

User Interface Commands

This chapter describes the commands used to enter and exit the various Cisco Internetwork Operating System (Cisco IOS) configuration command modes. It provides a description of the **help** command and help features, lists the command editing keys and functions, and details the command history feature.

You can abbreviate the syntax of Cisco IOS configuration commands. The router recognizes a command when you enter enough characters of the command to uniquely identify it.

For user interface task information and examples, see the “Understanding the User Interface” chapter of the *Router Products Configuration Guide*.

disable

To exit privileged EXEC mode and return to user EXEC mode, enter the **disable** EXEC command.

disable [*level*]

Syntax Description

level Privilege level to exit to.

Note The **disable** command is associated with privilege level 0. If you configure AAA authorization for a privilege level greater than 0, this command will not be included in the command set for that privilege level.

Command Mode

EXEC

Usage Guidelines

Use this command with the **level** option to reduce the privilege level. If a level is not specified, it defaults to the user EXEC mode, which is level 1.

Example

In the following example, entering the **disable** command causes the system to exit privileged EXEC mode and return to user EXEC mode as indicated by the angle bracket (>):

```
Router# disable
Router>
```

Related Command

enable

editing

To enable enhanced editing mode for a particular line, use the **editing** line configuration command. To disable the enhanced editing mode, use the **no** form of this command.

editing
no editing

Syntax Description

This command has no arguments or keywords.

Default

Enabled

Command Mode

Line configuration

Usage Guidelines

Table 2-1 provides a description of the keys used to enter and edit commands. Ctrl indicates the Control key. It must be pressed simultaneously with its associated letter key. Esc indicates the Escape key. It must be pressed first, followed by its associated letter key. Keys are case sensitive.

Table 2-1 Editing Keys and Functions for Software Release 9.21 and Later

Keys	Function
Tab	Completes a partial command name entry. When you enter a unique set of characters and press the Tab key, the system completes the command name. If you enter a set of characters that could indicate more than one command, the system beeps to indicate an error. Enter a question mark (?) immediately following the partial command (no space). The system provides a list of commands that begin with that string.
Delete or Backspace	Erases the character to the left of the cursor.
Return	At the command line, pressing the Return key performs the function of processing a command. At the “---More---” prompt on a terminal screen, pressing the Return key scrolls down a line.
Space Bar	Allows you to see more output on the terminal screen. Press the space bar when you see the line “---More---” on the screen to display the next screen.
Left Arrow ¹	Moves the cursor one character to the left. When you enter a command that extends beyond a single line, you can press the Left Arrow key repeatedly to scroll back toward the system prompt and verify the beginning of the command entry.
Right Arrow ¹	Moves the cursor one character to the right.
Up Arrow ¹ or Ctrl-P	Recalls commands in the history buffer, beginning with the most recent command. Repeat the key sequence to recall successively older commands.
Down Arrow ¹ or Ctrl-N	Return to more recent commands in the history buffer after recalling commands with the Up Arrow or Ctrl-P. Repeat the key sequence to recall successively more recent commands.
Ctrl-A	Moves the cursor to the beginning of the line.

Keys	Function
Ctrl-B	Moves the cursor back one character.
Ctrl-D	Deletes the character at the cursor.
Ctrl-E	Moves the cursor to the end of the command line.
Ctrl-F	Moves the cursor forward one character.
Ctrl-K	Deletes all characters from the cursor to the end of the command line.
Ctrl-L and Ctrl-R	Redisplays the system prompt and command line.
Ctrl-T	Transposes the character to the left of the cursor with the character located at the cursor.
Ctrl-U and Ctrl-X	Deletes all characters from the cursor back to the beginning of the command line.
Ctrl-V and Esc Q	Inserts a code to indicate to the system that the keystroke immediately following should be treated as a command entry, <i>not</i> as an editing key.
Ctrl-W	Deletes the word to the left of the cursor.
Ctrl-Y	Recalls the most recent entry in the delete buffer. The delete buffer contains the last ten items you have deleted or cut. Ctrl-Y can be used in conjunction with Esc Y.
Ctrl-Z	Ends configuration mode and returns you to the EXEC prompt.
Esc B	Moves the cursor back one word.
Esc C	Capitalizes the word from the cursor to the end of the word.
Esc D	Deletes from the cursor to the end of the word.
Esc F	Moves the cursor forward one word.
Esc L	Changes the word to lowercase at the cursor to the end of the word.
Esc U	Capitalizes from the cursor to the end of the word.
Esc Y	Recalls the next buffer entry. The buffer contains the last ten items you have deleted. Press Ctrl-Y first to recall the most recent entry. Then press Esc Y up to nine times to recall the remaining entries in the buffer. If you bypass an entry, continue to press Esc Y to cycle back to it.

1. The arrow keys function only with ANSI-compatible terminals.

Table 2-2 lists the editing keys and functions of the earlier software release.

Table 2-2 Editing Keys and Functions for Software Release 9.1 and Earlier

Key	Function
Delete or Backspace	Erases the character to the left of the cursor.
Ctrl-W	Erases a word.
Ctrl-U	Erases a line.
Ctrl-R	Redisplays a line.
Ctrl-Z	Ends configuration mode and returns to the EXEC prompt.
Return	Executes single-line commands.

Example

In the following example, enhanced editing mode is disabled on line 3:

```
line 3
no editing
```

Related Command

Two daggers (††) indicate that the command is documented in the *Cisco Access Connection Guide*.

terminal editing ††

enable

To enter privileged EXEC mode, use the **enable** EXEC command.

enable [*level*]

Syntax Description

level (Optional) Privileged level to log in to on the router.

Note The **enable** command is associated with privilege level 0. If you configure AAA authorization for a privilege level greater than 0, this command will not be included in the command set for that privilege level.

Command Mode

EXEC

Usage Guidelines

Because many of the privileged commands set operating parameters, privileged access should be password-protected to prevent unauthorized use. If the system administrator has set a password with the **enable password** global configuration command, you are prompted to enter it before being allowed access to privileged EXEC mode. The password is case sensitive.

If a password has not been set, it is only possible to enable when using the console line. If a level is not specified, it defaults to the privileged EXEC mode, which is level 15.

Example

In the following example, the user enters the **enable** command and is prompted to enter a password. The password is not displayed on the screen. After the user enters the correct password, the system enters privileged command mode as indicated by the pound sign (#).

```
Router> enable
Password:
Router#
```

Related Commands

A dagger (†) indicates that the command is documented in another chapter.

disable

enable password †

end

To exit configuration mode, or any of the configuration submodes, use the **end** global configuration command.

end

Syntax Description

This command has no arguments or keywords.

Command Mode

Global configuration

Usage Guidelines

You can also press **Ctrl-Z** to exit configuration mode.

Example

In the following example, the router name is changed to *george* using the **hostname** global configuration command. Entering the **end** command causes the system to exit configuration mode and return to EXEC mode.

```
Router(config)# hostname george
george(config)# end
george#
```

Related Commands

A dagger (†) indicates that the command is documented in another chapter.

hostname †

exit

To exit any configuration mode or close an active terminal session and terminate the EXEC, use the **exit** command at the system prompt.

exit

Syntax Description

This command has no arguments or keywords.

Command Mode

Available in all command modes

Usage Guidelines

When you enter the **exit** command at the EXEC levels, the EXEC mode is ended. Use the **exit** command at the configuration level to return to privileged EXEC mode. Use the **exit** command in interface, line, router, IPX-router, and route-map command modes to return to global configuration mode. Use the **exit** command in subinterface configuration mode to return to interface configuration mode. You can also press **Ctrl-Z**, or use the **end** command, from any configuration mode to return to privileged EXEC mode.

Note The **exit** command is associated with privilege level 0. If you configure AAA authorization for a privilege level greater than 0, this command will not be included in the command set for that privilege level.

Examples

In the following example, the user exits subinterface configuration mode to return to interface configuration mode:

```
Router(config-subif)# exit
Router(config-if)#
```

The following example shows how to exit an active session.

```
Router> exit
```

Related Commands

Two daggers (††) indicate that the command is documented in the *Cisco Access Connection Guide*.

disconnect ††

end

logout ††

full-help

To get help for the full set of user-level commands, use the **full-help** command.

full-help

Syntax Description

This command has no arguments or keywords.

Default

Disabled

Command Mode

Available in all command modes.

Usage Guidelines

The **full-help** command enables (or disables) an unprivileged user to see all of the help messages available. It is used with the **show?** command.

Example

The following example is output for **show?** with **full-help** disabled:

```
Router> show ?
clock      Display the system clock
history    Display the session command history
hosts      IP domain-name, lookup style, nameservers, and host table
sessions   Information about Telnet connections
terminal   Display terminal configuration parameters
users      Display information about terminal lines
version    System hardware and software status
```

Related Commands

Two daggers (††) indicate that the command is documented in the *Cisco Access Connection Guide*.

help

terminal full-help ††

help

To display a brief description of the help system, enter the **help** command.

help

Syntax Description

This command has no arguments or keywords.

Command Mode

Available in all command modes

Usage Guidelines

The **help** command provides a brief description of the context-sensitive help system.

- To list all commands available for a particular command mode, enter a question mark (?) at the **system prompt**.
- To obtain a list of commands that begin with a particular character string, enter the abbreviated command entry immediately followed by a question mark (?). This form of help is called word help, because it lists only the keywords or arguments that begin with the abbreviation you entered.
- To list a command's associated keywords or arguments, enter **a question mark (?) in place of a keyword or argument on the command line**. This form of help is called command syntax help, because it lists the keywords or arguments that apply based on the command, keywords, and arguments you have already entered.

Note The **help** command is associated with privilege level 0. If you configure AAA authorization for a privilege level greater than 0, this command will not be included in the command set for that privilege level.

Examples

Enter the **help** command for a brief description of the help system:

```
Router# help
Help may be requested at any point in a command by entering
a question mark '?'. If nothing matches, the help list will
be empty and you must backup until entering a '?' shows the
available options.
Two styles of help are provided:
1. Full help is available when you are ready to enter a
   command argument (e.g. 'show ?') and describes each possible
   argument.
2. Partial help is provided when an abbreviated argument is entered
   and you want to know what arguments match the input
   (e.g. 'show pr?').)
```

The following example shows how to use word help to display all the privileged EXEC commands that begin with the letters “co”:

```
Router# co?
configure  connect  copy
```

The following example shows how to use command syntax help to display the next argument of a partially complete **access-list** command. One option is to add a wildcard mask. The <cr> symbol indicates that the other option is to press Return to execute the command.

```
Router(config)# access-list 99 deny 131.108.134.234 ?  
      A.B.C.D  Mask of bits to ignore  
<cr>
```

Related Commands

Two daggers (††) indicate that the command is documented in the *Cisco Access Connection Guide*.

full-help

terminal full-help ††

history

To enable the command history function, or to change the command history buffer size for a particular line, use the **history** line configuration command. To disable the command history feature, use the **no** form of this command.

history [**size** *number-of-lines*]
no history [**size** *number-of-lines*]

Syntax Description

size *number-of-lines* (Optional) Specifies the number of command lines that the system will record in its history buffer. The range is 0 to 256.

Default

10 lines

Command Mode

Line configuration

Usage Guidelines

The **history** command without the **size** keyword and the *number-of-lines* argument enables the history function with the last buffer size specified or with the default of 10 lines, if there was not a prior setting.

The **no history** command without the **size** keyword and the *number-of lines* argument disables the history feature but remembers the buffer size if it was something other than the default. The **no history size** command resets the buffer size to 10.

Note The **history size** command will only set the size of the buffer; it will not reenable the history feature. If the **no history** command is used, the **history** command must be used to reenable this feature.

The command history feature provides a record of EXEC commands you have entered. This feature is particularly useful for recalling long or complex commands or entries, including access lists.

Table 2-3 lists the keys and functions you can use to recall commands from the command history buffer.

Table 2-3 History Keys

Key	Function
Ctrl-P or Up Arrow ¹	Recalls commands in the history buffer in a backward sequence, beginning with the most recent command. Repeat the key sequence to recall successively older commands.
Ctrl-N or Down Arrow ¹	Returns to more recent commands in the history buffer after recalling commands with Ctrl-P or the Up Arrow. Repeat the key sequence to recall successively more recent commands.

1. The arrow keys function only with ANSI-compatible terminals such as VT100s.

Example

In the following example, line 4 is configured with a history buffer size of 35 lines:

```
line 4
history size 35
```

Related Commands

Two daggers (††) indicate that the command is documented in the *Cisco Access Connection Guide*.

show history
terminal history size ††

ip http access-class

To assign an access-list to the http server used by the Cisco IOS ClickStart software or the Cisco Web browser interface, use the **ip http access-class** global configuration command. To remove the assigned access list, use the **no** form of this command.

```
ip http access-class {access-list-number | name}  
no ip http access-class {access-list-number | name}
```

Syntax Description

<i>access-list-number</i>	Standard IP access list number in the range 0 to 99, as configured by the access-list (standard) command.
<i>name</i>	Name of a standard IP access list, as configured by the ip access-list command.

Default

There is no access list applied to the http server.

Command Mode

Global configuration

Usage Guidelines

If this command is configured, the specified access list is assigned to the http server. Before the http server accepts a connection, it checks the access list. If the check fails, the http server does not accept the request for a connection.

Example

The following command assigns the access list named *marketing* to the http server:

```
ip http access-class marketing  
ip access-list standard marketing  
  permit 192.5.34.0 0.0.0.255  
  permit 128.88.0.0 0.0.255.255  
  permit 36.0.0.0 0.255.255.255  
! (Note: all other access implicitly denied)
```

Related Commands

ip access-list [†]
ip http server

ip http port

To specify the port to be used by the Cisco IOS ClickStart software or the Cisco Web browser interface, use the **ip http port** global configuration command. To use the default port, use the **no** form of this command.

ip http port *number*
no ip http port

Syntax Description

<i>number</i>	Port number for use by ClickStart or the Cisco Web browser interface. The default is 80.
---------------	--

Default

80

Command Mode

Global configuration

Usage Guidelines

Use this command if ClickStart or the Cisco Web browser interface cannot use port 80.

Example

The following command configures the router so that you can use ClickStart or the Cisco Web browser interface via port 60:

```
ip http server
ip http port 60
```

Related Command

ip http server

ip http server

To enable a Cisco 1003, Cisco 1004, or Cisco 1005 router to be configured from a browser using the Cisco IOS ClickStart software, and to enable any router to be monitored or have its configuration modified from a browser using the Cisco Web browser interface, use the **ip http server** global configuration command. To disable this feature, use the **no** form of this command.

ip http server
no ip http server

Syntax Description

This command has no arguments or keywords.

Default

This feature is enabled on Cisco 1003, Cisco 1004, and Cisco 1005 routers that have not yet been configured. For Cisco 1003, Cisco 1004, and Cisco 1005 routers that have already been configured, and for all other routers, this feature is disabled.

Command Mode

Global configuration

Example

The following command configures the router so that you can use the Cisco Web browser interface to issue commands to it:

```
ip http server
```

Related Commands

ip http access-class
ip http port

show history

To list the commands you have entered in the current EXEC session, use the **show history** EXEC command.

show history

Syntax Description

This command has no arguments or keywords.

Command Mode

EXEC

Usage Guidelines

The command history feature provides a record of EXEC commands you have entered. The number of commands the history buffer will record is determined by the **history size** line configuration command or the **terminal history size** EXEC command.

Table 2-4 lists the keys and functions you can use to recall commands from the command history buffer.

Table 2-4 History Keys

Key	Function
Ctrl-P or Up Arrow	Recalls commands in the history buffer in a backward sequence, beginning with the most recent command. Repeat the key sequence to recall successively older commands.
Ctrl-N or Down Arrow	Returns to more recent commands in the history buffer after recalling commands with Ctrl-P or the Up Arrow. Repeat the key sequence to recall successively more recent commands.

Sample Display

The following is sample output from the **show history** command, which lists the commands the user has entered in EXEC mode for this session:

```
Router# show history
  help
  where
  show hosts
  show history
Router#
```

Related Commands

Two daggers (††) indicates that the command is documented in the *Cisco Access Connection Guide*.

history size

terminal history size ††

