

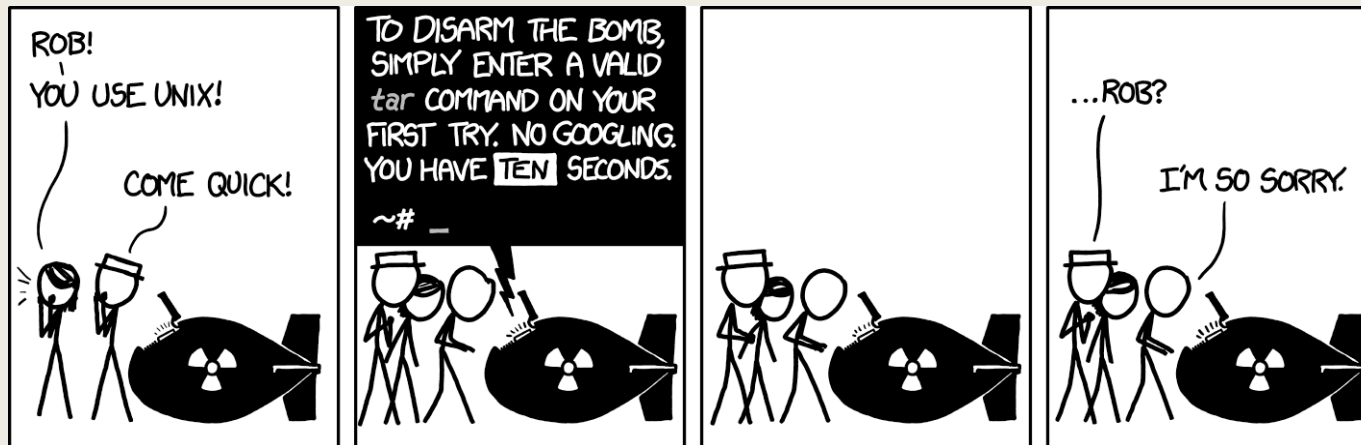


BASH

THE BOURNE-AGAIN SHELL

<http://github.com/abpwrs/bash-talk>

Overview



- What is Bash
- Bash as a Language
- Scripting
- Batch Processing
- Learn more

What is Bash?



Unix Shell → It's another
command line option
(common standard)



Command
Language

Interpreted
Used to control
processes/jobs



Interface to interact w/ other
programs

File System Navigation

List

- `$ ls <directory>`

Change Directory

- `$ cd <directory>`

Move

- `$ mv <one-or-more-files> <destination>`

Copy

- `$ cp <one-or-more-files> <destination>`

Remove

- `$ rm <one-or-more-files>`

Bash as a language (variables)

Same as other languages

- `str="Hello, World!"`
- `echo $str`

The assignment operator (=)

- It assigns the right to the left

Dereferencing variables

- The `$` operator returns the value from a variable name

Bash as a language (program flow)

If [condition]; then ... else ... fi

- If [-d \$HOME/.bin/]; then cd \$HOME/.bin; else echo “no such dir”; fi

The [operator

- Common flags
- -d → true if a directory
- -f → true if a normal file
- -z → true if length of string is zero

Bash as a language (loops)

For loops

- `for dir in ./*; do ls $dir; done`
- *`for elem in a b c d e; do mkdir -p $HOME/test/$elem; done`*

While loops

- *`While [condition] do command done`*
- Useful for looping through file contents

Bash as a language (functions)

Function keyword

- *Function function_name () { function_commands }*

Or without

- *function_name () { function_commands }*

Args

- *\$1 \$2 \$3 ... \$n*

Return value

- *#?*

Scripting

- A bash script is just a list of commands to execute
- Don't forget the 'bang'
 - *#! is a shebang or bang*
 - *Specifies the full path to the interpreter*
- File extensions aren't necessary
- .sh is the conventional shell script extension

Hello World

- echo “Hello, World!”
- That’s it

A More Custom Hello World

- Pass in our name
 - *Argument passing and dereferencing*
- Greet us by username
 - *The \$ operator*
 - *Environmental variables*
- Ask us for our name
 - *Prompting and user input*

A Script that Makes Scripts?

- What should go into every script you write?
 - *Bang*
 - *Name*
 - *Date*
- `chmod` ?

Batch Processing

- It's really just running a processes on a bunch of subsets
- In bash this is typically file-wise or directory-wise groupings
- This all amounts to a for loop in most cases
- TO THE TERMINAL

Learn More

- man & help will get you far
 - *man [command]*
 - *help [command]*
- Exercism course on BASH
- Start replacing common tasks you do with scripts



THANKS