What is "the Shell"?

Simply put, the shell is a program that takes commands from the keyboard and gives them to the operating system to perform. In the old days, it was the only user interface available on a Unix-like system such as Linux. Nowadays, we have *graphical user interfaces (GUIs)* in addition to *command line interfaces (CLIs)* such as the shell.

On most Linux systems a program called **bash** (which stands for Bourne Again SHell, an enhanced version of the original Unix shell program, **sh**, written by Steve Bourne) acts as the shell program. Besides **bash**, there are other shell programs available for Linux systems. These include: **ksh**, **tcsh** and **zsh**.

What's a "Terminal?"

It's a program called a *terminal emulator*. This is a program that opens a window and lets you interact with the shell. There are a bunch of different terminal emulators we can use. Some Linux distributions install several. These might include **gnome-terminal**, **konsole**, **xterm**, **rxvt**, **kvt**, **nxterm**, and **eterm**.

Starting a Terminal

Window managers usually have a way to launch a terminal from the menu. Look through the list of programs to see if anything looks like a terminal emulator. While there are a number of different terminal emulators, they all do the same thing. They give us access to a shell session. You will probably develop a preference for one, based on the different bells and whistles it provides.

Testing the Keyboard

OK, let's try some typing. Bring up a terminal window. The first thing we should see is a *shell prompt* that contains our user name and the name of the machine followed by a dollar sign. Something like this:

```
[me@linuxbox me]$
```

Excellent! Now type some nonsense characters and press the enter key.

```
[me@linuxbox me]$ kdkjflajfks
```

If all went well, we should have gotten an error message complaining that it cannot understand the command:

```
[me@linuxbox me]$ kdkjflajfks
bash: kdkjflajfks: command not found
```

Wonderful! Now press the up-arrow key. Watch how our previous command "kdkjflajfks" returns. Yes, we have *command history*. Press the down-arrow and we get the blank line again.

Recall the "kdkjflajfks" command using the up-arrow key if needed. Now, try the left and right-arrow keys. We can position the text cursor anywhere in the command line. This allows us to easily correct mistakes.

Using the Mouse

Even though the shell is a command line interface, the mouse is still handy.

Besides using the mouse to scroll the contents of the terminal window, we can can use it to copy text. Drag the mouse over some text (for example, "kdkjflajfks" right here on the browser window) while holding down the left button. The text should highlight. Release the left button and move the mouse pointer to the terminal window and press the middle mouse button (alternately, press both the left and right buttons at the same time when working on a touch pad). The text we highlighted in the browser window should be copied into the command line.

A few words about focus...

When you installed your Linux system and its window manager (most likely Gnome or KDE), it was configured to behave in some ways like that legacy operating system.

In particular, it probably has its *focus policy* set to "click to focus." This means that in order for a window to gain focus (become active) you have to click in the window. This is contrary to traditional X Window behavior. You should consider setting the focus policy to "focus follows mouse". You may find it strange at first that windows don't raise to the front when they get focus (you have to click on the window to do that), but you will enjoy being able to work on more than one window at once without having the active window obscuring the other. Try it and give it a fair trial; I think you will like it. You can find this setting in the configuration tools for your window manager.

Further Reading

- The [Wikipedia entry for Steve Bourne](), developer of the original Bourne shell
- The [Wikipedia article on the Unix shell](), the place where all this fun got started
- The ["Power Terminals"]() Adventure