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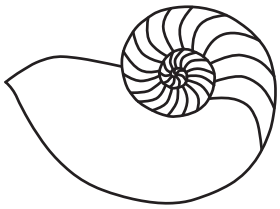

MUUG Lines

Manitoba UNIX® User Group

Newsletter of the Manitoba UNIX® User Group

What's Next for the Internet?

By Andrew Trauzzi

Is it just me, or does there seem to be a certain internet-mania going around these days? Just try to pick up a computer magazine without finding some mention of the Internet. The @ sign seems to be the most popular character around today. Is all this hype and attention warranted? Well, to put it bluntly, yes.

Recently, during the Los Angeles earthquake, the telephone traffic became so horrendous that the telephone system was shut down. Crafty Internet users began sending e-mail to their friends at nearby universities, and soon became the information line for everyone without a satellite uplink. Unfortunately, not everyone has access to an Internet account, but there seems to be hope for that in the future.

Currently, the Internet consists of 45,000 networks and counts approximately 20 million users internationally! The growth of the Internet is mind-boggling, with a 15 percent increase in use every month! But is all of the hype and publicity that the Internet is receiving helping to destroy it? Well, yes — but that's good!

In most respects, the Internet is still an academic network, and is currently not designed to handle massive and varied volumes of traffic. (Some of you more experienced Internet users may have noticed the rather large increase in transfer times over the last couple of years.) The exponential increase in Internet traffic has forced its creators back to the drawing board — and this time they will include all the people that were left out.

The Internet Society is a newly formed group who projects that the Internet will connect every human on earth by the year 2001! In order to reach this goal, several new standards will have to be designed and implemented. TCP/IP, the current Internet protocol, is projected to become unusable by 1996. In its place will be protocol designed around ATM (Asynchronous Transfer Mode), running on ISDN (Integrated Services Digital Network) from one's computer to the main high-speed trunks. The revamped Internet must also let individuals subscribe at will (à la Clinton's superhighway).

Another large item that requires change is the IP addressing scheme. The Internet is running out of addresses and requires another method for distributing them. Several alternate schemes are in the works, but every day of delay means hundreds of extra computers to switch over to the new scheme. One journalist said that the huge cutover required would be rivaled only by Great Britain deciding to drive on the right-hand side of the road!

I am sure all of these technical issues will be resolved, and I am looking forward to the end result; an Internet with everyone on board sending text, sound, pictures and video across the globe.

If you want to join the Internet Society, the cost is $70 (US) per year and includes the quarterly Internet Society News. Call (703) 648-9887.

This month's speaker will be Smoot Carl-Mitchell of Texas Internet Consulting. He has many years of experience with the Internet, and I'm sure you'll enjoy his presentation.

This Month's Meeting

Meeting Location:
Our next meeting is scheduled for Tuesday, February 8, at 7:30 PM. Once again, the meeting will be held in the auditorium of the St-Boniface Hospital Research Centre, just south of the hospital itself, at 351 Taché. You don't have to sign in at the security desk — just say you're attending the meeting of the Manitoba UNIX User Group. The auditorium is on the main floor, and is easily found from the entrance.

Meeting Agenda: See inside for details.

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Out in the Cold?

By Andrew Trauzzi

Well, by the time you read this column, we should be well into our yearly February thaw! Not! (Or for C programmers, !) The recent cold snap should have given all of you plenty of time to stay indoors and play all those computer games you received for Christmas. My current favourite pits you against two evil spinning telecommunication satellites. I've managed to get one under control, but I think the other is space junk. Oh well, there goes 300 million points!

There are advantages to all this cold weather as well. For instance, I logged hours and hours of time on MONA at 14.4, without a single transmission error. I guess the telephone lines started to become superconductive!

Chaos Corner

A couple of months ago, I asked for submissions regarding any "goodies" floating around the internet (I'm still looking for the new Hubble pictures!) Well, Gilbert Detillieux (the old MUUGLines editor), send me a copy of an electronic newsletter called "Chaos Corner." In it, I found a large amount of the information I was looking for. If you want to take a look for yourself, volumes I and II (21 issues in all), are available via FTP at: `pelican.cit.cornell.edu` in `/pub`.

I would like to thank all the people who sent me mail on the previous issue of the newsletter. It seems that the article on realtime UNIX was quite popular. Formatting an article is quite easy compared to writing one, so all the credit goes to Rennie Allen. I'm sure all of you look forward to Rennie's next article. (Although he doesn't know he's going to write another one yet!)

Monsieur Ex

This month marks the return of the mysterious Monsieur Ex. The article was submitted to me through an anonymous mail server, so I couldn't trace it back to a MUUG member! Eee ees a crafty wan, non?

Peter Graham's GNU column returns this month after a one month absence. He tries to give some excuse about PhD students being busy at the beginning of the column, but I don't buy it! In any case, I'm sure we are all glad the column is back.

If you hear a good joke, like the one about the computer engineer, the systems analyst, and the programmer; just send me some mail at <`editor@muug.mb.ca`>. Remember, worthy articles can count for meeting credits if you've missed some.

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Ad copy must be submitted by the final copy deadline for an issue (usually 3 weeks prior to the monthly meeting) in a format acceptable to the editor. (Please make arrangements with editor beforehand.)

Internet E-mail: editor@muug.mb.ca

Group Information

The Manitoba UNIX User Group meets at 7:30 PM the second Tuesday of every month, except July and August. Meeting locations vary. The newsletter is mailed to all paid-up members one week prior to the meeting. Membership dues are $25 annually and are due as indicated by the renewal date on your newsletter's mailing label. Membership dues are accepted at any meeting, or by mail.

Manitoba UNIX User Group
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What's Happened Lately

By Bary Finch

This is going to be a banner month. We are bringing in a renowned speaker, Smoot Carl-Mitchell, of Texas Internet Consulting. He will provide us with part 2 of our Internet presentations. His perspective should help us better understand what services the Internet can provide, and why companies should be using it.

These are issues that many individuals and businesses are facing today. You know the Internet is good, or it wouldn't be so popular, would it? But why exactly are all these people using it? Hopefully you will have a clearer perspective after the February 8 presentation.

New Corporate Sponsors!

February is also a great month as we have the addition of two more Corporate Sponsors: Online Business Systems and Tandem Computers of Canada Ltd. This brings our total to eight Corporate Sponsors. Tandem Computers of Canada Ltd. and Online Business Systems are both making contributions of $250, and we thank them for their generosity.

Our Corporate Sponsorship program has certainly been a great success with all this activity. The latest additions add to our already impressive list. So far $250 has been donated by Hewlett-Packard (Canada) Ltd., and IBM Canada Ltd. Digital Equipment of Canada Ltd. has donated $500 for both the 1994 and 1995 sponsorship years. Great-West Life Assurance Company has given an in-kind donation rather than a cash donation. Xerox Canada Ltd. provides the media that you are reading, by doing all of the printing of the newsletters for us. The University of Manitoba continues its strong support of MUUG through contributions like enabling MONA.

MUUG could not exist as it is without the continued support of our Corporate Sponsors. We thank them all for their recognition of the importance of the UNIX user community through their donations to MUUG.

Kudos to Susan!

The progress that has been made on our Corporate Sponsorship program would not have happened without all the work of Susan Zuk, our Past President. She is always promoting MUUG and making sure her corporate contacts know the worth of MUUG. She also makes sure they know just how easy it is to become a Corporate Sponsor too. Thanks for all your efforts Susan.

I also have enjoyed my new role as President. It has enabled me to help promote MUUG to the people that I meet. Many companies are pleasantly surprised to find out that there is a local UNIX user group with 150 members. It shows the popularity of the Open Systems platforms that many businesses are now moving to. The existence of MUUG also gives those same businesses a comfort in knowing that UNIX is well supported in the local community.

¿"El Presidente"?

My role of President also has the added benefit of the great respect that it commands, as evidenced in terms like "El Presidente." Just kidding. The last thing I would expect is people to hold this position as one that is "above" any other member in the group. Please consider me to be always available for your comments. I can usually be reached by phone at 934-2723 or by email at <bfinch@muug.mb.ca>

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C++ Q&A

By Marshall P. Cline

The C++ Q&A column continues with question 8.

Question 8: What is a class?

A class defines a data type, much like a struct would be in C. In a CompSci sense, a type consists of two things: a set of values *and* a set of operations which operate on those values. Thus 'int' all by itself isn't a true 'type' until you add operations like 'add two ints' or 'int*int', etc. In exactly the same way, a 'class' provides a set of (usually 'public') operations, and a set of (usually non-public) data bits representing the abstract values that instances of the type can have. From a C language perspective, a 'class' is a 'struct' whose members default to 'private'.

Question 9: What is an object?

An object is a region of storage with associated semantics. After the declaration 'int i;', we say that 'i is an object of type int'. In C++/OOP, 'object' is usually used to mean 'an instance of a class'. Thus a class defines the behavior of possibly many objects (instances).

Question 10: What is a reference?

A reference is an alias (an alternate name) for an object. It is frequently used for pass-by-reference; ex:

```
void swap(int& i, int& j) { int tmp = i; i = j; j = tmp; }
main() { int x, y; //... swap(x,y); }
```

Here 'i' and 'j' are aliases for main's 'x' and 'y' respectively. The effect is as if you used the C style pass-by-pointer, but the '&' is moved from the caller into the callee. Pascal enthusiasts will recognize this as a VAR param.

Question 11: What happens if you assign to a reference?

Assigning to a reference changes the referred-to value, thus a ref is an 'Lvalue' (something that can appear on the 'L'eft-hand-side of an assignment statement) for the referred-to value. This insight can be pushed a bit farther by allowing references to be *returned*, thus allowing function calls on the left hand side of an assignment statement.

Question 12: How can you reseat a reference to make it refer to a different object?

Unlike a pointer, once a reference is bound to an object, it can NOT be 'reseated' to another object. The reference itself isn't an object; you can't separate the reference from the referred-to-object. Ex: '&ref' is the address of the referred-to-object, not of the reference itself.

Question 13: When should I use references, and when should I use pointers?

Old line C programmers sometimes don't like references since the reference semantics they provide isn't *explicit* in the caller's code. After a bit of C++ experience, however, one quickly realizes this 'information hiding' is an asset rather than a liability. In particular, reuse-centered OOP tends to migrate the level of abstraction away from the language of the machine toward the language of the problem.

References are usually preferred over ptrs whenever you don't need 'reseating' (see early question on 'How can you reseat a reference'). This usually means that references are most useful in a class' public interface. References then typically appear on the skin of an object, and pointers on the inside.

The exception to the above is where a function's parameter or return value needs a 'sentinel' reference. This is usually best done by returning/taking a pointer, and giving the NULL pointer this special significance (references should always alias *objects*, not a dereferenced NULL ptr).

Dr. Marshall P. Cline is the founder and president of Paradigm Shift, Inc., a firm that specializes in on-site training for C++, OOD, OOA, consulting, and reusable/ extensible C++ class libraries. For more information, send e-mail to <info@parashift.com>.

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For details, contact any MUUG board member.

Ask Monsieur X

A column in which our resident UNIX expert answers questions submitted by members.

Dear Monsieur Ex,

I'm fairly new to MUUG so I don't know my way around that well, but the newsletter keeps suggesting that vous, monsieur, are willing to respond to questions, so here are a couple I've been wondering about.

1) Where can I find a listing of vi commands? Man and help do not do justice to this editor. My only contact with Unix is through Mona and MUUG (I'm a member because I know my job will require me to work with Unix within the year so I'm getting the jump on things).
2) There are newsgroups that I don't have access to through Mona that I would like to get to. How can I get access to them?

Anxiously waiting your reply,
Mr. **V**ideo **I**nterface
Systems Analyst
Knights of the Lambda Calculus

Dear Video,

"Mais oui, mon ami!" One of the big stumbling blocks to learning UNIX is dealing with "vi" and it's cryptic commands. A good introductory text can go a long way to helping you learn both. (Unfortunately, there is no decent online help available for "vi.")

There are many good introductory texts to choose from, few of which Monsieur Ex has ever read. (Coming from "le bon vieu temps" of UNIX, I learned the system the old fashioned way.) Here are some that do cover "vi" to some extent:

Sobell, Mark G., A Practical Guide to the UNIX System
Second Edition, 1989
ISBN 0-8053-0243-3
(covers System V Rel 3 & BSD 4.3)

This book, in addition to being a good introductory text, includes a very nice description of "vi" and its commands. It is with this book that Monsieur Ex relearned to use "vi" properly.

Dougherty, Dale, and O'Reilly, Tim
UNIX Text Processing
1987, Hayden Books
(typesetting: O'Reilly & Associates)
ISBN 0-672-46291-5

Although not as good as a general UNIX text (since its focus is text processing), this book has very good coverage of editing — a whole chapter on "vi" and another chapter on advanced editing, which covers a lot of useful ex/vi commands as well. If that weren't enough, it also has a very good appendix that covers commands from many editors and text processing tools — regular expression syntax, vi, ex, sed, and awk commands are all covered to some degree.

Bourne, S.R.
The Unix System
1983, Addision Wesley
ISBN 0-201-13791-7

Not as recent, nor as novice-oriented as the other two, this book does devote a few pages to "vi" commands, and includes a nice, brief (3 page) command summary as an appendix.

As for question number 2;

This is a question that we've received many times. Monsieur Ex should really be more prepared to answer this than he is! It seems to be a common request — give them a few news groups, and they'll thank you, give them a thousand (1114 at last count), and they'll ask for more.

Unfortunately, the system does not have the resources at this time to support a full news feed, and we've been slow to add new groups, particularly those that aren't computer related.

There are, on the Internet, some public access sites that do make a full news feed available. A news reader is sometimes accessible via telnet, either directly or as part of a Gopher client, at such sites. Monsieur Ex, who is having trouble keeping up to date on a small subset of the groups offered locally, has not bothered to find out the addresses of such sites. May I suggest that you ask the question on a local news group, and see if someone out there has the answer?

A bientot, Monsieur Ex. `<m-ex@muug.mb.ca>`

***Monsieur Ex**, a mysterious Frenchman who claims to be an old editor and an expert in UNIX, awaits further mental challenges! For example, what is autobogotiphobia? Look for the answer in the next Monsieur Ex column.*

Where to get More Help for vi

By Andrew Trauzzi

I have a couple of the books that Monsieur Ex suggested to Mr. Video, and they are excellent for referencing a multitude of UNIX commands. However, if you just want vi commands the Internet may be able to help.

I performed an archie on vi and found a site in Norway with a plethora of vi goodies including reference sheets and tutorials. Luckily, the site is mirrored in the US. Here's the address:

Mirror site:	`cs.uwp.edu` (131.210.1.4)
Filearea	`/pub/vi`
Maintainer:	Dave Datta (`datta@cs.uwp.edu`)
Location:	Kenosha, Wisconsin, U.S.A.
Peak hours:	None.

For convenience sake, I placed the help file, along with short and long reference sheets in MONA's FTP directory. Just type:

```
cd ~ftp/pub/muuglines/source/vi-help
```

Then copy or download the files to your heart's content!

UNIX Q&A

Originally Compiled by Ted Timar

Submitted by Andrew Trauzzi

UNIX Q&A is a monthly column that will hopefully answer some commonly asked UNIX questions. If you have any specific UNIX questions, please submit them to Monsieur Ex via e-mail <m-ex@muug.mb.ca>

Q1: How do I get a recursive directory listing?

One of the following may do what you want:

```
ls -R          (not all versions of "ls" have -R)
find . -print  (should work everywhere)
du -a .        (shows you both the name and size)
```

If you're looking for a wildcard pattern that will match all ".c" files in this directory and below, you won't find one, but you can use

```
% some-command 'find . -name '*.c' -print'
```

"find" is a powerful program. Learn about it.

Q2: How do I get the current directory into my prompt?

It depends which shell you are using. It's easy with some shells, hard or impossible with others.

C Shell (csh):

Put this in your .cshrc — customize the prompt variable the way you want.

```
alias setprompt 'set prompt="${cwd}% "'
setprompt     # to set the initial prompt alias
cd 'chdir \!* && setprompt'
```

If you use pushd and popd, you'll also need

```
alias pushd 'pushd \!* && setprompt'
alias popd  'popd  \!* && setprompt'
```

Some C shells don't keep a $cwd variable — you can use 'pwd' instead.

If you just want the last component of the current directory in your prompt ("mail% " instead of "/usr/spool/mail% ") you can use:

```
alias setprompt 'set prompt="$cwd:t% "'
```

Some older csh's get the meaning of && and || reversed. Try doing:

```
false && echo bug
```

If it prints "bug", you need to switch && and || (and get a better version of csh.)

Bourne Shell (sh):

If you have a newer version of the Bourne Shell (SVR2 or newer) you can use a shell function to make your own command, "xcd" say:

```
xcd() { cd $* ; PS1="'pwd' $ "; }
```

If you have an older Bourne shell, it's complicated but not impossible. Here's one way;

Add this to your .profile file:

```
LOGIN_SHELL=$$ export LOGIN_SHELL
CMDFILE=/tmp/cd.$$export CMDFILE
# 16 is SIGURG, pick a signal that's not
# likely to be used
PROMPTSIG=16 export PROMPTSIG
trap '. $CMDFILE' $PROMPTSIG
```

and then put this executable script (without the indentation!), let's call it "xcd", somewhere in your PATH.

```
: xcd directory - change directory and set prompt
: by signalling the login shell to read a command file
cat >${CMDFILE?"not set"} <<EOF
cd $1
PS1="\'pwd\'$ "
EOF
kill -${PROMPTSIG?"not set"} ${LOGIN_SHELL?"not set"}
```

Now change directories with "xcd /some/dir".

Korn Shell (ksh):

Put this in your .profile file:

```
PS1='$PWD $ '
```

If you just want the last component of the directory, use

```
PS1='${PWD##*/} $ '
```

TC shell (tcsh):

Tcsh is a popular enhanced version of csh with some extra built-in variables (and many other features):

```
%~          the current directory, using ~ for $HOME
%/          the full pathname of the current directory
%c or %.    the trailing component of the current directory
```

so you can do

```
set prompt='%~ '
```

BASH (FSF's "Bourne Again SHell"):

\w in $PS1 gives the full pathname of the current directory, with ~ expansion for $HOME;

\W gives the basename of the current directory. So, in addition to the above sh and ksh solutions, you could use

```
PS1='\w $ '     or     PS1='\W $ '
```

Q3: How do I read characters from the terminal in a shell script?

In sh, use read. It is most common to use a loop like

```
while read line
do
        ...
done
```

In csh, use $< like this:

```
while ( 1 )
set line = "$<"
if ( "$line" == "" ) break
...
end
```

Unfortunately csh has no way of distinguishing between a blank line and an end-of-file.

If you're using sh and want to read a *single* character from the terminal, you can try something like

```
echo -n "Enter a character: "
stty cbreak       # or  stty raw
readchar='dd if=/dev/tty bs=1 count=1 2>/dev/null'
stty -cbreak
echo "Thank you for typing a $readchar ."
```

Next month we will look at some strange attempts at renaming files, and remote shell errors. If you have any comments, or other methods of solving the problems shown here, mail <editor@muug.mb.ca>.

GNU Review

By Peter Graham

Hi again. Well after last month's column I guess everyone knows why I'm still a PhD student. Just can't meet those deadlines!! ;-)

If this column goes a little weird, you'll have to forgive me. Thursday night at 10:00 I decided that I should write a paper for a conference whose submission date is Monday (I'm writing this Sunday night at 6:30). Well, by Saturday at about 2:30 I was done and sent it off to my advisor for final touch-ups. This morning, having nothing to do (Ha Ha!) I decided that I could really get a second paper out to that conference (in another stream). So I spent all day until about an hour ago finishing up a paper I wrote the bulk of this summer. Phew! Finished at last! — Only to discover that the deadline for submission to MUUG Lines was today. Arghhh! You get the idea.

Well, I thought that I might port the Fax package to run on my machine, but alas, there is no time and I don't really have the need. Besides, judging by Rennie Allen's article in the last newsletter he's already done it. Care to do a guest column Rennie? Failing that and given the current hype about openness and interoperability, I thought I'd pull back the mtools package (DOS disk compatibility) and install that. Its a little package that I find quite useful even though I don't own a PC. Hope you all find mtools a plus as well. Here we go...

mtools Compatibility

The obvious question to ask is: "So just what does this mtools thing do for you anyway?". Well, the answer comes right in the 'Readme' file:
The following MSDOS commands are emulated:

Mtool	MSDOS Name Equivalent	Description
mattrib	ATTRIB	change MSDOS file attribute flags
mcd	CD	change MSDOS directory
mcopy	COPY	copy MSDOS files to/from Unix
mdel	DEL/ERASE	delete an MSDOS file
mdir	DIR	display an MSDOS directory
mformat	FORMAT	add MSDOS filesystem to a low-level format
mlabel	LABEL	make an MSDOS volume label.
mmd	MD/MKDIR	make an MSDOS subdirectory
mrd	RD/RMDIR	remove an MSDOS subdirectory
mread	COPY	low level read (copy) an MSDOS file to Unix
mren	REN/RENAME	rename an existing MSDOS file
mtype	TYPE	display contents of an MSDOS file
mwrite	COPY	low level write (copy) a Unix file to MSDOS

mtools Installation

The mtools package, although distributed with the other Gnu software did not start out as a part of the Gnu project, (after all it's not a replacement for an existing part of Unix) but was adopted by it. For this reason, the installation process is a little bit different than the "standard." In particular, don't try to execute the file 'Configure' since this is the installation instructions, not an automatic configuration script. :-) Despite this, the installation process is quite straightforward. There is basically just a little bit of file tweaking and then a "make" and a "make install". The package comes all setup with support for a variety of Unix systems and instructions on how to port it to other machines (a very simple process if you know a bit about the relevant disk geometry). The mtools package doesn't come with a low level format routine. Instead it depends on the one provided by your operating system. On the machines I have used, this is usually called fdformat. If that doesn't work on your machine, there is always "apropos floppy". Good luck! Though I doubt you will need it.

mtools Summary

Name ..... mtools
Description ..... read/write/format/etc. DOS disks on your workstation.
Archive Loc'n ..... `prep.ai.mit.edu:/pub/gnu/mtools-2.0.7.tar.gz`
Archive size ..... 39742 bytes
Approx Space to Install 400KB
Time to Install (Sparc-1) ..... less than 5 minutes
Pros .....
- Free, small, and easy to install.
- Great for quick and dirty transfers between your PC and workstation.
- I also use this for paranoia attacks — "Quick, I just wrote 20 pages on a machine without regular backups. Stick it on a floppy!!!"
- Good for limited file transfers between workstations with different floppy formats (e.g. Sparc and DEC stations).
- Can also be used with a hard disk partition.
- Comes with 'man' pages.

Cons .....
- Restricted to the disk size/density on your workstation's floppy. (In my case 3.5", 1.44MB.)
- When used for file transfers, you have to live with the DOS naming limitations.

Catch you all next time. Remember, I take requests at `pgraham@cs.umanitoba.ca` (and donations in the back alley ;->).

THE FORTUNE FILE

Submitted By Gilles Detillieux

Reprinted From the Feb. 1994 issue of UnixWorld's Open Computing

How Client-Server Computing Is Like Teenage Sex:

- It is on everybody's mind all the time.
- Everyone talks about it all the time.
- Everyone thinks everyone else is doing it.
- Almost no one is really doing it.
- The few who are doing it are:
  - — Doing it poorly.
  - — Sure it will be better next time.
  - — Not practicing it safely.

SIG Sideline

By Brad West, SIG Coordinator

There was a fairly good turnout, despite the extreme cold. We continued with the round table format, since there was no specific presentation on the agenda. The discussions centered mainly on Linux. The main topic was on the new distribution of Linux through Slackware. The Slackware distribution is the *only* release officially recommend by J.R. Bob Dobbs. It is a full-feature distribution of the operating system design for 386/486 computers with 3.5" floppy. The distribution contains 14 disks for the base system and utilities plus 22 disks for all X-windows and other options.

Greg Moeller will be generously making up a 3.5" diskette set of the new Linux Slackware Distribution, which will be ver. 0.99 patch level 13. The SLS release is no longer available on MONA. The new Slackware version will be put on MONA as soon as disk space is available. Also discussed were the new manuals coming available for Linux. Most are available though FTP on the net.

Real-Time SIG

There has been an interest in starting a new Real Time SIG. If anyone is interested and would like to sign up, or wishes more information you can contact Rennie Allen. He can be contacted by phone at 955-3593 or by e-mail at `rgallen@muug.mb.ca`.

We are planning an overview of Sendmail at our next meeting. Greg is bringing his luggable Linux PC to aid in the demonstration. The next meeting is scheduled for Tuesday, February 15, at 7:30 PM. This meeting will again be held at ISM, 400 Ellice Avenue, behind Portage Place. Our host is Wolfgang von Thuelen. He will be waiting in the lobby as of 7:15 PM to let everyone in. We'll see you at the meeting.

Agenda

for

Tuesday, January 11, 1993, 7:30 PM
Samuel N. Cohen Auditorium
St-Boniface Hospital Research Centre
Main Floor, 351 Taché

1.	President's Welcome	7:30
3.	Business Meeting a) Old Business b) New Business	7:35
5.	Presented Topic Is the Internet Ready for Business? Presented by Smoot Carl-Mitchell	7:45
4.	Coffee Break and Informal Discussion	9:00

Note: Please try to arrive at the meeting between 7:15 and 7:30, to avoid disrupting the meeting in progress.

Note that meetings will now follow the new agenda as outlined above. Hopefully, this new format will give people the chance to chat with the speaker after the presentation. Round table questions may be addressed to Monsieur Ex (see below for details).

MEETINGS

Is the Internet Ready for Business?

By Roland Schneider

This month's speaker will be Smoot Carl-Mitchell of Texas Internet Consulting. Here is a short synopsis of his presentation.

With all the talk about the "Information Highway", 500 TV channels, tele-commuting, and the phenomenon of Freenets, the Internet has become a hot media topic right across the country. Unfortunately, the things we hear about most often, online accounts of banned court proceedings, hackers, global weather reports, and computer romances, aren't likely to convince the people who sign the cheques to authorize a connection.

And yet, many major corporations, and certainly all the computer manufacturers, use the net extensively. Why? What do they use the net for, and how does it help them? And how do they address valid concerns about security? These questions are the topic of this month's meeting. The answers will let you determine whether a connection is in the best interests of your company, and will help you persuade your partners or you boss to connect to the Internet.

Smoot Carl-Mitchell is Managing Partner in Texas Internet Consulting (TIC), which consults in networks and open systems, with particular emphasis on TCP/IP networks, UNIX systems and standards. He is the principal author of *Practical Internetworking with TCP/IP and UNIX*, and is coauthor of *The Internet Connection: System Connectivity and Configuration*. He is also President of Matrix Information and Directory Services, Inc., of Austin.

Coming Up

Meeting:
Next month's meeting is scheduled for Tuesday, March 8, at 7:30 PM. Meeting location will be the St-Boniface Research Centre, as usual. The March meeting topic is the PowerPC. Stay tuned for details.

Got any ideas for meeting topics? Any particular speaker, company, or product you'd like to see at one of our meetings? Just let our new meeting coordinator, Roland Schneider, know. You can e-mail him at <rsch@muug.mb.ca>.

Newsletter:
If you are interested in a particular topic, let me know. I'm sure I could coerce you into writing an article! I could use a few articles — especially shorter ones — half a page to one page (400 to 1000 words) would be fine.

Monsieur Ex has also let me know that his mail-box has room for more of your wonderful queries again – please submit your questions to the old guy via e-mail to <m-ex@muug.mb.ca>. He may be old, but he's not ready for retirement yet!