

An up-to-date look at free software and its makers

# PROJECTS ON THE MOVE

The first community-driven version of OpenSolaris burst onto the distribution scene. In other news, Linux is now available on a modular system the vendors describe as an open hardware platform. **BY CARSTEN SCHNOBER**

**D**ebian founder Ian Murdock [1] now works for software giant Sun Microsystems as the chief operating system strategist, so it is no coincidence that the first genuine OpenSolaris [2] distribution is named after Murdock's home state: Indiana.

Sun released a free version of its operating system early in 2005 under the name of OpenSolaris, code named "Nevada." Before trying out the free version, users had to negotiate a number of obstacles designed to boost the customer base of the proprietary Solaris version. Nevada simply provided the kernel source code and a couple of other components. Building the code required a working Solaris system that you either already had or didn't get until you had registered on the download page. Network support wasn't part of the basic

package, although it is a must-have for any operating system today. Furthermore, adding network support was not a trivial undertaking.

Nevada was not of much use either as an advertisement for Solaris or as a free operating system. Sun seemed to have reached the same conclusion, which is probably why they hired Ian Murdock in March 2007. A few months later, Murdock announced that work had started on the new version of OpenSolaris.

The new OpenSolaris version looks to offer the same benefits as a Linux distribution: a ready-to-run operat-

ing system that works out of the box, bundled with meaningful components such as a desktop environment and development tools.

Of course, no operating system should be without a package management system that prevents overtaxing the users' patience with dependency resolution tasks. Also, OpenSolaris development is no longer restricted to the Sun labs in the Indiana era but is instead community driven.

Sun has released the first downloadable version of Indiana, and it already fulfills one of the declared goals; a routine look at the desktop reveals no differences from any normal Linux distribution. The 600MB+ image file is burned onto a CD in the normal way and slotted into the drive.



The Slim Installer then boots an X server with the Gnome desktop environment as a Live system.

Of course, the Gnome environment on OpenSolaris is no different from a Gnome environment built for Linux, and it is a good place to start exploring the system. The performance hits that affect any Live system are not the operating system's fault. Clicking *Install OpenSolaris* launches into the installation routine as you would expect, and there are no differences between this and the installer with any other Linux distribution. A wizard guides the user through the individual installation steps and helps with basic tasks, such as partitioning the hard disk and creating a user (Figure 1).

Just because Indiana has now reached a stage at which it will install without any hitches does not automatically mean that you can rely on the distribution for daily business. The installer still does not support updates of existing installations; instead, it completely overwrites the existing partition. When using the partitioning tool, be careful: If the automated routine fails to find a suitable partition for the installation on your disk, it simply overwrites the whole disk. Incidentally, the Slim Installer only runs on x86 CPUs thus far.

All told, it certainly looks as though Sun has created a winner. Ian Murdock has proven that he understands how to leverage the benefits of free software – Debian speaks for itself. Traces of Murdock's instincts are starting to show in Indiana. User friendliness is important, but should not compromise technological advances, which is surprisingly evident in Indiana considering the early

stage of development. If you are interested in checking out free Unix-style operating systems other than Linux, you now have an easy option for doing so.

## Buggy Hardware?

Traditional software companies love to denounce free software as being unreliable and prone to error, even though the facts often prove otherwise. Bug Labs [3], which positions itself as an open source company, decided to take the offensive against prejudice by including the word Bug in its name.

The company is trying to send a message with this name: Bug Labs wants to be a bug in the consumer electronics system, to cause trouble just like a programming error, and to be as adaptable as an insect. In fact, the company is looking to promote change and be living proof that things actually can change.

Despite this high-flying self-marketing, Bug Labs products are worth a second look. The idea behind Bug Labs might not be new, but there are few existing examples of practical implementations. Bug Labs removes the open source principle from the software world and transfers it to hardware. Instead of offering a ready-made hardware product, Bug Labs offers a modular system – based on a small hardware unit dubbed BUGbase (Figure 2) – from which buyers can create any kind of hardware. BUGbase, which the vendor calls a “fully programmable and hackable Linux computer,” includes an ARM

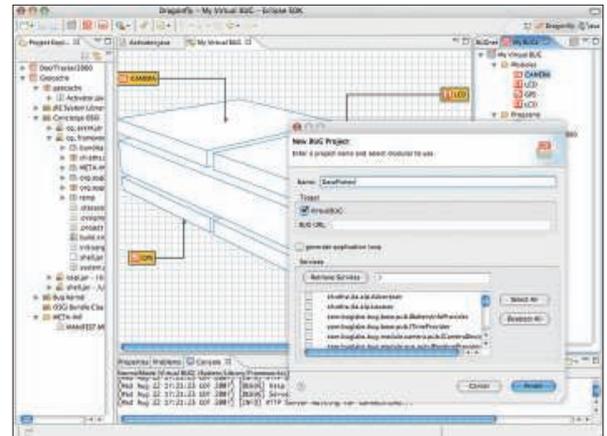


Figure 3: Bug Labs provides a free software development kit.

CPU, 128MB RAM, and various interfaces. Also, BUGbase can connect to wireless and wired networks and offers serial and USB interfaces for device connections. The Linux operating system is free, of course.

Four extension modules are available for BUGbase; all of them plug into the basic device's connectors. A GPS module helps users navigate. A movement sensor, including a speedometer or a digital camera, lets you keep an eye on your surroundings. An LCD touch screen supports input and output. Bug Labs has announced a bigger LCD screen, a keyboard, and an audio device for next year.

Bug Labs hopes to entice developers to use the company's hardware by offering a free development kit (Figure 3). If the hardware really is easy to program thanks to open interfaces, the Bug Labs Kit could develop into a fascinating project. Despite this, “open hardware” might be an exaggerated claim for now. It is unclear from the website how the hardware offerings differ from those of any other vendor with respect to openness. For example, we could not find downloadable circuit diagrams, and the site does not answer questions about the consequences of copying the products. Maybe things really will change in the near future, but when this issue went to press, the Bug Labs website also didn't even have pricing information for BUGbase and its modules. ■



Figure 1: A wizard simplifies the installation of OpenSolaris, even though the Slim Installer still lacks a couple of critical functions.



Figure 2: BUGbase is the basis of a modular system that allows users to design their own hardware.

## INFO

- [1] Ian Murdock: <http://ianmurdock.com>
- [2] OpenSolaris: <http://www.opensolaris.org>
- [3] Bug Labs: <http://www.buglabs.net>