

Linux Workshop

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Purpose: Linux is a powerful tool that can be used to change and optimize your workflow to better fit your needs, what can you do to get started?

What Is Linux?

I'd just like to interject for a moment. What you're referring to as Linux, is in fact, GNU/Linux, or as I've recently taken to calling it, GNU plus Linux. Linux is not an operating system unto itself, but rather another free component of a fully functioning GNU system made useful by the GNU corelibs, shell utilities and vital system components comprising a full OS as defined by POSIX.

Many computer users run a modified version of the GNU system every day, without realizing it. Through a peculiar turn of events, the version of GNU which is widely used today is often called "Linux", and many of its users are not aware that it is basically the GNU system, developed by the GNU Project.

There really is a Linux, and these people are using it, but it is just a part of the system they use. Linux is the kernel: the program in the system that allocates the machine's resources to the other programs that you run. The kernel is an essential part of an operating system, but useless by itself; it can only function in the context of a complete operating system. Linux is normally used in combination with the GNU operating system: the whole system is basically GNU with Linux added, or GNU/Linux. All the so-called "Linux" distributions are really distributions of GNU/Linux.

- Random Internet Stranger (circa early 2000s??!1)

While the meme clearly exists for a reason, let me ask you, "Would you trust a mechanic who doesn't know when they should use their ratchet, impact gun, or hammer?"

In short, linux is the word that people use to refer a a lot of things that are technically more than just linux. In order to better communicate what we're actually doing, I'm going to define some terms. Having an understanding of the intricacies of these differences will allow us to better communicate with each other as well as better understand our tools.

Linux: The Linux kernel (or the windows kernel) is the interface between the computer hardware and the processes running on the computer. The kernel is the part of the operating system that properly allocates hardware resources to run software.

Shell: The shell is the human interface with the operating system's. By using a shell we are able to write human readable commands that let us tell the operating system to run software.

Command Line: The command line is an interface used to execute shell commands. Commands can be executed using a graphical user interface (GUI) or through the command line (using a terminal emulator).

GNU Core Utils: The GNU(pronounced guh-new) core utils is a collection of software tools that allow us to use useful commands through the command line. If you want to 'level up' your 'linux' prowess, it would be wise to learn how to utilize these tools. A list of many useful commands in addition to a brief description can be found at wikipedia.org/wiki/List_of_GNU_Core_Uilities_commands.

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