Hands-On

Shell Scripting

(Korn, Bourne and BASH)



Course Description

This Hands-On course is highly interactive and consists of theory with plenty of Hands-On practical content. This course will provide programmers and UNIX / Linux Support Staff with the skills necessary to construct extensive Shell scripts.

By the end of the course, attendees will be able to confidently put together and maintain complex shell scripts. The course covers Bourne, Korn and BASH scripting.

Target Audience

Experienced programmers and support staff, who have some experience of UNIX or Linux based systems, and who will be implementing further applications and systems. The course is suitable for delegates wishing to use the Korn, Bourne or BASH shell on all versions of UNIX and Linux. (e.g. AIX, Solaris, HPUX, Red Hat, SuSE etc.). The course comprehensively covers all three shells, but can focus on any one if required.

Prerequisites

Attendees should have a good basic understanding of UNIX or Linux, ideally gained through our Essentials course. Knowledge of a standard UNIX/Linux editor (e.g. vi, vim) will be required.

Course Outline

UNIX & Linux Review

Major Components
The filesystem
Listing Directories
Creating Files
Displaying Files
Moving Around Directories
Redirection
Piping
Searching for a Pattern (grep)

Finding Files

User Security

Other Useful Commands

The Shell Environment

Shell Variables

Exporting variables

System Variables

The Back Quote

The Single Quote

The Double Quotes

The Backslash

Special Escape Characters

Recalling Previous Commands

Modifying Previous Commands

Shell Programming

Shell Scripts

Executing Shell Scripts

Passing Arguments To A Program

Positional Parameters

Special Shell Parameters

The Shift Command

Read Command

Expr Command

Korn Shell Arithmetic

Miscellaneous Commands

New Group

Cut and Paste

Comparing Files

Head and tail

Touching files

Grouping Commands

Shell Constructs

Typeset

Here Documents

Korn Shell Functions

Conditional Processing

Logical Constructs

The if Statement

Nesting if Conditionals

ELIF Statement

The Test Command formats

String Operators

Integer Operators

File Operators

Logical Operators

Case Statement

Conditional Looping

The For Command

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For Statement Without Word List

The While Command

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The Until Command While True Command Until False Command The Break Command The Continue Command

Additional Programming Topics

Shell Script Comments

The Exit Command

The Sleep Command

The Wait Command

The Set Command

The Unset Command

Special Variable Constructs

The Null Command

Signals used by Shell Procedures

Interrupt handling

Trace

Timing Command

getopts command

Korn Shell Arrays

Random Variable

Korn Shell Menu System

Programming Hints

Creating Efficient Shell Procedures

eval

The Stream Editor

The Stream Editor Searching and Replacing Text Deleting lines Printing Lines Edit Files

The Awk Utility

The awk utility Operators BEGIN and END Arithmetic operators Use of awk within a shell script

Delivery Method

Instructor-Led with numerous Hands-On labs and exercises.

Equipment Requirements

(This apply's to our hands-on courses only)

BTS always provides equipment to have a very successful Hands-On course. BTS also encourages all attendees to bring their own equipment to the course. This will provide attendees the opportunity to incorporate their own gear into the labs and gain valuable training using their specific equipment.

Course Length

3 Days