

## HP-UX Advanced Shell Programming Tools

**Duration: 3 Days**    **Course Code: HASP**

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### Overview:

#### HP-UX Advanced Shell Programming Tools Course Overview

This Hewlett Packard HP-UX Posix Shell Programming training course is designed to give delegates practical experience using a range of HP-UX tools to manipulate text and incorporate them into HP-UX shell scripts.

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### Target Audience:

#### Who will the Course Benefit?

Programmers, developers and system administrators who need to construct shell scripts and process text files using advanced text handling facilities.

The HP-UX Advanced Shell Programming Tools course assumes knowledge of the HP-UX Operating System to the level covered in the HP-UX Introduction course. Some shell programming experience to the level covered in HP-UX Shell Programming is also necessary.

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### Objectives:

- Course Objectives
  - To provide the knowledge and skills to make effective use of a wide range of standard HP-UX programming and development tools.
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### Prerequisites:

■ The HP-UX Advanced Shell Programming Tools course assumes knowledge of the HP-UX Operating System to the level covered in the HP-UX Introduction course. Knowledge of HP-UX Shell Programming to the level covered on the HP-UX Shell Programming course is also a requirement. Alternatively, relevant experience of UNIX or Linux servers is required.

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### Follow-on-Courses:

Further Learning

- HP-UX System Administration
  - Oracle SQL
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## Content:

### HP-UX Advanced Shell Programming Tools Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: BACKUP AND RESTORE UTILITIES

- Backing-up and restoring files
- Basic and advanced use of tar
- Compression utilities gzip,bzip2,zip and compress
- Exercise: Backing up and restoring files using tar
- Exercises: Compressing files

#### Session 2: BACKGROUND JOB SCHEDULING

- Scheduling jobs with the cron command
- Scheduling jobs with the at command
- Exercises: Running background jobs

#### Session 3: COMMANDS FOR COMPARING FILES

- Compare files with the cmp command
- Compare and format files with pr
- Compare files with the comm command
- Compare files with the diff and sdiff commands
- Compare large files with the bdiff command
- Exercises: Identifying file differences

#### Session 4: SPLITTING FILES

- The fold command
- Split files using context and content rules
- Exercises: Splitting files HP-UX Advanced Shell Programming Tools Training Course Course Contents - DAY 2

#### Session 5: IDENTIFYING AND TRANSLATING CHARACTERS

- od - octal dump
- Use cat to display non-printing characters
- View and format files with nl
- The expand and unexpand commands to convert between tab and space characters
- The tr command for character translation
- Exercises: Translating characters with tr

#### Session 6: REGULAR EXPRESSION NOTATION REVIEW

- Standard regular expressions
- Searching with grep
- Metacharacters, positional characters and quantifiers
- Extended regular expressions
- POSIX character classes
- PERL expressions

#### Session 7: THE STREAM EDITOR sed

- sed command line syntax
- sed script files
- sed command processing
- sed addresses and simple instructions
- sed pattern space and hold space
- Grouping sed commands
- Hold and get functions
- Advanced flow control
- Write output to temporary files
- Exercises: Text processing with sed

#### Session 8: FUNDAMENTALS OF AWK

- Basic AWK usage
- AWK program-files
- AWK scripts
- AWK variables
- Pattern matching with AWK
- AWK extended patterns

#### Session 9: AWK OPERATORS

- AWK AND,OR and range operators
- AWK arithmetic operations
- AWK output
- Formatting output with printf
- Exercises: Create awk scripts to extract selected data from a file and generate reports HP-UX Advanced Shell Programming Tools Training Course Course Contents - DAY 3

#### Session 10: AWK PROGRAM CONTROL STRUCTURES

- The BEGIN and END functions
- The AWK if construct
- The AWK else if construct
- The AWK while construct
- Other program control statements
- The AWK break,continue and exit statements
- User defined functions
- Exercises: Create AWK scripts and program-files utilising program control structures

#### Session 11: AWK FUNCTIONS

- AWK string functions
- AWK length,tolower,toupper,index,sub,gsub,match,substr,split,sprintf,system and getline functions
- Exercises: Generate AWK scripts and program-files to extract and format data using AWK functions

#### Session 12: AWK ARRAYS

- AWK associative arrays
- Multi-dimensional arrays
- Exercises: Create AWK associative arrays to process text files and generate reports

#### Session 13: MISCELLANEOUS TOOLS

- bc (calculator)
- fuser (testing for files in use)
- getops (checking options passed to shell scripts)
- printf (formatting screen output)
- logger (script logging)
- xargs (generating arguments for a command)
- eval (re-evaluating variables)
- Exercises: Using tools within a shell script

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)