

4. Process Management



Objectives

At the end of this module you will be able to :

- Explain Process status
- Describe Fore ground and background process
- Setting Priorities for a process
- Describe Killing a process

Process Management

- Process - a program in execution
- When program is executed, a new process is created
- The process is alive till the execution of the program is complete
- Each process is identified by a number called pid

As soon as the user logs in, a process is created which executes the login shell.

Login shell is set for each login in /etc/passwd file.

Process Status

The ps command is used to display the characteristics of a process

- It fetches the pid, tty, time, and the command which has started the process.
 - -f lists the pid of the parent process also.
 - -u lists the processes of a given user
 - -a lists the processes of all the users
 - -e lists all the processes including the system processes

Background Processing

- Enables the user to do more than one task at a time.
- If the command terminates with an ampersand (&), UNIX executes the command in the background
- Shell returns by displaying the process ID (PID) and job id of the process.
- jobs
 - List the background process
- fg % <job id>
 - Runs a process in the foreground
- bg %<job id>
 - Runs a process in the background

kill & nice

- kill: Kills or terminates a process
- kill command send a signal to the process
- The default signal is 15 (SIGTERM)
- kill -9 (SIGKILL)
 - Terminates the process abruptly
- nice
 - Used to reduce the priority of jobs

Summary

At the end of this module we discussed :

Process status

Fore ground and background process

Setting Priorities for a process

Killing a process

References

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- Katja and Socher, Guido (2001). *Linux Focus: Shell Programming*. Retrieved May 2, 2012, from, <http://www.linuxfocus.org/English/September2001/article216.shtml>



Thank You