Shell Programming

Duration

3 days (Covers Korn and Bourne Shells and BASH.)

Participants

Application developers, technical users, system programmers, and any technical personnel who need a thorough understanding of the basics of shell programming.

Objectives

Upon successful completion of this course you will be able to:

- Create and use shell programs to process data and perform system and network administration tasks.

Overview

This course provides a comprehensive review of command line features provided by the shell, and a thorough introduction to the shell's looping and conditional constructs.

This course covers Korn, Bourne, and BASH shells.

Prerequisites

Working knowledge of UNIX, and ability to create and modify a small file.

Format

Lecture and discussion (50%) with programming exercises (50%).

Topic Outline

Overview Of Shell Functionality

Basics of Shell Programming

Built-In Shell Variables
Positional Parameters
User-Defined Variables
Command Substitution
Redirection of Standard Input, Standard Output,
and Standard Error
Whitespace and IFS, Quoting, and Word Separation
Filename Expansion
Debugging with Shell Traces
Read Command
Control Structures
If, Case, While, Until, and For
Pattern Matching with the Case Structure

Commands Often Used in Control Structures

Break
Continue
Shift
Test
Expr

Topic Outline

Subshells and Control of the Shell Environment,

Set
Env
Export
Readonly
The . Command
Passing values between programs
Use of temporary files

Additional Korn Shell Topics

ENV file
Command line history, editing, and reexecution
Tilde shorthands
Filename completion
Ksh features for the cd command
Aliases
Arrays
Ksh features for the set command
Variable attributes
Let command