



Distros and Desktop Environments

Distros

“Linux” is a bit of a nebulous concept, since what you actually use is a collection of software bundled together and provided as a “distribution”. Linux distributions, or “distros,” are flavors of the same operating system that build up from the base provided by the Linux kernel. Components typically include a GUI, tools for hardware compatibility, a repository to install and update programs, and everything else to provide a usable operating system. Some of the differences between them are technical, like what kind of architecture to support, or what filesystem to use, and some of them are philosophical, like whether or not to include proprietary software like Flash or MP3 in the repositories. Here's an outline of some of the major Linux distributions:



Ubuntu: The most popular distro today, Ubuntu is the recommended starting point for those new to Linux. This is because of its simple package management (read: installing & updating programs) and its easy-to-use GUI, called Unity. It's also the distribution that's most likely to be supported by independent developers, if they provide packages (compiling programs for Ubuntu is rarely necessary).



Ubuntu Derivatives: Ubuntu itself is based on *Debian*, a distribution that focuses on reliability and stability above all else. And from Ubuntu, there are many “spins,” like *Mint*, which focuses on making Linux easy to use for Windows converts and ships programs like Flash by default, or *elementary*, a new effort to build a clean, consistent Linux experience from the ground up.



Fedora: Fedora is a free offshoot of RedHat Enterprise Linux, a commercial distribution. It also has an excellent package management system, but in general requires more of the user to maintain than Ubuntu. A lot of enterprise/commercial and scientific software is designed for Fedora and its offshoots.



OpenSUSE: Another commercial offshoot, OpenSUSE is more of a power-user distro, and is particularly popular amongst users of the desktop environment KDE.



Arch Linux/Gentoo: Arch and Gentoo are power-user environments that let users customize everything while staying at the bleeding edge of any developments. Must be willing to get your hands dirty and do a lot of compiling.

Desktop Environments

The interface and visual style of your desktop is decided by your desktop environment (DE). There are four main DEs: Gnome, Unity, KDE, and XFCE/LXDE. The first three compete to provide a cutting edge user interaction experience, while XFCE and LXDE are lightweight and designed for speed on less-powerful systems. “Which DE is best?” is largely a personal question, and is a lively topic of debate online if you want to get into it.