Optional) String that uniquely matches a command in the command history buffer list.

Defaults

If you do not provide an argument, the last command is repeated.

Command Types

ROM monitor command

Command Modes

Normal

Usage Guidelines

The optional *num* and *string* arguments specify which command in the command history buffer to repeat.

If you specify a string to match, the most recent command in the buffer to begin with the specified string is executed again.

If the string contains blank spaces, you must use quotation marks.

For convenience, you can use the alias **r** for this command.

Examples

These examples show how to repeat the most recent dir command, repeat the most recent command, and repeat command with the ID 15. You use the **history** command to display the list of previously entered commands:

```
rommon 1 > history

8   dir
9   dir bootflash:
10   dis
11   dis 0xa0001000
12   dis 0xbe000000
13   history
14   meminfo
15   meminfo -l
16   meminfo
17   meminfo -l
18   meminfo
19   meminfo
20   meminfo -l
21   meminfo -l
22   history
rommon 2 > repeat dir
dir bootflash:
          File size           Checksum   File name
   1973032 bytes (0x1e1b28)   0xdadf5e24    llue
```

```
rommon 3 > repeat
dir bootflash:
         File size           Checksum   File name
   1973032 bytes (0x1e1b28)   0xdadf5e24    llue
rommon 4 > repeat 15
meminfo -l

Main memory size: 16 MB.
Packet memory size: 0 MB
Main memory size: 0x1000000
Available main memory starts at 0xa000e000, size 0xff2000
NVRAM size: 0x20000

Parity Map for the DRAM Banks
Socket 0 in Bank 0 Has No Parity
Socket 1 in Bank 0 Has No Parity
Socket 0 in Bank 1 Has No Parity
Socket 1 in Bank 1 Has No Parity
rommon 5 >
==========================================================================
```

reset—ROM monitor

To perform a soft reset of the switch, use the **reset** ROM monitor command.

reset {*mod* | **system**}

Syntax Description

mod	Number of the module to be reset.
system	Resets the entire switch.

Defaults

This command has no default settings.

Command Types

ROM monitor command

Command Modes

Normal

Examples

This example shows how to reset the switch:

```
rommon 1 > reset

System Bootstrap, Version 3.1(1.69)
Copyright (c) 1994-1997 by cisco Systems, Inc.
Supervisor III processor with 16384 Kbytes of main memory

rommon 2 >
================================================================================
```

reset—switch

To restart the system or an individual module or to schedule a system reset at a specific time, use the **reset** command.

reset [*mod* | **system** | **mindown**]

reset [**mindown**] **at** {*hh:mm*} [*mm/dd*] [*reason*]

reset [**mindown**] **in** [*hh*:] {*mm*} [*reason*]

reset cancel

Syntax Description

mod	(Optional) Number of the module to be restarted.
system	(Optional) Resets the system.
mindown	(Optional) Performs a reset as part of a minimal downtime software upgrade in a system with redundant supervisor engine modules.
at	Schedules a system reset at a specific future time.
hh:mm	Hour and minute of the scheduled reset.
mm/dd	(Optional) Month and day of the scheduled reset.
in	Schedules a system reset after a specified time.
hh:	(Optional) Hours into the future to reset the switch.
mm	Minutes into the future to reset the switch.
reason	(Optional) Indicates the reason for the reset.
cancel	Cancels a scheduled reset.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Privileged

Usage Guidelines

If you do not specify a module number (either a switching module or the active supervisor engine module), the command resets the entire system.

You can use the **reset** *mod_num* command to switch to the redundant supervisor engine, where *mod_num* is the module number of the active supervisor.

In software release 5.2 and later, you can use the **reset mindown** command to reset the switch as part of a minimal downtime software upgrade in a system with redundant supervisor engine modules. For complete information on performing a minimal downtime software upgrade, refer to the *Software Configuration Guide–Catalyst 4000 Family, 2948G, and 2980G Switches*.

Caution If you make configuration changes after entering the **reset mindown** command but before the active supervisor engine resets, the changes are not saved. Input from the CLI is still accepted by the switch while the standby supervisor engine is reset, but any changes you make to the configuration between the time when you enter the **reset mindown** command and the time when the supervisor engine comes online running the new software image are not saved or synchronized with the standby supervisor engine.

Examples

This example shows how to reset module 4:

```
Console> (enable) reset 4
This command will reset module 4 and may disconnect your telnet session.
Do you want to continue (y/n) [n]? y
Resetting module 4...
Console> (enable)
```

This example shows how to schedule a reset at a specific future time and include a reason for the reset:

```
Console> (enable) reset at 23:00 08/18 Software upgrade to 5.3(1).
Reset scheduled at 23:00:00, Wed Aug 18 2000.
Reset reason: Software upgrade to 5.3(1).
Proceed with scheduled reset? (y/n) [n]? y
Reset scheduled for 23:00:00, Wed Aug 18 2000 (in 0 day 8 hours 39 minutes).
Console> (enable)
```

This example shows how to schedule a reset with minimum down time.

```
Console> (enable) reset mindown at 23:00 08/18 Software upgrade to 5.3(1).
Reset scheduled at 23:00:00, Wed Aug 18 2000.
Reset reason: Software upgrade to 5.3(1).
Proceed with scheduled reset? (y/n) [n]? y
Reset mindown scheduled for 23:00:00, Wed Aug 18 2000 (in 0 day 8 hours 39 minutes).
Console> (enable)
```

This example shows how to schedule a reset after a specified time:

```
Console> (enable) reset in 05:20 Configuration update
Reset scheduled in 5 hours 20 minutes.
Reset reason: Configuration update
Proceed with scheduled reset? (y/n) [n]? y
Reset scheduled for 19:56:01, Wed Aug 18 2000 (in 5 hours 20 minutes).
Reset reason: Configuration update
Console> (enable)
```

This example shows how to cancel a scheduled reset:

```
Console> (enable) reset cancel
Cancel reset scheduled for 19:56:01, Wed Aug 18 2000 (in 5 hours 20 minutes).
Console> (enable)
```

session

To access the CLI of an intelligent module such as a Catalyst 5000 family RSM, RSFC, or ATM module, use the **session** command.

session *mod*

Syntax Description

mod	Number of the module.

Defaults

This command has no default settings.

Command Types

Switch command

Command Modes

Normal

Usage Guidelines

After you enter this command, the system responds with the Enter Password: prompt, if a password is configured on the module.

To end the session with the intelligent module, enter the **quit** command.

Examples

This example shows how to open a session with an ATM module (module 4):

```
Console> session 4
Trying ATM-4...
Connected to ATM-4.
Escape character is '^]'.

ATM>
```