Open season

Chris Bidmead finds there are many ways to interpret the term 'free software'.

I haven't yet tried VMWare <www.vmware.com> but judging from your emails, the promise of being able to run Windows under your Linux system appeals to many of you. Check out www.freemware.org where Kevin Lawton, the author of the Bochs x86 PC emulation project, is working on a free software PC virtualiser.

VMWare certainly sounds promising, but I have some reservations. Stephen Jones of Siamese Systems <www.siamese.co.uk> put his finger on it during a conversation we had last week.

'Why add complex software to run a couple of operating systems at the same time on the same processor?' he asked. 'The hardware is really cheap, so why not just run two operating systems simultaneously on two separate machines?'

This is just what I do when I spread my applications out across the network, controlling them, thanks to X, from a single workstation. Stephen's approach is even more tightly integrated, deploying three separate motherboards in a single case. And it doesn't rely on every operating system being able to run X.

The system he sells is on introductory offer at £425, including power supply units. To this you'll need to add your own motherboards — the construction allows you to mix and match AT, ATX, Alpha and Amiga VideoToaster boards.

All three systems, however you configure them, are driven from a single mouse, keyboard and monitor combination. This allows you to switch between motherboards, from the keyboard, in an operating system-independent fashion by way of a device that reads the key codes directly. The individual systems can all be networked (by TCP/IP, for example) to do things like sharing the hard drives; the 600 x 390 x 463mm (HxWxD) case includes 21 drive bays.

Just how free is free?

The term 'free software' can be confusing. Recently there has been a tendency to talk about 'Open Source', the alternative term promoted by the programmer and free software evangelist Eric S. Raymond (see www.opensource. org). Alas, the hope that this would resolve the ambiguities of the word 'free' seem to have been short-lived despite the efforts of Raymond to trademark the term and tie it to a legally binding definition.

▲ FIG 1 OPENLINUX OFFERS AN ATTRACTIVE GRAPHICAL INSTALLATION DESIGNED NOT TO CONFUSE BEGINNERS, BUT IT WON'T WORK IF YOU DON'T HAVE THE RIGHT GRAPHICS CARD. THE PRODUCT VERSION '2.2' COMES FROM THE NAME OF THE LATEST KERNEL BUT FOR SOME REASON THAT'S NOT CLEAR THE ALTERNATIVE INSTALLATION, USING LISA, LEAVES YOU RUNNING AN OLDER VERSION OF THE KERNEL

A plethora of 'Open Source' commercial licences has sprung up, including the APSL. The Apple Public Source Licence is an attempt to free much of the underlying code which Apple uses in the MacOS X operating system. Ironically, most of it is already free software in one way or another, and Apple's APSL, in its first draft at any rate, added rather than removed restrictions.

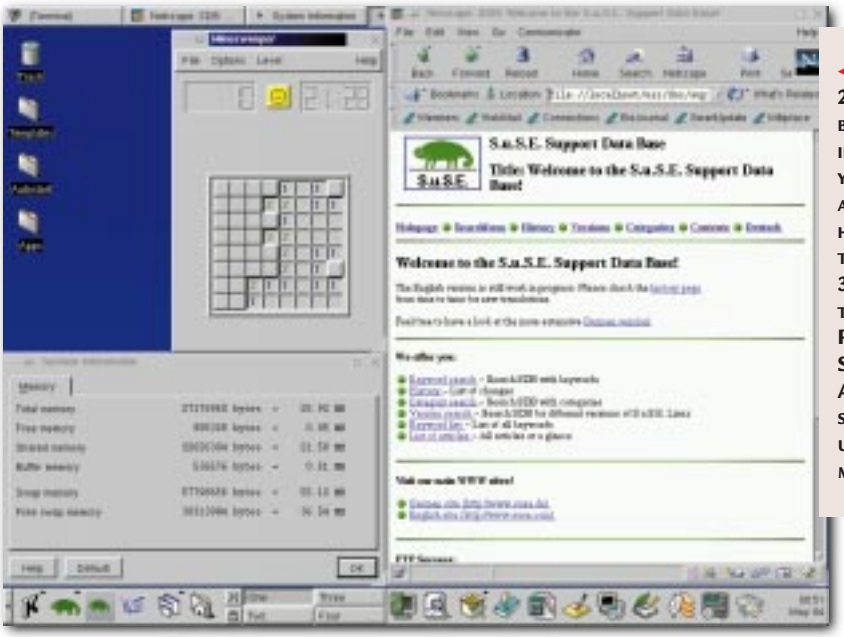
Unfortunately, Raymond endorsed the APSL at the same time as his co-founder of the Open Source Initiative, Bruce Perens — the guy who actually drew up the definition — was condemning it on the grounds that its 'terminator clause' meant that Apple could at any time withdraw rights to use the code.

Sad ironical footnote: Perens and Raymond are currently squabbling over which of them has the rights to the 'Open Source' trademark.

Microsoft's group manager for Windows 2000, Ed Muth, who also seems to moonlight as Eddie the Linux Killer, shrugs off the 'Open Source' trademark. CEO Steve Ballmer raised some hopes at a Microsoft conference that Microsoft was considering opening up at least some of the Windows code. Muth later dashed these hopes by announcing that 'There are many definitions of open source, and it would be incorrect to assume that any one of those definitions would turn out to be the model we might follow'.

The silliest passenger on the Open Source bandwagon was Al Gore

The silliest passenger on the 'Open Source' bandwagon was US Deputy President Al Gore, who meaninglessly declared his web site at www.algore2000.com to be 'Open Source'. Gore likes to boost his profile as a promoter of high tech and caused ROFLs (rolls on the floor laughing) among the computing cognoscenti last May by claiming: 'During my service in the US Congress, I took the initiative in creating the internet.'



◄ **Fig 2 OpenLinux 2.2 and SuSE 6.6 both default to installing KDE as your desktop. It's a resource-hogger and tends to slow down a 32Mb machine like the £299 ProMedia 3000. Switching to AfterStep will save having to upgrade the memory**

Actually, some good may have come out of Gore's 'Open Source' goof. Somebody has explained to Gore what Open Source is actually about so his web page now invites volunteer codesters to help improve his site.

There's an upside to the APSL fiasco, too: Apple has listened to objections to the terminator clause and has done as much as its lawyers will allow to improve the licence in a revised version.

Me, I'm going to stick to the word 'free' until the dust settles. If you're still not sure about the difference between 'free' and 'FREE!!!' you can get up to speed at www.gnu.org/philosophy/free-sw.html.

Caldera OpenLinux 2.2

I have long worried about Caldera, tautologically calling its Linux distribution 'OpenLinux' but, hey, what's in a name?... well, something, obviously, or I wouldn't be fussing on about 'Open Source'. The product is what counts and Caldera seems to have done a great job with its latest release [Fig 1]. But let's carefully define what that job is.

Caldera has never tried to provide the latest nor the most flexible version of Linux on the market. Its aim has been stability and usability. In particular, the company appears to have set its sights on wooing those familiar with Microsoft Windows who would like Linux delivered as a shrink-wrapped product ready for the desktop — particularly the corporate desktop.

OpenLinux 2.2 meets these goals admirably [Fig 2]. It is a dream to install, provided your hardware happens to fit the rather limited horizons set by Caldera's choice of an X Window-based installation routine. And, it offers a ready-to-run workstation that looks somewhat like Microsoft Windows and delivers a full Office Suite — StarOffice 5.0 — and an industrial-strength word processor, WordPerfect 5.0.

Low cost Linux-capable machines are already out there

The front end is KDE — officially the 'K Desktop Environment' where 'K' stands for whatever you want — and beneath that, for those who care to delve, is a more or less complete Linux. Why only 'more or less complete'? The X Window System, the underlying 'graphical glue' used by almost every UNIX operating system, comprises an X server supplemented by a window manager, which handles windows and objects on the screen and, optionally, a desktop providing an organised collection of tools, icons and utilities with which to manage the system graphically.

The two other leading Linux distributions: Red Hat and SuSE, provide a variety of window managers and desktops, giving you massive flexibility in how you put together your GUI. For me, this ability to tailor the look and feel of the system is one of the big appeals of Linux.

Caldera seems to have decided that this rich variety of choice is confusing and has closed down the options around KDE, an environment that seamlessly integrates its own window manager and desktop. None of the other GUIs' components are provided.

If you want something other than KDE as a front end you can download the bits from the usual sites. But you're on your own when it comes to putting them together and getting them working. And, all the examples in the installation manual about things like setting up your internet connection are heavily KDE-based. So, if KDE isn't what you want, you might as well start with a different distribution.

I initially installed OpenLinux 2.2 on my ageing NEC Powermate, first introduced to this column in July '96. The installation detected the Alliance Promotion video chip and the graphical installation proceeded — well, I was going to say 'smoothly', in the sense that I hit no hitches — and ended up some three-quarters of an hour later with all my devices detected and Linux + KDE running happily. 'Jerkily' would have been a better adverb to have used, though.

Caldera has introduced the innovation of a multitasking installation. The install routine, which Caldera calls 'Lizard' (it stands for Linux Wizard), quickly gets to the business of choosing what elements of Linux you want to install and then runs the interactive setting-up of details such as graphical system configuration, passwords and network parameter, while the hard disk and CD-ROM drive are going flat out transferring all the software.

This stretched the Powermate's 100MHz Pentium to the limit and left me at times with screen displays that seemed to have frozen solid. If I had been the sort of beginner at which this installation is aimed, I'm sure I would have hit the reset button at some point, just out of sheer frustration.

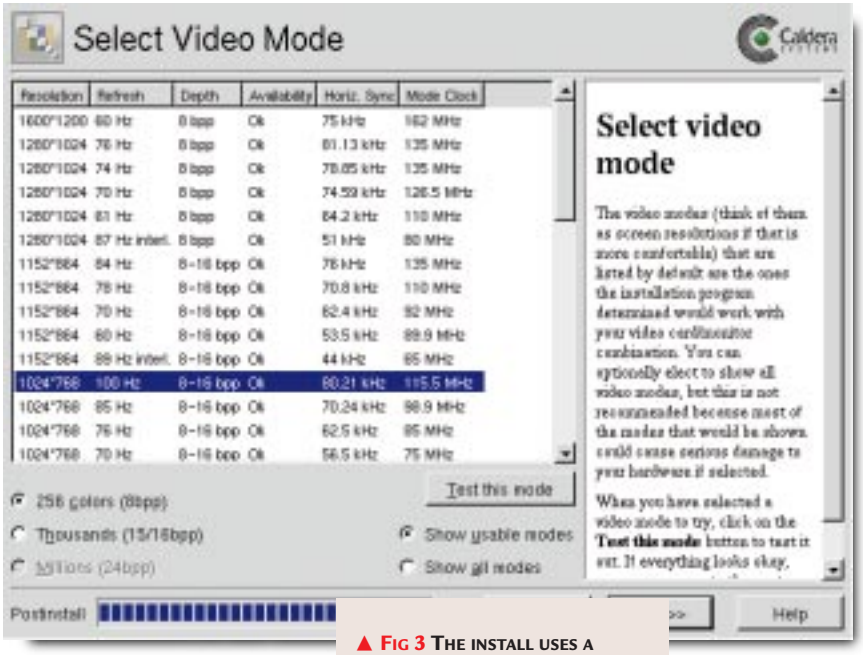
Low cost and Linux-capable

A couple of months ago, I mentioned having introduced Sir Clive Sinclair to Linux, since which time I notice he's been talking to the press about the possibility of producing a low cost Linux machine 'in about two years time'.

I had lunch with him again, recently, but when the subject of Linux came up I had to warn him that he was up against competition. Low cost Linux-capable machines are already out there. I've got one here from Bell Science. It's a UK company without, at the time of writing, a web page, so I don't know very much about it apart from my chats on the phone with its md, Roy McEwan.

Roy currently sells his machines set up as Windows boxes but tells me that he is interested in launching a Linux machine later this year. He's sent me his ProMedia 3000 to see how I get on with installing Linux on it. Well, Roy, the news is very good.

The ProMedia 3000 is built in mainland China around a Pentium-class Cyrix processor, the M2300, running at 300MHz. It comes with a 40X CD-ROM drive, 32Mb of RAM, a 3.2Gb hard drive, a 3D Wavetable sound card and speakers, 56K internal modem, 14in monitor and Windows 95. I was impressed by the price and I was even more impressed when I discovered that this includes free, lifetime, unlimited internet access and a three-year on-site parts and labour warranty with an eight-hour response time during working hours. A loan computer is supplied if yours has to be taken away for repair. And the price? — just one quid short of £300.



▲ **Fig 3 The install uses a simplified X interface. While it's running you get a chance to refine it for your specific graphics card**

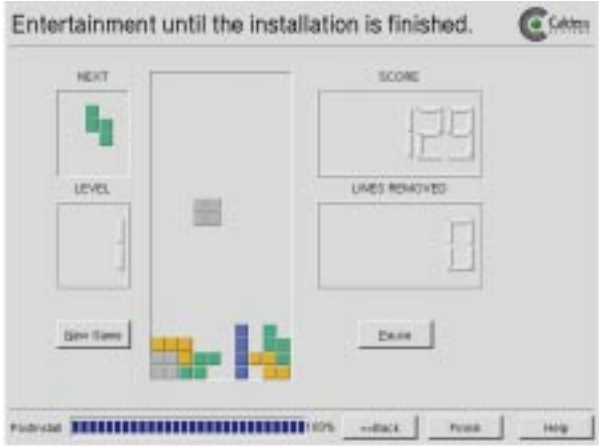
Caldera's OpenLinux includes a 'Special Edition' of PowerQuest's PartitionMagic and I used this to squeeze down the Windows partition to make room for a Linux root and Linux swap partition. This worked well, providing me with around 2Gb of space for Linux. Alas, the X-based Lizard install routine could not detect the Silicon Integrated Systems SiS5597 video chip correctly and I had to revert to Lisa, the older text-based installation routine which Caldera supplies.

Lisa did the trick in getting a working Linux up and running but it wasn't much help in detecting the SMC EZ 10/100 network card that I asked Bell Science to throw in with the deal. It wasn't too useful getting the SiS5597 going correctly, either. It was obvious I'd need to do some fiddling about so I decided to revert to the SuSE 6.0 distribution with which I was more familiar. SuSE comes with a streamlined video card configuration system called SaX [Fig 3], and with a bit of experimentation I was able to arrive at a perfect 1,024 x 768 x 16bpp screen.

• *Tech note: the trick turns out to be to use Expert mode to set the video chip to 'none', which then creates an XF86Config that persuades X to probe for the chip. I corrected a failure to fill the background behind a moved window by setting the 'noaccel' option*).

The SuSE installation gave me no special help configuring the network card but by this time I had surfed around on the web and discovered that the SMC EZ 10/100 needs the RealTek RTL8139 module (just put 'alias eth0 rtl8139' in the /etc/modules.conf file).

SuSE 6.0 defaults to using KDE as the desktop [Fig 2] but unlike OpenLinux 2.2 you can use 'startx afterstep' instead of just 'startx' to put you into the AfterStep desktop. AfterStep is an older, simpler and less resource-hungry desktop modelled on NeXTStep and, despite the ingenuity of KDE, I frankly prefer it.



The OpenLinux graphical installation gives you a game to play while it runs, provided your processor can cope!

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