Introduction to the Bash shell on Linux and Mac OS

Jobs and Processes

Reindert-Jan Ekker

@rjekker

http://www.linkedin.com/in/rjekker

pluralsight
hardcore developer training

Overview

- Multitasking
- Inspect processes
- End processes

Job control

- **^Z Suspends a running job**
- **fg**
  - Send job to foreground
- **bg**
  - Send job to background

- **Background jobs**
  - Use & at end of line
  - Cannot read input from the user
  - If the program tries, bash will suspend it and let you know
  - Tip: only use with programs that don’t need user interaction
  - Output will mess up your screen
  - Tip: redirect output to file
  - find . > all_files &

Killing

- **Foreground program: ^C**
- **End any program with kill**
  - Can only end processes you own
- **Kill by job id:**
  - kill %2
  - kill %cp
  - (fg and bg work with job id’s as well)

- **Kill by process id**
  - kill 6543
  - “hard” kill with -KILL:
  - kill -KILL 6543
- **xkill**
  - point out program to kill on X Windows
- **pkill**
  - Match process by part of name

Inspecting processes

- **jobs**
  - Shows bash jobs for current shell

- **ps**
  - Linux: display processes running under current shell
  - Mac: display all your processes running under a terminal

- **Displaying all processes**
  - Linux: ps -e
  - Mac: ps ax

- **Include owner**
  - Linux: ps -ef
  - Max: ps aux

- **Interactively look at processes**

Summary

- **Background jobs**
  - &
  - ^Z, bg, fg
- **Inspect processes**
  - jobs
  - ps
  - top
- **End processes**
  - kill
  - xkill
  - pkill