IT 240
Shell Scripting for Administrators

Chapter 4
Interacting with the Environment

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Reading Environment Variables

- The *set* command may be used to view the variables that the shell normally stores
- Other shells may require *setenv* instead of set

Other Methods to List Variables

- *set* gives us a complete listing of ALL variables that have a value, including local variables
- To restrict the display to environmental variables (those that have been exported), use the *printenv* command
- Output may be piped to the *sort* utility to display in alphabetical order

Setting Environment Variables

- Although environment variables may be defined in the same manner as other variables, additional steps need to be taken to get them recognized by the system
- Use the *export* command after the variable has been *set* in order to get the new value set in the shell

Startup Scripts

- Every shell reads from one of more files when it initializes in order to properly set up the system
- Some startup scripts are global and reside in system directories like */etc*
- Others reside in the user's home directory

Startup Scripts

- The initialization file for bash is named *.bashrc*
- Other files that may include (optional) initialization scripts include *.bash_profile* or *.bash_login*
- Note the leading period at the start of the filename

Command Line Arguments

- Passing data as arguments is integral to a properly constructed script
- Arguments are stored in ‘positional variables’ that are named *$0 - $9*, *$#* and *$**
- The first argument (*$0*) is always the name of the program
- *$#* gives the count of arguments, while *$** lists all arguments

Making Scripts Executable

- So far, we've been passing our scripts to *sh*, but this is not an optimal solution
- We can use *chmod* to add the execute permission to our script
- When doing this, we need to specify what shell we expect to run our script on the first line - *#!/bin/bash* for our examples in class