Linux File System
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If you are new to Linux, you have probably seen many different directories that really make no sense as to what they are, or what is stored in them. We'll take a look at the standard Linux file system, and briefly explain what each directory if for.

/

This is referred to as the root directory. If you come from a dos/Windows background, it is the equivalent to c:\

/bin

This is the directory that Linux keeps some of the application binary files. If you view some of the files in this directory, you will see binaries (programs) such as ls, which is one of the most used commands.

/boot

The files in this directory are what is needed for your computer to start up. These files are very important to the system, and should not be touched. You would require superuser privileges to modify them, but save yourself some headaches, and don't play in this directory.

/dev

These are the device files needed by Linux to run your devices. A USB device or flash drive that you attach to your computer would have a device file in this directory, which tells Linux how to utilize the device.

/etc

This directory started out it's life as a reference to 'et cetera', and contained anything that didn't fit into any other directory. Now, it is used primarily for configuration files, and has been called 'everything to configure'. Again, if you don't really know what you're doing, leave these files alone.

/home

This is where the users personal directories are located. For example, any program that I work with, will be save in my personal documents directory, which is located in /home/dan/Documents/ or any of the directories contained within my home directory.

/lib

This is where all of the library files are contained. Linux works with source code a lot when new software is installed on the computer. A lot of this source code requires the use of libraries, which contain information in order to be able to compile, or in some cases run, the software.

/media

When you insert a flash drive into the USB port, or an external hard drive, once Linux mounts the device for use, you will be able to access it from within this directory.

/mnt

If you were to manually mount a device to your system, such as an external drive, it would appear in this directory. It is not used as much now as it was in the past. Most modern devices will mount automatically within Linux, and appear in the /media directory.

/opt

If you were to compile your own software, not from a repository, it may end up in this directory. You will see sub-directories inside such as /opt/bin and /opt/lib.

/proc

This is a virtual directory that contains information about your computer, such as the CPU and Linux kernel your system is running.

/root

This is the home directory for the superuser, aka “Administrator”. Do not mess around with any of these files.

/run

This directory contains temporary data files for programs running on the system.

/sbin

This is similar to /bin, but contains applications that only the superuser would need.

/usr

This was originally where the users files were stored, but was replaced with the /home directory. Now, it is a ‘catch-all’ for applications, libraries, documentation, etc.

/srv

This directory contains any information needed if your system is running any type of server. If the computer were running a web server, the HTML files would be stored in here.

/sys

This directory contains information from the devices on your computer.

/tmp

This is a storage area for temporary files that may be needed later.

/var

This directory contains log files that Linux keeps. For example, if there is a problem with the kernel, you could check the /var/log file for more information about the problem.

There are many more sub-directories contained within these directories that have specific meanings, but we’ll save that for another day.

This gives you a brief idea of what each of these are for, and what information they contain. For the most part, any of these directories would require superuser access, which we will get into on a future how-to.