

Laboratory Guidelines

Introduction

You should read this sheet before attempting any laboratory sessions. It contains a description of the conventions followed by the lab sheets, gives useful rules of thumb and contains other useful pieces of information for you.

Lab. Sheet Conventions

Interaction

You should be aware of the typographic conventions that are used in these sheets...

A section in fixed-width font with a bar on the left indicates either a command that you should type into a program (often the shell), or a section of text that you should enter into a file:

```
|      Type me into a file  
|      % I am a command to be given to the shell
```

Prompts

Many of the laboratory sessions require you either to run as 'yourself' or as the superuser account 'root.'

You should pay attention to the prompt character used to introduce a command to the shell. A privileged command that should be run by root will be shown by the hash ('#'):

```
|      # mount /dev/cdrom /mnt/cdrom
```

A command that may be run as a normal user will be shown by a percent prompt ('%'):

```
|      % ls
```

Of course, you should not type either the # or the % yourself!

These exercises assume the use of the bash shell.

Rules Of Thumb

A system administrator has essentially unlimited power on the system. With power comes responsibility...

Always Make Backups Of Important Files

Before you edit a file for the very first time, you should create a backup copy.

```
|      # cp thefile thefile.Orig
```

Each subsequent time you need to edit the same file you should create a backup (many people automate this with a shell script or shell alias):

```
|      # cp thefile thefile.OLD.`date +%T.%D` | tr / -`
```

In this way, you lead an audit trail that can be helpful in recovering from mistakes.

Be Aware Of Security

Make sure that when you create a backup of a system file, it is protected appropriately!

Ensure that root's umask is set appropriately so that you don't automatically create files that can be altered by another user.

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See Also Section

Most sheets include a “See Also” section. I strongly advise you to look at this before you do anything else: it will tell you which commands you are going to use in the lab. If you see a command that is unfamiliar to you, you should look it up in the online documentation before trying the command.

A Lab Is Not A Race

...nor is it a test!

You shouldn't try to rush through the labs—you will only make mistakes if you do! Similarly, there are no tests (although there may be many bugs!) if you think something is going wrong or isn't working the way you thought it should or, ... ask me!

The key is to enjoy yourself and learn a bit along the way!