

Advanced Shell Programming with Bourne, Bash, and Korn Shells

Duration	3 days
Participants	Technical personnel who create, maintain, or use shell programs.
Objectives	Upon successful completion of this course you will be able to: <ul style="list-style-type: none">• Use the advanced features of Bourne, Bash, and Korn shells.
Overview	Students will be able to understand and use advanced features of the Bourne, Bash, and Korn shells. The course includes more than 50 script examples and dozens of exercises with solutions.
Prerequisites	Experience or recent training in UNIX Shell Programming. This course assumes familiarity and experience with: <ul style="list-style-type: none">• UNIX commands including vi,• Shell commandline features, and• Basic shell programming constructs.
Format	Lecture and discussion (50%) with interactive exercises (50%).
Topic Outline	Review of Shell programming basics including vi features for programmers Arithmetic and Comparisons: expr and let; integers; base 2, 8, and 16 Handling Options: Options, option-arguments, and getopt Signals and trap Debugging: set -n, set -v, set -x, and DEBUG Functions in sh and ksh: function positional parameters, ksh local variables and typeset -xf Korn shell select construct Keyword parameters and subprograms Modular programs with functions and subprograms Variables with eval and set ksh arrays Variable modifiers and attributes Redirection with exec and file descriptors, -, and here documents Security: SUID Appendix A: Useful Commands Appendix B: Interactive Ksh Features