

Fundamentals of UNIX
Lab 4.3.3 – Using Command Line Help
(Estimated time: 30 min.)

Objectives:

- Become familiar with function of man pages
- Access Command line help using the man command
- Use the man pages to determine the use of various UNIX commands
- Work with man pages and navigate through them

Background:

In this lab, you will work with command line help in the form of UNIX man pages. The *UNIX Programmer's Manual* (also called **man pages**) describes what you need to know about the system's on-line commands, system calls, file formats, and system maintenance. The on-line man pages are part of the Solaris computing environment (and all other versions of UNIX) and are installed by default. Man pages are in the form of simple character-based screen displays and are not graphical.

To access the man pages, you will need to be at a command prompt. You may login at the command line or open a terminal window in CDE and start with a command prompt such as the Korn shell (\$). Man pages are very helpful when you want to use a command or utility and you have forgotten the syntax or you need information about how to use it. The man pages will provide information on how to enter the command, a description of its purpose and what options or arguments are available. Some commands will not work with all three shells. The man pages will tell which commands will work with which shells. They refer to the **Bourne shell** as (**sh**), the **Korn Shell** as (**ksh**) and the C Shell as (**cs**h).

Tools / Preparation:

- a) Before starting this lab, review Chapter 4, Section 3 – Command Line Help
- b) You will need the following:
 1. A login user ID (e.g. user2) and password assigned by your instructor.
 2. A computer running the UNIX operating system with CDE or access to the command line of a remote computer.
 4. The **catman** utility must be run by root on each host
 3. Networked computers in classroom

Web Site Resources:

- **Sun Microsystems** - <http://www.sun.com/solaris>

Notes:

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Worksheet

Perform the following steps to complete this lab.

Step 1. Log in to CDE

Login with the user name and password assigned to you by your instructor in the CDE entry box.

Step 2. Access the Command Line

To access the man pages you must first be at a command prompt. To access a command prompt, login directly in character mode or open a terminal window under CDE. If you bypass CDE or if you telnet or rlogin to a remote computer, you will have direct access to a command prompt.

Note: In this lab we will assume you are running CDE but the commands will be the same regardless. Telnet and rlogin will be covered later in the course.

Right click on the **workspace** backdrop and click on tools. Select **Terminal** from the menu to open a terminal window. If you are using the Bourne or Korn shells, you will have a dollar sign (\$) prompt. If you are using the C shell you will have a percent sign (%) prompt.

Step 3. Navigate man Pages

The output from some man pages can be as many as 10 to 20 screens of output. Several keys are helpful in moving around in the man utility once the pages for a specific command have been located. Enter the man intro and use the scrolling commands to move around.

Spacebar	Scroll one screen at a time
Return	Scroll one line at a time
B	Back - Move back one screen
F	Forward - Move forward one screen
Q	Quit – Exit the man command
/string	Search forward for information
n	Next - Find the next occurrence of <i>string</i>
h	Help - Give a description of all scrolling capabilities

Step 4. Use the Basic `man` Command

The **man** command is used to display on-line man pages for any of the hundreds of UNIX commands that are available. The basic form is **man name** where name is the name of the command for which you want information.

Enter the following command: `$ man cal`

- What kind of calendar does the `cal` command display? _____
- What do you need to do to see the calendar for the year? _____
- What is displayed if no year is specified? _____

Step 5. Use the man command to find out what `clear` does

- Use the **man** command to find out what the UNIX command `clear` does? (**man clear**) What does it do? _____

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Worksheet Cont.

Step 6. Use the man command to find out what pwd does

- a. Use the `man` command to find out what the UNIX command `pwd` does? (`man pwd`) What does it do? _____

Step 7. Use the man Command to See a List of All UNIX Commands

You can get a listing of all of the UNIX commands with a brief description of what they do by entering the `man intro` command.

Enter the following command: `$ man intro`

- a. What does the **Description** say about the `man intro` command?

- b. Look in the lower left corner of the screen. What is displayed in reversed white on black?

- c. What does the percentage shown mean? _____
- d. Press the space bar 5 times. What percentage has been displayed now? _____
- e. Continue pressing the space bar until you see the `cal` command. What does it say?

- f. Press Ctrl + c to abort the output of the `man intro` command.

Step 8. Use man to see man pages for the man Command

You can even display a man page on the `man` command itself.

Enter the following command: `$ man man`

- a. Which option would you use to search man pages for a specific keyword? _____

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Worksheet Cont.

Step 9. Use man to Search for a keyword

You can search the man pages for a keyword to get a list of all man pages that have that keyword.

Note: It is necessary to run the `catman` utility before search the man pages by keyword.

Enter the following command: `$ man -k grep`

a. List some of the man pages where the grep command was found

Command	Description
egrep	search a file for a pattern using full regular expressions
fgrep	search a file for a fixed-character string
fmrgrep	search a file for a pattern
gzgrep	search possibly compressed files for a regular expression

Step 10. Interpret man Page Headings

There are a number different headings or informational areas in a typical man page. The more common ones are:

NAME	Name of the command and other commands that may accomplish the same thing
SYNOPSIS	Shows the syntax of the command with any allowable options and arguments
DESCRIPTION	Gives an overview of what the command does
OPERANDS	Target of the command or what the command will take effect on such as a directory or a file
OPTIONS	Switches that can change the function or effect of the command. They are normally preceded by a dash (-) or minus sign
SEE ALSO	Refers you to other related commands and subjects

These headings are displayed in the man page output using all capital letters. Depending on the command and its purpose, the man page may not contain all headings. For instance the `pwd` (Print Working Directory) command does not have an Options or Operands information heading since there are no options or operands that can be used with the command. All commands will have at least a Name, Synopsis, and Description.

- a. Enter the following man command for `clear` and note which headings are shown.

- b. Enter the following man command for `pwd` and note which headings are shown.

- c. Enter the following man command for `date` and note which headings are shown.

Step 11. Close your Terminal Window

Double click on the dash button in the upper left corner of the screen.