



Course 620: Mastering UNIX (4 days)

Course Description...

This hands-on intensive four-day course focuses on the command wizardry available in Unix. The program focuses on using the right command and the correct option so the job can be completed in the shortest amount of time. Unix professionals who want to do work on the command line 10-200% faster will find this course very beneficial.

There are over 20 hands-on exercises in the program. Instead of using a single command repetitively with a number of variations, you will learn how to write a single command to accomplish all the work. Each exercise brings attendees closer to a mastery of Unix.

You will learn....

- How to use history
- All about environments
- Using REs effectively
- Advanced file and directory manipulation commands and options
- Manipulate the priority of processes
- How to edit text files without a text editor, using sed
- awk for line parsing and report writing
- Almost all about shell programming
- Special purpose commands to work faster

Who should attend...

If you need to work faster, without working harder, attend this course and learn how to make the Unix command line work for you. If you hate the command line and feel stuck in an old, out of date system, this course will show you how to use the command line to free you for other tasks. If you just want a mastery of Unix commands, this course will give you the best information our authors and editors have come across in their 30+ years of association with Unix.

Prerequisites...

This is definitely not an introductory course. A basic knowledge of Unix commands, the ability to read and understand man pages, working knowledge of vi or emacs, and ability to manipulate Unix permission system are assumed. ROI's *Introduction to Unix (#619)* course provides the prerequisite skills needed for this course.

See next page for a detailed course outline...



Course Outline...

Chapter 1 - Keyboard Magic

- a) Hot keys
- b) Using history
- c) Aliases
- d) Basic and Advanced Redirection
- e) Piping
- f) Command Substitution

Chapter 2 - Real Keyboard Magic

- a) Variables
- b) Environments and () and {}
- c) Variable Manipulation
- d) Functions
- e) Foreground, Background, and Job Control

Chapter 3 - Regular Expressions (RE)

- a) Syntax Rules
- b) How to Write an RE
- c) The grep family
- d) REs and other commands

Chapter 4 - File and Directory Manipulation

- a) Options for cp, mv, ln
- b) Symbolic link options
- c) Removing Files: rm, shred
- d) Using cpio and dd for other than backup

Chapter 5 - Process Manipulation

- a) The many forms of ps
- b) The new kill commands
- c) Manipulating Priorities

Chapter 6 - Text Commands

- a) Special Purpose Commands: tac, nl
- b) Last Gasp Commands: strings, od
- c) Text Manipulation: tr, col, expand
- d) Sorting Options

Chapter 7 - Odds and Ends

- a) Advanced Uses of find
- b) Special Purpose Commands: which, whereis, slocate
- c) Using xargs
- d) Calculators: bc, dc
- d) Time commands: cron, anacron, at
- e) Keyboard Configuration: stty



Chapter 8 - Using sed

- a) How sed works
- b) Basic sed commands
- c) sed and REs
- d) Advance sed constructs
- e) Creating a sed script

Chapter 9 - Using awk

- a) Record parsing
- b) Printing
- c) Record selection
- d) Conditional Processing
- e) Looping
- f) Simple report writing
- g) Creating awk scripts

Chapter 10 - Basic shell scripting

- a) Script Setup
- b) Displaying Data
- c) Positional Parameters
- d) Shell Variables and Quoting Rules
- e) Getting Data From the User
- f) Conditional Execution
- g) Loops
- h) Command Line Options
- i) Variable Magic
- j) Scripting on the command line

Additional Topics to Consider

- Remote Access Commands
- Graphical Extensions to scripting
- Master of vi
- Master of emacs
- man, info and other documentation
- Permissions: Basic, Extended, ACL, and File Attributes

Please contact your ROI representative to discuss course tailoring!!!