

– General Linux 1 –

Work on the Command Line [5]

(Linux Professional Institute Certification)

a

```
.~.  
/V\   by: geoffrey robertson  
//  \  geoffrey@zip.com.au  
@.__.@
```

\$Id: gl1.103.1.slides.tex,v 1.3 2003/05/30 05:09:04 waratah Exp \$

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(1.3) GNU and UNIX Commands [31]

- 1.103.1 Work on the command line [5]**
- 1.103.2 Process text streams using filters [6]**
- 1.103.3 Perform basic file management [3]**
- 1.103.4 Use streams, pipes, and redirects [5]**
- 1.103.5 Create, monitor, and kill processes [5]**
- 1.103.6 Modify process execution priorities [3]**
- 1.103.7 Search text files using regular expressions [3]**
- 1.103.8 Perform basic file editing operations using vi [1]**

Work on the command line [5]

Objective

Candidate should be able to interact with shells and commands using the command line. This includes typing valid commands and command sequences, defining, referencing and exporting environment variables, using command history and editing facilities, invoking commands in the path and outside the path, using command substitution, applying commands recursively through a directory tree and using man to find about commands.

Work on the command line [5]

Key files, terms, and utilities

- .
- bash
- echo
- env
- exec
- export
- man
- pwd
- set
- unset
- ~/.bash_history
- ~/.profile

Work on the command line [5]

Resources of interest

LPI Certification in a Nutshell pp15—19

LPIC 1 Cert. Bible Chapter 2

Linux Shells by Example by Ellie Quigley

Shells

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- See `/etc/inittab`



The Choice of Shells

The default GNU/Linux shell is the Bourne Again Shell—`bash`

```
$ echo $SHELL ↩
```

```
/bin/bash
```



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sh The name of the original Bourne shell, usually a link to `bash`

tcsh An improved version of the UNIX C shell (`csh`)

ash A small shell for use in tight spaces such as `tomsrtbt`

ksh A copy of the korn shell

zsh A vast and powerful shell

⇒

The chsh command

```
$ chsh ↵
```

```
Changing shell for geoffrey.
```

```
Password:
```

```
New shell [/bin/bash]: /bin/zsh
```

```
Shell changed.
```

This changes /etc/passwd

```
$ cat /etc/passwd |grep ^geoffrey ↵
```

```
geoffrey:x:500:500:GHR:/home/geoffrey:/bin/zsh
```

- List which shells are available to you

```
$ chsh -l ↵
```

- Change to a new shell

```
$ chsh -s ksh ↵
```

Shell Variables

Environmental Variables

- View the contents of a variable:

```
$ echo $TERM ↵  
xterm
```

- View the environmental variables:

```
$ set ↵
```

- Change a variable only in the current shell:

```
$ PS4=+ ↵
```

- Change a variable and make it environmental:

```
$ export PS4=+ ↵
```


Shell Variables

The bash Prompts

- The primary bash Prompt is set by the environmental variable PS1.

```
[geoffrey@marsbar ~/]$ echo $PS1  
[\u@\h \W]\$
```

- The secondary prompt is set by the variable PS2

```
$ cat /usr/share/texmf/tex/latex/lyx/chess.sty \  
> grep blahblah tee /tmp/file.save
```

- The tertiary prompt is set by PS3 and is used by the bash shell structure select.

Shell Variables

The bash prompt settings

```
$ export PS1=[\u@\h \w]\$      ## not $PS1
[geoffrey@marsbar /usr/local]$
```

\ **u** username

\ **h** host name

\ **\$** \$ for users and # for root

\ **w** full path of current working directory

\ **W** base name of the current working directory

\ **!** history number of the current command

Shell Variables

\$PATH

Add a directory to your path thus

```
$ PATH=$PATH:/tmp ←
```

The End