

Intro to Linux



3.1.3 - Script Utilities and Variables

Common Script Utilities

- **awk** scans files for specific patterns and extracts information based on those patterns
- **sed** (stream editor) is designed for efficiently processing and transforming text streams
 - Allows for search and replace, insertion, deletion, etc.
- **find** searches files and directories in a directory hierarchy
- **xargs** takes inputs from a pipe or file and converts it into arguments for a specified command



Additional Common Script Utilities

- **grep** is used for searching patterns within text files
- **egrep/grep -E** supports extended regular expressions
- **tee** reads standard input and writes to both standard output and files simultaneously
- **wc** (Word Count) counts lines, words, and characters in a file or input stream
- **cut** extracts specific fields from each line of a file



Remaining Common Script Utilities

- `tr` translates or deletes characters in a stream of data
- `head` displays the first few lines of a file
- `tail` displays the last few lines of a file



Environment Variables and Paths

- **\$PATH** specifies a colon-separated list of directories where the system looks for executable programs
- **\$SHELL** points to the user's default shell
- **\$?** Represents the exit status of the last executed command
 - 0 typically indicates success while non-zeros indicate errors or specific exit statuses



Relative and Absolute Paths

- Relative paths describe the location of a file or directory in relation to the current working directory
 - Useful for navigating within the file system without specifying the full path
 - E.g. ./file
- Absolute paths specify the complete path from the root directory to a file or directory
 - Provides an unambiguous reference
 - E.g. /home/user/file

