What is Linux and What Can It Do for Me?

Linux is an operating system. An operating system is the basic set of programs and utilities that make your computer run. Some other common operating systems are Unix (and its variants: BSD, AIX, Solaris, HP-UX, and others); DOS; Microsoft Windows; Amiga; and MacOS. Linux is Open Source. What is Open Source?

Open Source is FREE software. Now, just because it's free, doesn't necessarily mean it's free. Think "free" as in "free speech," not "free beer," as we in the Free Software/Open Source community like to say. In a nutshell, software that is free as in speech, like Linux, is distributed along with its source code so that anyone who receives it is free to make changes and redistribute it. So, not only is it acceptable to make copies of Linux and give them to your friends, it's also fine to tweak a few lines of the source code while you're at it -- as long as you also freely provide your modified source code to everyone else. The General Public License (GPL) and other "copyleft" software licenses govern this.

Linux is not owned by anyone. One misconception many people have is that Linux is similar to Microsoft. Not so! No one company or individual "owns" Linux, which was developed, and is still being improved, by thousands of corporate-supported and volunteer programmers all over the world. Not even Linus Torvalds, who started the Linux ball rolling in 1991, "owns" Linux.

(However, the trademark "Linux" is owned by Linus Torvalds, so if you call something "Linux" it had better be Linux, not something else.)

How to get Linux. When you "get Linux" you are usually getting a "Linux distribution" that contains not only the basic Linux operating system but also programs that enhance it in many ways. Anyone who wants to put together his or her own Linux distribution is free to do so. There are currently hundreds of different Linux distributions that fill special niche purposes. But we advise new users stick with one of the most popular general-purpose Linux distributions (e.g. Debian, Ubuntu, Fedora, OpenSUSE, Linux Mint and CentOS) until they know a little about what Linux can and can't do.

It helps to have a fast connection and a DVD burner or USB flash drive so you can quickly download an ISO image of the distribution and burn it onto a DVD. You then can load the bootable installation programs that lead you, step by step, through the process of getting Linux on your computer.

If you don't have a DVD burner or USB flash drive, you'll be better off if you buy a DVD with the distribution (or distributions) of your choice. The more popular distributions are available in many computer stores and directly from each distribution's publisher. They sell full boxed sets of DVDs that come complete with a fancy user manual and official technical support. The average price is $25 to $80 USD. The convenience of a distribution on DVDs, including manuals, generally makes your first installation so much easier that it is well worth the money. Even if you pay for a Linux distribution you will still get an incredible value.

When comparing Linux to Windows, Linux is a much more stable operating system, along the lines of enterprise-grade operating systems like Windows Server 2003 or 2008, OS/2 or HP-UX. It is also as feature rich as standard home desktop operating systems like Windows 10 or MacOS. Linux will also run on less expensive or older hardware than current Windows versions. It requires fewer hardware resources and better utilizes what resources your computer has.

Most Linux distributions are easy enough for anyone to install but if you want Linux DVDs and documentation, you can buy them for just a few dollars from any number of online retailers, including http://osdisc.com or http://easylinuxcds.com. You may also download the Linux in the Ham Shack distribution at http://media.bsm.productions, though no manual is included.

Get help before, during, and after you install Linux. Take advantage of some free, expert technical support: the Open Source Users Group, or Linux Users Group. The heartbeat of Open Source support, and of Linux itself, is the UG. There are UGs in almost every country in the world. Many are now online as well. In UGs, you can get advice and help from people who live near you, speak your language, and are willing to donate their time so that new users can learn about Open Source without going through any more hardship than necessary.

One very good reason to make contact with a user's group (UG) before you install Linux, or even decide which distribution to use, is that your nearest UG's members may have accumulated experience with one particular distribution and may be most helpful with that one. If this is the case, you would be wise to choose the distribution most popular with local UG members, because you will get better and more accurate answers to any questions you may have.

There are also numerous online resources for technical support. Most distributions will have wiki pages, help form sites, bug trackers and more. YouTube, Discord, IRC and other social media platforms can also be invaluable in getting your Linux and Open Source questions answered.

A Linux distribution contains more than just the operating system. You need more than an operating system to do anything useful with your computer. You need applications. Software that works with or on top of the operating system is what makes Linux useful. Fortunately, distributions package thousands of Linux tools and programs together: office suites, text editors, games, spreadsheets, personal information managers, email programs, graphics applications, scientific programs, documentation, digital camera applications, Web editors and browsers, and many others. You can install any or all of them and be assured that they will all work together efficiently without worry or any great effort by you. Many of these are *not* the same programs you may have used with Windows or Mac but since almost all of them are free, they are well worth your time to learn. You may be surprised to find that many free Linux programs included in the distribution you choose are better and more stable than expensive software you have used with other operating systems. After you have used Linux for a while, you will get used to this. Once you do, it is very hard to go back to the world of commercial and often painfully expensive software for Windows or MacOS!

Our podcast and YouTube channel can help you use your computer, Linux and open-source software more effectively, whether for amateur radio use or not. Please check it out at the link below.

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