

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

# PROJECTS ON THE MOVE

The look and feel of Mac OS X appeals to many free software supporters. Mac4Lin icon and sound themes, in addition to the new Avant Window Navigator Dock clone, emulate this look. Also, the development team behind pdfsam offers a model for remunerating programmers of free software. **BY CARSTEN SCHNOBER**

**W**hen devoted Linux users start shopping around for an alternative to their favorite operating system, typically Windows isn't considered, despite its popularity. Once users have experienced the benefits of a Unix-style operating system, they tend to prefer something like Mac OS X.

## Mac4Lin

Characteristics that define a desktop system's usability are hard to nail down. Apple fans rave about the applications integrated with Mac OS X, seamless cooperation between the hardware and software, and the look and feel of the system, which is very popular with graphic artists. The system is based on an OpenGL accelerated desktop, which returned stable performance far before Compiz and Windows Vista, thus drawing the attention of the open source community. Now, thanks to the the Mac4Lin [1] project, Linux users can enjoy the visual side of Mac OS X without dipping too deeply into their pockets for expensive Apple hardware.

Developer Anirudh Acharya bundles graphics, sound, and tools in his Mac4Lin package, which adds up to a convincingly genuine clone of the Mac OS GUI that is hard to distinguish from the real thing at first glance (Figure 1). The version 1.0 release candidate is available, and hopefully it includes documentation to make up for former deficits.

Mac4Lin targets Gnome users, and the Gtk themes for the application window are the package's core component. Two variants are available: Mac-like Aqua and the less colorful Graphite. Besides the Gtk theme and window decorations, Mac4Lin provides icons, TrueType fonts, and cursors that replace the hourglass with a colorful ball that rotates about its own axis, and you can even use Mac4Lin to modify the GDM login manager to emulate the Apple system's visuals. Wallpaper for the grub menu gives you the Apple look at boot time, and a Usplash theme provides a perfect disguise for booting Ubuntu.

Mac4Lin also modifies individual applications. For example, the package in-

cludes a Firefox extension that changes the browser's appearance to resemble Safari, and a plugin for the Pidgin Instant Messenger adds icons that resemble Apple's iChat.

On the Mac desktop, the distinctive Dock displays an icon for each active application or file, as well as start buttons for more programs and functions, such as the trash can. Also, the Dock helps users toggle between available windows and desktops and start and quit programs. Mac4Lin relies on the Avant Window Navigator (Awn) to emulate this desktop component [2].

Under the auspices of programmer Mark Lee, Awn development activities are virtually independent of Mac4Lin. If you simply want to replace the Gnome panel with a Mac OS-style dock, you have no need to install the full package. Most distributions let you install Avant Window Navigator via their native package managers.

By default, the Awn Dock simply displays icons for active windows, and you can click to shift them to the foreground.

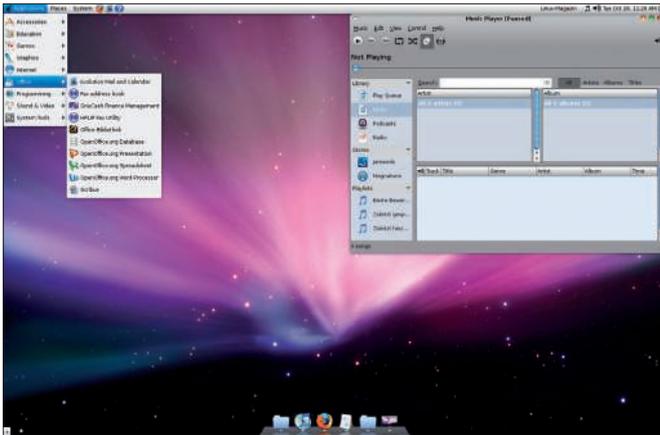


Figure 1: Mac4Lin brings the GUI, including the default Mac OS wallpaper, to the Linux desktop.

Right-clicking a vacant space in the Dock opens a drop-down menu, and a *Preferences* entry takes you to the Awn Manager configuration tool.

Users can modify the details of the Dock's design to match their own taste, including the color and transparency of the panel background and the mouse-over effect. Applets from the Awn Extras [3] package add functionality. The package includes applets such as clocks, menu launchers, direct access to the trash can, a pager, a mail notifier, and many other useful helpers like those offered by gDesklets or KDE4.

Awn development takes place on the Launchpad platform. Developers rely on the Bazaar version management tool, and you will need a Launchpad account if you want to take an active role in Dock development. For an introduction to Launchpad and Bazaar, see the project wiki. Style guides for developers help ensure readable code, and numerous examples and tips help programmers produce usable applets quickly.

## Pdftsam

The PDF format promises independence of the operating system. In contrast to files produced by word processors, in which different systems typically change the layout, PDFs look the same no matter what platform you use. Unfortunately, the PDF specification, which was developed by Adobe back in 1993, was originally kept under wraps. At first, users even had to buy the viewer, although this made PDF an unattractive option as an exchange format, despite its technological benefits. The IRS immediately recognized the PDF's technical

qualities as a document exchange format and purchased the right to distribute the Adobe Reader for free, and then Adobe began distributing version 2.0 of Acrobat Reader for free in 1994.

One reason the PDF quickly gained ground in the following years was that the most widespread word processor, Microsoft Word, formatted documents differently on various systems for reasons that nobody could really understand. Adobe owns patents for the PDF standard, although it published them from the outset, and allowed its use free of charge in third-party applications [4]. PDF 1.7 was certified as ISO standard 32000 in July 2008.

Editing existing PDF documents is still difficult because of the enormous scope of the PDF standard, which explains why no free program on the market can keep pace with Adobe's Acrobat software [5]. Thus, Adobe still generates considerable revenue with a format that it shares freely.

Pdftsam (PDF Split and Merge) is an open source application that restricts itself to a specific sector of PDF editing instead of trying to do everything [6] (Figure 2). The program can either merge multiple PDF files or split a single PDF and save the results in multiple files. Andrea Vacondio, a developer from Italy, recently released version 1.0 of the tool.

The program is easy to use: You can specify a PDF file and determine how the software should split it. For example, you can extract all even-numbered pages or save each page as a separate PDF.

Programmed in Java, pdftsam runs on Linux, Windows, and Mac OS and has been translated into more than 30 lan-

guages. Available languages are listed in *Settings*, and you will need to reboot if you change the language.

Andrea Vacondio provides pdftsam free of charge and has also licensed the software under the free GPL2 license. So that he earns at least a small amount from its sales, Vacondio offers a basic and an enhanced variant of the prebuilt binary. The latter adds functions such as the ability to create encrypted PDFs, add header and footer lines, and merge existing PDFs in an arbitrary order. The enhanced version of the binary is available for a donation of at least EUR 1, a symbolic amount accompanied by a request for additional donations to help sponsor ongoing program development. Sponsors gain access to the support forums on which the maintainer offers tips. Windows users will also appreciate the installer included with the enhanced version. If you prefer not to support the project financially, you can still download the source code and build a binary without the functional restrictions that apply to the basic version. ■

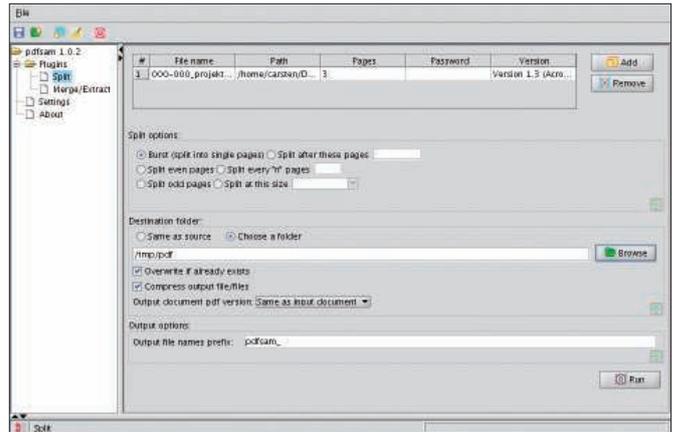


Figure 2: Pdftsam splits and merges PDF documents.

## INFO

- [1] Mac4Lin: <http://sourceforge.net/projects/mac4lin>
- [2] Avant Window Manager: <http://awn-project.org>
- [3] Awn Extras: <http://wiki.awn-project.org/Awn-extras>
- [4] PDF use: [http://partners.adobe.com/public/developer/support/topic\\_legal\\_notices.html](http://partners.adobe.com/public/developer/support/topic_legal_notices.html)
- [5] Adobe Acrobat: <http://www.adobe.com/products/acrobat/>
- [6] Pdftsam: <http://www.pdfsam.org>