$2.50

MUUGlines

September 1997 Volume 10, Number 1

This Month's Meeting

We'll have two topics this month – a mystery topic, plus Gilbert Detillieux will be giving us the scoop on the many changes to MUUG Online, our web site and FTP server. Among other things, we're mirroring Red Hat's Linux distribution and already getting a lot of hits!

This month we'll once again be having some door prizes! We have a copy of S.u.S.E. Linux (from a German company) which comes with a 3-CD set, and O'Reilly's "Linux In A Nutshell" (reviewed in this issue).

Our first meeting this year is Tuesday, the 9th of September. 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.

Next Meeting

The Manitoba Unix User Group will next meet on October 14, 1997. Check your mailbox for details on the upcoming meeting.

MUUG Online Now a Red Hat Mirror

By Gilbert Detillieux

The following site has now been added to the list of Red Hat mirrors:

ftp://ftp.muug.mb.ca/mirror/redhat

Yes, that's right! The MUUG board has been busy during the summer hiatus, and we hope all our members will be able to benefit from the new service.

To the best of our knowledge, we are the first Red Hat mirror site in Canada (at least in the .ca domain). As our server is fairly directly connected to the CA*net infrastructure, this should allow for reasonable transfer rates to other sites on CA*net, which includes most Canadian universities, as well as several commercial providers.

We are mirroring all of the Red Hat ftp site, including the contrib directory (which contains user-contributed packages easily installable on a Red Hat Linux system), but excluding the mirrors and Incoming subdirectories. Please feel free to browse around, and download anything that may be of interest to you.

In addition to getting the long-awaited mirroring software up and running, there have been several behind-the-scene changes to MUUG Online. First of all, the board decided to purchase a large, 9 GB SCSI disk drive for the server, to allow us to mirror a reasonable amount of data (the Red Hat mirror alone is well over 3 GB). This disk will allow us a lot of room for growth, so that we can consider mirroring other sites that would benefit our members.

Secondly, we decided that an operating system upgrade was called for, since the old SunOS 4.1.3 system we were running (on a SPARCstation 2) had a 2 GB limit on file system size. The major choices were SunSoft's Solaris 2.5.1, Red Hat's Linux/SPARC 4.2, and FreeBSD. We decided to go with Red Hat 4.2 for several reasons, such as cost (nothing!), flexibility with licensing, bundled software (including the WWW, FTP, and SMTP servers we wanted to use), and support from company (timely release of bug fixes and security updates). Also, since the first thing we really wanted to mirror was their distribution, it was only fitting that we run Red Hat Linux, as a show of support and confidence in their product.

The system setup and migration of our data and server software went very smoothly. We went live with the new system on July 16, and (as of the 28th) we haven't needed a single reboot since then. So far, the venerable old SPARCstation 2 is handling the load quite nicely, and we hope that it will continue to, as traffic to our site increases. (Red Hat was notified about our mirror site on July 21, and our site was listed as a mirror on the 25th.)

Fringe benefits of the migration included a switch to the latest sendmail version (8.8.5), which provides improved security, logging, and control over message delivery. As well, we've got a very current version of WU-FTPD, one of the most used FTP servers on UNIX-based archive sites, and the Apache HTTP server (we had been running a rather old version of NCSA's HTTPd). Apache will provide much better performance than our old WWW server did. We hope to shortly upgrade to Apache 1.2.1, which provides support for the new HTTP/1.1 standard, which should further boost performance while decreasing network load, as well as provide

us with much more flexible logging options.

As was mentioned earlier, we can now consider mirroring other sites, including other Linux distributions, UNIX software, and so on, that would benefit our members. We currently have about 4 GB of free space, and another 1 GB can be made available by reusing the old disk (which currently still contains old SunOS file systems). As this is not an unlimited resource, consideration will have to be taken for the size of the distribution and potential interest to our members. We hope to discuss this further at the September meeting, so plan on attending if this is of interest to you. Also, feel free to e-mail us at <board@muug.mb.ca> with any suggestions you have for stuff you'd like to see mirrored.

Book Review: Linux In A Nutshell

I've held off buying Linux books, opting instead to learn what I can from the Internet, the Linux Journal, and of course MUUG. However, I've often wished I could find a handy reference to some of the more common Linux commands and utilities for those times when I start feeling pretty novice. So when I was offered a chance to look through Linux In A Nutshell, it wasn't hard to say 'yes'.

The book purports to be a quick desktop reference, and in fact it is essentially an update from O'Reilly's earlier book, "UNIX In A Nutshell". As a reference, there is no hand-holding or tutorial material, but the author is kind enough to steer you in the direction of some other works of that sort.

There is broad coverage here. The first chapter of reference is chapter 2, "Linux User Commands", and comprises about a quarter of the book. Serendipitously, the first command listed is 'apropos', which searches man pages for a keyword: If you're not sure what you're looking for, this is a good place to start!

I quickly noticed that there isn't any cross-referencing to other commands that you may find helpful (e.g. 'see also'). However, the listings are concise and readable, and other chapters (there are 14) contain commands grouped by major topics.

Several of the chapters cover the three major command-interpreter shells, various editors and GNU awk (but not perl, which clearly deserves its own book for any kind of discussion, and that's available from O'Reilly too!). While the tutorial aspect is non-existent, the discussions there are enough to get the adventurous started, and they're more than clear enough for reference use.

I did say that this isn't a tutorial-type book, but it was nice to see that the important command group "System and Network Commands" has a separate chapter devoted to an overview of that topic, as well as one for the commands themselves.

Overall, I'd say that it's a very good addition to most users' libraries, including advanced administrators. At $28.95, it will shortly be added to mine!

The I2O standard: a threat to free software?

I2O is a developing standard for high-performance computer peripherals. The standard is said to be "non-proprietary" — however, it is a closed standard that requires a non-disclosure agreement, and requires developers to get a $5000/year license to develop software or hardware for it.

Members can't disclose source code for their drivers, and they must stop making hardware or software for I2O if they lose membership. (Members have the power to vote out other members.)

To say the least, developers for free operating systems will have difficulty complying with this standard. If these I2O peripherals become commonplace, Linux developers will find their software blocked from running on PC hardware.

The backers of this standard include Microsoft, Novell, Hewlett-Packard, and NETFrame.

As an alternative, Software in the Public Interest, the parent organization for the Debian project, already have the second draft of a proposal for an Open Hardware Certification program that is starting to gain support. For more information about I2O, see their web site at http://www.i2osig.org/.

UPDATE, July 22nd: See also the WiReD News coverage of this issue at http://www.wired.com/news/news/technology/story/5343.html

Vote in Linux Journal's 1997 Readers' Choice Awards!

Linux Journal, the Premier Linux Magazine, is conducting its annual poll of Linux users. Vote for your favorites in twenty different categoriesincluding: Most desired upgrade, favorite shell and most indispensible Linux book.

The voting will take place on the Linux Journal web site from July 11th through August 26th. To place your vote simply go to http://www.ssc.com/lj/readchoice.html and follow the directions there. Please do not submit more than one form because all duplicate entries will be deleted.

Results will be published in the December issue of Linux Journal (on newsstands early November).

Subscriptions to Linux Journal are available by calling our toll free number (in the US/Canada) 888 66 LINUX or over our web page at http://www.ssc.com/lj/.

Boot Information Display

By Jon Cox jcox@cx.tufts.edu

I saw an article in July's LG that talked about using watch as a better way to monitor ftp downloads — there 's an even BETTER way: Check out ncftp. It works much like ftp, but shows a progress bar, estimates time to completion, and saves bookmarks of where you've been. I think ncftp is pretty standard on all distributions these days.

Consider Glimpse Instead of Grep

By Jon Cox jcox@cx.tufts.edu

While grep works as a tool for searching through a big directory tree for a string, it's pretty slow for this kind of thing & a much better tool exists — Glimpse. It even has an agrep-style stripped down regexp capability for doing "fuzzy search", and is astonishingly fast. Roughly speaking:

glimpse is to grep as
locate is to find

I believe the latest rpm version is glimpse-4.0-4.i386.rpm You can find it in any site that mirrors Red hat's contrib directory.

Diald Remote Control

By Wim Jongman dblyuiam@xs4all.nl

I have been a satisfied diald user for quite some time. one of the things that were on my list of favorites was the possibility to activate the link from another location. I have written a small shell script that waits for activity on my telephone line.

If activity has been detected the script submits the ping utility which causes diald to set up a link to my ISP. If activity is detected from the inside (diald does the dialing) then the ping is also performed but there can be no harm in that.

My /etc/diald.conf looks like this:

```
mode cslip
connect /usr/local/bin/connect
device /dev/cua2
speed 115200
modem
lock
crtscts
local local.ip.ad.dres
remote ga.te.way.address
mtu 576
defaultroute
ip-up /usr/local/bin/getmail &
ip-down /usr/local/bin/waitmodem &
include /usr/lib/diald/standard.filter
```

The first time the link goes down, the program waitmodem is submitted. The script for /usr/local/bin/waitmodem is:

```
#!/bin/bash

# This script waits for data entering the
modem. If data has arrived,
# then a host is pinged to allow diald to
# setup a connection (and you to telnet in.)

  if test -f /var/locks/waitmodem
   then
   exit 0
     else
   touch /var/locks/waitmodem
   sleep 5
   read myvar < /dev/cua2
   ping -c 10 host.com > /dev/nul & > /dev/
nul
   rm /var/locks/waitmodem
   exit 0
  fi
```

If the diald decides to drop the link, the ip-down keyword activates the waitmodem script. This creates a lock in /var/lock(s) and sleeps for five seconds to allow the modem buffers to flush. Then the modem device is read and if activity occurs, the ping is submitted. Change the italic bits in the scripts. The lock is removed and diald dials out. This allows you to access your machine. I guess you have to have a static ip for it to be useful.

Hard Disk Duplication

By Jerko Golubovic
jerko.golubovic@public.srce.hr

A comment on article "HARD DISK DUPLICATION" written by mcablec@ucsd.edu in Linux Gazette #18 (June 97).

What I did at my place is following: I SetUp root-NFS system to boot usable configuration over network. I just need a floppy with appropriate kernel command-line and system brings up.

When system brings up I mount as /root NFS volume where I store compressed images. In that way I have them readily available when I log-in. With dmesg I find about geometry of the hard disk of the target system. Then, for taking a new image I do:

```
cat /dev/hda | gzip -9 > <somename>.gz
```

And for restore:

```
zcat <somename>.gz > /dev/hda
```

Of course, I don't have to use such system. It is enough to prepare one boot floppy containing just FTP client and network config. I made two shell scripts:

b:

```
#!/bin/sh
cat /dev/hda | gzip -9
```

r:

```
#!/bin/sh
gzip -d > /dev/hda
```

Then, in FTP you do:

```
put |./b <somename>.gz  (to save image)
get <somename.gz> |./r  (to restore image)
```

ANY FTP server on ANY platform

can be used for storage. Not only that - you don't have to use FTP at all - you can use smbclient instead - and read directly from Win or Lanman shares - doing basically the same thing.

More on Hard Disk Duplication

By Jean-Philippe CIVADE jpcivade@cge-ol.fr

I've written an utility under Windows 95 able to copy from disk to disk in a biney way. It's called Disk2file. It's findable on my web site under tools. The primary purpose of this utility was to make iso images from a hard disk (proprietary file system) to record them on a cdrom. I've used it yesterday do duplicate a red hat 4.1 installed disk with success. The advantage of this method is this is possible to product a serial of disk very quickly. This utility is written to tranfert up to 10Mb /s. The duplication time for a 540 Mb is about 10 mins.

The way to use it is:

1. start the program. Select scsi controller.
2. Select a disk and a file where to put image file
3. Select the source disk
4. select disk2file mode and click "run"
5. after completion, select the new disk where the image have to be written
6. Select file2disk mode
7. Click run

It's referenced as a shareware in the docs but I conced the freeware mode to the Linux community for disk duplication only.

Handling Log Files

By Neil Schemenauer nas170@mail.usask.ca

I have seen a few people wondering what to do with log files that keep growing. The easy solution is to trim them using:

```
cat </dev/null >some_filename
```

The disadvantage to this method is that all your logged data is gone,not just the old stuff. Here is a shell script I use to prevent this problem.

```
#!/bin/sh
#
# usage: logroll [ -d <save directory> ] [ -s
<size> ] <logfile>

# where to save old log files
SAVE_DIR=/var/log/roll

# how large should we allow files to grow
before rolling them
SIZE=256k

while :
do
        case $1 in
        -d)
                SAVE_DIR=$2
                shift; shift;;

        -s)
                SIZE=$2
                shift;shift;;
        -h|-?)
                echo  "usage: logroll [ -d <save
directory> ] [ -s <size> ] <lo
gfile>"
                exit;;

        *)
                break;;
        esac
done

if [ $# -ne 1 ]
then
        echo  "usage: logroll [ -d <save
directory> ] [ -s <size> ] <logfile>"
        exit 1
fi


if [ -z 'find $1 -size +$SIZE -print' ]
then
        exit 0
fi

file='basename $1'
if [ -f $SAVE_DIR/$file.gz ]
then
        /bin/mv $SAVE_DIR/$file.gz
$SAVE_DIR/$file.old.gz
fi

/bin/mv $1 $SAVE_DIR/$file
/bin/gzip -f $SAVE_DIR/$file
# this last command assumes the PID of
syslogd is stored like RedHat
# if this is not the case, "killall -HUP
syslogd" should work
/bin/kill -HUP 'cat /var/run/syslog.pid'
```

Save this script as /root/bin/logroll and add the following to your /etc/crontab:

```
# roll log files
30 02 * * * root /root/bin/logroll /var/log/
log.smb
31 02 * * * root /root/bin/logroll /var/log/
log.nmb
32 02 * * * root /root/bin/logroll /var/log/
maillog
33 02 * * * root /root/bin/logroll /var/log/
messages
34 02 * * * root /root/bin/logroll /var/log/
secure
35 02 * * * root /root/bin/logroll /var/log/
spooler
36 02 * * * root /root/bin/logroll /var/log/cron
38 02 * * * root /root/bin/logroll /var/log/
kernel
```

Now forget about log files. The old log file is stored in /var/log/roll and gzipped to conserve space. You should have lots of old logging information if you have to track down a problem.

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.