

RUNNING LINUX ON MAC

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Anyone with an interest in computing, especially in UNIX-based OSs cannot have failed to have noticed the hype surrounding the release of Apple's Mac OS X. OS X is a whole new ball game in Macintosh computing.

For many years Apple have been trying to find a suitable replacement for the sophisticated, but rapidly dating, Mac OS. After a flirtation with Jean Louis Gasse's BeOS, the return of Apple co-founder Steve Jobs precipitated a focus shift to NeXT technologies.

NeXT was the company formed by Jobs following his unceremonious eviction from Apple by the then CEO, former Pepsi man, John Sculley. NeXT manufactured the famous 680x0-based Black hardware, which offered performance beyond that available on Macs and PCs of the time, but never really found a commercial base for the machines and instead opened up their famous NeXTSTEP OS. It is this OS that is the basis of Mac OS X.

Reworked and ported to the PowerPC platform, NeXTSTEP has become Darwin – the open source kernel of Mac OS X. Including key UNIX technologies such as Mach and having full POSIX compatibility, Darwin/OS X does for UNIX what NeXT tried to do in the early 1990s. It combines extreme power with ease of use.

There is a problem, however. The entry price is steep. You must have at least a G3 processor and 128MB of RAM is required to do any serious work. If your Mac is pre-G3, your options for using Mac OS X are limited to expensive processor upgrade cards and even then Apple will not guarantee support. This is where Linux comes in.

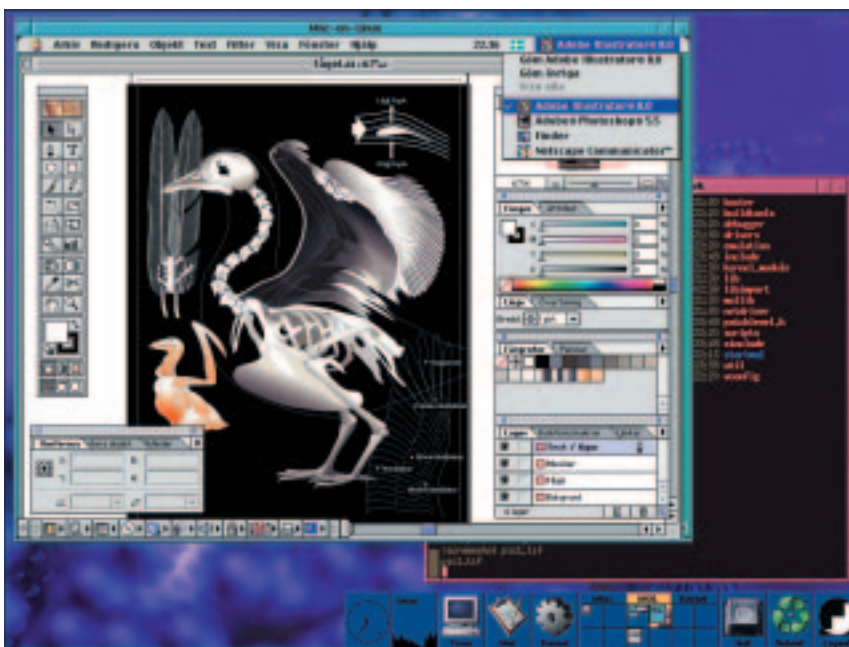
There are versions of Linux for nearly every Mac made in the last 10 years, even 680x0-based machines. Over the next few years, software for the 'Classic Mac OS' will dry up as users – even in the publishing industry, famed for its inertia – switch to OS X. Where does that leave your once-prized Mac?

Many people are now booting up Linux as a second system on their Macs. Old Power Macs such as the 7200 make fine firewalls and small office servers, and if configured properly can actually make great desktop machines. iMacs make good, small and inexpensive Linux desktops and if aesthetics are not a concern for you, you can add a second IDE hard drive quite easily, though it will hang out of the back of the machine. The G4 PowerBook is probably the best Linux-capable laptop on the market. The problem, as always, is user level software. Despite the fact that the Mac absolutely dominates the creative industries and some areas of science computing, it is a minority platform. Linux on the Mac, or indeed any PPC system is a minority within a minority. However, things may change very soon; let's look at why.

First off, OS X has an open source core in the form of Darwin. Darwin has even been ported to x86 systems. This has allowed a lot of standard UNIX applications to make their way to OS X and then PPC/Linux and vice versa. GUI applications may take a little longer, but work is already underway. There are several X Window servers for OS X, including open source projects and Tennon Intersystems' excellent commercial effort.

Secondly, Apple and Adobe are currently having a lovers' tiff. These two companies have been co-dependent for years, and despite the availability of Adobe Photoshop on other platforms (notably

Mac on Linux



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Windows and IRIX), it has remained one of three or four 'killer apps' on the Mac. However, recent encroachment by Apple into Adobe's territory with video editing software such as iMovie and Final Cut Pro has hampered sales of Adobe Premiere. To add insult to Adobe's injury, Apple is soon to launch a bitmap editing application at the low end of the market, which will spell problems for Adobe's recent Photoshop Elements. Adobe has decided to boycott the upcoming Macworld Expo in return. This dispute is unlikely to go on for long, as both companies' fates are increasingly tied together, but for the meantime there is no OS X native version of Photoshop. As a result, development of the PPC version of GIMP has stepped up and promises have been made about CMYK support. GIMP on OS X is however, a kludge, running it under Linux PPC is much more pleasurable.

Linux is free – as in 'free beer'. Yes, despite the hoo-hah about free meaning open, the fact remains that Linux has many more no-cost useable small application programs, such as mp3 players, calendars, PIMs and so on, than any other OS. This may seem relatively unimportant, but if money is a concern for you or your organisation, and let's face it, if you're using a Power Macintosh 7200 rather than a G4 it probably is, then a highly configurable OS which you can alter to suit your machines with a large selection of simple productivity applications is likely to be of interest.

Linux is ugly compared to the Mac OS. Many Linux users disavow this and can come up with a hundred and one reasons to say otherwise, but from the perspective of user interface, Apple have consistently got it right, where others, notably Microsoft, haven't. That said, KDE and Gnome have come on in leaps and bounds and though I still prefer other GUIs such as those of the Mac OS, BeOS and of course, OS X, they are a pleasure to use compared to their predecessors. Add to this the fact that with the great Mac-On-Linux application the Mac OS can actually be run in an X Window and it's dream come true time. If you think that this sounds awkward, remember that BeOS users have been doing it for years with SheepShaver and that Mac OS X itself uses similar technologies for running classic Mac applications. ■

Mac Linux resources

LinuxPPC site	http://www.linuxppc.org
MK Linux site	http://www.mklinux.org
Mac On Linux site	http://www.maconlinux.com

Related non-Linux resources

Tennon Intersystems	http://www.tennon.com
Apple's Mac OS X site	http://www.apple.com/macosex
Apple's official Darwin site	http://www.opensource.apple.com
Be Inc	http://www.be.com
GNUStep	http://www.gnustep.org

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