

A report on the UKUUG - GNU/Linux Developers Conference which was held in London on 7th - 9th July

# THE FUTURE IS BRIGHT

RICHARD IBBOTSON



**The UK Unix User Group held its annual GNU/Linux Developers Conference in London. Richard Ibbotson from the Sheffield Linux User Group attended and sent us this report.**

The Linux 2000 UK GNU/Linux Developers Conference took place recently in Hammersmith in London. It was organised by the United Kingdom Unix User's Group (UKUUG) and sponsored by SuSE Ltd and Sistina Software.

The VA Linux team kicked off proceedings with a talk about Source Forge. Tony "fusion 94" Guntharp, one of the original developers, opened with an excellent presentation about Source Forge projects. He explained that developers must find a way to be more organised and more effective in their management of open source software. Tony leads and manages the Source Forge team.

He was followed by Sebastian Rahtz from Oxford University with an exposition on XML and the documentation associated with it. Sebastian also covered how TEX and LaTeX could be made to work with XML. When he asked „what use could this be to anyone?“ the delegates responded with the expected burst of laughter.



**Aisdair Kergon**  
of the UKUUG,  
organiser of the  
conference

Things began to liven up with the talk by Miguel de Icaza, CTO and Chairman of Helixcode, about the GNOME project. The development of Unix has stagnated over the years and GNOME is one of the projects that will change this. Many more people are now using Unix because of the GNOME and KDE projects. Miguel gave a very thorough explanation of the GNOME project and even showed how to produce the NT 4 blue screen of death using GTK code.

Rik van Rial, who writes kernel code for Conectiva in Brazil gave delegates an interesting insight into his work on memory management and the changes that he thinks will take place. He also discussed the VM changes in kernel 2.4.

## Enlightenment

The conference was treated to a rare appearance by Carsten Haitzler or "The Rasterman" as he is better known. Carsten is a senior software engineer at VA Linux Systems in Sunnyvale California and the programmer who developed Enlightenment, Electric Eyes, Gtk theme engines, Imlib and much more. His knowledge of X programming is extensive and his presentation was on the topic of performance programming. It began with Enlightenment shown in all its glory on the wide screen. Later, he went into the use of functions and other programming methods used in X-windows.

Alan Cox gave chapter and verse on the latest developments in the 2.4 kernel which will be released soon. Delegates were asked what they wanted to hear about and almost everyone wanted to hear about the 2.4 code. USB, PMCIA drivers and security fixes: Alan covered them all with his customary detailed insight.

Saturday's full programme started with Red Hat's Stephen Tweedie and a more than competent talk about clustering. Stephen worked at DEC for two years on VMS kernels for high availability clustered

filesystems and his presentation was full of authority.

Then Stephen Lord, a senior filesystem developer for SGI who has followed GNU/Linux development since 1993, presented XFS Journaling filesystem and caused a great deal of interest. XFS would seem to raise more issues than you might think, and is a topic developers would do well to find out more about.

Stephen was followed by Michael Meeks, whose business card just says „hacker«. As he demonstrated, he's a bit more than that: in fact he is definitely one of the more intellectual and influential open source programmers around just now. Michael gave an inspired talk about the GNOME component model.

Adrian Cox, the man who brought us transputers, gave a talk on the sort of thing that changes entire civilisations. His current project is a Beowulf in a box. His main problem, he explained, is getting hold of various types of hardware. However, most of the project is now finished. After his talk he took the lid off his demo machine and invited delegates to look inside.

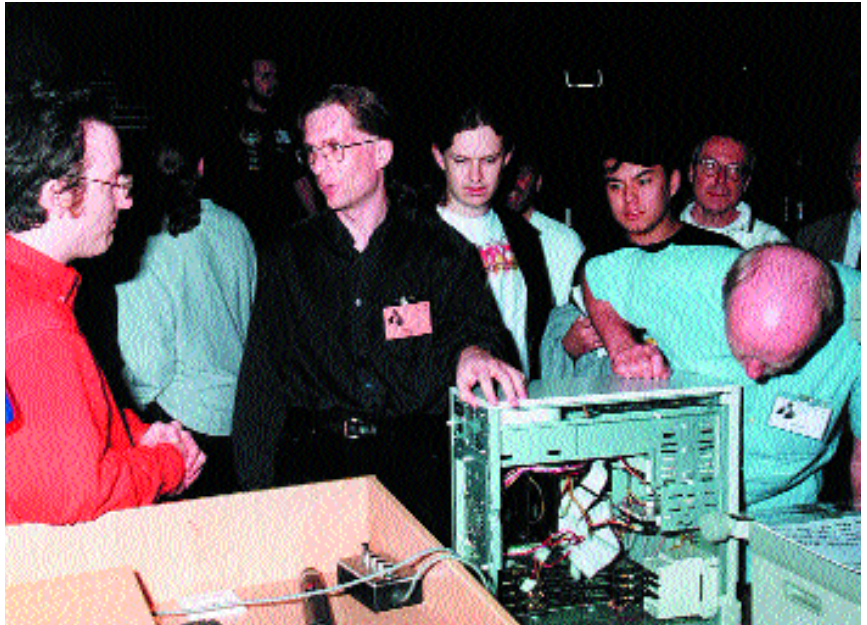
Next, John Edwards from VMWare took the stage and is a fluent advocate and demonstrator of VMWare. He admitted that in its earlier incarnations there were problems, but version 2.0 is much improved. John demonstrated how VM Ware can run Windows NT 4 and all the other versions of Microsoft Windows very well under GNU/Linux. Even IBM OS/2 and different distributions of Linux can be run under GNU/Linux. Among the many users are computer virus labs, which test viruses with the aid of VMWare. Even if Windows is wiped out by the virus, VMWare and the GNU/Linux host system continue to run.

## Security

Owen le Blanc from Manchester Computing Centre, the man famous for having written the GNU/Linux fdisk program discussed CODA. The security aspects of this aren't easy to grasp, but Owen's talk was well presented with clear diagrams. This was followed by a talk by Steve Whitehouse of ChygGwyn Ltd on GFS, a journaled, fault-tolerant clustered file system that gives high performance and great stability.

Heinz Mauelshagen gave a presentation about a Logical Volume Manager for Linux. This is a subsystem for online disk storage management: a feature of great value to enterprise computing users that will help GNU/Linux become more widely established in large organisations. It is implemented using an additional layer between the peripherals and the I/O interface in the kernel. Heinz is currently working on version 0.9 version of his logical volume manager.

The session by Wichert Akkerman, an MSc computer science student at Leiden University who works part-time for Cistron as a GNU/Linux developer, provoked some lively debate. In January 1999



Adrian Cox (left of centre) demonstrates his Beowulf in a box

he succeeded Ian Jackson as Debian project leader and his talk concerned the future of package management. This is a controversial subject in the GNU/Linux world. The proponents of the Red Hat .rpm package think that nothing else exists, while Debian users see the .deb package to be the only way forward. Debian packages give more information and simple and easy to understand error messages when something goes wrong. Wichert gave a good account of these issues and went on to discuss the possibility of a single package that could be used with both Red Hat and Debian type systems.

It was by Linda Walsh, who works for the Trust Technology group at SGI, on the topic of GNU/Linux security policy left delegates in no doubt that GNU/Linux needs a security policy which defines the allowed methods of access by processes to various objects in the system.

Sunday's programme began with Hans Reiser talking about Reiser FS. His explanation of the Reiser filesystem was a masterpiece from beginning to end. He explained that "this is just a very small step in the right direction". He thinks that everyone should be using systems that are fail-safe. Reiserfs is a journaling filesystem that uses classical balanced tree algorithms. Sponsors include SuSE, mp3.com and several other organisations.

Stephen Tweedie explained ext3 file system is basically ext2 with a few bits added on. There isn't that much information circulating about ext3 right now so this talk generated many questions. The final talk by Luke Leighton who works for Linuxcare was "Samba the next Generation". The present round of Samba development is looking into integration with MS Windows 2000. By Luke's account it's probably best to sit back and wait for this. All who attended agreed that the future for open source software has never been brighter. ■



Miguel de Icaza gives his talk on GNOME



Wichert Akkerman's session on package managers provoked lively debate