

An up-to-date look at 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. We pick the best of the bunch. This month we look at IPodder, FreeBSD 6, and SynCE. **BY MARTIN LOSCHWITZ**

Podcasts are all the buzz – and not just since the latest version of Apple's iTunes started to officially support these mobile soundbits. Many view the Podcast as a new generation radio. And this is hardly surprising. Podcasts really are a new kind of information broadcasting. Now, TV companies are looking into Podcasting news services.

IPodder for Podcasts

iTunes is available for Windows and Mac OS – but what about Linux? IPodder [1] is a free software tool that brings Podcasts to the Linux user's ears. IPodder even runs on Windows and Mac OS X,

thus recommending itself to people who use different platforms and would like a standardized GUI for Podcast management.

The tab-based main IPodder window shows the active downloads, the Podcasts that you regularly subscribe to, and the Podcast directory at *iPodder.org*. Of course, IPodder is no replacement for iTunes, which allows users to manage their iPod content; the program is designed for desktop use only.

FreeBSD 6

Today, three BSD derivatives still play a major role: FreeBSD, OpenBSD, and NetBSD. OpenBSD follows a very strict

schedule, whereas NetBSD can allow months to pass between two minor versions. The third candidate, FreeBSD, lies somewhere in between.

It took the developers quite a while to move to FreeBSD 5, which was very much of a new development. And now FreeBSD 6 is rapidly approaching, dragging a host of interesting new features in its wake after over two years under development.

On the outside, very little seems to have happened. FreeBSD's installation is still handled by the text-based and non-intuitive Sysinstall tool, which often leads to confusion, rather than actually helping newcomers. Just a few menu



items for new functions seem to have been added.

The changes to the new FreeBSD have mainly taken place under the hood. The developers started by thoroughly tidying up the codebase, throwing out the ballast. Benchmarks show that many system functions are up to 35 times quicker than on FreeBSD 5 (Figure 1).

Add to this a number of new hardware drivers; for example, this is the first version of FreeBSD capable of handling WLAN cards without headaches. Although FreeBSD 5 was capable of addressing a few cards, the developer team has completely reworked WLAN support in version 6. Drivers for well-known hardware, such as Centrino WLAN cards or the current Ralink cards, have been added, and many existing network drivers now feel more comfortable with multi-threading.

ACPI support has improved visibly, and it now has a *cpufreq* layer. This allows users to change the CPU speed on

the fly, an ability that Linux users have had for years. Laptop owners will appreciate the improved *psm* mouse driver, which now supports Synaptics touchpads. The new FreeBSD release comes with X.org, which supports many new video adapters.

Inside BSD

There have also been a number of visible changes in userspace. The developers have completely reworked *ifconfig*, and the resulting tool does the job far more efficiently than its predecessor. Version 6 of FreeBSD is also the first to use DevFS – not a port of the Linux DevFS but a completely new tool.

Network configuration is no longer handled by separate files in */etc*, but by */etc/rc.d.rc.d*. *rc.d* also handles system configuration at other points, thus playing a more important role than on FreeBSD 5.

The ports system, which automatically builds and installs external software, has been extended to provide the *portaudit*

tool. It checks the FreeBSD server for vulnerabilities before installing a program and warns the user if it finds anything worrisome.

FreeBSD 6 also comes with a collection of updated binaries. Besides X.org 6.8.2, the collection includes GCC 3.4.4, Bind 9.3.1, and Sendmail 8.13.4. Current versions of Apache and Cyrus Imapd can also be installed from ports.

FreeBSD also profits from innumerable large and small changes, and it continues to be the excellent server operating system it always has been. But if you choose not to switch to the new version, you can still carry on using FreeBSD 5, as

the so-called legacy release is still supported. This said, FreeBSD 4 now falls completely off the release system map.

Facelift for the Debian Bug Tracking System

If you spot a bug in Debian, you report the bug to the Debian Bug Tracking System (BTS) for further processing. The system has always performed this task in a reliable way, but it lacked functionality for a long while. Important features such as MIME support were not added until the Debian GNU/Linux Sarge release. The BTS added support for stating the version number of the buggy program in July; and this is a really useful piece of information if you consider the three developer branches of the distribution with vastly different program versions in each.

The new BTS interface design is more apparent, however. The overview page now color codes the various categories of bugs. By default, the new interface hides bug report mail headers, with the exception of the most vital information, such as data from the *From:*, *To:*, *Subject:*, and *Date:* fields.

Ugly fonts are also a thing of the past. If you enable anti-aliasing, BTS will give you nicely rounded fonts and different font colors, along with italics and bold type, to improve readability.

Dismissal Rules

Besides the technical skills to package a few programs in the format Debian expects, all you need is a bit of patience to become an official Debian package maintainer. Getting rid of a developer takes a lot more effort. Thus far, there has not been a rule to define the conditions for the Debian Account Manager restricting or deleting an account. The only thing that was clear was that anybody using the Debian machines for illegal pursuits or other non-Debian purposes would be banned.

Jörg Jaspert, the current Debian Account Manager along with James Troup, has now drafted a dismissal rule that would apply in case of dispute [2]. According to the rule, a Debian developer who considers any other Debian developer unworthy of that title can mail the account managers to tell them. The account manager then makes a decision based on his or her own discretion; if the

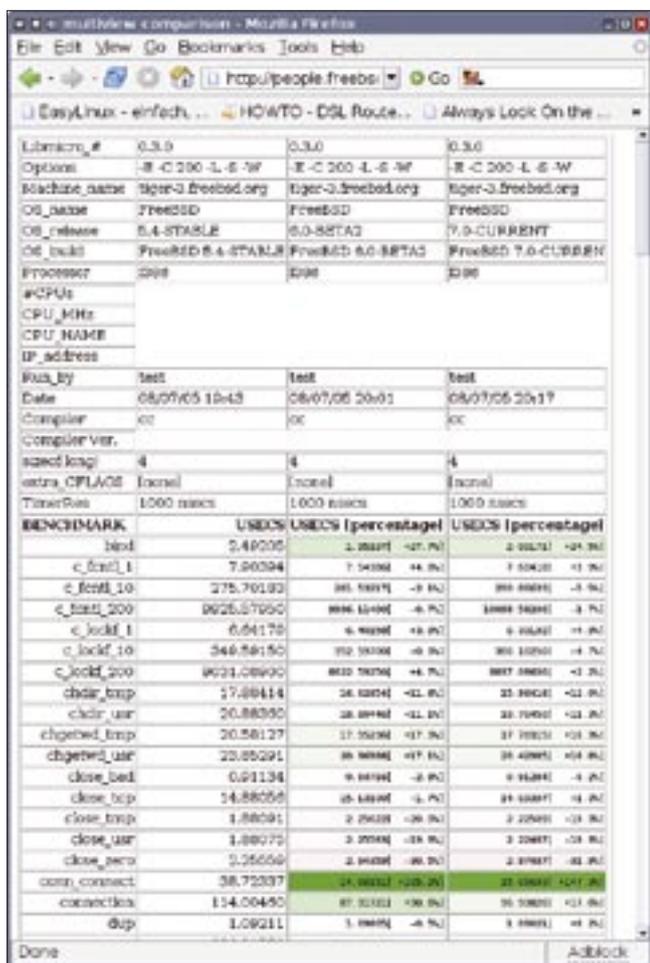


Figure 1: The benchmark shows that FreeBSD 6 (center column) is far superior to FreeBSD 5.4 (left) in many respects. The developer version of FreeBSD 7 is shown on the right for comparison.

```

c0eada@usd@nerva[771]:~$ pstatus
Version
-----
Version: 4.25.1000 (Microsoft Windows Mobile 2000 Pocket PC Phone Edition)
Platform: 3 (Windows CE)
Details: **

System
-----
Processor architecture: 5 (ARM)
Processor type: 2577 (StrongARM)
Page size: 0x1000

Power
-----
ACLineStatus: 00 (Offline)

Status for main battery
-----
Flags: 1 (High)
LifePercent: 98%
LifeTime: unknown
FullLifeTime: unknown

Status for backup battery
-----
Flags: 1 (High)
LifePercent: 100%
LifeTime: unknown
FullLifeTime: unknown

Store
-----
Store Size: 20220976 bytes (20 megabytes)
Free space: 2057452 bytes (2 megabytes)

Memory for storage: 20324992 bytes (20 megabytes)
Memory for RAM: 3090032 bytes (3 megabytes)

c0eada@usd@nerva[771]:~$

```

Figure 2: SynCE links Linux and Windows Mobile. This works well at the command line, but newcomers might experience difficulty installing the GUI-based front-ends.

account manager considers the dismissal request too harsh, it is up to the requesting developer to provide supporters to backup his or her arguments.

If enough people are in favor of the ban, a process in which both sides of the dispute can state their case is launched. Following this, the account manager again makes a decision. However, the New Maintainer committee can overrule the decision.

The fact that there are hard and fast rules that govern banning of developers does not mean that Debian will actually use these rules in future. It is just that Jörg Jaspert would like to close the loophole.

PocketPCs and Linux

Handhelds or PDAs have been part of the geek's daily life for quite a while now. They help organize appointments and pick up email from anywhere on the globe. Many devices can now store music and video clips. And now these mobile devices have started to combine the functionality of the cellphone and the PDA to give users so-called smartphones.

Two operating systems have been battling for the users' approval. On the one hand, there are Palm devices with PalmOS. PalmOS talks to Linux and synchronizes its files with tools such as the Evo-

lution groupware suite. But if you have a PocketPC with Windows Mobile, it is not quite as easy to exchange data with Linux, as the Activsync protocol used by these devices does not provide open interfaces.

SynCE to the Rescue

The SynCE [3] tool by David Eriksson can help here. It sets up a communication link between the desktop and handheld and provides an interface that

other programs can leverage to manage appointments, email, or other tasks.

The SynCE package includes the program libraries and the *ipaq* kernel module. The programmers developed the package for HP devices, but it will work with other Windows-based handhelds. After loading *ipaq*, the system auto-detects attached PDAs, allowing the SynCE command line tools to get on with the job.

The *pstatus* command gives you an overview of the PDA/computer link status (Figure 2). After establishing a link, *pls* lists the file system content on the handheld, and *pcp* copies the files.

If you prefer a GUI, both Gnome and KDE front-ends are available for the command line tools. The Gnome VFS module mounts the PDA's filesystem via the Nautilus file manager, and SynCE-Gnome [4] has a panel icon that shows the device status.

If you have KDE, you can use SynCE-KDE instead. The tool integrates the SynCE toolbox with the desktop, and it uses Kitchensync Connector for syncing. The mobile computer's address book can be dropped directly into KAddressbook, and plug-ins open the PDA filesystem directly in the Konqueror address bar.

KCEMirror [5] even allows users to control their PDA's using the mouse and

keyboard of the host computer. You can display a window on the desktop of the host system that shows you the PDA screen and passes input directly to the handheld.

Could be Smoother

SynCE fills a gap that has stopped many users from running Linux on their desktops. This said, newcomers might experience difficulty coming to terms with using SynCE and the various SynCE plug-ins. Because many Linux distributions do not include the SynCE suite at this time of writing, the full range of functions that SynCE brings to the desktop is restricted to power users for the time being.

Good news for users of Mac OS: there is a SynCE version for you, too. If you have a smartphone rather than a PDA, SynCE will sync your data, too, in more cases than not.

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 [6]? I look forward to your comments! ■

INFO

- [1] IPodder: <http://ipodder.sourceforge.net/>
- [2] Jörg Jasperts draft rules for banning Debian developers: <http://lists.debian.org/debian-devel-announce/2005/08/msg00005.html>
- [3] SynCE: <http://synce.sourceforge.net/synce>
- [4] SynCE-Gnome: <http://synce.sourceforge.net/synce/gnome.php>
- [5] Synce-KCEMirror: <http://synce.sourceforge.net/synce/kde/kcemirror.php>
- [6] Tips and suggestions: projects@linux-magazine.com

THE AUTHOR

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Martin's leisure time is mainly occupied with activities in the Debian and GNU communities.