

An up-to-date overview of free software and its makers

# Projects on the Move

Free software covers such a diverse range of utilities, applications and other assorted projects, that it can be hard to find the perfect tool from all that programming effort.

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As the range increases so rapidly, you occasionally need a little help to make your choice of what to use. We pick the best of the bunch for you: the GNUstep development framework, the ViewSVN Subversion front-end, and comments on the Sarge release.

Some people prefer to use a Linux distro with a collection of pre-compiled, ready to run software. Others prefer the DIY approach. For readers who prefer to work with their own tailor-made distribution, Linux From Scratch [1] is just what the doctor ordered. It has all the basic tools needed to compile a system from the source code. In contrast to meta-distributions like Gentoo, this distro does not even include a compiler. The current version 5.1.1 of Linux From Scratch has been up for grabs from [1] since the beginning of June this year.

## GNUstep

Most Linux users will be familiar with the terms Qt/KDE and GTK/Gnome. They will associate them with widget toolkits and their matching desktop environments. GNUstep may be less familiar to most, although it has the potential to take on its more popular counterparts.

GNUstep is based on the OpenStep specification [2], which was originally published by NeXT (founded by Apple boss Steve Jobs) in 1994. NeXT was

taken over by Apple in 1997, who then integrated OpenStep into Mac OS X. GNUstep is a complete development framework, including a widget toolkit among other features, and thus a fully-fledged replacement for Qt and GTK.

There have been GNUstep window managers in recent years, although they have typically been unable to proceed beyond an early beta before their developers gave up. If you are interested in what GNUstep looks like, take a look at

WindowMaker [3]. WindowMaker does not use the GNUstep libraries, providing its own instead, although the look and feel is more or less identical.

Being based on OpenStep, GNUstep has the reputation of being efficient, simple, quick, and well thought out. The project also has some qualities that set it apart from other desktop environments. There is a good selection of “RAD Tools” (RAD stands for Rapid Application Development) that support fast application development.

Native display support for Postscript files is another interesting feature; this is another OpenStep capability. For example, the Analog Clock [4] is a simple clock that displays the time in Postscript format.

## Full-Featured

The distro includes a range of applications such as the GUI-based GNUMail [5] mail client, the Cynthiune [6] audio player, and GNUWash [7], a countdown timer, and a useful tool for timed activi-

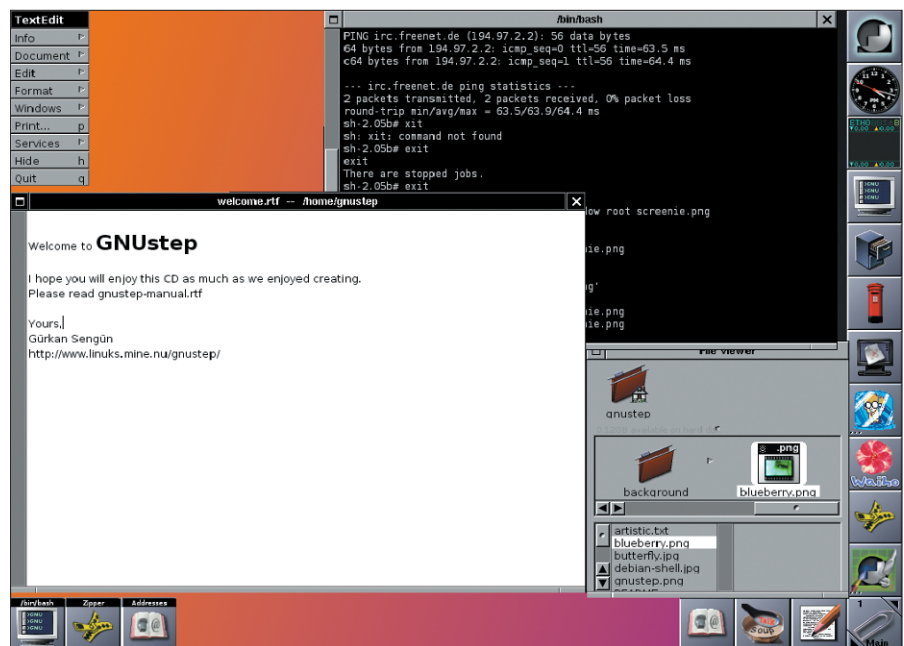


Figure 1: The GNUstep environment can easily hold sway with KDE and Gnome. It performs well and is easy to use. The GNUstep Live CD allows users to test the desktop without risk – no install required.

ties. More communicative readers will appreciate TalkSoup [8], a GUI-based IRC-Client. GWorkspace is GNUstep's standard file manager [9].

If you are interested in testing GNUstep, check out the GNUstep Live CD [10] by Gürkan Sengün. The CD provides a fully-functional desktop with a selection of major programs pre-installed. Thanks to the Morphixinstaller tool, you can easily put the GUI desktop on your hard disk. As a special feature, the Live CD also allows users to install a Hurd kernel.

So if you think that KDE and Gnome are too hard on resources, you might be happier with GNUstep. The GUI desktop is simple, but full-featured. GNUstep is seriously quick, and does not take up much hard disk space. If you are not prepared to sacrifice precious resources for the environment, you can simply use Gürkan Sengün's Live CD.

## ViewSVN

CVS is out, the more modern Subversion (SVN) seems to be the way to go in future. Although Subversion was tagged unstable up to just a few months ago, many projects have already started to use it. However, SVN turned out to have an issue, that CVS originally had. Users without the skills needed to use the command line client were out on their own for lack of a GUI-based interface.

ViewSVN [11], a program that displays Subversion folders in a browser, has been around for a while now. Although the viewer is "pre-Alpha", it has a quite an impressive range of functions. The current version 0.0.4 is capable of displaying files and directories, and provides a graphic display of the diffs for two versions of a file.

The program needs a Web server and PHP. It is particularly interesting for admins who still use an Apache 1.\* version, or some other Web server. Apache 2 does not need ViewSVN, having the ability to display SVN directories natively thanks to WebDAV. Apache 1 does not have this ability. It remains to be hoped that the developers will add more functions to provide a

full-fledged Subversion interface to those users who are chary of the command line.

## Let's Stop Moaning and Cooperate

The Open Source Community has always looked for ways to improve its own programs, and has done without formalities thus far. Political discussions were more or less invisible to outsiders, the Debian project being no exception. Although the Debian developers are not renowned for their speed with regard to new releases, each release has provided important enhancements. New versions have always been carefully implemented, and most upgrades went off without hitches. Debian is again going through major changes at this time of writing.

Debian GNU/Linux needs to support the new Opteron and Athlon 64 CPUs, and debate is still raging on the GFDL, the GNU Free Documentation License. Besides this, there are always the tasks of updating software for the upcoming Sarge version, and completing the Debian Installer.

Recent months have shown a disturbing propensity among developers to fight internal issues out in public. This may appear to be a welcome step toward more transparency at first glance, but it does cause some major issues, with more and more Debian developers

appearing to be doing nothing but pitching their two cents' worth into Debian mailing lists.

As an example, let's take a look at the row on support for AMD 64 processors that reached its sad climax in June this year. The AMD 64 architecture explicitly supports the execution of 32 bit binaries. The problem is that these 32 bit programs required 32 bit libraries. The system has to provide them, along with the 64 bit libraries needed for 64 bit programs [12]. Having both versions of a library on a system would mean modifying the dpkg package manager.

## Flamewars and no End in Sight

Goswin von Brederlow bravely suggested an approach to extending dpkg step by step to add so-called "Multiarch" support. This resulted in a gigantic flamewar, and a long-drawn-out discussion on what to call the Debian port, x86\_64 or amd64. The developers finally agreed on amd64, before going on to compile all the packages in the archive to support the AMD 64 architecture in a process that took several months. However, Scott Remnant, the dpkg maintainer, found the name for the port unsuitable, preferring to call it x86\_64 in dpkg. This meant that none of the packages compiled for the AMD 64 would work, and inevitably led to more discussions.

The debates on the GFDL, or binary-only firmware [13] are just two more examples of how frustrating public discussions can be. Following protracted debates on the usual mailing lists, the developers agreed to classify the GFDL as non-free, and to remove binary software from Debian. It seems quite obvious that most developers had not considered the drastic consequences of their decisions, which did not hit home until some time later. When it became apparent that the Sarge release would need to be postponed for several months, some developers tried to reverse the decisions to avoid impacting the release schedule.

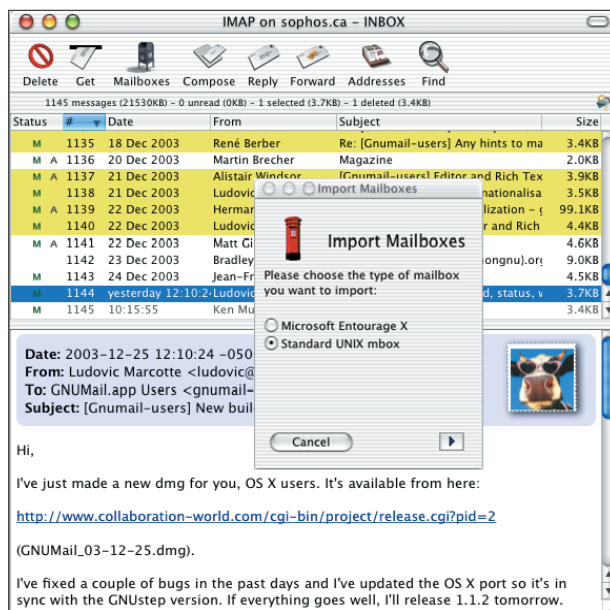


Figure 2: The GNUMail program also runs on Mac OS X. Besides the mail client, a whole bunch of other applications is available for the GNUstep environment.

The attempt proved extremely difficult. Whenever it seemed that the proposals were ready for voting, a new proposal suddenly appeared and needed to be evaluated. Despite the awkward situation, Debian was simply incapable of reaching a quick decision.

Of course, there is nothing basically wrong with discussions among developers. On the contrary, they provoke innovations, and help to clarify common points-of-view. This said, it can hardly be constructive to embark on endless debates that stray so far from accepted conventions. A stubborn decision-making process can cripple the development of the whole distribution. Recently, endless discussions have even led to time-served Debian developers quitting the project, such as Christian Marillat, who was more-or-less mobbed.

## Crisis Looming?

This causes the most hurt to developers who put in several hours of work on the distro and its infrastructure every day. They feel cheated when they see that their co-developers have nothing better to do than fight about minimal issues on the pertinent mailing lists. This also impacts the users, who are being asked to make do with antiquated software,

and are in for real trouble when they attempt to install Debian on a system with current hardware.

Who knows why the Debian arena has developed into a platform for fierce debate, rather than a platform for sensible decisions. One of the major factors seems to be the fact that many project members are looking to assert their rights, while more influential developers are attempting to lead the way. The Debian Project Leader has increasingly become a representative figure, although the position theoretically allows more decision-making. Additionally, conservative members often oppose change on principle.

It is now 2004, and if you think that users will be happy with software dating back to 2002, don't be surprised if people do not take you seriously. The developers need to finally make those important unresolved decisions. Sarge has to be released as soon as possible, and there must be an end to the spurious arguments preventing AMD 64 support in Debian.

If the developers are unable to reach a decision on these critical issues in the near future, the outcome may be a crisis at Debian. With some 900 developers, Debian is the biggest Open Source Com-

munity project, and a role-model for many. How can we expect to protect the world of free software against the threat of software patents and outrageous copyright demands if its biggest project is incapable of finding an internal consensus?

## That's all folks...

... for this month at least, but we do have one request before we go: If you can recommend a program that you would like to see featured in *Projects on the Move*, why not mail me with your suggestion [14]? I look forward to your comments! ■

## INFO

- [1] Linux From Scratch:  
<http://www.linuxfromscratch.org/>
- [2] OpenStep specifications:  
<http://www.gnustep.org/resources/OpenStepSpec/OpenStepIntro/TXT.html>
- [3] WindowMaker:  
<http://www.windowmaker.org/>
- [4] Analog Clock:  
<http://www.linuks.mine.nu/aclock/>
- [5] GNUMail:  
<http://www.collaboration-world.com/cgi-bin/project/index.cgi?pid=2/>
- [6] Cynthiune: <http://organact.mine.nu/~wolfgang/cynthiune/>
- [7] GNUWash: <http://pyromatz.dyndns.org/gnustep/gnuwash.html>
- [8] TalkSoup:  
<http://linuks.mine.nu/andy/talksoup/>
- [9] GWorkspace: <http://www.gnustep.it/enrico/gworkspace/>
- [10] GNUstep Live CD:  
<http://linuks.mine.nu/gnustep/>
- [11] ViewSVN: <http://developer.berlios.de/projects/viewsvn/>
- [12] Martin Loschwitz, "Projects on the Move":  
Linux Magazine, Issue 42, May 2004, p86
- [13] Martin Loschwitz, "Projects on the Move":  
Linux Magazine, Issue 45, August 2004, p86
- [14] Tips and suggestions:  
[projects@linux-magazine.com](mailto:projects@linux-magazine.com)

## THE AUTHOR

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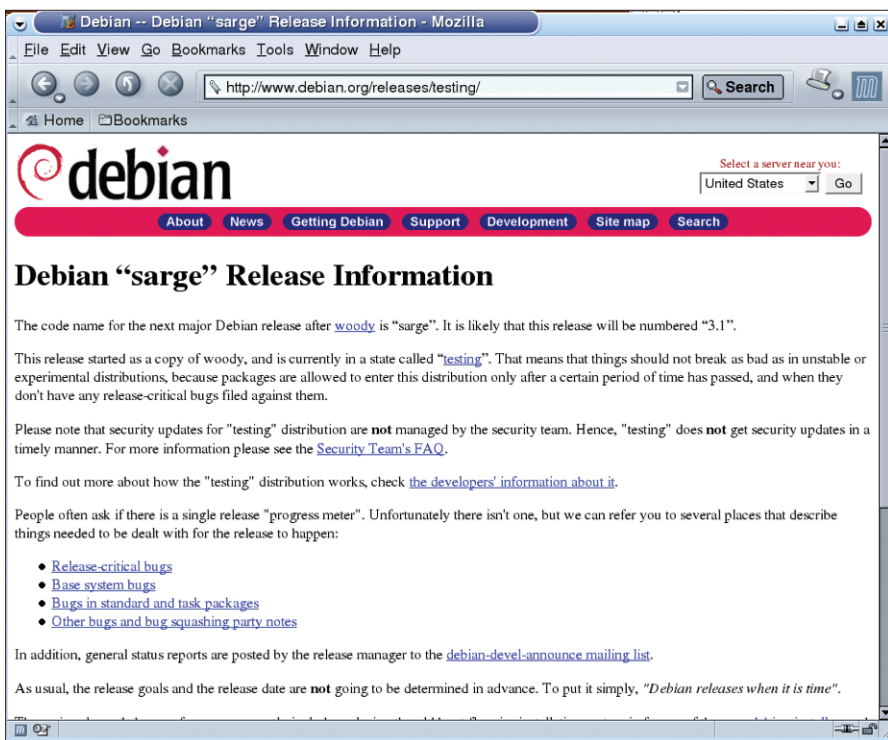


Figure 3: Information on the upcoming Debian Sarge version. Developers have repeatedly had to postpone the release date due to frictions within the project.