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MUUGlines

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This Month's Meeting

Red Hat 5.0 has been announced and released (more on the hoopla later in this issue). To mark the occasion, we'll have a demonstration of installing it on our laptop and Red Hat 5.0 CD-ROMs will be available for sale (the initial volume will be limited, but we will take requests from members for more, no doubt). We'll be holding the usual round-table discussion at the end of the meeting.

Our meeting this month is Tuesday, the 9th of December. We'll be meeting at IBM Canada's offices in the TD Centre, at the corner of Portage and Main. We'll gather in the lobby on the main floor – please try to be there by about 7:15 PM. Steve Moffat will then take us up to the meeting room just before the meeting starts at 7:30. Don't be late, or you may not get in.

Parking is available either in the parkade behind the TD building, off Albert Street, or in the ground level lot just north of the TD building. Entrance to the lot is from Albert Street, behind the parkade. Either way, parking is a $1.25 flat rate for the evening. You purchase your ticket from a dispenser, so make sure you've got exact change – a loonie and a quarter, or 5 quarters.

Notes On Last Month's Meeting

Contributed by Doug Shewfelt

At our November meeting, Gilles Detillieux and Arne Grimstrup gave us a presentation on writing to CD-R disks.

Gilles began by describing some of the advantages and disadvantages of writeable CDs. They hold about 650M per disk, for only about five dollars. They are easily transported and stored, and the media is common enough that they won't become obsolete suddenly. However, the disks generally need to be created in one burst; and some people are finding that 650M isn't big enough for their needs! Once written, the CD-Rs can't be modified; this is an advantage for some requirements, and a disadvantage for others.

One potential drawback to CD-Rs we discussed was the stability of the vegetable dyes used to colour the reading surface of the disk. We were warned that the disks are rated for storing information for only 2 to 4 years; after that the dyes start degrading, and the disk may become unusable. After the meeting, Gilles checked the web pages of a manufacturer of the disks. The manufacturer claims a much longer shelf life for its disks – up to 100 years! This information was found at TDK and KAO's web sites. Always keep them away from sunlight and heat sources.

Essentially all CD-Rs are created using the ISO 9660 file system. A number of extensions have been developed. The Rock Ridge extensions are often used by UNIX system. 'Joliet' was created by Microsoft (NIH sufferer that it is), while El Torito extensions generate a bootable CD-R disk.

Gilles explained that there are three stages for burning a CD-R. The first part is gathering together all the data to put onto the disk. The second stage is building an ISO 9660 file system image on the hard disk drive from the files that you collected. The final stage is the transfer of the file system image onto the CD-R. The second and third stages can be combined into one process. However, writing to the CD-R is time-sensitive, and any delays can ruin an entire disk. If you don't have a complete file system image already prepared, you increase the risk of a damaging delay.

Errors from delays in transmitting information to the CD writer is probably the biggest problem with the process. Writing a CD-R requires a quiet system – the disk controller can't tolerate waits for I/O. Disk errors and disk fragmentation can create delays. As well, contention on the I/O bus can interrupt the process. Some software will allow you to create multi-session disks – disks with information written in more than one session. However, this approach is relatively new, and there are still some bugs in it.

Another common problem is confusion over the time zones. The official standard gives time zone offsets as zones east of GMT, while many UNIX systems give them as offsets west of GMT. This means that the time and date stamps for the files might be incorrect for the target system. One solution to this is to set the time zone variable to GMT before starting the burning.

After Gilles finished his presentation, Arne demonstrated a Dynatech CD-R 4000 system. This unit avoids the problem with I/O delays by having a dedicated disk drive installed in the system for burning CD-Rs. The file system image is built onto the Dynatech's disk drive. The Dynatech CD-R writer can then burn a CD-R offline – it just transfers the local file system image to the CD-R.

The Dynatech box is implemented as a single SCSI device with three LUNs (Logical Unit Numbers): a CD-reading drive, a CD-writing drive, and a 1 GB Seagate disk drive.

Arne and Gilbert collected the latest release of Red Hat Linux (4.2 plus patches, at the time!) and loaded it onto the

CD-R system. During the course of the meeting, they cut a box of CD-R blanks and sold them for slightly below cost to User Group members at the meeting.

Hurricane Unleashed

RTP, NC -- Red Hat Software, Inc. is pleased to announce the availability of Red Hat Linux release 5.0 for Intel and Alpha computers. This release is a major update to the Red Hat Linux 4.X series, which won InfoWorld's 1996 Desktop Operating System of the Year.

New And Notable

Easy installation. Most modern hardware is detected and configured automatically. Smart and intuitive network configuration with bootp, NFS mounts (share /usr between machines, for example).

Simple disk partitioning. The 5.0 installation system includes DiskDruid [apparently 'Disk Wizard' was taken – Ed.], a new, full screen tool that eases the job of creating partitions on your hard drives. DiskDruid can automatically allocate partitions to drives that have space, and can expand partitions to fill drives. The result is you use your hard drive space much more efficiently.

KickStart installation. The KickStart installation mode allows you to define all the parameters for an installation (or upgrade) in a file that you place on your installation server or boot floppy. All you need to do is boot the target machine with the boot floppy and walk away - KickStart does the rest! This feature makes it easy to install dozens or even hundreds of machines.

GNU libc. Glibc is the new standard Linux C library. It has vastly improved support for internationalization and threads. Many users also report noticeable performance improvements.

Increased security. Red Hat leads the industry in producing the most up to date security features. By updating to the latest versions of sendmail, Apache, named, inn, and others, 5.0 maintains this lead.

Enhanced stability. Red Hat excels as a highly available, high performance Apache web server in extremely demanding environments. Run your workstation with more confidence and fewer headaches.

Modular 2.0.31 kernel (with patches). One kernel for all hardware, and support for much more hardware. The kernel includes modular sound card drivers, and a configuration tool that can easily configure your SoundBlaster cards - no more recompiling the kernel! The updated kernel includes many security and stability updates, and is distributed as an RPM package. This means that to upgrade the kernel you only need to upgrade the kernel RPM packages.

Improved X Windows support. XFree86 3.3.1 supports more cards (including Matrox Millenium and #9 Imagine 128), with better acceleration. Easier X Windows configuration. In many cases just pick your monitor from the provided list and you are done.

Reworked Red Hat Linux Installation Guide Over 300 pages of installation and configuration information. Complete coverage of the control-panel tools, including the network, user/group, and printer tools. Covers basics and configuration of PAM security architecture. The User's Guide is available via FTP and it is also browseable on our web site!

Improved network configuration. Improved graphical network configuration control panel tool. Allows for simple configuration of PPP network connections. Multiple device configuration makes it simple to move your machine between networks, add ethernet cards, etc. Supports PAP authentication for PPP connections, and allows multiple configurations for individual network devices (eg, a local and a long distance configuration for your PPP connection).

User Control Panel Tools. Graphical tools for non-root users include a network activation tool (makes it easy to manage PPP links), a tool to simplify mounting and formatting floppy disks, as well as tools to set your password and other user information.

Features

Installation Our installation system keeps getting better and better. By presenting simple fill-in-the-blank forms, and applying intelligent automation to network, package, and module configuration, the system relieves you of the most tedious and most troublesome aspects of installation. New with 5.0 is hardware autodetection and KickStart. The 5.0 installation will automatically detect and configure most modern hardware. KickStart is an installation mode that is driven from a configuration file on a NFS/bootp server or the boot floppy, allowing unattended installations and upgrades. Installation is supported via CD-ROM, NFS, FTP, and from hard drives, and includes seamless PCMCIA and PLIP support.

Package Management The RPM package system is designed to be powerful yet easy to use. These design features, along with smart config file handling across package upgrades, "shared" file handling, documentation searching support, package installation via FTP, dependencies, and powerful querying, make RPM the most advanced package system available.

With our graphical package manager, Glint, you can track every pack-

age installed on your system, and all packages available on the CD-ROM. You can examine package descriptions and file contents before you install them. With a few mouse button clicks you can install, uninstall, list and verify all installed packages. No other installation system comes close.

Configuration Tools The Red Hat control panel tools cover configuration of your network, printer, filesystem, users and groups, SysV init, time and date, and modem. PPP and SLIP configuration has never been easier! New with 5.0 is the ability to set up and choose from multiple configurations for your network devices, which allows increased mobility. For the first time, Plug-n-Play Sound Blaster cards are configurable as well, with the new sound config tool.

Compatibility between Linux Platforms The Red Hat Linux 5.0 for Intel and Alpha products are built from the exact same source packages. This ensures maximum ease of software portability between machines running Red Hat Linux regardless of the underlying hardware architecture. In addition, your investment in configuration of Red Hat Linux will pay off on both platforms.

License Terms Red Hat Linux is distributed under the terms of the GPL, and is freely available from our FTP site, and dozens of mirrors. The Red Hat Linux Installation Guide and the new RPM book "Maximum RPM" are also available freely [with special licence].

Other Red Hat Notes

You might want to check out Red Hat's web site (http://www.redhat.com/) to see their plug for SCO's UnixWare upgrade offer. They have also announced that Netscape's Communicator 4.04 is now available for Linux.

In Caldera News

Don't miss Caldera's site (http://www.caldera.com/) either, for some interesting tidbits. COAS (Caldera Open Administration System) source code will soon be available, as discussed in last month's newsletter.

There are also some interested developments in the DOS arena, if you're following that. The OpenDOS 7.02 Beta 2 is available for download (with source, of course). In addition, they have another download containing the OpenDOS Long File Name (LFN) beta. We may try that out and comment in a future issue. Lastly, Caldera continues development of the graphical DOS web browser WebSpyder, soon available in a 32-bit version.

ADSL Followup

Our October presentation on ADSL (Asymmetric Digital Subscriber Line) by MTS has been fleshed out by MTS' official announcement last week. See http://www.mts.mb.ca/adsl/ for all the details.

In a nutshell, it's $100 for installation and about $45 per month. What you get is a leased 'modem' that has a 10Base-T Ethernet port on it, with whatever kind of computer system you want attached to it (like, a Linux system, perhaps?). The other end attaches to an existing telephone line in your house (business rates are higher) which you can still use normally – the ADSL doesn't interfere with it in any way (e.g. busy signals).

What you don't get is an ISP. You still have to contract with someone for that, and the list of ISP's who support an ADSL line is at present disappointingly short: Escape, Pangea, GateWest, and of course MTS. ISP charges will naturally be in addition to the $45/month.

An interesting sidenote: In the December 3rd Free Press business section is a story that Videon has purchased Le Groupe Videotron's Edmonton cable company. Why is this interesting?

"The asset is particularly attractive to Moffat [Videon's parent company] because Videotron Communications Ltd., the Edmonton cable system, is recognized as one of the premium cable systems in North America.

"Edmonton's system already has 3,500 high-speed Internet subscribers and it has the capacity to accommodate 110 television channels. By comparison, Winnipeg's Videon is investing $10 million just to get up to 77-channel capacity, and it isn't expected to roll out its high-speed Internet service in Winnipeg until the middle of next year." MTS, your competition is on the horizon!

Red Hat, Again

According to statistics compiled by Gilbert Detillieux, maintainer of MUUG's FTP site (ftp://ftp.muug.mb.ca/), the Red Hat 5.0 section sustained nearly 4 GB of downloads in the first couple of days since Red Hat's release of 5.0 on December 1st. MUUG is proud to be the only official Red Hat mirror in Canada! However, to put the volume of traffic in perspective, read these messages Gilbert found on the Red Hat mirror list:

> Date: Thu, 04 Dec 1997 01:21:20 +0000
> From: Lee McLoughlin <lmjm@doc.ic.ac.uk>
> Organization: IC-Parc, Imperial College, London, UK
> To: mirror-list@redhat.com
> Subject: Re: Redhat too busy to bring mirror up to date
> > Since monday,
> > ftp://ftp.gwdg.de/pub/linux/redhat/redhat-5.0/
> > has delivered 67 GB hurricanes over Germany and Europe; that is
> > more than 50% of my totals. ;-)))
> ftp://sunsite.doc.ic.ac.uk/Mirrors/ftp.redhat.com/
>
> We're sending out about 80 Gig a day of 5.0 - guess it must be popular!

> --
> Lee McLoughlin.
> IC-Parc, Imperial College,
> South Kensington, London.SW7 2AZ.
UK. Email: L.McLoughlin@doc.ic.ac.uk

Kind of puts our 4 GB to shame!

Wanted!

The following help-wanted messages were received by MUUG recently, and may be of interest.

Manager of Information Technology
Our client, a local manufacturing facility, is seeking a Manager of Information Technology (IT) to complement their Senior Systems team. As a member of the management team, the successful candidate will provide leadership and direction in the support and development of the enterprise wide information systems that supports the business.

The Manager of Information Technology will be responsible for the effective and cost efficient provision of information services to maximize productivity and control of manufacturing and resource management functions. The Manager of Information Technology will ensure the integrity of systems and information, facilitating decisions making the policy development, responsible for the formulation of information technology strategic plans, integrating new technologies with existing systems.

The ideal candidate will have appropriate post-secondary education that is enhanced by information systems management experience in a manufacturing environment.

Strong experience is required in the activities that comprise information technology planning/support, systems development/support, and organizational development.

Compensation and benefits are competitive and will be commensurate with experience. A relocation package is offered. If you are interested in this excellent opportunity, please forward your resume to: Ms. Brenda Higgins, The Bentley Consulting Group Ltd., Suite 306 55 Donald Street, Winnipeg, Manitoba R3C 1L8, Phone: (204) 987-4843, Fax: (204) 987-4846, Email: bentley@mts.net.

We thank all applicants for their interest in this opportunity, however, only those candidates being considered for interviews will be contacted.

INFORMATION SYSTEMS PROFESSIONALS
Our client, New Flyer Industries Ltd. (NFIL), Canada's leading manufacturing company of intercity buses, has experienced substantial growth. In keeping with their commitment to technology, NFIL is seeking information system professionals to complement their systems team.

DATABASE ADMINISTRATOR
Reporting to the Manager of MIS, the successful candidate's primary responsibility will be the configuration, maintenance, and installation of an Oracle database environment. Coordinating upgrades to applications and database with the UNIX system administrator and end users, defining and enforcing Oracle security overall classes of users in each working environment.

The ideal candidate will have an appropriate post-secondary education and at least two years experience using Oracle Database and Applications.

APPLICATION PRODUCT SPECIALIST (TECHNICAL)
Reporting to the Manager of MIS, the successful candidate will facilitate the documentation of the design, functionality and use of custom programs and interfaces for standard and custom modules. Provide Oracle support, liaison with other members of the Oracle Users Group and assume responsibility for planning resource requirements and coordinating the daily activities of all systems staff.

The ideal candidate will have Oracle training and Oracle application experience in a manufacturing environment. Excellent communication, interpersonal and team skills are also required.

UNIX ADMINISTRATOR
Reporting to the Technical Services Supervisor, the successful candidate will be responsible for the daily management of hardware and operating system configuration, communicate links to remote sites, the training and transferring of operating system skills to backup resource and selected end-users.

The ideal candidate will have an appropriate post-secondary education along with two years of UNIX experience. Ability to work independently, combined with a proactive orientation are requirements for this position.

If you are interested in these excellent opportunities, please forward your resume to:

Ms. Sherry Phaneuf, C.H.R.P.
The Bentley Consulting Group Ltd.
Suite 306 – 55 Donald Street
Winnipeg MB R3C 1L8
Telephone: (204) 987-4840
Fax: (204) 987-4846
Email: bentley@mts.net

Contact Information

To contact the MUUG board for membership information or anything else, send e-mail to board@muug.mb.ca. We have a Web presence as well, at http://www.muug.mb.ca/, where you can find all kinds of information, including details of upcoming and past meetings and presentations and references related to them. E-mail the editor at editor@muug.mb.ca.