



Linux Fundamentals

Lesson 4 Finding and Processing Files



Lesson Objectives

In this lesson, you will learn:

- Use find
- Use the Gnome Search tool



find

- The find command locates files.
Syntax: `find <path list> <selection criteria> <action>`
- Searches directory trees in real-time.
- Slower but more accurate than locate.
- CWD is used if no starting directory given.
- All files are matched if no criteria given.
- Can execute commands on found files
- May only search directories where the user has read and execute permission.



Basic find Examples

`find -name snow.png`

- Search for files named snow.png.

`find -iname snow.png`

- Case-insensitive search for files named snow.png, Snow.png, SNOW.PNG, etc.

`find -user joe -group joe`

- Search for files owned by the user joe and the group joe.



find and Logical Operators

- Criteria are ANDed together by default.
- Can be OR'd or negated with -o and -not.
- Parentheses can be used to determine logic order, but must be escaped in bash.
 - `find -user joe -not -group joe`
 - `find -user joe -o -user jane`
 - `find -not \(-user joe -o -user jane \)`



find – selection criteria

Size:

Many times criteria of find command takes numeric values. size criteria takes numeric value for size and locates the file accordingly.

- Ex: find -size 1024k
 - Finds files with a size of exactly 1 megabyte.
- Ex: find -size +1024k
 - Finds the file with a size over 1 megabyte.
- Ex: find -size -1024k
 - Finds the file with a size less than 1 megabyte.



find – selection criteria

Access time:

Find command can locate the file by inode timestamps.

- -atime - when file was last read.
- -mtime when file data last changed.
- -ctime when file data or metadata last changed.

Value given is in days

Ex: `find -ctime -10`

- Files modified less than 10 days ago.



The Gnome Search Tool

Places->Search for Files...

Graphical tool for searching by

name

content

owner/group

size

modification time



Summary

In this lesson you have learnt

- Find.
- Gnome search tool.



Review Questions

Questions 1: ____ are logical operators available to use with find command.