User Interface Commands

This chapter describes the commands used to access user and privileged EXEC command modes. It provides a description of the **help** command and features, lists the command editing keys and functions, and details the command history feature.

You need to enter only enough characters of a command to uniquely identify the command, thereby abbreviating the command syntax you type.

For user interface task information and examples, refer to the chapter "Understanding the User Interface" chapter of the *Access and Communication Servers Configuration Guide*.

disable

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

disable

Syntax Description

This command has no arguments or keywords.

Command Mode

EXEC

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 (>):

```
cs# disable
cs>
```

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 not case sensitive.

Table 2-1   Command Editing Keys and Functions

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 will provide a list of commands that begin with that set of characters.
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 executing, or carrying out, a command. At the "---More---" prompt on a terminal screen, pressing the Return key scrolls down a line.
Space bar	Scrolls down a page on the terminal screen. Press the space bar when you see the line "---More---" on the screen to display the next screen.
Left arrow key[1]	Moves the cursor one character to the left. When you enter a command that extends beyond a single line, you can continue to press the left arrow key at any time to scroll back towards the system prompt and verify the beginning of the command entry.
Right arrow key[1]	Moves the cursor one character to the right.
Ctrl-A	Moves the cursor to the beginning of the line.
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.

Keys	Function
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, and not 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 privileged EXEC prompt.
Esc-B	Moves the cursor back one word.
Esc-C	Capitalizes the word at the cursor.
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 at the cursor to lowercase.
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. Use Ctrl-Y first to recall the most recent entry. Then use Esc-Y up to nine times to recall the remaining entries in the buffer. If you bypass an entry, continue to use Esc-Y to cycle back to it.

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

You can disable the enhanced editing mode with the **no editing** command. The editing keys and functions of the previous command editing mode are listed in Table 2-2.

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 privileged EXEC prompt.
Return	Executes single-line commands.

Example

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

```
line vty 03
no editing
```

Related Command
terminal editing

enable

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

> **enable**

Syntax Description

This command has no arguments or keywords.

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.

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 entering the password, the system enters privileged command mode as indicated by the pound sign (#) at the end of the prompt.

```
cs> enable
Password:
cs#
```

Related Commands

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

disable
enable password †

end

To exit configuration mode, 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, entering the **end** command causes the system to exit configuration mode and return to EXEC mode:

```
alibaba(config)# end
alibaba#
```

exit

To exit any command 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** from any configuration mode to return to privileged EXEC mode.

Examples

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

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

The following example shows how to exit an active session:

```
cs> exit
```

Related Commands

disconnect
logout

full-help

To get help for the full set of user-level commands, use the **full-help** line configuration command. Use the **no** form of this command to disable help about privileged commands for users dialing into a line who do not have privileged access.

> **full-help**

Syntax Description

This command has no arguments or keywords.

Default

Disabled

Command Mode

Line configuration

Usage Guidelines

The **full-help** command enables a user dialing into a line without privileged access to see all of the help messages available. Use the **show ?** command to display all of the commands available in EXEC mode (user or privileged).

Example

The following example shows the command for enabling access to all of the help messages available:

```
cs(config-line)# full-help
```

Related Commands

help
show ?
terminal full-help (EXEC)

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.

Examples

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

```
cs# 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":

```
cs# 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.

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

Related Commands

full-help
terminal full-help (EXEC)

history

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

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

Syntax Description

size	Set command history buffer size.
number-of-command-lines	Specifies the number of command lines that the system will record in its history buffer. The range is 0 through 256.

Default

10 lines

Command Mode

Line configuration

Usage Guidelines

The **history** command without the **size** keyword and argument enables the command history feature with the last buffer size specified, or the default size. The **no history** command without the **size** keyword disables the command history feature. The **no history size** command resets the buffer size to the default of 10 command lines.

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, virtual terminal line 4 is configured with a history buffer size of 35 lines:

```
line vty 4
history size 35
```

Related Commands

show history
terminal history

menu (EXEC)

Use the **menu** EXEC command to run a user menu.

menu *name*

Syntax Description

name	The configuration name of the menu.

Command Mode

User EXEC mode or privileged EXEC mode

Usage Guidelines

A menu can be invoked at either the user or privileged EXEC level, but if an item in the menu contains a privileged EXEC command, the user must be logged in at the privileged level for the command to succeed.

Examples

The following example shows how to invoke the menu named *Access1*:

```
menu Access1
```

menu (global)

Use the **menu** global configuration command with the appropriate keyword to specify menu-display options. Use the **no** form of the global configuration command to delete the named menu from the configuration.

> **menu** *name* [**clear-screen** | **line-mode** | **single-space** | **status-line**]
> **no menu** *name*

Syntax Description

name	The configuration name of the menu.
clear-screen	Clears the terminal screen before displaying a menu.
line-mode	In a menu of nine or fewer items, you ordinarily select a menu item by just typing the item number. In line mode, you select a menu entry by typing the item number and pressing Return. Line mode allows you to backspace over the selected number and type another before pressing Return to perform the command. This option is invoked automatically when more than nine menu items are defined, but may also be configured explicitly for menus of nine or fewer items.
single-space	Displays menu items single-spaced rather than double-spaced. This option is invoked automatically when more than nine menu items are defined, but may also be configured explicitly for menus of nine or fewer items.
status-line	Displays a line of status information about the current user.

Command Mode

Global configuration

Usage Guidelines

The **clear-screen** option uses a terminal-independent mechanism based upon termcap entries defined in the communication server and the terminal type configured for the user's terminal. This allows the same menu to be used on multiple types of terminals instead of having terminal-specific strings embedded within menu titles. If the termcap entry does not contain a clear string, the menu system enters 24 newlines, causing all existing text to scroll off the top of the terminal screen.

The **status-line** option displays the status information at the top of the screen before the menu title is displayed. This status line includes the communication server host name, the user's line number, and the current terminal type and keymap type (if any).

A menu can be invoked at the user EXEC level or at the privileged EXEC level, depending upon whether the given menu contains menu entries using privileged commands.

When a particular line should always display a menu, that line can be configured with an **autocommand** configuration command. The menu should not contain an exit path that will leave the user in an unfamiliar interface environment.

Menus can be run on a per-user basis by defining a similar autocommand for that local username.

Examples

The following example shows how to invoke the menu named *Access1*:

```
menu Access1
```

The following example shows how to display the status information using the **status-line** option for the menu named *Access1*:

```
menu Access1 status-line
```

Related Commands

menu command
menu text
menu title
resume

menu command

Use the **menu command** global configuration command to specify underlying commands for user interface menus.

menu *name* **command** *number command*

Syntax Description

name	The configuration name of the menu. You can specify a maximum of 20 characters.
number	The selection number associated with the menu entry. This number is displayed to the left of the menu entry when the menu appears. You can specify a maximum of 18 entries. When the tenth item is added to the menu, the line-mode and single-space options are invoked automatically.
command	The Cisco EXEC command that is to be executed when the user selects *number* from the menu. Only one command per entry can be specified.

Command Mode

Global configuration

Usage Guidelines

The **menu command** command is paired with the **menu text** command to define a menu entry. Each pair of commands must use the same menu name and menu selection number.

The **menu command** command has a special option, **menu-exit**, that is available only within menus. It is used to exit a submenu and return upward to the next menu level, or exit the menu altogether and return to the EXEC command prompt.

You can create submenus that are opened by selecting a higher-level menu entry. You do this by using the command to invoke a menu as the command in a line specifying a higher-level menu entry.

Note If you nest too many levels of menus, the system prints an error message on the terminal and returns to the previous menu level.

When a menu allows connections (their normal use), the command for an entry invoking the connection should contain a **resume connection** command, or the line should be configured to prevent users from escaping their sessions by the command **escape-char none**. Otherwise, when they escape from a connection and return to the menu, there will be no way to resume the session and it will sit idle until the user logs off.

Using the **resume** command as the action to be performed when the menu entry is selected permits a user to resume the named connection or, if there is no active connection by that name, connect to it using the specified name. As an option, you can also supply the connect string needed to connect initially. When you do not supply this connect string, the command uses the specified connection name.

You can also use the **resume /next** command, which resumes the next connection in the user's list of connections. This allows you to create a single menu entry that steps through all of the user's connections.

Example

The following example shows how to specify the commands to be executed when a user enters the selection number associated with the menu entry for the menu named *Access1*:

```
menu Access1 command 1 tn3270 vms.cisco.com
menu Access1 command 2 rlogin unix.cisco.com
menu Access1 command 3 menu-exit
```

Related Commands

menu (global)
menu text
menu title
resume

menu text

Use the **menu text** global configuration command to specify the text of a menu entry in a user interface menu.

> **menu** *name* **text** *number text*

Syntax Description

name	The configuration name of the menu. You can specify a maximum of 20 characters.
number	The selection number associated with the menu entry. This number is displayed to the left of the menu entry when the menu appears. You can specify a maximum of 18 entries. When the tenth item is added to the menu, the line-mode and single-space options are invoked automatically.
text	The descriptive text for the menu entry associated with selection *number* of the named menu. This text is the entry name that is displayed on the user's screen when the menu appears.

Command Mode

Global configuration

Usage Guidelines

The **menu text** command is paired with the **menu command** command to define a menu entry. Each pair of commands must use the same menu name and menu selection number.

You can specify a maximum of 18 entries in a menu.

Example

The following example shows how to specify the descriptive text for the three entries in the menu *Access1*:

```
menu Access1 text 1 IBM Information Systems
menu Access1 text 2 UNIX Internet Access
menu Access1 text 3 Exit menu system
```

Related Commands

menu (global)
menu command
menu title
resume

menu title

Use the **menu title** global configuration command to create a title, or banner, for a user menu.

> **menu** *name* **title** *delimiter title delimiter*

Syntax Description

name	The configuration name of the menu. You can specify a maximum of 20 characters.
delimiter	Title text delimiters are characters that do not ordinarily appear within the text of a title, such as slash (/), double quote ("), and tilde (~). Ctrl-C is reserved for special use and should not be used in the text of the title.
title	The title that will be displayed when the menu is invoked.

Command Mode

Global configuration

Usage Guidelines

The **menu title** command must use the same menu name used with the **menu text** and **menu command** commands used to create a menu.

You can position the title of the menu horizontally by preceding the title text with blank characters. You can also add lines of space above and below the title by pressing Return.

Follow the **title** keyword with one or more blank characters and a delimiting character of your choice. Then enter one or more lines of text, terminating the message with the second occurrence of the delimiting character. You cannot use the delimiting character within the text of the message.

When you are configuring from the terminal and are attempting to include special control characters, such as a screen-clearing string, you must use Ctrl-V before the special control characters to have them accepted as part of the title string. In the example shown in the Examples section, the string ^[[H^[[J is an escape string used by many VT100-compatible terminals to clear the screen. To enter it, you must type Ctrl-V before each escape character.

Instead of embedding a terminal-specific string in the menu title to clear the screen before displaying menus and submenus, use the **clear-screen** option of the **menu** command. This allows the same menu to be used on different types of terminals.

Example

The following example specifies the title that will be displayed when the menu *Access1* is invoked:

```
cs101(config)# menu Access1 title /^[[H^[[J
        Welcome to Access1 Internet Services

                Type a number to select an option;
                    Type 9 to exit the menu.
    /
```

Related Commands

menu (global)
menu command
menu text
resume

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:

```
cs# show history
help
  where
  show hosts
  show history
```

Related Commands

history size
terminal history size

terminal editing

To enable the enhanced editing mode on the local line, use the **terminal editing** EXEC command. To disable the enhanced editing mode on the current line, use the **no** form of this command.

> **terminal editing**
> **terminal no editing**

Syntax Description

This command has no arguments or keywords.

Default

Enabled

Command Mode

EXEC

Usage Guidelines

Table 2-5 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 *not* case sensitive.

Table 2-5   Command Editing Keys and Functions

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, or carrying out, a command. At the "---More---" prompt on a terminal screen, pressing the Return key scrolls down a line.
Space Bar	Scrolls down a page 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 continue to press the left arrow key at any time 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.
Ctrl-B	Moves the cursor back one character.

Keys	Function
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 key stroke immediately following should be treated as a command entry, *not* 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 at the cursor.
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 at the cursor to lowercase.
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.

The editing keys and functions for Software Release 9.1 and earlier are listed in Table 2-6.

Table 2-6   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 mode editing is reenabled for the current terminal session:

```
terminal editing
```

Related Command

editing

terminal full-help (EXEC)

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

> **terminal full-help**

Syntax Description

This command has no arguments or keywords.

Default

Disabled

Command Mode

EXEC

Usage Guidelines

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

Example

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

```
cs> terminal full-help
cs> show ?

access-lists  List access lists
appletalk     AppleTalk information
arap          Show Appletalk Remote Access statistics
arp           ARP table
async         Information on terminal lines used as router interfaces...
```

Related Commands

full-help
help

terminal history

To enable the command history feature for the current terminal session or change the size of the command history buffer for the current terminal session, use the **terminal history** EXEC command. To disable the command history feature or reset the command history buffer to its default size, use the **no** form of this command.

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

Syntax Description

size	Set command history buffer size.
number-of-command-lines	Specifies the number of command lines that the system will record in its history buffer. The range is 0 through 256.

Default

10 lines

Command Mode

EXEC

Usage Guidelines

The **history** command without the **size** keyword and argument enables the command history feature with the last buffer size specified, or the default size. The **no history** command without the **size** keyword disables the command history feature. The **no history size** command resets the buffer size to the default of 10 command lines.

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

Table 2-7 lists the keys and functions you can use to recall commands from the history buffer.

Table 2-7   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, the number of command lines recorded is set to 15 for the local line:

```
terminal history size 15
```

Related Commands
history
show history