

Packet Tracer - Navigate the IOS

Objectives

Part 1: Establish Basic Connections, Access the CLI, and

Explore Help **Part 2: Explore EXEC Modes**

Part 3: Set the Clock

Background / Scenario

In this activity, you will practice skills necessary for navigating the Cisco IOS, such as different user access modes, various configuration modes, and common commands used on a regular basis. You will also practice accessing the context-sensitive Help by configuring the **clock** command.

Instructions

Part 1: Establish Basic Connections, Access the CLI, and Explore Help

Step 1: Connect PC1 to S1 using a console cable.

- Click the **Connections** icon (the one that looks like a lightning bolt) in the lower left corner of the Packet Tracer window.
- Select the light blue Console cable by clicking it. The mouse pointer will change to what appears to be a connector with a cable dangling from it.
- Click **PC1**. A window displays an option for an RS-232 connection. Connect the cable to the RS-232 port.
- Drag the other end of the console connection to the S1 switch and click the switch to access the connection list.
- Select the **Console** port to complete the connection.

Step 2: Establish a terminal session with S1.

- Click **PC1** and then select the **Desktop** tab.
- Click the **Terminal** application icon. Verify that the Port Configuration default settings are correct. What is the setting for bits per second?
9600
- Click **OK**.
- The screen that appears may have several messages displayed. Somewhere on the screen there should be a **Press RETURN to get started!** message. Press ENTER.

What is the prompt displayed on the screen?

S1>

Step 3: Explore the IOS Help.

- The IOS can provide help for commands depending on the level accessed. The prompt currently displayed is called **User EXEC**, and the device is waiting for a command. The most basic form of help is to type a question mark (?) at the prompt to display a list of commands.

S1> ?

Which command begins with the letter 'C'?

connect

- At the prompt, type t and then a question mark (?).

S1> t?

Which commands are displayed?

telnet terminal traceroute

At the prompt, type te and then a question mark (?).

S1> te?

Which commands are displayed?

telnet terminal

This type of help is known as context-sensitive help. It provides more information as the commands are expanded.

Part 2: Explore EXEC Modes

In Part 2 of this activity, you will switch to privileged EXEC mode and issue additional commands

Step 1: Enter privileged EXEC mode.

- At the prompt, type the question mark (?).

S1> ?

What information is displayed for the **enable** command?

enable Turn on privileged commands

- Type **en** and press the **Tab** key.

S1> en<Tab>

What displays after pressing the **Tab** key?

enable

This is called command completion (or tab completion). When part of a command is typed, the **Tab** key can be used to complete the partial command. If the characters typed are enough to make the command unique, as in the case of the **enable** command, the remaining portion of the command is displayed.

What would happen if you typed **te<Tab>** at the prompt?

nothing as there are 2 commands that starts with "te"

- Enter the **enable** command and press ENTER. How does the prompt change?

S1#

- When prompted, type the question mark (?).

S1# ?

One command starts with the letter 'C' in user EXEC mode.

How many commands are displayed now that privileged EXEC mode is active?

there are 5 commands(clear clock configure connect copy)

(Hint: you could type c? to list just the commands beginning with 'C'.)

Step 2: Enter Global Configuration mode

- When in privileged EXEC mode, one of the commands starting with the letter 'C' is **configure**. Type either the full command or enough of the command to make it unique. Press the <Tab> key to issue the command and press ENTER.

S1# **configure**

What is the message that is displayed?

Configuring from terminal, memory, or network [terminal]?

- Press Enter to accept the default parameter that is enclosed in brackets **[terminal]**. How does the prompt change?

its now S1(config)#

- This is called global configuration mode. This mode will be explored further in upcoming activities and labs. For now, return to privileged EXEC mode by typing **end**, **exit**, or **Ctrl-Z**.

S1(config)# **exit**

S1#

Part 3: Set the Clock

Step 1: Use the clock command.

- Use the **clock** command to further explore Help and command syntax. Type **show clock** at the privileged EXEC prompt.

S1# **show clock**

What information is displayed? What is the year that is displayed?

*7:14:22.545 UTC Mon Mar 1 1993

- Use the context-sensitive help and the **clock** command to set the time on the switch to the current time. Enter the command **clock** and press ENTER.

S1# **clock**<ENTER>

What information is displayed?

% Incomplete command.

- The “% Incomplete command” message is returned by the IOS. This indicates that the **clock** command needs more parameters. Any time more information is needed, help can be provided by typing a space after the command and the question mark (?).

S1# **clock** ?

What information is displayed?

set set the time and date

- Set the clock using the **clock set** command. Proceed through the command one step at a time.

S1# **clock set** ?

What information is being requested?

hh:mm:ss

What would have been displayed if only the **clock set** command had been entered, and no request for help was made by using the question mark?

a message saying incomplete command

- Based on the information requested by issuing the **clock set ?** command, enter a time of 3:00 p.m. by using the 24-hour format of 15:00:00. Check to see if more parameters are needed.

S1# **clock set 15:00:00** ?

The output returns a request for more information:

```
<1-31> Day of
the month
MONTH Month
of the year
```

- Attempt to set the date to 01/31/2035 using the format requested. It may be necessary to request additional help using context-sensitive help to complete the process. When finished, issue the **show clock** command to display the clock setting. The resulting command output should display as:

S1# **show clock**

```
*15:0:4.869 UTC Tue Jan 31 2035
```

- If you were not successful, try the following command to obtain the output above:

S1# **clock set 15:00:00 31 Jan 2035**

Step 2: Explore additional command messages.

- The IOS provides various outputs for incorrect or incomplete commands. Continue to use the **clock** command to explore additional messages that may be encountered as you learn to use the IOS.
 - Issue the following commands and record the messages:

S1# **cl<tab>**

What information was returned?

% Ambiguous command: " cl"

S1# **clock**

What information was returned?

% Incomplete command.

S1# **clock set 25:00:00**

What information was returned?

% Invalid input detected at '^' marker.

S1# **clock set 15:00:00 32**

What information was returned?

% Invalid input detected at '^' marker.