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## A Global Survey of Linux Distributions

by [Alexander Prohorenko](#)  
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Linux appeared awhile ago, but stayed in the shadows for a long time, known only to specialists and computer gurus. How things have changed!

We consider Linus Torvalds to be a father of Linux. He wrote the Linux kernel, the core of the operating system from scratch, then distributed his work worldwide completely for free. While Linus started the project in Finland and continues it from the U.S., Linux has fans and users all over the world.

Like-minded individuals joined him in modifying the source code and adding many features and options. Anybody who knows how to program, or even just wants to code, is allowed to modify the source code and to add some additional programs to the distribution.

Linux works well — it's much more flexible and stable in comparison with Windows. For example, many Internet proxy servers are running Linux, instead of Windows. Many server companies prefer Linux to Windows.

Of course, Linux by itself is just a kernel. It manages resources, talks to your hardware, and allows you to run programs. It's not those programs, though. It takes a Linux distribution to collect and bundle all of the useful programs of an everyday system, whether server, desktop, or embedded device, and to distribute and install those programs.

You may be familiar with one or more distributions already, but do you know what's available worldwide? Here are a few of the more popular commercial Linux distributions in various languages of the world. Note that I said *commercial* — distributions such as [Debian](#) and [Gentoo](#) are lead primarily by a community, not a commercial organization, and really have no geographic center. They're fine distributions, though, and well-worth using.

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## Red Hat Linux

[Red Hat Linux](#) is arguably the most popular commercial distribution in the English-speaking world. It includes many useful administrative tools, making it very easy and user-friendly for new users. Red Hat regularly releases updates for its software on several platforms, including i386, Alpha, and Sparc. Red Hat also sponsors many Linux-related software projects.

You probably know about Red Hat already.

## Mandrake Linux

[Mandrake Linux](#) comes from a French company called MandrakeSoft. Originally, this distribution

aimed to make the administration of user workstations easy and comfortable. They've also produced a server version. Mandrake Linux is popular, and is used not only in Europe, but also in Asia, Australia, the United States, and other countries.

Mandrake recently released version 9.2, code-named "FiveStar", targeted at Intel Pentium, AMD Athlon, and PowerPC platforms. It includes most modern technologies and software solutions, like Apache version 2, NTFS partition size modifiers, ACPI power management tools, Zeroconf network drivers, support for Wi-Fi, the GPG keys management in the URPMI/RPMDrake, and other tools. It's comfortable for users, with easy graphical installation, a usable default theme called "Mandrake Galaxy," font anti-aliasing, and KDE 3.1.3 and GNOME 2.4.0. It also stays up-to-date with several popular projects, including the Linux kernel (upgradable to 2.6.x), XFree86, glibc, gcc, OpenOffice.org, KOffice, and Apache.

Mandrake Linux 9.2 FiveStar may be the most complete commercial Linux distribution at the present time.

## ASP Linux

[ASP Linux](#). The ASP Linux distribution comes from Russia. It's pretty popular within Russia and other countries of the ex-USSR.

The latest version, ASP Linux 9 "Ural", is very stable, rock-solid, and easy to install and configure. Ural includes almost any kind of application, to suit all needs for the home or office workstation, server, programmer workplace, web coder, and web designer. It's suitable for building an internal network with a terminal access server and thin or thick clients. ASP Linux 9 uses Linux kernel 2.4.20, which, when combined with the new [glibc](#), allows the use of the [Native POSIX Thread Library](#) (PDF).

What are the advantages of the ASP Linux 9 distribution?

- ASP Linux has a unique setup application that allows you to label the hard disk during the installation process. It provides several configurations, but allows you to create your own configuration. The installer will recognize any other installed operating systems already and will add them to the boot manager, ASP Loader.
- ASP Linux allows easy configuration of different services and daemons. It includes Webmin, a centralized configuration and administration interface.
- The ASP distribution includes the yum utility, which allows you to perform regular and fast updates of the system via the Internet, whether through the main FTP server or mirrors. You can also update offline by using the ASP Linux Updates CD, regularly released with distribution updates.
- ASP Linux includes all components necessary for running a terminal access server. You can use such a server to boot diskless stations — thin clients —. This can be a very cost-effective solution for medium- and big-sized companies.

ASP Linux is really a giant of included software. It includes applications of many categories, such as Office applications, Internet applications, communication and chatting software, multimedia applications (including audio editors and TV and radio players), graphic applications (including image editors, vector editors, and modelers), engineering software (such as [gEDA/ga](#), [Octave](#), and [Scilab](#)), games (as found in GNOME and KDE), programming software (including IDEs, design tools, and many language implementations), databases, server-side applications (monitoring and serving), and security tools. Along with the usual security tools, ASP Linux 9 includes a part of SecurIT's corporate security system as well as a package for the USB-key eTokenPro.

## Conectiva Linux

[Conectiva Linux](#) is widely used throughout South America. This distribution comes from a Brazilian company, also called Conectiva. The choice of available languages isn't very big here yet -- you can choose only English, Portugal, and Spanish. However, the company will grow and is looking forward to supporting European and other languages.

Conectiva Linux strongly resembles Debian, though it's well-connected to other distributions such as Red Hat. The latest version is Conectiva Linux 9.0. It compares well to other distributions, being balanced and user-friendly. This should attract more users in the future. Its four CDs include kernel 2.4.21, modern gcc and glibc versions, but slightly older KDE and GNOME versions. Otherwise, it includes new multimedia and office applications, including Sun's JRE and IBM's Java 2 JDK.

The Conectiva Linux distribution is a proud product of the Brazilian developers and I think eventually it'll become more popular and known all over the world.

## SUSE Linux

[SUSE Linux](#) is one of the most popular Linux distributions in Europe. It's native language is German, although translations (including the complete and very detailed manual) include English, French, Spanish, and Italian. Still, SUSE's greatest popularity remains in Germany, where it holds a high place in the Deutscher Investment Trust bank, the Ministry of Internal Affairs, and many other government structures.

SUSE Linux also has increasing popularity in the United States. The Cray supercomputing company choose SUSE Linux Enterprise Server for AMD64 as the platform for their new supercomputer, Red Storm. That may be just a start for SUSE.

SUSE is one of the main developers of X-servers for XFree86, the most widely used graphical system in the Linux world. Commonly, support for new video cards first appears in SUSE Linux, then spreads to all other distributions. The distribution uses a good installation and configuration program named YaST, and includes over 800 pre-built packages. You can install it on FAT16 partitions (as found in Windows 95 and 98 systems) with the use of a live file system. SUSE Linux includes about 10 window managers and a KDE desktop system.

The newest release is SUSE Linux 9.0. This is the first home-operating system to support the AMD Athlon 64 processor. It also supports the NTFS file system, easing the strain of migrating from Windows to Linux. However, Windows and SUSE can coexist, too.

SUSE Linux 9 uses an optimized Linux kernel 2.4.21. These modifications add new sound drivers and upgraded power management support. SUSE also includes a 2.6 kernel so that advanced users can test new applications and drivers. As well, the distribution supports more multimedia and communication devices.

In the latest version, even new users can use YaST to configure a mixed network of Linux and Windows stations. The interface can configure all DNS, DHCP, and web services. Also, the new version includes IPv6 support and UML support. UML (or User Mode Linux) allows several copies of Linux to run at the same time. This gives advanced users and developers the unique possibility to debug the Linux kernel without needing to stop a working server.

SUSE Linux has several manuals, comprising over a thousand pages of documentation. The user manual now includes detailed information concerning different KDE applications, the GNOME system, and the new Mozilla browser. The administrator's guide now includes information on LDAP, Samba, and Apache web server configuration.

SuSE Linux 9.0 distribution is a good choice for new as well as advanced users and Linux bigots.

## Red Flag Linux

[Red Flag Linux](#) comes from the Chinese government's decision that its country needed an official operating system with transparent code. The Academy of Science of China built Red Flag Linux atop the latest Linux kernel code, and named it Red Flag Linux. China's government thus considers this distribution to be the best solution for Linux users.

Red Flag Linux is the most popular Linux distribution within China. As such, it has potentially the greatest number of beta testers in the world. Most leading software developers in China officially support this distribution.

Red Flag Linux Desktop 3.2 came out recently, featuring an easy installation process. It provides multiple installation types, support for large hard drives, graphical disk partitioning, and compatibility with almost all versions of Windows, most Linux distributions, and many Unix variants.

The distribution includes business applications such as personal organizers, email applications, and support for Windows networks. It also includes multimedia software such as graphic editors, media players, and games.

Red Flag offers system security services, with fail-over and multi-layered security mechanisms, a firewall, and intrusion detection systems. It provides a system optimization service designed to optimize file system, process, and disk I/O performance on user systems.

## Slackware Linux

[Slackware Linux](#) works best for people who are eager to learn Linux very deeply. Most options require manual configuration, lacking graphical utilities and front ends. This distribution can be difficult for new users, but it remains popular among advanced users. Slackware has been around for more than 10 years and has had relatively few security issues in that time.

The latest version, Slackware Linux 9.1, includes a wealth of software packages for servers and workstations. It stays up-to-date with the latest releases, including the Linux kernel, KDE, GNOME, Mozilla and other web browsers, gcc, glibc, and programming languages such as Perl and Python. This new release uses a simple installation system called ZipSlack. To install a new system, just add an archive to a FAT16/FAT32 partition and run the installation script.

Slackware Linux has several nice compatibility features. It avoids long file names, making it easier to set up from a DOS partition or to transfer on the diskettes or hard disks with the FAT16 system. Also, most packages are Gzipped tar archives, making them easily convertible. Package updates occur regularly.

## Turbo Linux

[Turbo Linux](#) comes from Turbolinux, Inc., a global software company providing Linux operating environments. In fact, Turbolinux and its partners are providing much of the backbone of both government and private networks of China's digital infrastructure. As you might expect, globalization is important. The Turbolinux 7 Server distribution first provided support of internationalization standards to help simplify the development of multi-language applications.

Turbolinux designs its distributions specifically for enterprise computing. For example, Turbolinux 7 Server supports the Large File Support (LFS) standard for working with applications that manage or handle up to four terabytes of data. Turbo Linux supports a variety of platforms with different products, including desktops (Turbolinux 10 Desktop), mid-range servers (Turbolinux 8 Server), 64-bit processors (Turbolinux 8 for AMD64), and clusters solutions (Turbolinux Cluster Server 8).

Turbolinux 8 Server lags a bit behind the cutting edge, which may appeal to conservative, high-reliability business applications. It includes kernel 2.4.18, glibc 2.2.5, XFree86 4.2.0, gcc 2.96 (and 2.95.3 and 3.2) and rpm 4.0.2. It's designed for reliability, availability, and scalability with hyper-threading support, `readv()` support of raw devices, and `writew()` mounting to increase database performance, asynchronous I/O support for improved throughput, journaling file systems for high efficiency and high availability (Ext3, ReiserFS, JFS and XFS), PXE support, LVM (Logical Volume Manager), and many other options.



## Esware Linux

[Esware Linux](#) is a Linux distribution developed in Spain, geared toward Spanish-speaking users. The installer, command lines, documentation, and user manual are all in Spanish (Castellano). It has almost no English support (for documentation and manuals).

## Magnux Linux

[Magnux Linux](#) originates in Brazil. It is a complete operating system built from scratch, not based on any other existing distribution. The project's main goal is to build a clean, simple, and secure Unix-like system well-suited for servers, though many users use it on their desktops. Magnux Linux is also designed with strict conformance to upcoming Linux standards in mind.

While Magnux Linux had its first release in 1999 and continues to this day, there is little information about this system. It seems to be confined mostly to South America, with little popularity elsewhere. The minimal requirements are pretty gentle: an Intel 386 or better processor, 16 megabytes of RAM, an IDE or SCSI hard disk drive with the 90MB of free space for a minimal installation and 1.5GB for a complete install.

## ELX Linux

[ELX Linux](#) hails from the Middle East. It began in 2001 as the ELX company decided to develop an operating system with the ease of Windows and the reliability and security of Linux. ELX is today known for products that provide a potent combination of power and ease to its users.

Traditionally, Linux has always been perceived to be inside the thick walls of a server, but over time that wall has been removed. More and more business users opt for Linux on their desktops. Corporations are becoming very conscious of maintaining high uptime of their systems. ELX never positioned itself as just another Linux for people looking for alternatives. The company positioned ELX Linux as the most suitable Windows alternative available today.

The latest version lags a bit, including Linux kernel 2.4.18, XFree86 4.2.0, with a default desktop of KDE 3.0.1. Of course, according to numerous polls, users in the Middle East prefer Red Hat, Fedora Linux, and Mandrake Linux distributions over the admittedly few local versions. Unfortunately, the latest ELX versions are not available for free download.

## Arabeyes

Finally, [Arabeyes](#) is a Meta project that aims to support the Arabic language in the Unix and Linux environments. The site is a central location to standardize the process. Arabeyes relies on voluntary contributions by computer professionals and enthusiasts all over the world. This group of volunteers decided not to release another Linux distribution. Instead, they're implementing Arabic support to existing systems.

So far, they run localization projects for larger projects such as Debian, Mandrake, GNOME, KDE, Mozilla, and QT. Further, they've provided patches and Bug-fixes for several popular Unix-related utilities, including less, LyX, PuTTY, and vim.

[Alexander Prohorenko](#) is a certified professional, who holds Sun Certified System Administrator and Sun Certified Java Programmer certifications.

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### We've almost certainly missed some commercial distributions and people groups. Let us know here!

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#### Commercial vs not?

2004-03-01 04:26:15 buchanmilne [\[Reply\]](#) | [\[View\]](#)

I wonder if your characterisation of Gentoo as being a non-commercial distribution is valid. I notice that they sell CDs and ask for donations on their site, which seems to make them just as commercial as Mandrake Linux (which offers Club Memberships to support development and sells more complete products on their site).

Many people are not aware that Mandrake Linux is almost as community-oriented as Debian. Major packages in the main distribution are maintained by community contributors, all packaging and software sources are available in public CVS, community members have commit access on a lot of Mandrake-specific software and the development wiki (<http://qa.mandrakesoft.com>) and full rights in bugzilla. About the only aspect that community members don't have full access to at present is the aesthetics (logos, default desktop settings etc).

I am not that familiar with Gentoo development, but I don't think it is as open as this ...

So, is "commercial" the correct distinction to make, or is community involvement?

#### Commercial vs not?

2004-03-01 11:25:00 chromatic [\[Reply\]](#) | [\[View\]](#)

That's a very good point. There's no single line between a community distribution and a commercial distribution. Even the commercial distributions built around Debian (which is a community distribution if anything is) rely on the community contributions.

Perhaps it would be better to ask where most of the packaging effort comes from. In Mandrake, it seems like the employees maintain the packages. In Debian and Gentoo, it seems like mostly volunteers.

That's still not a perfect criterion, but it's the best I have at the moment!

#### ASP Linux

2004-02-29 10:40:34 emelamud [\[Reply\]](#) | [\[View\]](#)

Minor correction. ASP-Linux link actually points to the Mandrake website. (<http://www.asp-linux.com/>)

#### ASP Linux

2004-03-01 10:49:16 chromatic [\[Reply\]](#) | [\[View\]](#)

Oops, this was a typo on my part. Thanks; it's fixed now!

#### Lineox Enterprise Linux 3.0

2004-02-28 03:43:33 rkoski [\[Reply\]](#) | [\[View\]](#)

[Lineox Enterprise Linux 3.0](#) is based on the source RPM packages from which Red Hat Enterprise Linux 3.0 was compiled. Lineox Enterprise Linux 3.0 contains all programs included in various Red Hat Enterprise Linux variations (Advanced Server (AS), Entry/Mid Server (ES), and Workstation (WS)). It also contains programs included in separately sold Red Hat Cluster Suite and Red Hat Developer Suite.

[Always Current Lineox Enterprise Linux](#) is a download only version of Lineox Enterprise Linux 3.0 which is constantly upgraded and contains only current versions of program packages. This means that there is no instant need to download and upgrade the system after installation and the system is secure right from the start. The current version of Always Current Lineox Enterprise Linux is 3.002 and it contains 175 updated packages totaling 342.227 MB. [Lineox](#) expects to release new versions once or twice weekly.

**Red Hat Linux, what's that**

2004-02-27 07:06:29 mrdoornbos [[Reply](#) | [View](#)]

Interesting, Feb 27 2004 and you mentioned RedHat Linux. Of course, we all know there is no Redhat Linux any longer. Just some product with more cost and less features. They managed to go from #1 to who cares in 6 months.

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