

IT 240

Shell Scripting for Administrators

Chapter 2

Introducing Shell Scripts

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What is a Shell Script?

- As mentioned previously, a shell script is simply a text file that contains one or more commands
- The shell evaluates the commands and passes them to the OS for processing

Alternatives to Shell Scripts

- Perl
 - Practical Extraction and Reporting Language
 - Covered in second half of course
- Python
 - OO scripting language
 - CS 100
- TCL
 - Tool Command Language
 - Fading away

Pick an Editor

- The 2 major editors are *vi* and *emacs*
- Although there are others available, I recommend you pick one and stick to it during the course. Proficiency is a good skill to have in your IT toolbox, particularly if you'll be doing administration or security
- *emacs* commands are shown on pages 50-54
- *vi* commands are shown on pages 56-58

- Running a program in a script
 - *program_name arguments*
- Outputting text
 - *echo text_to_output*
- Suppressing newlines
 - *echo -n “No Newline”*

Variables

- The format for assigning a variable is:
 - `variable_name = value`
- Names must start with a letter or the `_` character. Subsequent characters may be either letters, numbers or underscores
- Don't use spaces between names, `=`, or special characters

Variables

- Accessing the value stored in a variable is done using the \$:
 - `$variable_name`
- Double quotes should be used to define strings
- When using csh, you must use the set command to assign a variable values
- Command names may also be assigned as variables

Input

- The *read* command is used to gather data from the standard input:
 - `read variable_name`
- Pressing the *enter* key commits the typed text to the variable

Comments

- The symbol to denote a comment is #
- The shell ignores all text to the right of the #, till the end of the line

Line Continuation

- When using long commands, it will sometimes be necessary to continue the command string on the next line
- The `\` symbol may be used to continue the command on to the next line in the script