Lecture 31 - Job Control

Videos

https://youtu.be/Pt_F7PQjwkQ - Lect-31-2150.mp4
https://youtu.be/MrWTbOOTkl4 - Lect-31-2150-pt2-more-job-control.mp4
https://youtu.be/a-sYQTHDSng - Lect-31-pt3-remote-with-ssh.mp4
https://youtu.be/pCBpgt4zjgk - Lect-31-pt4-ubuntu-terminal.mp4

From Amazon S3 - for download (same as youtube videos)

http://uw-s20-2015.s3.amazonaws.com/Lect-31-2150.mp4
http://uw-s20-2015.s3.amazonaws.com/Lect-31-2150-pt2-more-job-control.mp4
http://uw-s20-2015.s3.amazonaws.com/Lect-31-pt3-remote-with-ssh.mp4
http://uw-s20-2015.s3.amazonaws.com/Lect-31-pt4-ubuntu-terminal.mp4

Job Control

Unix introduced the ability to control jobs that you are running.

This will require that you are at the command line in Mac (Terminal or iTerm2) or using the shell in a VirtualBox machine. I will use both Mac and Ubuntu on a Virtual Macing for the demos in this lecture.

We will be talking about:

1. Job Control
2. Foreground and Background processes
3. Listing existing processes
4. Killing processes
5. Remote system access

Job Control

When a Unix/Linux shell runs a program it actually starts an independent process and then by default waits for that process to complete.

Lots of time you wan a program to run but you don’t want to wait around for it to finish - or you want it to run forever. A web server for example is a run-forever program.

Commands to Play with: sleep, demo.py

commands: bg, fg, jobs, kill, ps, grep, vi

Command/Item	Description
bg	background
fg	foreground
kill	kill (send -INT signal by default)
kill -HUP	Send Hangup Signal
kill -INT	send -INT signal
kill -9	Kill with extreme prejudice (careful!)
jobs	list jobs started by this shell
ps	Process list - list the processes that I started
ps -ef	list all processes (BSD type Linux)
ps -aux	list all processes (System V type Linux)
&	run process in background
>	Pipe standard output to file
>>	append standard output to file
2>	Pipe standard error to file
`	`
%1	a process ID for a job that this shell has run
~/file	the ~ (tilde) referees to the home directory.
grep	Pattern match text
find	look for files in system.
tar	tape archiver
ssh	login to remote system
for	for loops in shell