Advanced Linux Tools & Shell Scripts
Course 871 – 32 Hours

Overview

This course is aimed to enable the user to work in an efficient manner with the UNIX system by using powerful Unix & Linux tools and writing Bash scripts.
As a part of the overview, we discuss advanced data manipulation utilities. We also take a close look at the shell and its environment, as well as advanced use of the shell.
Each topic involves practical hands-on labs and exercises, including writing data files examinations scripts & advanced automated administration scripts.

On Completion, Delegates will be able to

- To become a sophisticated Unix user
- To understand regular expressions and their usage in different Linux utilities and commands
- To develop Bash scripts
- To use basic AWK implementations and SED for word processing

Prerequisites

- Basic Unix/Linux tools knowledge (file manipulations, permissions and more…)
- Basic programming understanding (any Programming language will do)

Who Should Attend

Engineers who have good Unix/Linux experience.

Course Contents

Introduction to Shells
- The various shells & versions differences.
- What's new in bash v.3

Advanced Unix tools - overview & review
- Wild Cards
- pipes
- head/tail
- cut

- tr
- sort
- advanced grep options

Variables
- Using & Defining
- Environment Variables (local & "global")
- Predefined variables & System files

Handling Parameters
- positional parameters
- Interactive interface

Making Decisions
- The if statement
- Shell build in conditions
- Exit status

Loops
- The "while" loop
- The "for each" loop
- The "for" loop
- Seq

Interactive user interface (optional)
- Using dialog
- Zenity GUI dialog box
- Kdialog GUI dialog box

Arithmetic in the Shell

Debugging in the Shell

Regular Expressions
- RE "wild cards"
- RE quantifiers
- RE Anchor

Sed
- Find & replace
- Using RE with sed
- Nested sed
- sed file & sed script

awk- basic Introduction and implementations