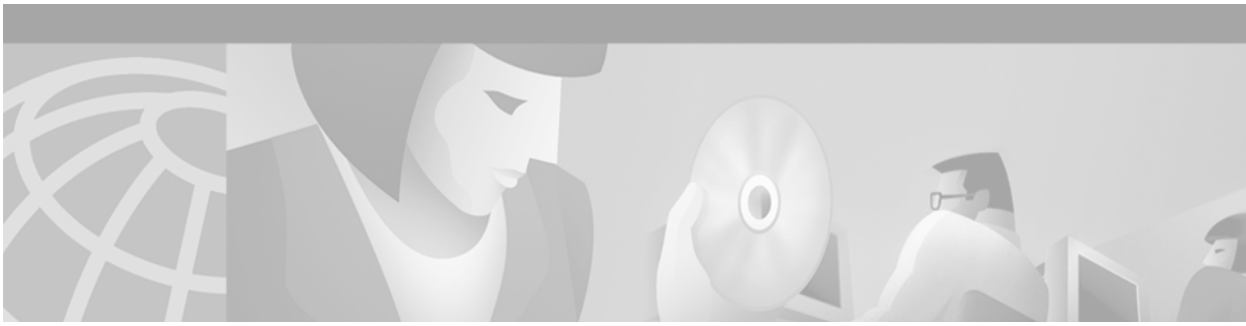

Router Memory Commands

This chapter provides detailed descriptions of the commands used to maintain router memory.

For configuration information and examples, refer to the "Maintaining Router Memory" chapter in the Release 12.2 *Cisco IOS Configuration Fundamentals Configuration Guide*.

Flash Memory File System Types

Cisco platforms generally use one of three different Flash memory file system type. Some commands are supported on only one or two file system types.

Use Table 36 to determine which Flash memory file system type your platform uses.

Table 36 Flash Memory File System Types

Type	Platforms
Class A	Cisco 7000 family, Cisco 12000 series, LightStream LS1010 series
Class B	Cisco 1003, Cisco 1004, Cisco 1005, Cisco 2500 series, Cisco 3600 series, Cisco 4000 series, Cisco AS5200 access servers
Class C	Cisco MC3810 multiservice concentrators; disk0 and disk1 of Cisco SC3640 system controllers

memory scan

To enable the Memory Scan feature on a Cisco 7500 series router, use the **memory scan** command. To restore the router configuration to the default, use the **no** form of this command.

memory scan

no memory scan

Syntax Description

This command has no arguments or keywords.

Defaults

This command is disabled by default.

Command Modes

Global configuration

Command History

Release	Modification
12.0(4)XE	This command was introduced.
12.0(7)T	This command was integrated in Cisco IOS Release 12.0 T.

Usage Guidelines

The Memory Scan feature adds a low-priority background process that searches all installed dynamic random-access memory (DRAM) for possible parity errors. If errors are found in memory areas that are not in use, this feature attempts to scrub (remove) the errors. The time to complete one memory scan and scrub cycle can range from 10 minutes to several hours, depending on the amount of installed memory. The impact of the Memory Scan feature on the central processing unit (CPU) is minimal. To view the status of the memory scan feature on your router, use the **show memory scan** command in EXEC mode.

Examples

The following example enables the Memory Scan feature on a Cisco 7500 series router:

```
Router(config)# memory scan
```

Related Commands

Command	Description
show memory scan	Displays the number and type of parity errors on your system (Cisco 7500 series only).

memory-size iomem

To reallocate the percentage of DRAM to use for I/O memory and processor memory on Cisco 3600 series routers, use the **memory-size iomem** global configuration command. To revert to the default memory allocation, use the **no** form of this command.

memory-size iomem *i/o-memory-percentage*

no memory-size iomem *i/o-memory-percentage*

Syntax Description

i/o-memory-percentage	The percentage of DRAM allocated to I/O memory. The values permitted are **10**, **15**, **20**, **25**, **30**, **40**, and **50**. A minimum of 4 MB of memory is required for I/O memory.

Defaults

The default memory allocation is 25 percent I/O memory and 75 percent processor memory.

Note If the **smartinit** process has been enabled, the default memory allocation of 25% to I/O does not apply. Instead, **smartinit** examines the network modules and then calculates the I/O memory required.

Command Modes

Global configuration

Command History

Release	Modification
11.2 P	This command was introduced.

Usage Guidelines

When you specify the percentage of I/O memory in the command line, processor memory automatically acquires the remaining percentage of DRAM memory.

Examples

The following example allocates 40 percent of the DRAM memory to I/O memory and the remaining 60 percent to processor memory:

```
Router# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)# memory-size iomem 40
Router(config)# exit
Router# copy system:running-config nvram:startup-config
Building configuration...
[OK]

Router# reload

rommon 1 > boot
program load complete, entry point: 0x80008000, size: 0x32ea24
```

```
Self decompressing the image :
########################################################################################
########################################################################################
############################################################## [OK]
```

partition

To separate Flash memory into partitions on Class B file system platforms, use the **partition** global configuration command. To undo partitioning and to restore Flash memory to one partition, use the **no** form of this command.

Cisco 1600 Series and Cisco 3600 Series Routers

partition *flash-filesystem***:** [*number-of-partitions*][*partition-size*]

no partition *flash-filesystem***:**

All Other Class B Platforms

partition flash *partitions* [*size1 size2*]

no partition flash

Syntax Description

*flash-filesystem***:**	One of the following Flash file systems, which must be followed by a colon (:). The Cisco 1600 series can only use the **flash:** keyword. • **flash:**—Internal Flash memory • **slot0:**—Flash memory card in PCMCIA slot 0 • **slot1:**—Flash memory card in PCMCIA slot 1
number-of-partitions	(Optional) Number of partitions in Flash memory.
partition-size	(Optional) Size of each partition. The number of partition size entries must be equal to the number of specified partitions.
partitions	Number of partitions in Flash memory. Can be 1 or 2.
size1	(Optional) Size of the first partition (in megabytes).
size2	(Optional) Size of the second partition (in megabytes).

Defaults

Flash memory consists of one partition.

If the partition size is not specified, partitions of equal size are created.

Command Modes

Global configuration

Command History

Release	Modification
10.3	This command was introduced.

Usage Guidelines

For the Cisco 1600 series and Cisco 3600 series routers, to undo partitioning, use the **partition** *flash-filesystem***:1** or **no partition** *flash-filesystem***:** command. For other Class B platforms, use either the **partition flash 1** or **no partition flash** command. If there are files in a partition other than the first, you must use the **erase** *flash-filesystem:partition-number* command to erase the partition before reverting to a single partition.

When creating two partitions, you must not truncate a file or cause a file to spill over into the second partition.

Examples

The following example creates two partitions of 4 MB each in Flash memory:

```
Router(config)# partition flash 2 4 4
```

The following example divides the Flash memory card in slot 0 into two partitions, each 8 MB in size on a Cisco 3600 series router:

```
Router(config)# partition slot0: 2 8 8
```

The following example creates four partitions of equal size in the card on a Cisco 1600 series router:

```
Router(config)# partition flash: 4
```

show (Flash file system)

To display the layout and contents of a Flash memory file system, use the **show** EXEC command.

Class A Flash File Systems

show *flash-filesystem***:** [**all** | **chips** | **filesys**]

Class B Flash File Systems

show *flash-filesystem***:** [**partition** *number*] [**all** | **chips** | **detailed** | **err** | **summary**]

Class C Flash File Systems

show *flash-filesystem***:**

Syntax Description

flash-filesystem:	Flash memory file system (**bootflash:**, **flash:**, **slot0:**, **slot1:**, **slavebootflash:**, **slaveslot0:**, or **slaveslot1:**), followed by a colon.
all	(Optional) On Class B Flash file systems, **all** keyword displays complete information about Flash memory, including information about the individual ROM devices in Flash memory and the names and sizes of all system image files stored in Flash memory, including those that are invalid. On Class A Flash file systems, the **all** keyword displays the following information: • The information displayed when no keywords are used. • The information displayed by the **filesys** keyword. • The information displayed by the **chips** keyword.
chips	(Optional) Displays information per partition and per chip, including which bank the chip is in, plus its code, size, and name.
filesys	(Optional) Displays the Device Info Block, the Status Info, and the Usage Info.
partition *number*	(Optional) Displays output for the specified partition number. If you do not specify a partition in the command, the router displays output for all partitions. You can use this keyword only when Flash memory has multiple partitions.
detailed	(Optional) Displays detailed file directory information per partition, including file length, address, name, Flash memory checksum, computer checksum, bytes used, bytes available, total bytes, and bytes of system Flash memory.
err	(Optional) Displays write or erase failures in the form of number of retries.
summary	(Optional) Displays summary information per partition, including the partition size, bank size, state, and method by which files can be copied into a particular partition. You can use this keyword only when Flash memory has multiple partitions.

Command Modes

EXEC

Command History

Release	Modification
11.3 AA	This command was introduced.

Usage Guidelines

If Flash memory is partitioned, the command displays the requested output for each partition, unless you use the **partition** keyword.

The command also specifies the location of the current image.

To display the contents of boot Flash memory on Class A or B file systems, use the **show bootflash:** command as follows:

Class A Flash file systems

show bootflash: [**all** | **chips** | **filesys**]

Class B Flash file systems

show bootflash: [**partition** *number*] [**all** | **chips** | **detailed** | **err**]

To display the contents of internal Flash memory on Class A or B file systems, use the **show flash:** command as follows:

Class A Flash file systems

show flash: [**all** | **chips** | **filesys**]

Class B Flash file systems

show flash: [**partition** *number*][**all** | **chips** | **detailed** | **err** | **summary**]

The **show (Flash file system)** command replaces the **show flash devices** command.

Examples

The output of the **show** command depends on the type of Flash file system you select. Types include **flash:**, **bootflash:**, **slot0:**, **slot1:**, **slavebootflash:**, **slaveslot0:**, and **slaveslot1:**.

Examples of output from the **show flash** command are provided in the following sections:

- Class A Flash File System
- Class B Flash File Systems

Although the examples use **flash:** as the Flash file system, you may also use the other Flash file systems listed.

Class A Flash File System

The following three examples show sample output for Class A Flash file systems. Table 37 describes the significant fields shown in the display.

The following is sample output from the **show flash:** command.

```
Router# show flash:

-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
1   .. unknown  317FBA1B  4A0694   24  4720148 Aug 29 1997 17:49:36
hampton/nitro/c7200-j-mz
```

```
2   .. unknown  9237F3FF  92C574   11  4767328 Oct 01 1997 18:42:53 c7200-js-mz
3   .D unknown  71AB01F1 10C94E0   10  7982828 Oct 01 1997 18:48:14 rsp-jsv-mz
4   .D unknown  96DACD45 10C97E0    8      639 Oct 02 1997 12:09:17 the_time
5   .. unknown  96DACD45 10C9AE0    3      639 Oct 02 1997 12:09:32 the_time
6   .D unknown  96DACD45 10C9DE0    8      639 Oct 02 1997 12:37:01 the_time
7   .. unknown  96DACD45 10CA0E0    8      639 Oct 02 1997 12:37:13 the_time

3104544 bytes available (17473760 bytes used)
```

Table 37 show (Class A Flash File System) Field Descriptions

Field	Description
#	Index number for the file.
ED	Whether the file contains an error (*E*) or is deleted (*D*).
type	File *type* (1 = configuration file, 2 = image file). The software displays these values only when the file type is certain. When the file type is unknown, the system displays "unknown" in this field.
crc	Cyclic redundant check for the file.
seek	Offset into the file system of the next file.
nlen	*name length*—Length of the filename.
length	Length of the file itself.
date/time	Date and time the file was created.
name	Name of the file.

The following is sample output from the **show flash: chips** command:

```
RouterA# show flash: chips

******** Intel Series 2+ Status/Register Dump ********

ATTRIBUTE MEMORY REGISTERS:
  Config Option Reg (4000): 2
  Config Status Reg (4002): 0
  Card Status   Reg (4100): 1
  Write Protect Reg (4104): 4
  Voltage Cntrl Reg (410C): 0
  Rdy/Busy Mode Reg (4140): 2

COMMON MEMORY REGISTERS: Bank 0
  Intelligent ID Code  : 8989A0A0
  Compatible Status Reg: 8080
  Global     Status Reg: B0B0
  Block Status Regs:
    0  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    8  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    16 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    24 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0

COMMON MEMORY REGISTERS: Bank 1
  Intelligent ID Code  : 8989A0A0
  Compatible Status Reg: 8080
  Global     Status Reg: B0B0
  Block Status Regs:
    0  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
```

```
    8  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    16 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    24 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0

COMMON MEMORY REGISTERS: Bank 2
  Intelligent ID Code  : 8989A0A0
  Compatible Status Reg: 8080
  Global     Status Reg: B0B0
  Block Status Regs:
    0  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    8  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    16 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    24 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0

COMMON MEMORY REGISTERS: Bank 3
  Intelligent ID Code  : 8989A0A0
  Compatible Status Reg: 8080
  Global     Status Reg: B0B0
  Block Status Regs:
    0  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    8  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    16 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    24 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0

COMMON MEMORY REGISTERS: Bank 4
  Intelligent ID Code  : 8989A0A0
  Compatible Status Reg: 8080
  Global     Status Reg: B0B0
  Block Status Regs:
    0  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    8  :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    16 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
    24 :  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0  B0B0
```

The following is sample output from the **show flash: filesys** command:

```
RouterA# show flash: filesys

-------- F I L E   S Y S T E M   S T A T U S --------
  Device Number = 0
DEVICE INFO BLOCK:
  Magic Number          = 6887635   File System Vers = 10000    (1.0)
  Length                = 1400000   Sector Size      = 20000
  Programming Algorithm = 4         Erased State     = FFFFFFFF
  File System Offset    = 20000     Length = 13A0000
  MONLIB Offset         = 100       Length = C730
  Bad Sector Map Offset = 1FFEC     Length = 14
  Squeeze Log Offset    = 13C0000   Length = 20000
  Squeeze Buffer Offset = 13E0000   Length = 20000
  Num Spare Sectors     = 0
    Spares:
STATUS INFO:
  Writable
  NO File Open for Write
  Complete Stats
  No Unrecovered Errors
  No Squeeze in progress
USAGE INFO:
  Bytes Used     = 10AA0E0  Bytes Available = 2F5F20
  Bad Sectors    = 0       Spared Sectors  = 0
  OK Files       = 4       Bytes = 90C974
  Deleted Files  = 3       Bytes = 79D3EC
  Files w/Errors = 0       Bytes = 0
```

The following is sample output from the **show flash:** command:

```
RouterB> show flash:

System flash directory:
File  Length   Name/status
  1   4137888  c3640-c2is-mz.Feb24
[4137952 bytes used, 12639264 available, 16777216 total]
16384K bytes of processor board System flash (Read/Write)\
```

The following example shows detailed information about the second partition in internal Flash memory:

```
RouterB# show flash: partition 2

System flash directory, partition 2:
File  Length   Name/status
  1   1711088  dirt/images/c3600-i-mz
[1711152 bytes used, 15066064 available, 16777216 total]
16384K bytes of processor board System flash (Read/Write)
```

Class B Flash File Systems

Table 38 describes significant fields shown in the displays.

Table 38 show (Class B Flash File System) all Fields

Field	Description
addr	Address of the file in Flash memory.
available	Total number of bytes available in Flash memory.
Bank	Bank number.
Bank-Size	Size of bank in bytes.
bytes used	Total number of bytes used in Flash memory.
ccksum	Computed checksum.
Chip	Chip number.
Code	Code number.
Copy-Mode	Method by which the partition can be copied to: • RXBOOT-MANUAL indicates a user can copy manually by reloading to the boot ROM image. • RXBOOT-FLH indicates user can copy via Flash load helper. • Direct indicates user can copy directly into Flash memory. • None indicates that it is not possible to copy into that partition.
fcksum	Checksum recorded in Flash memory.
File	Number of the system image file. If no filename is specified in the **boot system flash** command, the router boots the system image file with the lowest file number.
Free	Number of bytes free in partition.
Length	Size of the system image file (in bytes).
Name	Name of chip manufacturer and chip type.

Table 38 show (Class B Flash File System) all Fields (continued)

Field	Description
Name/status	Filename and status of a system image file. The status [invalidated] appears when a file has been rewritten (recopied) into Flash memory. The first (now invalidated) copy of the file is still present within Flash memory, but it is rendered unusable in favor of the newest version. The [invalidated] status can also indicate an incomplete file that results from the user abnormally terminating the copy process, a network timeout, or a Flash memory overflow.
Partition	Partition number in Flash memory.
Size	Size of partition (in bytes) or size of chip.
State	State of the partition. It can be one of the following values: • Read-Only indicates the partition that is being executed from. • Read/Write is a partition that can be copied to.
System flash directory	Flash directory and its contents.
total	Total size of Flash memory (in bytes).
Used	Number of bytes used in partition.

The following is sample output from the **show flash: all** command:

```
RouterB> show flash: all
Partition   Size    Used      Free      Bank-Size  State          Copy Mode
  1        16384K   4040K    12343K     4096K      Read/Write     Direct

System flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   4137888  c3640-c2is-mz.Feb24
        0x40      0xED65  0xED65
[4137952 bytes used, 12639264 available, 16777216 total]
16384K bytes of processor board System flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       01D5      1024KB    AMD   29F080
    2      1       01D5      1024KB    AMD   29F080
    3      1       01D5      1024KB    AMD   29F080
    4      1       01D5      1024KB    AMD   29F080
    1      2       01D5      1024KB    AMD   29F080
    2      2       01D5      1024KB    AMD   29F080
    3      2       01D5      1024KB    AMD   29F080
    4      2       01D5      1024KB    AMD   29F080
    1      3       01D5      1024KB    AMD   29F080
    2      3       01D5      1024KB    AMD   29F080
    3      3       01D5      1024KB    AMD   29F080
    4      3       01D5      1024KB    AMD   29F080
    1      4       01D5      1024KB    AMD   29F080
    2      4       01D5      1024KB    AMD   29F080
    3      4       01D5      1024KB    AMD   29F080
    4      4       01D5      1024KB    AMD   29F080
```

The following is sample output from the **show flash: all** command on a router with Flash memory partitioned:

```
Router# show flash: all

System flash partition information:
Partition   Size    Used       Free     Bank-Size     State         Copy-Mode
    1       4096K    3459K     637K     4096K         Read Only     RXBOOT-FLH
    2       4096K    3224K     872K     4096K         Read/Write    Direct

System flash directory, partition 1:
File     Length     Name/status
        addr     fcksum     ccksum
  1     3459720     master/igs-bfpx.100-4.3
        0x40     0x3DE1     0x3DE1
[3459784 bytes used, 734520 available, 4194304 total]
4096K bytes of processor board System flash (Read ONLY)

   Chip    Bank     Code      Size      Name
    1      1        89A2      1024KB    INTEL 28F008SA
    2      1        89A2      1024KB    INTEL 28F008SA
    3      1        89A2      1024KB    INTEL 28F008SA
    4      1        89A2      1024KB    INTEL 28F008SA
Executing current image from System flash [partition 1]

 System flash directory, partition2:
File     Length     Name/status
        addr     fcksum     ccksum
  1     3224008     igs-kf.100
        0x40     0xEE91     0xEE91
[3224072 bytes used, 970232 available, 4194304 total]
4096K bytes of processor board System flash (Read/Write)

   Chip    Bank     Code      Size      Name
    1      2        89A2      1024KB    INTEL 28F008SA
    2      2        89A2      1024KB    INTEL 28F008SA
    3      2        89A2      1024KB    INTEL 28F008SA
    4      2        89A2      1024KB    INTEL 28F008SA
```

The following is sample output from the **show flash: chips** command:

```
RouterB> show flash: chips

16384K bytes of processor board System flash (Read/Write)

   Chip    Bank    Code      Size      Name
    1      1       01D5      1024KB    AMD   29F080
    2      1       01D5      1024KB    AMD   29F080
    3      1       01D5      1024KB    AMD   29F080
    4      1       01D5      1024KB    AMD   29F080
    1      2       01D5      1024KB    AMD   29F080
    2      2       01D5      1024KB    AMD   29F080
    3      2       01D5      1024KB    AMD   29F080
    4      2       01D5      1024KB    AMD   29F080
    1      3       01D5      1024KB    AMD   29F080
    2      3       01D5      1024KB    AMD   29F080
    3      3       01D5      1024KB    AMD   29F080
    4      3       01D5      1024KB    AMD   29F080
    1      4       01D5      1024KB    AMD   29F080
    2      4       01D5      1024KB    AMD   29F080
    3      4       01D5      1024KB    AMD   29F080
    4      4       01D5      1024KB    AMD   29F080
```

The following is sample output from the **show flash: detailed** command:

```
RouterB> show flash: detailed

System flash directory:
File  Length   Name/status
        addr      fcksum  ccksum
  1   4137888  c3640-c2is-mz.Feb24
        0x40      0xED65  0xED65
[4137952 bytes used, 12639264 available, 16777216 total]
16384K bytes of processor board System flash (Read/Write)
```

The following is sample output from the **show flash: err** command:

```
RouterB> show flash: err

System flash directory:
File  Length   Name/status
  1   4137888  c3640-c2is-mz.Feb24
[4137952 bytes used, 12639264 available, 16777216 total]
16384K bytes of processor board System flash (Read/Write)

   Chip    Bank    Code      Size      Name                 erase  write
    1       1       01D5      1024KB    AMD   29F080      0      0
    2       1       01D5      1024KB    AMD   29F080      0      0
    3       1       01D5      1024KB    AMD   29F080      0      0
    4       1       01D5      1024KB    AMD   29F080      0      0
    1       2       01D5      1024KB    AMD   29F080      0      0
    2       2       01D5      1024KB    AMD   29F080      0      0
    3       2       01D5      1024KB    AMD   29F080      0      0
    4       2       01D5      1024KB    AMD   29F080      0      0
    1       3       01D5      1024KB    AMD   29F080      0      0
    2       3       01D5      1024KB    AMD   29F080      0      0
    3       3       01D5      1024KB    AMD   29F080      0      0
    4       3       01D5      1024KB    AMD   29F080      0      0
    1       4       01D5      1024KB    AMD   29F080      0      0
    2       4       01D5      1024KB    AMD   29F080      0      0
    3       4       01D5      1024KB    AMD   29F080      0      0
    4       4       01D5      1024KB    AMD   29F080      0      0
```

See Table 38 for a description of the fields. The **show flash: err** command also displays two extra fields: erase and write. The erase field indications the number of erase errors. The write field indicates the number of write errors.

The following is sample output from the **show flash summary** command on a router with Flash memory partitioned. The partition in the Read Only state is the partition from which the Cisco IOS image is being executed.

```
Router# show flash summary

System flash partition information:
Partition   Size     Used      Free     Bank-Size   State       Copy-Mode
    1       4096K    2048K     2048K    2048K       Read Only   RXBOOT-FLH
    2       4096K    2048K     2048K    2048K       Read/Write  Direct
```

Related Commands

Command	Description
more	Displays the contents of any file in the Cisco IOS File System.

show memory scan

To monitor the number and type of parity (memory) errors on your system, use the **show memory scan** EXEC command.

show memory scan

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

EXEC

Command History

Release	Modification
12.0(4)XE	This command was introduced.
12.0(7)T	This command was implemented in Cisco IOS Release 12.0(7) T.

Examples

The following example shows a result with no memory errors:

```
Router# show memory scan

Memory scan is on.
No parity error has been detected.
```

If errors are detected in the system, the **show memory scan** command generates an error report. In the following example, memory scan detected a parity error:

```
Router# show memory scan

Memory scan is on.
Total Parity Errors 1.
AddressBlockPtrBlckSizeDispositRegion Timestamp
6115ABCD60D5D0909517A4ScrubedLocal 16:57:09 UTC Thu  Mar 18
```

Table 39 describes the fields contained in the error report.

Table 39 show memory scan Field Descriptions

Field	Description
Address	The byte address where the error occurred.
BlockPtr	The pointer to the block that contains the error.
BlckSize	The size of the memory block

Table 39 show memory scan Field Descriptions (continued)

Field	Description
Disposit	The action taken in response to the error: • BlockInUse—An error was detected in a busy block. • InFieldPrev—An error was detected in the previous field of a block header. • InHeader—An error was detected in a block header. • Linked—A block was linked to a bad list. • MScrubed—The same address was "scrubbed" more than once, and the block was linked to a bad list. • MultiError—Multiple errors have been found in one block. • NoBlkHdr—No block header was found. • NotYet—An error was found; no action has been taken at this time. • Scrubed—An error was "scrubbed." • SplitLinked—A block was split, and only a small portion was linked to a bad list.
Region	The memory region in which the error was found: • IBSS—image BSS • IData—imagedata • IText—imagetext • local—heap
Timestamp	The time the error occurred.

write memory

The **write memory** command has been replaced by the **copy system:running-config nvram:startup-config** command. See the description of the **copy** command in this "Cisco IOS File System Commands" chapter for more information.

write network

The **write network** command is replaced by the **copy system:running-config** *destination-url*. See the description of the **copy** command in this "Cisco IOS File System Commands" chapter for more information.