WEB BROWSERS

Netscape 6 Preview Release 1

A promising advance look at what is arguably the most important application on the desktop

Pros	**Fixes some loose ends in Mozilla**
Cons	**Still a hefty memory hogger**
Price	**Free download (around 6Mb) via the Netscape site**

Looking back, it's hard to believe that the browser market has changed so much over the five years since Netscape first hit the scene with Navigator. I remember first using Netscape 1.0 and being impressed by the innovative feature set which was very different from what had been around previously.

Netscape enjoyed several years in poll position before Microsoft bought Mosaic from Spyglass and used it to create its own browser and source of controversy, Explorer. However, in the years since, Netscape has become quite popular amongst the UN*X community – some would say out of lack of choice – the browser itself hasn't undergone any fundamental change since its very earliest days.

To be blunt, Netscape has always been big, clumsy, bloated and also unstable at times. Communicator 4.72 has a standard memory usage of almost 19Mb for a single window, rising quite considerably when browsing through multiple windows. It is slow (on a PII-400 test system) and prone to random crashing – although that can often be attributed to running under the now standard libc6 libraries rather than libc5 that Netscape was originally designed for (use of the "compat-libs" is strongly recommended).

In January 1998, Netscape decided to release the source code to "Mozilla" - its Communicator browser under the "NPL" licence. The group named itself after the original Netscape code name – try viewing "about:mozilla" under Netscape. The original intention of the Mozilla group was to enhance and extend the existing Netscape source, but eventually it became clear that most of the code would have to be re-written to achieve the goal of a small, fast, modular Web browser.

Mozilla offers advantages over Communicator 4 in the form of support for XML, themeability, HTTP compression, 14 platforms, CSS, and plug-in Java support. Until recently it lacked crypto support and it doesn't ship with a built-in Java VM for legal reasons. It sounds impressive, but Mozilla has yet to reach its goal of being small and fast, requiring around 70Mb RAM (in the M15 version), even for basic browsing. I'm assured that it will become much smaller as the development progresses – time will tell.

A short while ago, Netscape began to shape Mozilla into a commercial release that will become Netscape 6. NS6 will include features from Mozilla as well as proprietary code licensed to Netscape such as Sun's Java VM – Java support is notable for its absence in the preview

All of the standard features that you would expect are in there – the browser, mail, news and HTML composer as well as "What's related", automatic URL completion and about a million other options that can be varied through its easy-to-use preferences. The recently re-written renderer is very fancy – although it doesn't refresh often enough. For development software, the browser is reasonably stable, and business users will find that such options as multiple mail accounts and extensive profile management are now standard and add to a very flexible client.

The results from the Mozilla project are so far very encouraging, as is Netscape 6. Bloat is nothing new in the browser market, although it would be better if it ran in under 30Mb. In the short term Netscape 6 creates a cohesive Mozilla. However, I think that ultimately Mozilla may win as the "pretty, fancy, configurable" browser of choice.

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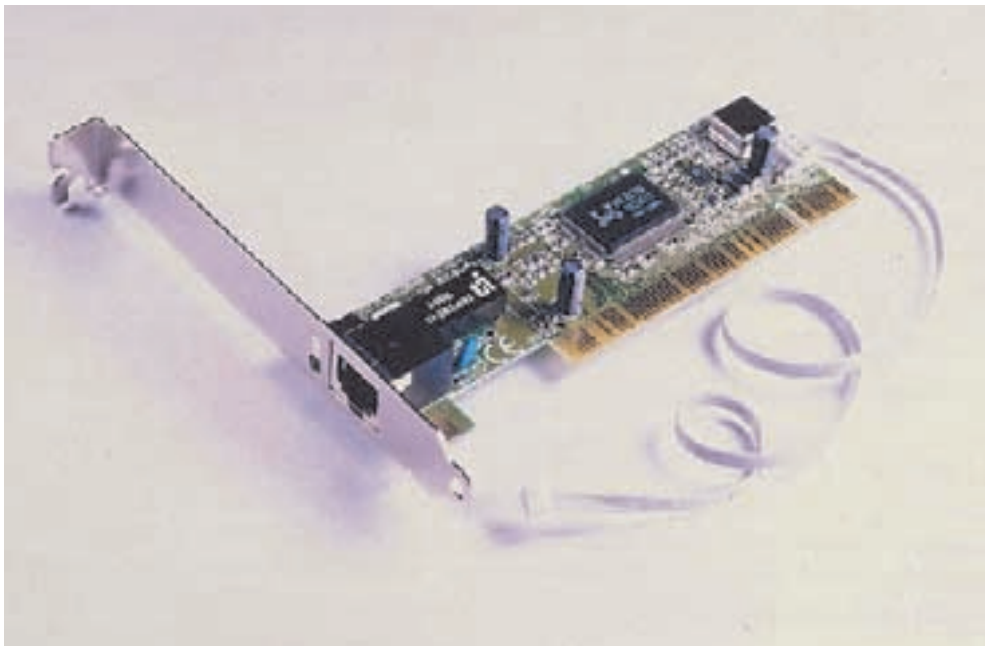
NEW THIS ISSUE
NETWORK CARD
ALFA GFC2206
LINUX DISTRIBUTION
Dragon Linux v0.8 beta
WEB BROWSERS
Netscape 6 Preview Release 1
NETWORK SERVICES
UK Linux Net
CROSS-PLATFORM UTILITIES
WinXs
SERVER HARDWARE
Xinit Webload 1100
LINUX DISTRIBUTION
Yellow Dog Linux Champion Server 1.2

▼ Netscape's "weenies" have been busy dotting the 'i's and crossing the 't's on the work done by the Mozilla project

'To be blunt, Netscape has always been big, clumsy, bloated and also unstable at times.'



▲ Pick up a cheap network card with a supported chipset – like the RealTek 8139 – and you're onto a winner with Linux

NETWORK CARD

ALFA GFC2206

Linux-supported budget 10/100 Ethernet card

Pros	**Easy installation and good performance**
Cons	**No manual**
Price	**£12.77 (£15 inc VAT)**

In previous experiences, I have found that price is almost directly proportional to hassle when dealing with network cards, so this card looks good already at a mere £15 retail.

Opening the box reveals just a card and a disk. No documentation – not even an installation leaflet, which makes this card unsuitable, perhaps, for beginners. However, installation was as straightforward as pushing the card into a vacant PCI slot and replacing the case.

This card is supported by Linux because of its chipset, the RealTek 8139. Red Hat should detect the card on installation, and other Linux distributions just need to have the relevant module loaded, or have their kernel configuration changed and recompiled. I have installed several of these cards in Linux machines, and several in machines running NT and Windows9x, without trouble. Perf-ormance-wise, in real world use, I cannot detect any difference between these cards and those of other manufacturers such as Intel.

In short, this an excellent value card, especially for mixed platforms. If you need 20 cards, you can either choose to spend around £200 on ALFA, or closer to £1000 on a well-known name. I know where my money will be going.

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LINUX DISTRIBUTION

Dragon Linux v0.8 beta

A stripped-down Linux distribution masquerading as a Windows program

Pros	**No-pain introduction to Linux for a Windows user**
Cons	**Still in beta**
Price	**Free download from; www.dragonlinux.org (CD available soon)**

Even with all the current talk about Internet appliances and PDAs, and the work being done by major Linux distributions like Red Hat towards catering for these devices, choosing a distribution to suit more lightweight hardware, without the complexity of a system designed for a workstation or server, can be tricky.

For my elderly spare laptop I've chosen Dragon Linux – one of a breed of leaner distributions. Designed originally as a learning aid, it takes up a maximum of 150Mb and resides on an MS-DOS partition (cf. Phat Linux, Win-Linux2000 and Armed Linux). It's aimed directly at users, with as much simplification as possible, and has a small but supportive community.

The distribution is available as a single .zip file, and installs like any Windows application, even placing an uninstall icon on the Windows start menu. Version 0.8 uses the UMSDOS file system, which has its limitations, but the imminent full release will use the loopback feature of Linux exclusively.

Based on Slackware 4, the base distribution is a 45Mb download in v.08, and will run in 8Mb of RAM including X and KDE. It achieves this by using TinyX, with the generic SVGA server that works on nearly any chipset and gives perfectly adequate graphics performance for simple tasks.

Dragon Linux is designed to be installed without configuration, to the extent that it doesn't even require a root password to be set. The mouse is assumed to be of the PS/2 type, which might cause confusion if it turns out to be the common serial mouse. Sound is not configured by default, no doubt due to the variety of different interfaces. Modules for obscure hardware such as the early proprietary CD-ROM drives are included, and are activated by uncommenting the relevant line in the file /etc/rc.d/rc.modules.

Optional packages can be installed from the Slackware ftp archive using the installpkg command. It's not as powerful or flexible as rpm, but it is at least straightforward. A noticeable improvement in speed is available by installing one of the more lightweight window managers, such as blackbox or icewm.

One handy feature of icewm on a Dragon Linux system is that unavailable programs are omitted from the right-click start menu – there's no room for the likes of Netscape Communicator on such a small distribution.

Instead you get text-mode essentials like lynx and pine, plus the KDE browser and kmail for those who can't do without a GUI. PPP is covered by the text-mode pppsetup and kppp. For a simple Web appliance, that might be all that's required.

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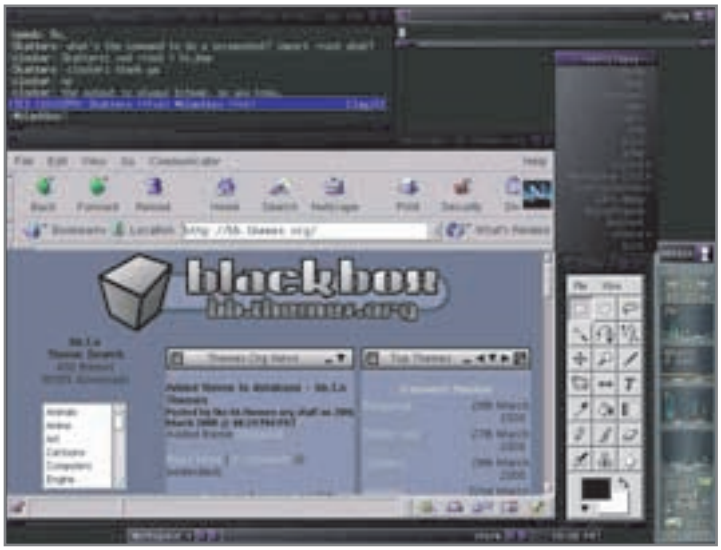

▼ Dragon Linux running icewm – a mean, lean distro running a lightweight window manager

LINUX DISTRIBUTION

Yellow Dog Linux Champion Server 1.2

Version of Linux for servers, now updated for PC and Mac desktops

Pros	Bundles plenty of good software and has clever packaging
Cons	No graphical installer and FireWire support
Price	US$24.95 (CDs only) to US$99.95 (CDs, installation manual, 90 days support) direct from manufacturer (post and packaging extra)

When Terra Soft Solutions shipped the first release of Champion Server just over a year ago, it was, as its name suggests, intended as a version of Linux solely for servers, be they Macs or other computers based on the PowerPC processor, such as IBM's RS/6000 line.

Version 1.0 was fine in that role, but it lacked some of the desktop-oriented features of other Linux distributions, limiting its use to anyone who wanted to focus on development work or just try out the open source OS on their Macintosh. Six months later, Terra Soft released version 1.1 adding some desktop software and upgrading the OS's main components, and now Champion Server 1.2 continues that trend, bringing it into a full server and workstation operating system.

Champion Server 1.2 is based on the standard PowerPC port of Red Hat Linux 6.2, and contains all of 6.2's key components. PowerPC and Intel versions of the Linux kernel are at different stages of development, largely thanks to the differences between PC and Mac hardware, and Champion Server ships with a stable beta release of the kernel called 2.2.15pre7.

So Champion Server's kernel supports both Universal Serial Bus (USB) and old Mac Apple Desktop Bus (ADB) mice and keyboards, older Macs' multiple SCSI buses, serial ports and graphics controllers, plus newer machines' ATAPI and ATA internal peripheral systems, and ATI Rage graphics cards. The only thing not supported, according to the manual, are the latest Macs' FireWire (aka IEEE 1394) ports, for external devices, but with these not yet commonplace, that's not an issue yet.

Champion Server ships with the standard text-based Red Hat installer rather than the new graphical version, but with the software's well-written manual, there were no difficulties installing the software. Configuration was straightforward and clearly explained too.

▲ Yellow Dog brings Linux to some of the fastest architecture available – and it's now snapping at the Intel platform's heels

As server software, Champion Server is installed with networking including support for Apple's AppleTalk protocol Web, FTP and email services activated and ready for configuration. Terra Soft's manual, alas, doesn't extend to applications, so you're on your own here. Champion Server ships with database servers including MySQL and FrontBase, allowing you to build some powerful Web-based applications.

For workstation users, Champion Server includes the latest versions of Gnome and KDE. It also ships with many office productivity tools, such as AbiWord, but they're not sufficiently mature to be used in earnest so you'll just have to hope Corel ports WordPerfect Office over. That said, you can use the Mac-on-Linux emulator now bundled with Champion Server for the first time to run existing Mac office applications, but be prepared for a struggle to get it up and running.

So Champion Server isn't quite ready for the mainstream yet, but it is a powerful, standards-based server for basic Internet or internal small to medium-sized business use.

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CROSS-PLATFORM UTILITIES

WinXs

Provides access to powerful, familiar UNIX-style tools if you have work on a Windows box

Pros	Well packaged and tightly integrated with the OS
Cons	You have to run Windows to use it
Price	£49.99 (£58.74 inc VAT) +P&P (includes 'lemmy', a Win32 version of 'vi'), direct from Advanced Electronic Publishing

Why's a Windows program being reviewed in a Linux magazine?

Well, even if you're solidly Linux/UNIX by choice, sometime, somewhere circumstances may conspire to make you work on a Windows machine – Linus Torvalds himself has admitted to having one in his house. Alternatively, you might be a Windows user who just wants to have a little introduction to some of the powerful toolkit that has been available on the UNIX/Linux command line since the year dot.

Either way, if you have to do something more complicated than write a shopping list, you won't want to have to rely on stone-age utilities like Notepad and Find. You may want to display a file in hexadecimal format, or decode a unencoded email attachment that someone sent you. Perhaps you need to strip out some unruly carriage returns from a file that was written on a Windows machine. Or hone your regular expression technique to pinpoint the information you want from out of a huge mass of text.

There have long been freeware and shareware DOS utilities which mimic utilities that come as standard on serious operating systems. What's rather neat about WinXs, however, is that it presents you with a complete set of the tools you're likely to know and need. You can use the tools either in a window or at the GNU Bash shell, which is included in the package. Everything works fine, although there are some annoying DOS-style oddities on the command line, like having to type 'MORE.COM' where on Linux/UNIX you would simply use the command 'more'. Charmingly, it even keeps a .bash_history for you!

You can choose to integrate the WinXs shell with Windows Explorer, so you get access to the program from the right-click context menu.

WinXs does its job very well for UNIX/Linux users temporarily forced into using Windows, and it's hardly going to stop anyone from moving to Linux just because they have some handy UNIX-style commands at their disposal in their lovely MS GUI. Do with it what you will – it's a free country.

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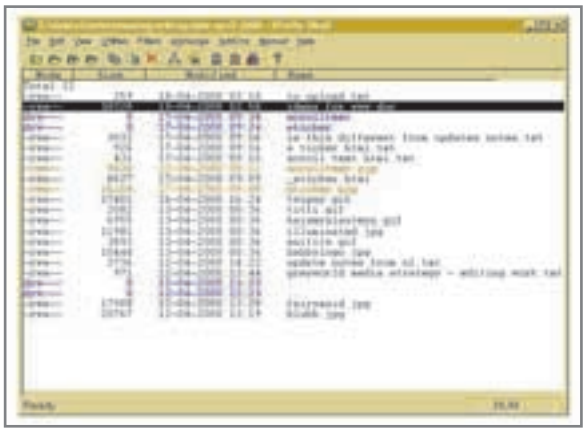
▼ Now you can grep, cat, head, tail, touch, sed or fold, all from the safety (!) of a Windows box



▲ UK Linux hardware specialists Xinit are aiming to give Cobalt a run for their money with the well-priced Webload 1100

SERVER HARDWARE

Xinit Webload 1100

High-specification 1U slimline colo server

Pros	Compact, powerful, competitive
Cons	Some configuration issues
Price	£980 (£1151.50 inc VAT)

Space really is the final frontier in the ISP business. Once you've filled your datacentre with customers' machines, you're stuck and adding leased line capacity cannot save you. For this reason smaller machines specifically aimed at co-location have been appearing on the market for some time.

Cobalt has been popularised because of its friendly interfaces and easy-to-navigate control panels, which mean almost anyone with some basic knowledge of the Internet can appear to be a hosting company. Fewer machines have been marketed in this size for those who do not need or want a jazzed-up Web interface for control. For people who are familiar with Linux, flowery Web interfaces are pointless, and can actually slow things down. This is the market UK Linux hardware specialist Xinit is clearly aiming at.

Installed with Red Hat 6.2, it was pleasing to see that patches from the Red Hat errata page had been pre-installed. This is important for the security of the box and would save time for anyone with several of these servers to manage.

The machine has everything that a standard PC server would have – floppy and CD-ROM drives as well as the usual array of ports – video, serial and parallel. 10/100 networking is included on-board. Some problems were found with the Ethernet interface; the machine had a tendency to hang at the eth0 initialisation stage after being rebooted. Xinit explained that this was a known problem and would be fixed by the time you read this. There are microphone, line-in and line-out connections, but running sndconfig revealed that the card was unsupported, however. USB connectors are present but are also unlikely to be used.

The machine's performance was pleasing. 128Mb of RAM should mean that for standard Web, mail & DNS serving, swapping to disk should be a rare occurrence, and the 500MHz Pentium III should keep the server responsive, even when many processes (such as compiling) are running at once.

One very slight issue which was surprising was that the server's Phoenix BIOS was configured to stop on all errors. This effectively meant that as soon as the keyboard was disconnected, and the machine rebooted, it stopped on boot. Since the intended location of this machine is in a rack with many others, it would not normally have a keyboard connected. If you leave this BIOS setting as it is, boot the machine with a keyboard, then disconnect it live, you will have a nasty surprise if you ever have a power failure or try to reboot remotely – it won't come back up!

Although not for Linux newbies, the machine is quick, well constructed and secure, and that's all that matters with a machine you are planning to co-locate.

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NETWORK SERVICES

UK Linux Net

Good Linux dial-up with excellent free Web space

Pros	0845 revenues support free software development
Cons	Your phone provider still profits
Price	Free to join and use

UK Linux Net is a dedicated Linux ISP, set up by Definite Software, the maker of the Definite Linux distribution. It offers dial-up services and Web hosting on the by now familiar 'free' model where the ISP generates its income from a percentage of your call charge from BT. The limitation of this model for heavy users is that call charges have to remain relatively high in order to allow sufficient margin for both BT and your ISP. Technical support over the phone is usually on a premium rate line, priced at around 50p per minute.

A challenge to the model comes from companies which supply both voice and data calls at lower prices than BT, such as OneTel, which has recently dropped its Internet access price to 1p per minute including VAT, around a third of the price of 'free' ISPs during office hours. To survive, the ISPs are going to have to offer services that the phone companies cannot.

UK Linux Net has an average service as far as dial-up access is concerned. Connection speeds with a V.90 modem were around 49K, with the occasional drop in speed to 33K, never going below 28K. The connection rarely dropped without warning, but there were a few duff connections where no packets went in either direction. As with all 'free' ISPs, there were sometimes problems getting a modem to answer the call in the evenings, when the off-peak call rate of around 1p per minute attracts Britons on-line. ISDN access up to 128K is also available.

So what can UK Linux Net offer? Firstly, the ISP has been set up to fund free software projects. So far this means some GPL'd patches to the Cistron RADIUS server, but when the ISP starts generating a surplus, a fund will be set up that developers can apply to.

Secondly, it offers perhaps the best free Web hosting facilities available. Each account has 20Mb of Web space with full CGI and PHP access, and you can set up your own .htaccess and .htusers files. MySQL and PostgreSQL databases are also available. Unfortunately, domain name registrations and the DNS hosting required for them are not on offer yet, although they should be soon.

Planned improvements include a fax and voice-to-email gateway and a simple front-end for database maintenance. More Linux content is being developed for the site by a team of volunteers, and a local Linuxberg mirror has recently been added.

Phone-based technical support is not available – this is unlikely to be a problem for Linux users. In any case, phone support is expensive to provide, and by not offering it at all, costs can be reduced all round. Free support is available via email, usenet and the UK Linux Net Web site.

UK Linux Net is a well-intentioned project that deserves to succeed. For the Linux user who requires advanced Web site features and does most of their dial-up at off peak times, it's ideal. However, business users may be swayed by the lower peak-time call costs of the new phone companies.

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