

In this course, students develop more advanced skills in using UNIX tools. Users increase their productivity in UNIX by learning how to create powerful korn shell scripts for processing text, managing files, and performing other complex tasks.

**Audience:** UNIX users, programmers, and system administrators who wish to develop more advanced skills in UNIX.

**Prerequisites:** *Fundamentals of UNIX*

**Number of Days:** 4 days

1. **ex and vi Options**
  - ex and vi - Two Editors in One
  - ex and vi - Options
  - How to Set Options Within vi
  - How to Set Options in .exrc
2. **vi Buffers**
  - The Unnamed Buffer
  - Named Buffers
  - Cutting and Pasting Between Files
  - The :next Command
  - The Delete Buffers
3. **Shell Interaction: Extending vi**
  - File Name Shortcuts in vi
  - Invoking Shell Commands - ex
  - Reading In the Output of a Command
  - Invoking Filters from vi
4. **vi Macros**
  - What are Macros and Why?
  - The :map Command
  - The vi Quote Mechanism
  - Example: spell
  - Example: fmt (format)
  - Markers
  - Executing Commands from a Buffer
5. **Regular Expressions**
  - What is a Regular Expression?
  - Literal Regular Expressions
  - Regular Expressions: ^, \$, \  
Regular Expressions: ., [s]  
More about [s]  
Regular Expressions: \*  
More about \*  
Regular Expressions: \{m,n\}
6. **Subexpressions**
  - Shell Programming**
  - Filename Generation
  - Parameters
  - Named Parameters
  - Positional Parameters
  - Special Parameters
  - Parameter Substitution
  - Here Documents
  - Shell Commands
  - Command List Separators
  - Control Flow - Conditionals
  - The case Construct
  - Control Flow - Loops
  - The trap Command
7. **Korn Shell Features**
  - Aliases
  - Command History
  - Functions
  - The print, read, and set Commands
8. **Introduction to sed**
  - About sed
  - Why Use sed?
  - Invoking sed
  - How sed Works
9. **Using sed**
  - sed Addressing
  - sed Functions
10. **Introduction to awk**
  - How awk Programs Work
  - Running awk Programs
11. **Awk Patterns**
  - Summary of Patterns

- BEGIN and END
- Expressions
- String-Matching Patterns
- Extended REs in awk
- Range Patterns

**12. Overview of Perl**

- What is Perl?
- Running Perl Programs