

Command Line: Bash Scripting Workshop Handout

Download and unzip data file: <http://bit.ly/shell-workshop-data>

Note: Indented lines should be typed in the file.

	1	cd shell-novice-data/bash-scripting/molecules/
First x lines after header	2	head -n 12 octane.pdb
	3	head -n 12 octane.pdb tail -n 10
Create script	4	vi middle.sh
	5	head -n 12 octane.pdb tail -n 10
	6	bash middle.sh
Script arguments	7	vi middle.sh
	8	head -n 12 \$1 tail -n 10
	9	bash middle.sh octane.pdb
	10	bash middle.sh "high octane.pdb"
Variable quoting	11	vi middle.sh
	12	head -n 12 "\$1" tail -n 10
	13	bash middle.sh "high octane.pdb"
Multiple arguments	14	vi middle.sh
	15	# Select lines from the middle of a file.
	16	# Usage: bash middle.sh filename end_line num_lines
	17	head -n "\$2" "\$1" tail -n "\$3"
	18	bash middle.sh pentane.pdb 12 10
	19	bash middle.sh pentane.pdb 19 17
Looping	20	cd ../creatures
	21	vi list_creatures.sh
	22	for filename in basilisk.dat unicorn.dat
	23	do
	24	head -n 2 "\$filename" tail -n 1
	25	done
	26	bash list_creatures.sh

Wildcards	27	vi copy_files.sh
	28	for filename in *.dat
	29	do
	30	echo "\$filename"
	31	done
	32	bash copy_files.sh
Building up a script with "echo"	33	vi copy_files.sh
	34	for filename in *.dat
	35	do
	36	echo 'cp "\$filename" original-"\$filename"'
	37	done
	38	bash copy_files.sh
	39	vi copy_files.sh
Variable arguments	40	for filename in \$@
	41	do
	42	echo 'cp "\$filename" original-"\$filename"'
	43	cp "\$filename" original-"\$filename"
	44	done
	45	bash copy_files.sh *.dat
	46	rm original*.dat
	47	ls -l copy_files.sh
Permissions	48	chmod +x copy_files.sh
	49	vi copy_files.sh
"shebang" lines	50	#!/usr/bin/env bash
	51	for filename in \$@
	52	do
	53	echo 'cp "\$filename" original-"\$filename"'
	54	cp "\$filename" original-"\$filename"
	55	done
	56	./copy_files.sh *.dat