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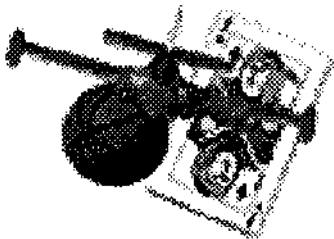


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SIXTEEN BITS (ISSN 8017-0991)
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PO Box 42
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Australia

We welcome submissions of articles from members of the Group. If you are interested in writing please contact the Managing Editor and ask for a copy of our '*SIXTEEN BITS - Guidelines for Authors*' (also available on the BBS in General file area (1) as AUTHORS.TXT).

Correspondence and material for review or publication should be forwarded, preferably as a plain text file with separate PCX/BMP graphic files, by the deadline specified, to the Editor as follows:

- By email to pcug.editor@pcug.org.au
- By BBS file - upload to the *Articles for 16Bits* file area (30) of the PCUG Bulletin Board on (06) 253 4933
- By BBS mail - leave a message in the *PCUG Editor* message area
- By fax to (06) 253 4922 (100 words or less)
- By mail to above address (100 words or less)

Anonymous contributions will not be published, though name and address can be withheld from publication on request. Disks are not returned unless requested by the author.

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Articles from *SIXTEEN BITS* are also published on the 'net as *Sixteen Bits Online* at <http://www.pcug.org.au/pcug/16bits/> and extracts are read on Radio 1RPH (1125AM) Thursdays 10.45am & 9.45pm.

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Deadlines For June '97 Issue

Articles and Member Ads
Friday 30 May 1997
Commercial Ads
Friday 6 June 1997

Advertising in *SIXTEEN BITS*

SIXTEEN BITS is a unique and powerful medium for reaching the thoughtful decision makers in the ACT area. Our circulation exceeds 3500 copies each month, with multiple readership exceeding 4800. Many copies are retained by members for future reference. The advertising deadline is normally the first Friday of the month of publication.

Advertising options include

- Cover ads
- Display ads
- Special inserts
- One-off mailing lists

Regular advertisers receive discount vouchers to pay for any future advertising with *SIXTEEN BITS* (subject to account being in order). Every 12th consecutive ad placed is free. Please contact the Advertising Manager, Ken Livingston, on (06) 282 2536 for further information.

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SIXTEEN BITS

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Editor's Desk Top

Darrell Burkey, Managing Editor

Good news! Several members have offered their assistance in producing our journal and Tamsin Sowden, who joined us as Assistant Editor a few months ago, has bravely stepped forward to become our next editor. Tamsin has experience in this area and a lot of energy so we are most fortunate to have her leading the editorial team.

Having led the editorial team for the past fourteen months, I have come to the conclusion that producing a magazine of this size and quality is a bit much to ask of a volunteer in their 'spare' time. I have found the position of Editor both challenging and rewarding but far too time consuming and it has often times interfered with other responsibilities. One of my personal goals was to use the technology available to us to create templates and spread the workload as much as possible which I think has been achieved. However, producing

a publication to the level that members have indicated to me that they want requires a lot of time and someone willing to be responsible in managing a tremendous amount of details without missing a beat, or a deadline.

It's easy to not think about how *Sixteen Bits* gets produced when it simply shows up each month and you don't hear about what happens behind the scenes. I would like to encourage the committee that you elected to have a closer look at what it takes to ensure that our journal shows up in your post box on time each month. As for the rest of us, let's get in there and give our new editorial team the most that we can in the way of support and assistance so that *Sixteen Bits* can get even better.

On a more positive note, I would like to thank all those people who *have* given

freely of their time and skills to make our journal the fabulous group effort that it is. When I stop and think about all the time and energy that authors, editorial team members and volunteers have put into this project over the past twelve years, I am simply amazed and extremely impressed. What a fantastic example of community spirit. If we keep this up there is no telling how much we can achieve together.

There have been a few comments this last month about the difficulty of using Adobe Acrobat to view *Sixteen Bits Online*. It certainly does require some effort to install the free reader (which is over 3megs) and some of the file sizes have been large as we learn to use the software. Not to mention that the current version of some browser software simply does not work with these files. The use of Acrobat does deliver real



President's Letter

Ann Byrne, President

Jim Hume's letter to the Editor last month quoted part of a reply to a letter to him from the Committee, I'm sorry Jim interpreted the response to read that we felt it was time for him to resign. That was not our intention at all. The Committee is acutely aware of the value of our volunteers. The Editorial team will miss you Jim, but our thanks for all of your hard work from us all.

We are still seeking a nominee for Treasurer for the Group to take over from Hugh Alston in September. The Committee is moving towards making this position more of an overseeing one, rather than being involved with entering data etc. If you have an interest in this area please get in touch with us.

The Committee has agreed to the purchase of two zip backup drives to be placed in the hardware library for members' use. David Schwabe is updating the hardware library and disposing of outdated equipment. Old 2400 and 9600 baud modems have been disposed

of and 28.8 bps modems are now available for loan. If you have any suggestions for additions to our hardware library please let us know.

As this is Darrell Burkey's last issue as Editor of *Sixteen Bits*, on behalf of the Committee and the membership I would like to extend a huge thank you to him for all the hard work he has put in over the past twelve months. The time and effort put in by Darrell has been enormous, and while some of the improvements are not visible in the magazine it had made the monthly input into the magazine a lot easier. Great job Darrell.

This seems an opportune time to welcome Tamsin Sowden aboard as the new Editor of *Sixteen Bits*. Tamsin has been working with Darrell recently so we hope the transition to the Editors position will not be too traumatic.

March Committee Meeting

Mike Gellard advised that he had met with Paul Balnaves and Paul would be retiring as Training Coordinator. David Schwabe expressed an interest in taking on the role. The Committee agreed he should liaise with Paul.

It was agreed that someone should organise the installation of shelving in the training room cupboard and hang the overhead projector.

Ken Livingston advised that he had been appointed on behalf of the Group to the ACT Government's Online Services Advisory Group. Ken also reported a meeting with John Dunn to discuss the upcoming membership survey.

Efforts should be made to recognise volunteers and ideas are being sought.

The Committee noted formally that a Letter of Resignation to the Committee had been received from Emil Joseph.

benefits, one of the greatest being that the editorial team does not have to create virtually two complete magazines, one on paper and one for online viewing. Given the limited time we have to produce the magazine this is a crucial factor. If there are members out there that are HTML enthusiasts to the point that they want to volunteer a lot of time to convert the magazine each month and members really want this, please let us know. You may have noticed that in the past our efforts in this area have been rather incomplete.

And so I say goodbye for now with my best wishes for the new editorial team members. From now on, I'll be grabbing a cuppa and curling up in front of the heater to enjoy my copy of the magazine. Hopefully, you will be doing the same.



Mike Gellard noted that "Capital Computing" on Radio IRPH was approaching its first year anniversary.

Financial report for March 1997

Opening Balance (Inc. TIP)	\$220,536
Income	
PCUG	\$13,654
TIP	\$57,935
Expenditure	
PCUG	\$21,778
TIP	\$ 1,672
Presented cheques	\$ 282
Unpresented cheques	\$ 828
Closing Balance (Inc. Tip)	\$228,055



Letters



Dear Editor,

Just some feedback on the Internet "Advanced Access" fees and the "Token" system in use.

This is not a complaint. I have been a member of the PCUG Users Group for few years and I was one of the first to join the Internet "Brigade". I like the ways issues are approached and solved using whatever resources are available. The Internet project has come a long way since the humble beginnings thanks to the dedicated works of volunteers.

At \$120.00 for 300 token hours,"Advanced Access" might sound cheap, but it is not so when the "connection" is for more then 1 hour at a time and fees from some other Internet Providers are considered.

I use the Internet daily and because of the low, so it seems, D/Loading speed, most of the time my the total Internet

connection time is above the 1 hour mark. Therefore because of the "Token" system in use, the total cost of the connection could be seen as not that cheap in comparison to what some other "Providers" are advertising.

Why is the "Token" system still in use? It was a very good idea at the beginning when resources were scarce but now? I have had no problems, since the move from Fyshwick, connecting at the first "go" even during "peak hours" and at the highest speed provided by my Modem (28.8 Kb).

Could some sort of "time slots" be considered? That is, use the "Token" system only during "peak hours".

No, I have not used any other "Providers" as yet and I have just purchased \$120.00 of "Token" time.

Regards
D Valenti

Meet The Committee

Committee members can be found at most PCUG functions but are also available the third Saturday of each month from 2-4pm at the PCUG Centre. This time has been set aside specifically for members to have an opportunity to meet committee members and discuss any issues or answer any questions members may have. See you there.

PCUG Committee

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Membership Secretary	Mike Burke <i>pcug.membership@pcug.org.au</i>	

The phone numbers listed above are home numbers unless otherwise specified. **Please restrict calls to between 7.30pm and 9.00pm.**

How To Make Contact

✉ **Postal address**
PO Box 42
Belconnen ACT 2616
(For **ALL** correspondence)

☺ **PC Users Group Centre**
Northpoint Plaza, Belconnen
Open Mon, Wed and Fri 10am-2pm
Saturdays and Sundays 9am-5pm
(closed long weekends)

The PCUG Centre is the venue for PCUG training, some Special Interest Group meetings and other activities. There is no charge for using the Centre for *PCUG activities*. Contact Petra Dwyer at the PCUG Centre on (06) 253 4911 for bookings.

☎ **PCUG Main Phone number**
(06) 253 4911
(Answering machine when Centre unattended)

📠 **Fax number**
(06) 253 4922

✉ **Email**
pcug@pcug.org.au (or use addresses at left)

🖨 **The INTERNET Project**
(06) 206 6200 *help@pcug.org.au*

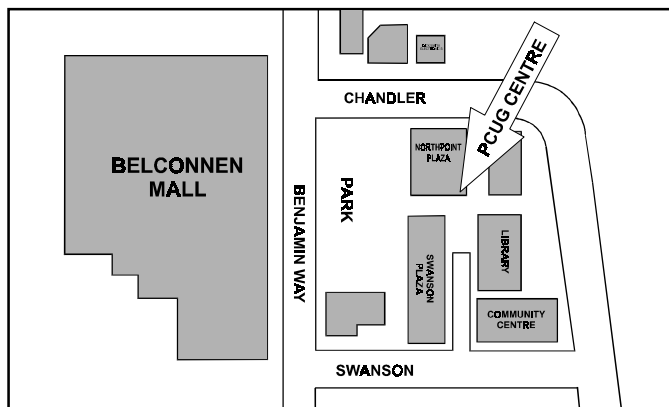
🌐 **World Wide Web page**
<http://www.pcug.org.au/pcug/>

💻 **Bulletin Board Service (BBS)**
(06) 253 4933 (5 lines 33.6k bbs)
Fidonet address 3:620/243

☎ **BBS Sysop voice number**
(06) 253 4966 (6.00pm - 9.00pm)

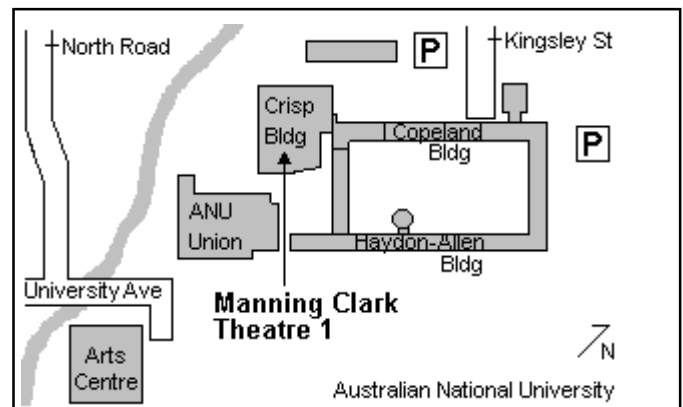
New Members Information Night

7.30pm *first* Monday of the month PC Users Group Centre, Northpoint Plaza Belconnen.



Main Meeting

Main meetings are held 7.00pm for 7.30pm, *usually* on the last Monday of every month at Manning Clark Theatre 1, Crisp Building Australian National University.



Membership Notes



by Mike Burke
Membership Secretary



Welcome to new members reading SIXTEEN BITS for the first time and welcome to the PC Users Group.

Continuing members should also check this column regularly because I am sure that there will be some little surprises from time to time, even for the most jaded of old hands.

If your PCUG membership expires at the end of June 1997
RENEW NOW
to avoid losing access to
The Internet Project.

Membership Card

Your membership card will be mailed to you as soon as possible after your application for membership, or renewal, has been processed. This will normally occur within one week of your receipt of your first issue of SIXTEEN BITS. Please be patient, however. There is only one print run of mailing and membership labels every month, and this normally occurs over the weekend immediately before the SIXTEEN BITS stuffing day (normally the third Monday in the month).

Normally, membership cards and disks will be dispatched on the third Monday.

If you lose your card, please leave a message with the Executive Secretary on 253 4911, or contact me directly via TIP at pcug.membership@pcug.org.au.

Information Disk

New members should also receive a disk containing information about the Group and its services. Please read the information on the disk carefully as you will find the answers to most of your questions there.

New Members' Information Night

New members are especially urged to attend a New Members' Information Night which is normally held at 7.30pm on the first Monday of the month (except January) at the PC Users Group Centre (see map page 6). These meetings are opportunities for new and 'older' members (who are always welcome to attend) to meet with representatives of the Committee, to put names to faces, and to ask any questions that you may have about the Group and its activities. Tea and coffee are available, and the atmosphere is informal and friendly.

Main Meetings

Our main meetings, targeted at our general membership, are normally held monthly, on the last Monday of the month. The date, venue and topic of the meeting always appear on the front cover of SIXTEEN BITS which is timed to arrive in your mail-box in the middle of the week before the next main meeting.

Main meetings are also advertised in the computing section of the Canberra Times on the day of the meeting. Anyone is welcome to attend these meetings—you do not need to be a member. For main meetings, we arrange guest speakers on a variety of topics throughout the year. As an added incentive, there are usually a couple of door prizes to be won. You've got to be in it to win it.

There is no main meeting in December.

Special Events

We also have some special events such as the 'Bring and Buy Night' at the Albert Hall in November, and an annual Quiz Night in April. You should read SIXTEEN BITS thoroughly as special events are publicised mainly through the magazine.

Annual General Meeting

The Annual General Meeting is held in September each year. Even if you are unable to attend Main Meetings regularly, members should make every effort to attend this Meeting at which office bearers for the ensuing 12 months are elected.

The 'Rules' and Other Good Stuff

Please remember that TIP access is dependent on your continuing PCUG membership, and that it takes time to process your membership renewal - currently up to two weeks. We are looking at ways to reduce this time, but the best solution is for you to remember to renew early.

Members, particularly TIP users, whose PCUG membership expires at the end of the month stated in the above box should renew their PCUG membership immediately. Do not delay because your TIP access will automatically be cut off at midnight on the last day of the month unless your renewal has been processed. In addition to the above reminder, I have had positive response from various members about the highlighted warnings on the Sixteen Bits mailing labels. Consensus seems to be that more than one month's warning is too much so only the "One Month To Go" and "Renew Now" warnings will be highlighted.

It's time for a long overdue 'thank you' to John Carroll and Kim Saunders who have been of immeasurable help to me in this job. The Windows Help files on the New Members' Disk are Kim's work, based on John's earlier efforts.

Next New Members' Night
2 June 1997
7.30pm
PCUG Centre
Northpoint Plaza, Belconnen

Linux at home

by Peter Kostouros

Reprinted from Melbourne PC Users Group
March 1997 PC Update

Linux is a free (see panel) independent implementation of UNIX for Intel's i386 processor. Initially written by Linus Torvalds as a student project in the early 1990s, Linux has developed, through international collaborative effort, into an operating system that has industrial, academic, and government application.

Linux has many features expected from a modern operating system: multitasking, multiuser, networking, advanced memory management, virtual memory, dynamic libraries, POSIX compliance, and support for many hardware devices. I first heard of Linux several years ago, and what appealed to me was that it could coexist with MS-Windows. This article describes how I installed Linux and its accompanying software, and how I use it at home for most of my computing.

Linux distributions

Linux requires many utilities (such as files, libraries, and programs) to run. Several people and companies have organised these utilities and complementary Linux software into distributions that make for easy installation. Some popular Linux distributions include Slackware, RedHat, and Debian, and are available at many Internet sites or on CD-ROMs. Infomagic's Linux Developer's Resource is a six disc set with several Linux distributions and a collection of Linux, UNIX, and X software.

From the GNU General Public License, which covers Linux

"When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things."

I will be referring to the April 1996 Linux Developer's Resource and the Slackware 3.0 distribution in this article.

Installation

Before Linux, my UNIX experience was limited to running UNIX applications and basic UNIX file management. I thought UNIX installation and system and network administration was for experts. My attitude changed when I was prepared to go where there be dragons.

The hardware and installation notes describe Linux requirements and loading options: a typical IBM PC i386 clone with 4 MB RAM and 40-80 MB of free hard disk space is sufficient, and can be loaded to an

"I thought UNIX installation and system and network administration was for experts. My attitude changed when I was prepared to go where there be dragons."

MS-DOS directory, for example, C:\LINUX, another partition, another drive, or run from the CD-ROM (with minimal installation on the hard disk). I chose to install Linux onto my second drive.

A pair of Linux installation disks must be created to boot Linux from and then proceed to install the Slackware distribution. The installation disks, boot kernel and root disk, can be created from MS-Windows by lininst, MS-DOS, or another UNIX system. Once I had the installation disks (created with lininst), I inserted the boot kernel disk into the floppy drive and safely restarted the computer.

The system began in text mode and after a while it presented a "boot:" prompt. At this stage, entries such as SCSI controller IRQ and address, may be given to force hardware detection, just in case Linux probing misses some gear; there are documents and examples describing many entries accepted by Linux for hardware detection. I hit the return key as I had nothing to enter; Linux began to boot. When the

system boots, Linux prompts the user to replace the boot disk with the root disk in the floppy drive, and hit the return key. Once Linux completed its boot/root process, it presented a login prompt; I logged in as "root".

The first thing I did was prepare the hard disk. I created four partitions using (Linux's) fdisk: the partitions were to hold the

- System files 32 MB
- Program files 380 MB
- User files 55 MB
- Swap drive 32 MB

I created these partitions to separate system files from user files. I found out later that if the system files are on a separate partition, it is easier to fix the file system should it break into pieces (crash).

Once the hard disk was ready, I began the main installation with setup, which is a text-based, menu-driven program that automates the install process. It

- Performs pre-installation (disk formatting, sets up destination directories, makes MS-DOS directories visible to Linux)
- Loads software
- Configures the system and network.

The Slackware distribution comes as disk sets and includes

- The base system (programs to get a Linux system running)
- Applications (editors and online manuals)
- Program development tools, networking software (news and mail readers)
- TeX (typesetting software)
- X (graphical user environment)
- X development tools and applications
- Games

(continued page 10...)

interact

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A complete installation requires about 200 MB. The CD-ROM installation took about an hour and transformed my PC into a UNIX workstation.

A UNIX workstation? Well you might ask. A workstation, from a PC perspective, is a high-end system usually with the tag “Sun” or “Silicon Graphics” attached. Since some people have observed that their Linux/PC systems outperform certain workstations (worth tens of thousands of dollars), I can make some claims.

Running Linux

There are several ways to boot Linux. I installed LILO, a boot loader, and organised it to load either Linux or MS-Windows95; the selection is made at boot time.

The super-user of the system is “root” who has unlimited privileges. On my system, root’s responsibilities include system maintenance, (un)installing software, and establishing Internet connections. Although I am the only user of the system, hence the super-user, I set up another account, peter, from which I do ordinary work (that is, no system administration). An ordinary user (peter) does not have unlimited privileges. Although users can be given super-user privileges, in which case they can access normally inaccessible areas, it is not advisable. Warning: this can lead to irreversible damage.

Since Linux is multitasking and multi user, my system can have many users on it simultaneously (say root and peter) and I (as “peter” and “root”) can switch between login sessions using hot-key combinations. For example, if, as “root” (that is me), I am installing software that is taking a while to load, I can switch to another login session, where “peter” (that is me, again) can log on and read the latest news.

Linux can access MS-DOS partitions so I have access to my MS-DOS data and can copy files to and from my Linux partitions. Linux, in its file hierarchy, sees the MS-DOS partitions as ordinary directories: I can switch to MS-DOS C drive by issuing “cd /dosC” (note the forward slash delimits directories in UNIX). Linux also has an MS-DOS emulator, dosemu, that enables some MS-DOS programs to run from Linux.

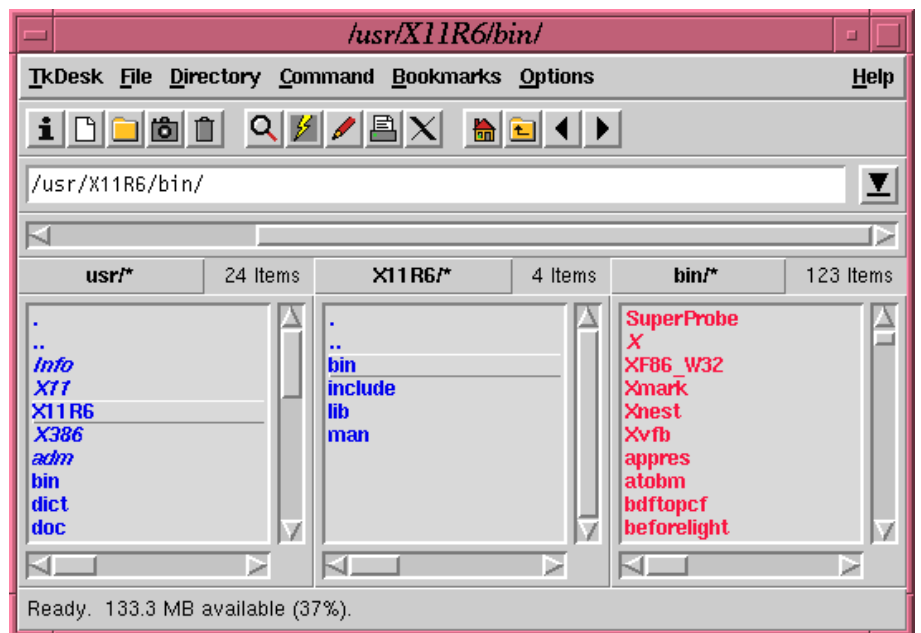


Fig 1. TkDesk, a file manager, running in the fvwm window manager.

Although many programs are text based, Linux also runs a graphical environment, X.

The X window system (X)

X is a network transparent window system. Basically, X is a program that sits on top of Linux where it offers a graphical window environment. X has many programs written for it—mostly in the spirit of Linux contributed—such as

- Window managers (fvwm, olvwm)
- File managers (TkDesk, xfm)
- Graphics, rendering and image processing programs (Xpaint, zgv, BMRT, XV, Khoros)
- Word processors (ez, Xemacs)
- News and mail readers (GNUs, Xmail)
- WWW browsers (Navigator)
- Scientific programs (Octave)

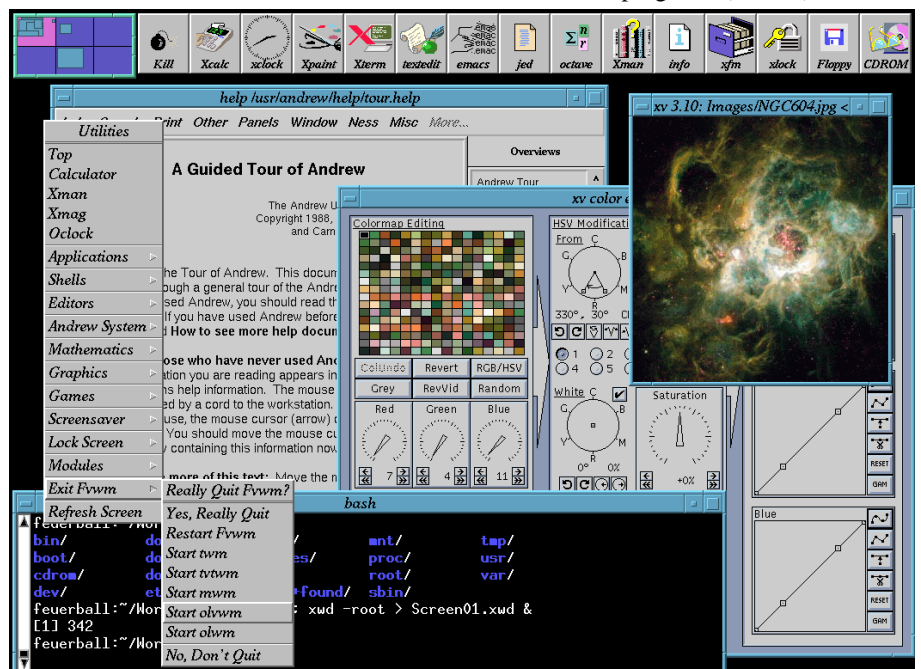


Figure 2. Partial screen shot of an X session. Top left corner window shows the virtual desktops.

(continued page 12...)

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Many text-based programs can be run from xterm, a terminal emulator. The Slackware distribution has a collection of popular X programs; most X applications are on the accompanying CD-ROMs or can be downloaded from the Internet. There are commercial packages for Linux/X too, such as WordPerfect, StarOffice, and Mathematica.

Window managers provide styles for windows (Figure 1) and multiple virtual desktops (Figure 2). A desktop is a work area that can be larger than the physical screen: my desktop size is 1600 x 1200 (my monitor's resolution is 1024 x 768 pixels). I have six virtual desktops so I do not clutter my workspace with overlapping windows and minimised windows. Window managers are also configurable and can give windows and applications a familiar look.

X applications are referred to as clients and may be running on the same machine as the X server or on another. For example, I ran and interacted with a demonstration GUI program—the Andrew User Interface System (Andrew), an integrated suite of programs featuring a wordprocessor, a spreadsheet, and drawing programs—from the US that was on an RS/6000 running AIX 3.2.5. No software installation was done at my end.

Although Linux can run with about 2 MB RAM, I found that when running X with 8 MB RAM there was a lot of paging (the swap file was used regularly). When I upgraded to 16 MB RAM (and to an i486), X worked well with some xterms running; programs began to slow (due to paging) when I ran several memory hungry applications, such as a combination of gcc, Geomview, or ObjectBuilder. With 32 MB RAM I run several applications (xterms, Navigator, and Andrew) without the system using virtual memory.

Upgrading

Linux kernels are released regularly over the Internet, sometimes, a few minor revisions a week. The kernel is the heart of an (UNIX) operating system: its responsibilities include handling tasks, the file system, and security. Upgrading a kernel involves getting the

version you want (as source code), compiling it (by issuing “make mrproper; make config; make dep; make zImage”) and installing it. As my confidence and familiarity with Linux grew, I began to create custom kernels: kernels tuned for my system. The Linux kernels supplied on the installation disks support a lot of hardware. Obviously, I did not require all the support (for example, I have no Ethernet), so I trimmed off the fat. The trimming is done during the “make config” stage. Note, newer kernels may require some libraries and programs to be upgraded too.

There are several ways of upgrading the Slackware distribution. I found the simplest was to back up my configuration files and the utilities I wrote, and format the partitions containing the system files and program files, kind of getting a fresh start. The user's directory (/home) remains unaltered as it is on a partition not to be formatted. Once I installed the new distribution, I set up the user accounts, loaded the backup files, and over time, reloaded programs and application suites.

Connecting to the Internet

To connect to the Internet I created a kernel with PPP support and installed a suite of supporting PPP programs. Initially I connected using minicom, a communications program, and manually answering the login and password prompts. When Melb PC (my ISP) offered Password Authentication Protocol logins (PAP), I posted a message to a Melb PC newsgroup

requesting PAP information. Sure enough, I was directed to the Linux specific PAP set up notes at the Melb PC web site. Once I created some preliminary files using the Melb PC PAP notes as a guide, and set up access permissions to them (for security), I now just issue “pppd &” to connect.

Availability

I bought the April 1996 LINUX Developer's Resource CD-ROM for \$39.95 from Pacific MicroLabs Computer Centre a few months ago, and have since seen the latest version (December 1996) for \$27.00 (plus postage and handling) from Cetus Technology (www.zip.com.au/~lychan). The Developer's Resource CD-ROM has the Slackware, Debian, and Red Hat distributions, several commercial demonstration applications, and plenty of supplementary Linux/UNIX/X software.

As mentioned earlier, a distribution (or partial distribution) can also be downloaded from various sites, for example, sunsite.anu.edu.au/pub/linux. A complete download is usually prohibitive: 115 MB for Slackware. If you decide on a partial distribution, the distribution's readme or installation files indicate which files are required.

Conclusion

Linux is an operating system that turns the PC into a UNIX workstation, and with X, gives a familiar graphical window environment. Installing and setting up Linux for the home is easy, even for a novice. There may be some difficulties setting up a network, configuring X, or setting up mail or news readers, however, most problems can be overcome by reading the howto documents or posting to the relevant news groups. And, as you may recall, Linux is free.

About the author

When not computing, Peter enjoys test cricket, foreign films, and reading the classics.



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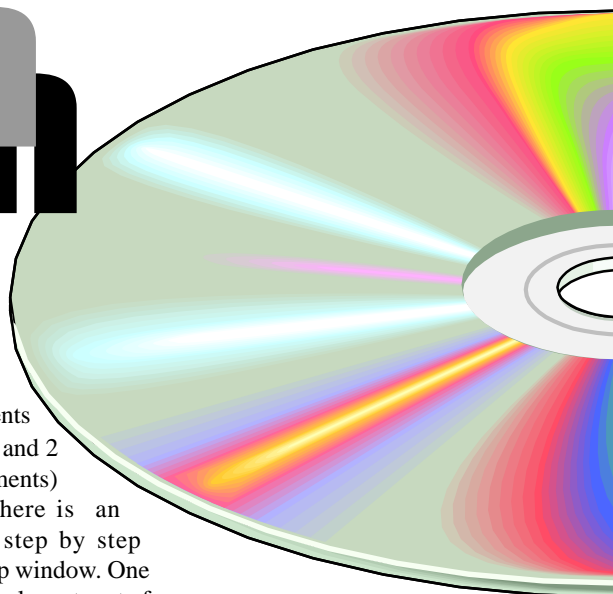
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CD ROM

By Nick Thomson



Readers of my article last month about the establishment of InfoRom, a site on the Internet, will be interested to know that we are currently getting between 2,000 and 7,000 hits a week! If you want to look at it in more detail, check www.inforom.com.au. As I mentioned last month, it features reviews of educational, home reference and edutainment CD-ROM software.

This month I have reviews of Corel ChemLab, Battles of the World and A.D.A.M. The Inside Story. For ChemLab I have included some comments from David Thompson, a secondary science teacher. Apart from David's comments, the content of the reviews is taken from InfoRom, and copyright rests with InfoRom.

Corel ChemLab

Note that the Corel CD Home range has been sold to Hoffmann & Associates, distributed in Australia by On Target software.

ChemLab is an interactive chemistry lab on CD-ROM - suitable for secondary or tertiary chemistry students and teachers. Users can 'carry out' a series of preset experiments or design their own. One clicks and drags beakers, chemicals and other tools such as burette, eyedropper and thermometer, or activates scientific tools such as an electronic scale, a hot plate or a geiger counter to carry out the experiment. The colours and sound effects are very realistic e.g. if you drop a beaker containing nitroglycerine onto the floor it will explode with a thunderous blast.

There are over 30 pre-set experiments available, involving over 30 different chemicals and a variety of scientific tools and instruments. They are organised in 5 categories:

- Physical Properties
- Acid/Base

- Kinetics
- Gas Lab
- Additional experiments (a redox experiment and 2 radioactivity experiments)

For each experiment there is an outline description, then step by step instructions in an online help window. One can also elect to jump to the relevant part of *General Chemistry* - a Houghton Mifflin textbook that is provided online, and that one can view with the assistance of Envoy (installed when you install the program). Diagram 1 is an example of the Lab screen, complete with the online help window (which I have reduced for the sake of the picture).

One can log results in a log file, and in addition there are 11 videos of actual experiments available e.g. Paramagnetism and Ammonium Dichromate Volcano. In the back of the lab there is a Periodic Table of the Elements. One can click on any element

in the table to obtain general information, formulae of compounds that contain it, or a list of its isotopes. There is also a quiz (3 levels of response speed) that tests your knowledge of element symbols and their place in the table.

Finally there is a 3-D molecule viewer. This allows you to choose from an extensive list of molecules, and then display or rotate them in a variety of directions. The different components of each molecule are displayed in different colours.

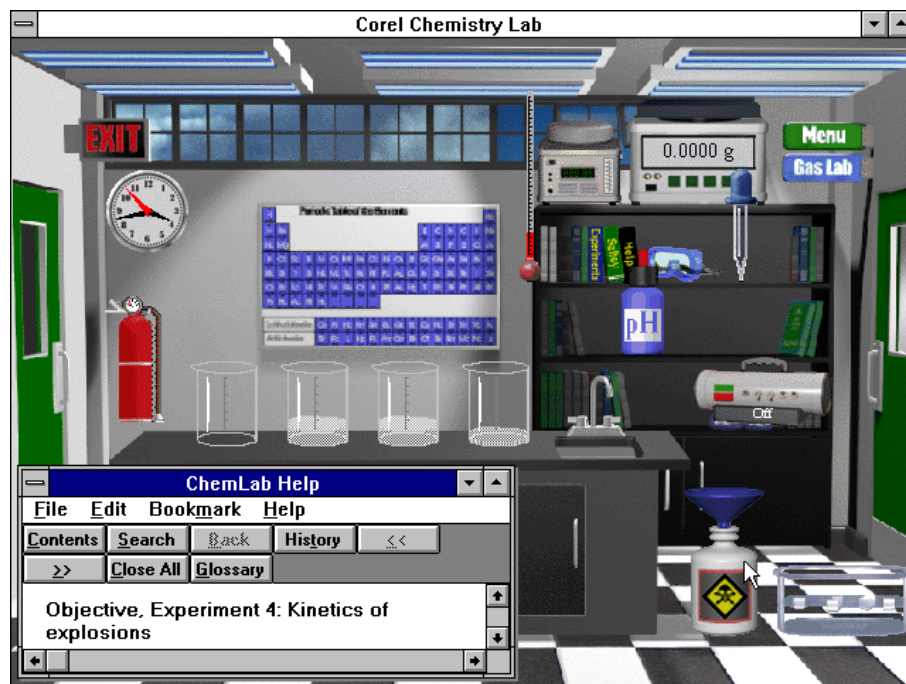
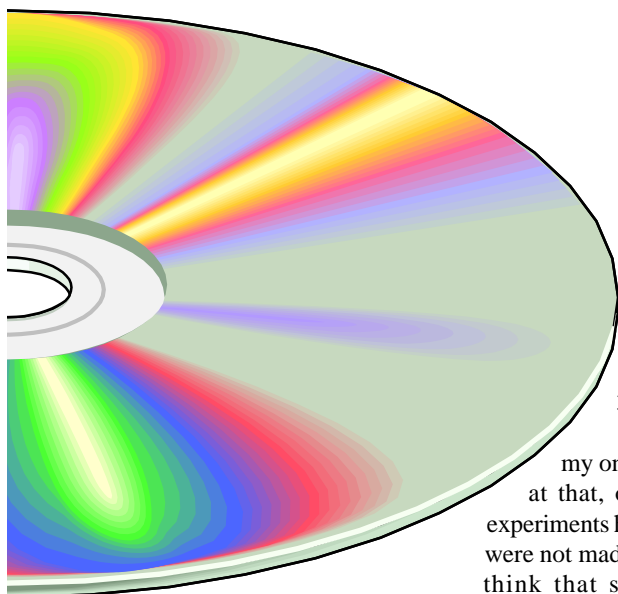


Diagram 1



There is detailed online help and a seven page user's guide that provides some outline information about the product. In addition, Experiment 1 is in fact an introductory tutorial that teaches users how to manipulate the various objects in the lab.

Educational Perspective

by David Thompson
Science Teacher at Canberra High

What this product achieves is to show the user a cross section of practical chemistry that a senior high school or college level student would encounter or need to be aware of. This product is not a stand alone activity that goes into depth on any of the topics that it deals with, neither does it aim at a particular school year, rather its function is to demonstrate a range of principles and techniques, provide the user with interactive fun and be informative.

What I liked about this product were:

- Experiments that illustrated points that would be difficult or time consuming to set up in the lab, eg. gas law experiments or titration curves.
- Video clips of good visual reactions that due to OH&S requirements could not be performed in the classroom. Some teaching staff expressed reservations about the video quality and the strong accent of the narrator.
- A comprehensive on-line textbook, *General Chemistry* by Darrell Ebbing.

- The molecule viewer which could show 3D views from any angle.

As an educational product my only criticism, and a minor one at that, of ChemLab is that the set experiments had a cook book approach and were not made relevant to every day life. I think that some discussion could be included and the user could be invited to form hypotheses.

For use in the classroom it needs teacher's notes for driving some of the activities and some suggestions I would make for running it are:

- turning off the background music;
- using realistic mode for measurements;
- using 'show all steps' option in experiments; and
- if you have a slow CD-ROM drive and a spare 40 Mb on your hard drive, copy the textbook to improve scrolling.

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Battles of the World

Battles of the World is an interactive history of war, featuring animated reenactments of ten major battles, information on the great generals of history, a comprehensive war database and an interactive timeline. There are live video introductions from 'Alexander the Great', video clips of some of the more recent battles, detailed animations and extensive narration. It is well presented and a 'must buy' for war gamers and military strategists.

The highlight of the program is in the detailed presentations of 10 of the great battles of history. They are:

- Kadesh - 1275BC (Ramses II)
- Gaugamela - 331BC (Alexander the Great)
- Alesia - 52BC (Julius Caesar)
- Kyushu - 1281 (Kublai Khan)
- Agincourt - 1415 (Henry V)
- Austerlitz - 1805 (Napoleon)
- KaiserSchlacht - 1918 (World War 1)
- Stalingrad - 1942 (World War 2)
- Tet Offensive - 1968 (Vietnam)
- Gulf War - 1991

For each battle there are detailed, step by step animations of the battle, including strategic level views of the whole battlefield as well as 'tactical level' simulations of small parts of the battle e.g. of the charioteers charging into and scattering the infantry. Diagram 2 is an example of one of these battles, complete with the 'tactical level window'.

It is also possible to access information about:

- The tactics of the two sides (explained by means of tactical level animations)
- The weapons used (e.g. videos of the Stealth bomber and Apache helicopter)
- Short biographies of the generals of both sides
- Words of war - quotes from one of the generals or key people involved in the battle
- The background and aftermath of each battle

The database contains almost 3,000 articles on military history, ranging from the times of ancient Egypt to the Gulf War, and

(continued next page...)



Diagram 2

it includes drawings and photographs as well as text. These can be copied or printed. There is also a timeline. This runs from 2750 BC to 1996, and one can jump directly from the timeline to articles about battles or historical events.

There is no user's guide, but there is online help that provides detailed coverage of all program features.

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A.D.A.M. The Inside Story

A.D.A.M. The Inside Story is a comprehensive introduction to the human body, suitable for primary and secondary students, but of interest to adults. It has three main components:

- Anatomy
- The Family Scrapbook
- Animations

The anatomy feature utilises high quality, full colour graphics to provide a very detailed look at the organs of the human

body. One can display male or female, and there is a 'modesty feature' that allows parents/teachers to cover certain parts of the male/female body with fig leaves. One can display a section of the body, then 'peel away' layer after layer to reveal views such as superficial veins, various muscle layers,

ligaments, a section view of the stomach, the epiglottis, and finally a section view of the bones. Diagram 3 is an example of the anatomy screen.

The level of detail is quite extraordinary, and one can click upon any part at any level to find out what it is and how it is pronounced. It is also possible to hold a 'magnifying glass' over an area to see it in greater detail, and one can search for and highlight structures such as the digestive system, the immune system and the reproductive system.

There is also a 3D feature that enables you to access 3D models of the heart, the lungs and the skull. Each one features a rotating three dimensional model, as well as mini animations that highlight or demonstrate the various features of each one e.g. the aorta, the trachea and the maxilla.

The Scrapbook provides a voyage through 12 body systems such as cardiovascular, skeletal and urinary. Each of the 12 chapters features narration, diagrams and detailed animations that do an excellent job of illustrating and clarifying various aspects of each body system. Each of the animations can be accessed separately via the animations menu - there are over 50 of them altogether.

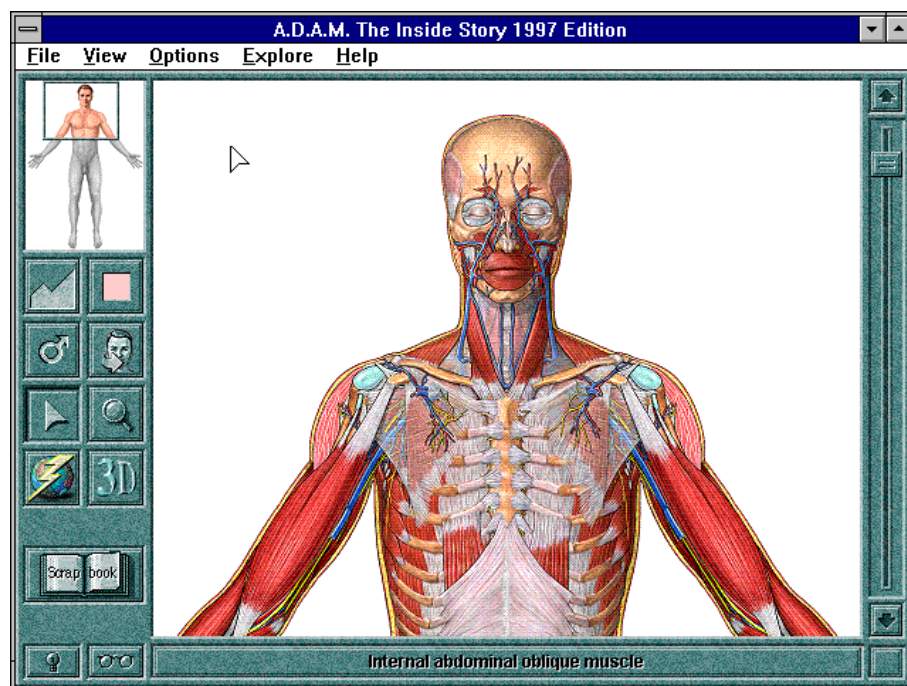


Diagram 3

There are eight educational activities e.g. put the components of the digestive system into their correct locations, and 12 quizzes on the various body systems. Both types of activity are quite easy to play, and they are suited to upper primary or secondary students.

Within the Anatomy section there is a Find feature that provides immediate access (at the appropriate cutaway level) to any part of the human body, and one can also access reference text on body systems, components, or aspects of each system eg muscular system, skeletal muscle, muscle fibers and exercise. It is possible to print, but not copy, text or illustrations. There is also a glossary of terms.

It is possible to access The Inside Story 1997 Internet site from within the program - this provides updated product content (that can be downloaded), access to A.D.A.M.'s Medical Directory of over 100 medical and health-related Web sites, and information about other A.D.A.M. products.

There is a 15 page user guide that provides an outline of program features, and online help that provides detailed coverage of all program features.

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Nick Thomson is the manager of InfoRom, a service on the Internet that reviews educational, home reference and edutainment CD-ROM software. It can be found at www.inforom.com.au.

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Editorial

In previous issues I have commented on the growth of our user group and its basic principle of sharing. As we approach the 1000 members mark (we may well be past it by the time you read this) I claim my editorial licence to repeat myself on both these topics.

Our continuing growth is now being boosted by a flow of interstate users, a tribute to the reputation we are gaining for service and support to users. For these members, in all States of Australia we proffer our bulletin board service and *Sixteen Bits* as their principle link with the group. These services, together with our special interest groups, are our main avenues for meeting the varied needs of members. And this is where the topic of growth and sharing coalesce into a gnawing concern for our Committee - the willingness of, particularly new members, to share their needs.

In a group as large, and as dispersed, as ours the onus rests with you, the individual member, to keep the Committee up-to-date with your microcomputing uses and needs. The sharing extends to all facets of your membership; even the small things like changes of address or telephone numbers. (The diversion of Committee members' time into tracking down these routine details detracts from their consideration of group development. It also depletes our resources - each re-directed copy

of *Sixteen Bits* costs an extra \$1.15 to \$1.40 in postal charges.) Remember that a few minutes you may spend penning a note to the Committee, or a letter to the editor, could quickly multiply into hours or days of effort if left to the few Committee members to track down such information: many hands make light work!

On our revised application form, recently joined members are asked if they can help with Group activities. I appeal to all members to consider whether they could help and, if so, to phone (we have a 24 hour service on 59 1096) to make this easier) or write in their offer. There is room for all forms of help, from the continuing efforts of serving on the Committee to the odd hour over the year. With enough volunteers, for example, the call to help with enveloping *Sixteen Bits* need only be made by one person two or three times a year. Or perhaps you occasionally come across a microcomputing tip or news item that interests you: if it catches your attention it will be bound to interest some other members, so send or phone it in for the *Bits Plus* column.

Such small contributions from many members would add immensely to the effectiveness of our Group. If you have any ideas for or about meetings, experiences with particular programs or uses, questions about using your microcomputer - share them!!!

The Nintendo 64

A review by Alan Tebb

Heeeere we go!

With a slightly Italian accent, the legendary Mario the plumber (trademark hero of Nintendo video games), invites lucky owners of the new Nintendo 64 to embark on a series of stunning adventures in his all new, Super Mario, 64 bit technology world. This month I decided that, regardless of the PC purity of our magazine, members deserved to be informed about entertainment technology that puts all other video game machines on notice and even challenges the superiority of PC games software.

The challenge to develop a high end game console for the television began in the early 1990's when Nintendo took the corporate gamble to jump from its Super Nintendo, with 16 bit technology, straight to 64 bit technology, thereby leapfrogging the Sony Playstation and the Sega Saturn, both 32 bit technology machines. It would have been a corporate master stroke if things had gone according to plan. To begin with, the technology challenges embedded in the 64 bit game console and its associated software, took far longer to perfect than Nintendo originally envisaged. In the meantime, its arch rivals Sega and more particularly Sony, were steadily eroding Nintendo's market share with their 32 bit technology machines. Game developers began to abandon Nintendo in order to write for the more lucrative Sony/Sega markets.

The 32 bit machines were characterised by their transfer from cartridge to CD ROM technology, with the speed and memory advantages that CD's offered. Nintendo on the other hand decided to pursue 64 bit technology in the traditional cartridge format. After

two years had dragged by and Nintendo still hadn't delivered on its 64 bit technology, punters began to write them off. For a while, it appeared that market analysts were doing the same thing. Company profits fell steadily. By early 1996, Nintendo, the one hundred year old company that began by

"...production has increased from 700,000 units per month to one million per month..."

making playing cards, was sailing perilously close to the winds of corporate disaster.

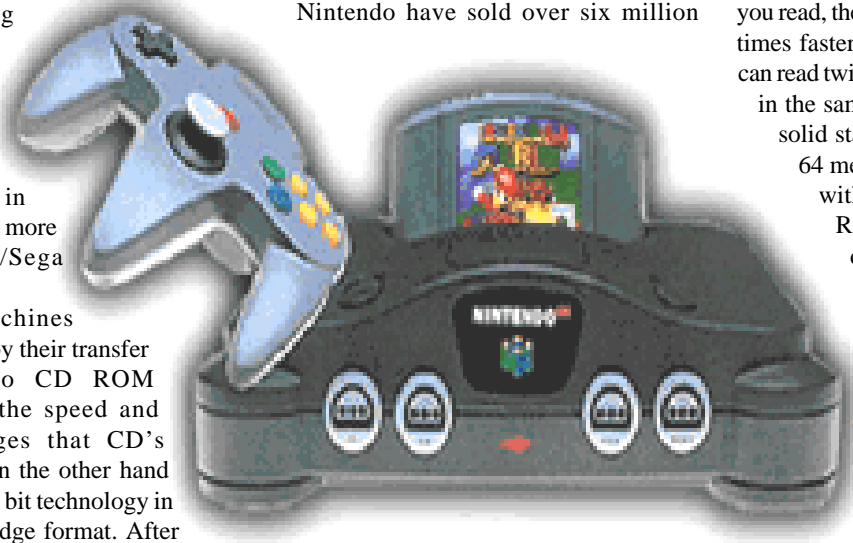
On 23 June 1996, amid much hype, the Nintendo 64 was launched in Japan. In October 1996, it was launched in the USA to an eager market approaching Christmas. And finally, on March 1, it was released in Australia and Europe. Thankfully, the punters were wrong. During the past 10 months, sales of the Nintendo 64 have broken all kinds of records. In the USA over 1.6 million units were sold in less than 12 weeks and retailers estimated they could have sold one million extra units if supply had been able to match demand. So far, Nintendo have sold over six million

machines world wide and production has increased from 700 000 units per month to one million per month. Nintendo believe they are right on track to sell their projected 50 million units over a ten year period. In a desperate bid to stave off falling sales, Sony and Sega have slashed the price of their game consoles by 25 percent and their games software by 50 percent in some cases.

So, is the hype deserved? Clearly, jumping to 64 bit technology in a cartridge, meant that the processor

inside the game console was going to have to perform like no other console motherboard ever had. Enter Silicon Graphics (SGI), the makers of super computers favoured by the military for simulation applications and by the movie industry for their graphics capabilities. If you listen to Jim Foran, SGI's director of engineering for the Nintendo 64 project, the company has managed to produce a RISC CPU for \$38 that is one hundred times more powerful than the mini computers of the early 1980's. The only trouble was, it took them three times longer than they expected. Depending on whom you listen to, or what you read, the Nintendo 64 is essentially three times faster than the Sony Playstation and can read twice as much graphics information in the same time. Consider also, that the solid state technology of the Nintendo 64 means it does not have to contend with the hazards of spinning CD ROM's, scratches on the discs, dust, laser optics, and mechanical parts. Where the CD wins hands down, is in memory. The CD can hold ten times the data that a cartridge can store.

At the end of the day, the quality of game play is the standard consumers will use to judge the worth of the



Nintendo 64 and we are talking here about a pretty discerning group - generally speaking - the 9 to 15 year old male. If my son and his seemingly endless parade of "mates" (at least since he got the 64 on March 1) is anything to go by, the new Nintendo console and its games software are undisputed winners.

How They Stack Up.

Sony Playstation

Features:

32-bit CPU; displays 16 million colours; double speed CD-ROM drive; audio compatible

Price:

Was \$399, now \$299 (with console, one controller, cables and one CD of demo games)

Games:

From \$89.95, many now reduced to \$49.95

Extras:

Memory card (for saving games)

Expansion: One port included for future use.

Sega Saturn

Features:

32-bit CPU; displays 16 million colours; double speed CD-ROM drive; in-built memory for saving games

Price:

Was \$399, now \$299 (with console, one controller, cables and one CD of demo games)

Games: From \$89.95, many now reduced to \$49.95

Extras:

Controllers from \$49.95; extra 4MB memory card (for saving games) \$99.95

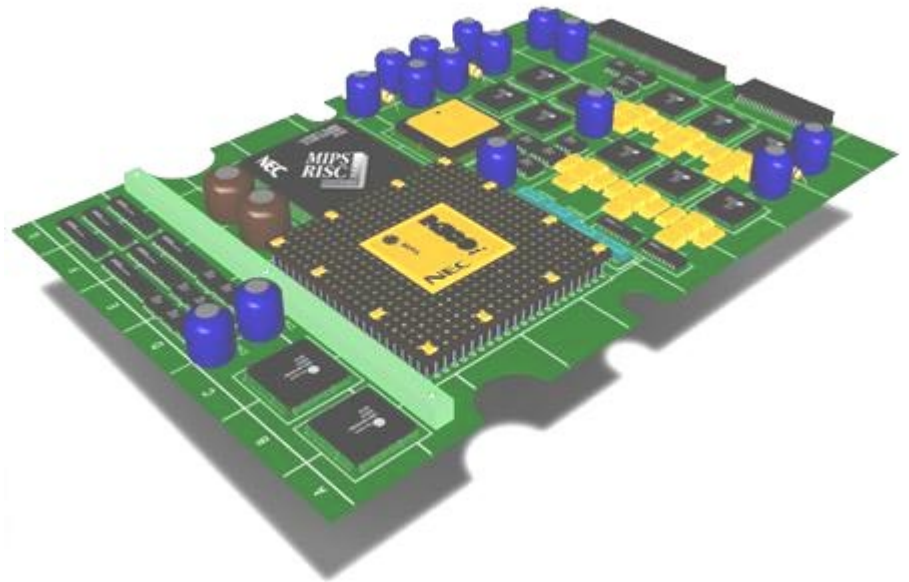
Expansion:

Internet access planned.

Nintendo 64

Features:

64-bit CPU; displays 16 million colours; cartridge system; analog controller allowing smooth 360 degree movement; processor speed of 93MHz (about three



times the speed of the PlayStation and Saturn consoles)

Price:

Was \$399 (with console, controller and cables)

Games:

From \$99.95

Extras:

Memory card (needed to play saved games between different machines) \$29.95; extra controllers \$49.95 (the console can take four controllers for multi person play)

Expansion:

High resolution to take advantage of High-Definition Television when it becomes available.

References

The Weekend Australian, 21-22 September 1996. Syte, P. 8.

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Nintendo Trivia

The engineers on the project consumed an average of three dozen bagels every Friday. During the life of the project, that adds up to nearly 5,000 bagels (and a lot of cream cheese).

Nintendo64 can perform 3.5 times as many adds per second as the original Cray-1, which cost \$8,000,000 in 1976. The Cray-1 also consumed 60,000 wats of power, compared to the Nintendo64 machine's 5 wats.

The process of designing the RCP required six supercomputers running computer simulations 24 hours a day that took as long as seven days to compute.

When running Super Mario 64, Nintendo64 is computing approximately 80,000,000 adds/subtracts/multiplies per second.

Confused about You're not alone...

By Nhan Tran

Using the Internet

Last time we talked about the information superhighway and the butler that helps your PC programs talk to the Internet servers. In this article, we'll talk about Internet application programs.

email

How does email work? E-mail (or email or electronic mail) is a text message addressed to one or more email addresses. You write the message using a text editor, then you ask a mail program to send the message to the given addresses. Most mail programs have a built-in editor so this request is almost transparent to you: all you have to do is click on the "send" button or press the "send" key. Your mail program sends the message to your mail server.

The mail server is like the post office in your suburb, except that it has a name and if you specify the wrong name, you cannot send or receive email. The name of TIP mail server (for PCUG members) is *mailhost.pcug.org.au*. Unlike the post office in real life (IRL), you need to register to an email server to be able to use it (the reason is explained below). Registration is performed by your ISP when your account is created.

The mail server will check the domain name of the recipient's email address (the right hand side of the @ symbol), and pass the message to the nearest gateway in the path to that domain. A gateway is a special server on the Internet whose main purpose is to relay data packets to their destinations. When the recipient's mail server receives the message, it checks the user name (the left hand side of the @ symbol) to make sure the user exists in its registry. Then it stores the message in the user's mailbox (like a PO box in real life).

When the user logs in to the system, it will notify the user. The user can then read the new mail or download it to their PC and

read it with the mail program. This is where email differs from the postal system IRL. The mail server does not deliver mail to you. Let's take a look at how TIP Basic Access users access email.

A Basic Access user connects to TIP using a terminal program. Once connected, they use the program on the server, accessing the hard disk on the server. A terminal program is a program that makes your expensive PC behave like a "dumb" terminal, ignoring the local hard disk and the high performance processor. To read mail, they run the "pine" mail program on the server. New messages come in the In box and stay there until they are deleted and expunged. The In box is actually the mailbox on the mail server.

Each user has a disk quota for mail, like a real PO box. If you read your mail and leave it in the PO box, sooner or later the box will be full. The postperson cannot put new mail in so they discard it, leaving you to wonder why no one writes to you. To avoid this problem, clear your In box frequently. If you want to keep the messages, save them in another folder. A folder is like a personal cabinet at the post office, you take mail out of the PO box and put it in the drawers under lock. The folders are still on the server. To get them down to your PC, you need to use the file transfer facility.

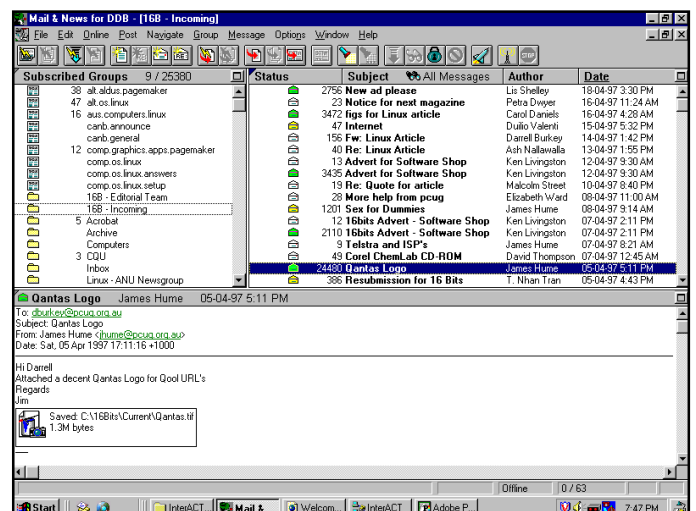
Advanced Access users are in a better situation. They can use their mail program (Eudora, Pegasus, Agent, etc.)

to retrieve the message down to their local hard disk and remove it from the server's mail box (make sure you don't tell your mail program to leave mail on the server). It's like going to the post office, taking the mail home to read it later at a more convenient time.

When the mail server cannot send your mail right away, it will send you a warning after a few attempts. Don't panic, read the message carefully to check if it is just a warning. The server will keep trying for a few days, then it gives up and send you an error message reporting the failure. There are at least two reasons for this failure: a) the email address doesn't exist (you made a typo or got a wrong address), b) the recipient's server is down and inaccessible.

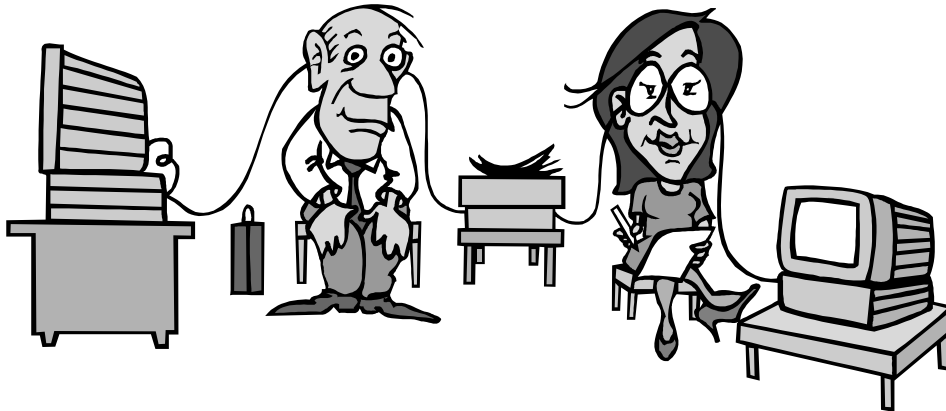
Email is not guaranteed to reach the recipient. Someone (Cliff Stoll, author of *Cuckoo's Egg* and *Silicon Snake Oil*) made an experiment by sending periodical email messages and found out that the real postal system is more reliable (better late than never) than the email system.

In recent years, there has been a plague of junk email. Unlike junk mail, junk email



Agent makes reading news and mail easy (Free Agent handles news only)

the Internet?



costs you (or your server) money. TIP is charged by the volume of data going through the link, so if you got 10 kilobytes of junk email a week, TIP would be charged for those 10 kilobytes. It's like junk fax, you pay for the toner and paper. I heard of U.S. laws protecting people from junk fax (eg. you can sue the sender for a reasonable reimbursement) but there is no law for email yet. It is a bit difficult with email because the senders can make themselves anonymous and untraceable. For email problems, ask your friendly postmaster (whose user name is, guess it, postmaster).

Before we leave this subject, please let me remind you that most mail programs have features that would make your life easy. The address book lets you create nicknames

so that you don't have to remember or type the whole email addresses. A filtering system lets you set up rules for automatic actions on incoming email. For example, you can tell the mail program to send new mail from *spam@junk.com* straight into the trash bin. A mailing list is also handy for organisers. Mailboxes or folders help you organise your email. I have scores of folders and spend a substantial amount of time "doing email", so we'd better move to the next subject.

News

News is a collection of public forums carried on USENET, a logical network on the Internet. It is infamous and addictive like drugs, cigarettes and alcohol. A public forum is called newsgroup, a message

message in these newsgroups, it would look to you like garbage.

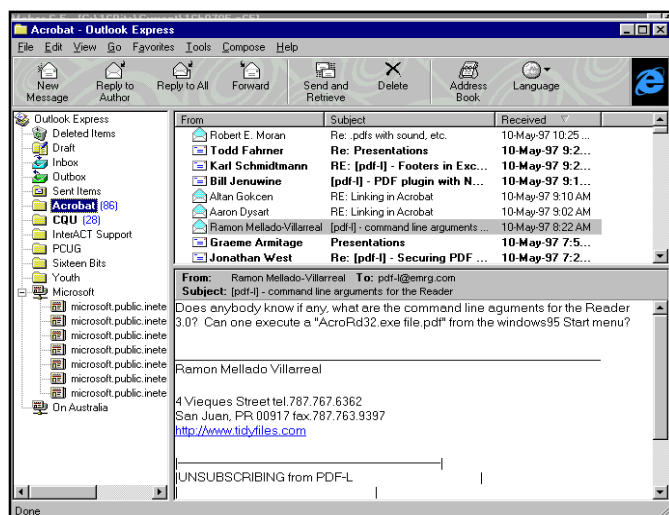
You can access news via a news server. Most news servers require authentication, that is they are accessible to registered users only, like the mail servers. There are some news servers available for public access.

The amount of data (I use this word in both the sense of information and garbage) carried by the news servers is mind bogglingly huge. We are talking about a daily transfer of megabytes or even gigabytes. Old news is thrown into the bit bucket to make space for new news.

News is transferred from one server to another in bundles, like the messages on the Bulletin Board systems. The news server will collect newly posted messages into a bundle and send it to the nearest server. TIP news server currently uses a system of delayed cyclical news retrieval. It does not download everything in every newsgroup, only the newsgroups that have been subscribed (requested) by one or more TIP users. And because the link is too narrow to download all new articles everyday, it downloads news for a few newsgroups a day so we normally get the news a few days late (on top of the necessary delay for the articles to reach us via the intermediate servers).

Looking for good information in the newsgroups is like searching for a beautiful shell on the beach. You ignore the dirty sand, discard the broken shells, step on the ordinary ones and keep hoping that you would find a good one for your collection. You go through a lot of rubbish postings to

posted in a newsgroup is called a news article. Most newsgroups are for text only, but there are some (whose names are normally have the word 'binaries') in which the participants distribute images, audio files, video clips or programs. These binary files are encoded into text before posting, so if you happen to see a



Microsoft's Outlook Express is a mail and news client which will be included with Explorer 4.0 when released

find the occasional gems. Then one day, you realise that you are hooked to the process of going through the rubbish, because it is there where you find different personalities, interesting dialogues, religious wars and humour.

Before you join the flamewars, make sure you read the FAQ (Frequently Asked Questions... and the answers) first. Most newsgroups have their FAQs posted regularly in a hopeless attempt of reducing the amount of messages posted by the newbies asking the same questions over and over. Then you would read the articles for a week or so to sort out the goods, the bads and the uglies. Finally, wear a thick mask and join the fun.

The popularity of the World Wide Web brought bad business people into the Internet. Pyramid scheme messages have been regularly posted to most newsgroups. I don't understand why people still believe in such schemes. There are companies who use special programs to collect the email addresses in the news article to build "direct email" lists. To avoid this, I change my email address when I post news articles (eg. *NO_SPAM.ntran@pcug.org.au*).

There are some Web sites which archive the news and provide a search mechanism for public. It didn't take long for a business "genius" to use the archives and build profiles of the news posters. They would know your name, email address, possibly the country where you live, your interests (you must be a Tori Amos fan to subscribe of *rec.music.tori-amos*, and it would be obvious whom the subscribers of *alt.amazon-women.admirers* admire), and other useful information for marketing.

You've seen on TV the government attempts of censorship on the Internet to "protect" your children from pornography and paedophiles, but have you heard of any attempts to protect your children from giving away information, or to protect your privacy, or to stop dishonest business people from abusing information on the Internet?



Browsing the Web with Microsoft Explorer

While I am at it, you would think that a censorship system would stop someone posting anonymously a pornographic image to the alt.disney.disneyland newsgroup? Or would it encourage them to do so?

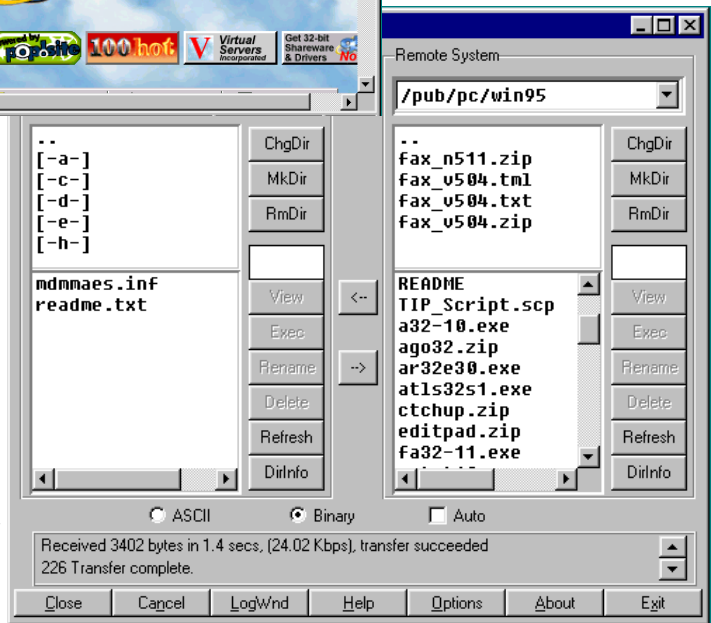
The day after CompuServe, under a German local court order, denied its users from accessing certain newsgroups of explicitly bad titles, really bad images suddenly appeared in serious discussion newsgroups. The problem with the Internet is that it has too many rebels who would, using their technical expertise, ridicule any such censorship attempt.

Any conventional censorship regulations written by people who don't have the technical knowledge of the Internet only hurt small Internet service providers. Do you think that services like TIP would have the time and resources to scan all newsgroups, decode all images, video clips, audio and whatnots, and check for illegal content before passing them to the users?

Web surfing

The best (and also the worst) attraction of the Internet. The publishing revolution of the decade, the World Wide Web lets millions of people around the world publish their work from serious search papers to "hi there, it's me" messages.

The Web documents are files stored and made available to public on the Internet servers. To access them, you need a Web browser and the address of the file. Your Web browser will then send the retrieval request to your Web



WS_FTP, a popular ftp clients

server which then locates and makes a request to the Web server where the document is stored.

To reduce the waste of transferring the same document over the network many times, modern Web browsers use a cache on your local hard disk. When you retrieve a page (a Web document), it stores a copy of that page in the cache. The next time that you ask for the same page, it uses the copy in the cache (most browsers allow you to specify whether or not they should use the cache, and how).

For the same reason, most Web servers have their own local caches. When your Web browser requests a page, TIP server would look into its cache to see if the page is in

there. If the page is in the cache, the server would send a request to the destination Web server to check if the page in TIP's cache is still current, and only send a subsequent request to retrieve the whole page if the copy in the cache is outdated. It saves the bandwidth, money, and your downloading time.

The biggest problem on the Web is how to find the information. Web documents are constantly changing and there is no central registry. How can you find the pages relevant to a topic? Try using search engines such as Alta Vista, Yahoo!, WebCrawler, Lycos, InfoSeek, etc. These sites have special programs that go around the Web looking for Web documents, retrieve them, index them in their databases so that you can search by keywords.

It was good enough at the beginning, then a new problem emerged: too many documents match a query. Have you ever searched for the word "bank" and got over 100,000 matched documents? Some search engines categorised the pages and let you browse through the hierarchy, Alta Vista (one of the fastest and most comprehensive search engines) sorts the search results into topics (or groups of related keywords) and lets you refine your search by topics.

I wish that one day, I could query a search engine to retrieve all the international news last week and sort them into topics for my perusal. I wish that the search engines would let me select some of the matched documents and then display their summaries.

The Web is popular because it provides more than just text. You can see images, listen to music or talks, watch movies, take a stroll in a virtual reality. These materials are not currently indexed by the search engines. You cannot ask them to search for Web sites that have nice virtual gardens or beautiful sunset images. Yahoo! has attempted to sort the static images into categories of colours and patterns, but it's not good enough (at least for me). But the Web is only a few years old and the new technology appears almost daily, so my wishes may not be too far away.

There is a company which has been trying to take a snap shot of the Web and other archives on the Internet (ftp, gopher). Their estimate of the size is 6 tetrabytes (the

figure is too large for me to translate into normal scale). The last time I checked, they have copied over 2 tetrabytes and counting. It is a futile attempt because the pages are changing while they copy. There are also dynamic pages (pages generated automatically to a specific request) which cannot be accessed or copied.

Well, I doubt if any human being could read all the Web pages in one's life time, at least not when the Web still has the nickname World Wide Wait.

ftp, gopher et al

Internet servers normally have file archives. Some are dedicated archives where you can visit, browse and download the files and programs you want. You do this by using an ftp (file transfer protocol) program or a built-in function in your Web browser.

If you know the file name (or part of it), you can use archie (another protocol/program) to find which ftp servers carry it. There are Web sites which provide a Web interface for this task.

In the days before the Web, there existed (and still are) servers which archive useful documents. They let you search the archives via a protocol called gopher. The function is still in use and modern Web browsers can handle the protocol transparently.

There are other things that you can do on the Internet: IRC (Internet Relay Chat) is real-time chat, network games, sending an email to a fax machine, talking with another Internet user, calling a normal telephone via the Internet, Internet shopping, Internet takeaway, Internet gambling, Internet wedding. The list just goes on and on, and I wonder why can't we have a 48-hour day?



The Internet Clinic

Internet Clinics are normally held at the PCUG Centre, Northpoint Plaza Belconnen the first Saturday of each month 9.30am to 1pm. There is no cost involved.

So if you (or another PCUG member you know of) are having problems you (or they) will be welcome to attend. It is suggested that you call the PCUG Centre on the day and check with the staffer that we are not overloaded before coming along.

To get a problem on your PC resolved it is essential that you bring *all* of the following items with you:

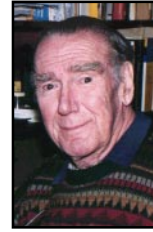
- PC and Monitor, plus all interconnecting cables
- Mouse
- Keyboard
- Modem
- Modem power supply
- Modem cables - from PC to modem and from modem to telephone socket
- Modem and PC manuals & documentation
- All of your software disks -
i.e Win3.1. or Windows95 disks/CD

If you don't have a PC to "fix" but you want to get some guidance on some particular aspect of using TIP, please feel free to come along and simply talk to us.

Clinics are not a free software/modem installation service. We do expect you to have made a reasonable attempt at getting the software installed & working.

David Schwabe dschwabe@pcug.org.au

SOFTWARE Library



Phil Trudinger

AN APOLOGY

Recently I have been using the '-' convention to identify programs that are spread across two or more ZIP files: eg, PROGA-C was meant to indicate that program PROG had three ZIP files, PROGA, PROGB & PROGC. Apparently this terminology has caused confusion with some members attempting to download 'PROGA-C.ZIP' from the Bulletin Board with a notable lack of success. I apologise for this confusion and from now on shall spell out the names of all ZIP files associated with a program.

NEW AND UPDATED WINDOWS PROGRAMS

(An asterisk denotes Windows 95 specificity or compatibility)

COMMUNICATIONS

AWN95*

AutoWinNet95 1.1 lets you perform common Internet tasks on a scheduled basis. You can create an 'agenda' with dozens of steps including up/downloading, email retrieving and sending, obtaining weather updates, and more. Requires Win95. Reg Fee \$30

CCHTML*

The CoffeeCup HTML Editor ++ 3.3 is a web authoring package for Win95 with 50

The files described in this article are on the April 1997 CD-ROM (PsL Vol 5, #4) which is currently on the Bulletin Board: all are ZIP files. Please quote the month or Vol/# when ordering files on disk.

The text files, CD1 to 7 inclusive, in Area 1 of the Bulletin Board, are the monthly CD-ROM file lists.

Reminder

Most CD-ROM programs are Shareware. A reasonable time (generally one month) is allowed for evaluation, but if you continue to use a program beyond this time you should comply with the author's conditions that usually require payment of a registration fee. Bear in mind that this is the only way by which an author receives any reward for his/her efforts. Unless otherwise stated registration fees are in US dollars.

animated GIFs and built-in Javascript support. Other features include a Colour Wizard, a drag and drop interface, support for multiple page creation and testing, five standalone application buttons, HTML help, and much more. Reg Fee \$20

CELASM11

Cel Assembler 1.1 is a tool for building GIF animations for web pages. Features include an easy-to-use toolbar interface, full Windows cut/paste support, the ability to preview your animation, zoom capabilities, and much more. Reg Fee \$25

HEX_COL

Colour Calculator 1.0 allows you to calculate the HEX value of any colour so that you can use it in your HTML code. Reg Fee \$0

JTF15_16 (Win16)

TF15_32 (Win95)*

Just The Fax (16-bit) 1.5 easy to use personal fax program with a WYSIWYG fax and cover sheet editor. Features include the ability to create unlimited cover sheet templates, the ability to spell check fax documents and cover

sheets, an unlimited phone number database, and more. Reg Fee \$20

MC180_32*

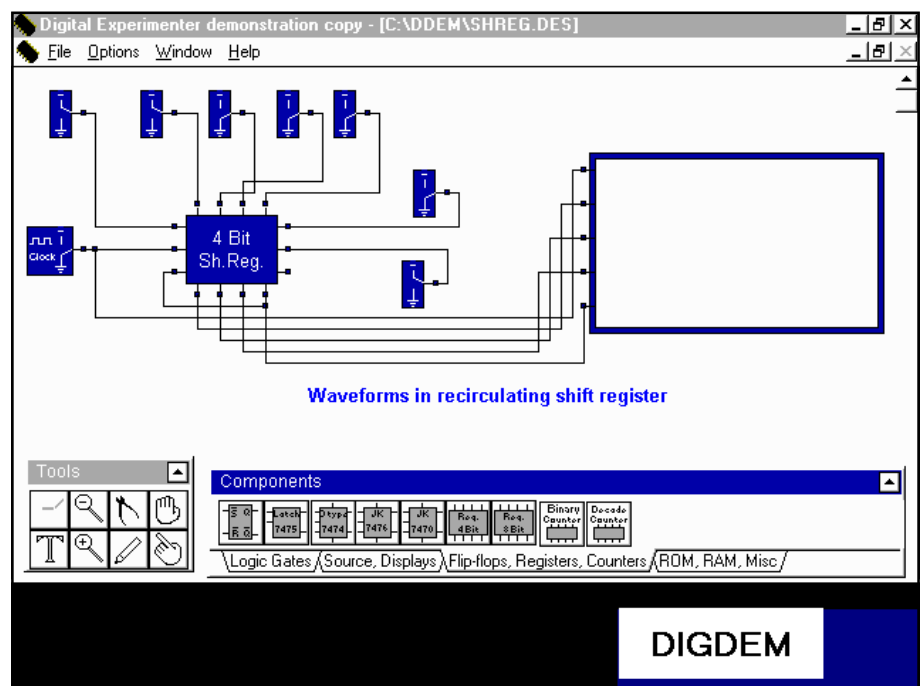
MailCat (32-bit) 1.80 is an off-line reader for Internet email. It allows you to create messages in a comfortable Windows environment, connect to the Internet, send all your messages, and download and save any mail waiting for you. Requires Win95/NT. Reg Fee \$55

MSICE*

MSIE Cache Explorer 1.25 provides easy offline access to all Web pages that have been cached by the MS Internet Explorer. It provides full text search capabilities and can extract entire document trees. Requires Win95/NT. Reg Fee \$20

NACHOSV2

Nachos 2.1 is a 32-bit HTML editor for experienced users. Features include autosave/backup options, a clipboard viewer that remembers the last ten cuts, multi-file search and replace, a tag checker, and much more. Reg Fee \$50



NSCE_125*

Netscape Cache Explorer 1.25 provides easy offline-access to all Web pages that have been cached by Netscape Navigator. Features include full text searching, the ability to extract entire document trees, intelligent domain sorting, and more. Netscape 2.0 or later (32bit) is required, as well as Win95/NT. Reg Fee \$20

PICASO10

Picasso 1.0 is an easy to use wizard-like application that will create a HTML document template for you from scratch. You simply go through each step with the 'next' button and fill out the information. This does not require any knowledge of HTML or HEX codes. Reg Fee \$0

SA16V120 (Win31)

SA32V120 (Win95)*

Secret Agent (16-bit) 1.2 allows off-line access to all the information Netscape saves in its disk cache. When you close down your link to your service provider, you can revisit all the pages you accessed during your session, complete with in-line images and working links between accessed pages. You can extract graphic files, examine HTML source code, and build full off-line versions of the best multimedia web presentations. Requires WIN31+ and Netscape 1.1 or higher. Reg Fee \$39

STRIP121

The Stripper 1.21 strips e-mail addresses from message files of programs like Pegasus and Eudora as well as from any ASCII text file. It will strip, sort, delete duplicates and place the resulting e-mail addresses in a 'comma separated' text format. Addresses can then be easily cut and paste into the Cc: or Bcc: line of your mail header to achieve quick and easy bulk e-mailing. A built-in database is provided to accumulate these addresses for repetitive use. Reg Fee \$70

WINTEL

WinTel 3.4.4 is a full-featured communications package for Windows. Features include a phonebook which stores your remote service names, phone numbers and communication settings, ASCII/xmodem/xmodem1k/yodem batch/zmodem protocol support, a realtime and an offline GIF/JPEG viewer, terminal emulation, redial and batch dialling capabilities, a programmable script language, chat mode, session capture with resizable fonts, uuencode/decode support, and more. Online

time is limited to 15 minutes in this version. Reg Fee \$40

GAMES

95ANI11*

Animated Slots 95 1.1 is a 3-wheel, 5-payline slot game for Win95/NT with 256-colour graphics, beautiful spinning animation, and realistic sound effects. Reg Fee \$20

95PWR11*

Power-Play Slots 95 1.1 is a 3-wheel, 5-payline slot game for Win95. Features include 256-colour graphics, beautiful spinning animation, realistic sound effects, and more. Reg Fee \$20

BLKM1

BlockMeister 1.0 is an interesting and fun game where you must jump on squares on a

JIGALO13

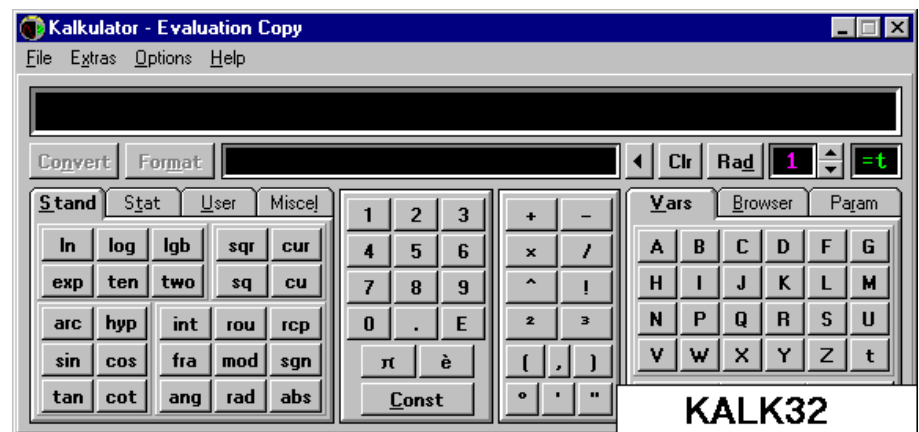
Jigsaws Galore 1.3 is an excellent jigsaw puzzle game for Windows. This comes with 10 puzzles and allows you to make more, with up to 4,000 pieces each. Features include the ability to sort pieces by colour and shape, the ability to change piece size on the fly, cheating options, and more. Reg Fee \$25-\$39

KIDSTUFF

Kids Stuff 1.0 is a collection of four simple games for young children. This includes 'The Grass is Greener' where you must herd several wayward sheep to a new pasture, and 'Beat the Tide' where you try to move objects off the beach before the waves cover them. Reg Fee 20 Pnds

WW_110

When and Where 1.10 is a scheduling package for sporting activities and events. It is



grid in an attempt to change them to a target colour. As the game progresses to more difficult levels, you will be required to jump on squares several times to achieve the target colour. Reg Fee \$10

CAN301

Canasta for Windows 3.01 lets you play Canasta against the computer. The included help file provides an introduction to this classic card game, as well as detailed rules. Features include selectable skill levels for the computer player. Reg Fee \$20

EXIL2V20*

Exile II: Crystal Souls 2.0 is a highly-detailed fantasy role playing game for Windows. You can explore over 100 dungeons and towns, while solving puzzles, meeting many characters, and completing three game-winning quests. This is Win95 compatible. Reg Fee \$25-\$35

highly user-configurable, and is suited for any activity where two teams/players meet to provide a result. Both 16- and 32-bit versions are provided. Reg Fee \$49

GENERAL

ALARM310

Alarm (ST) 3.10 is an advanced desktop reminder system. Alarms can be set for a specific date, for specific days of the week, and for certain repetition intervals. An adjustable snooze bar is provided for each message. Messages can have up to six lines of free-form text. Reg Fee \$10

CFTW210A + CFTW210B

Cumberland Family Tree for Windows 2.10 is an easy-to-use genealogy program. It creates unique 'story' reports which turn dry data into a more readable form. It can track many major events in a person's life including birth, death, education, immigrations, marriages, and divorces. Other features include the ability to attach scanned photos to records, scanned document support, the ability to create an indexed book with 30 different reports, and more. Reg Fee \$50-\$60

CV35516

Convert It! SE 3.55 is a unit of measure conversion utility with 14 categories of conversions and a 15th for custom conversions. You can edit the conversion factors, add or delete units. Convert temperature, mass, volume, time, area, angle and more. On-line context sensitive help is provided and a section is included on other conversion factors that you might use. Reg Fee \$25

DIGDEM

Digital Experimenter allows you to design digital circuits using models that simulate the functional behaviour of digital electronic devices. Several samples are include. This version does not save or print Reg Fee 45 Pnds

KALK16 (Win31)

KALK32 (Win95)*

Kalkulator (32-bit) 1.48 is a powerful scientific/engineering calculator. Features include more than 100 functions, column-wise operations on statistical data, linear algebra, unit conversion, save and restore functions, and more. Reg Fee \$40

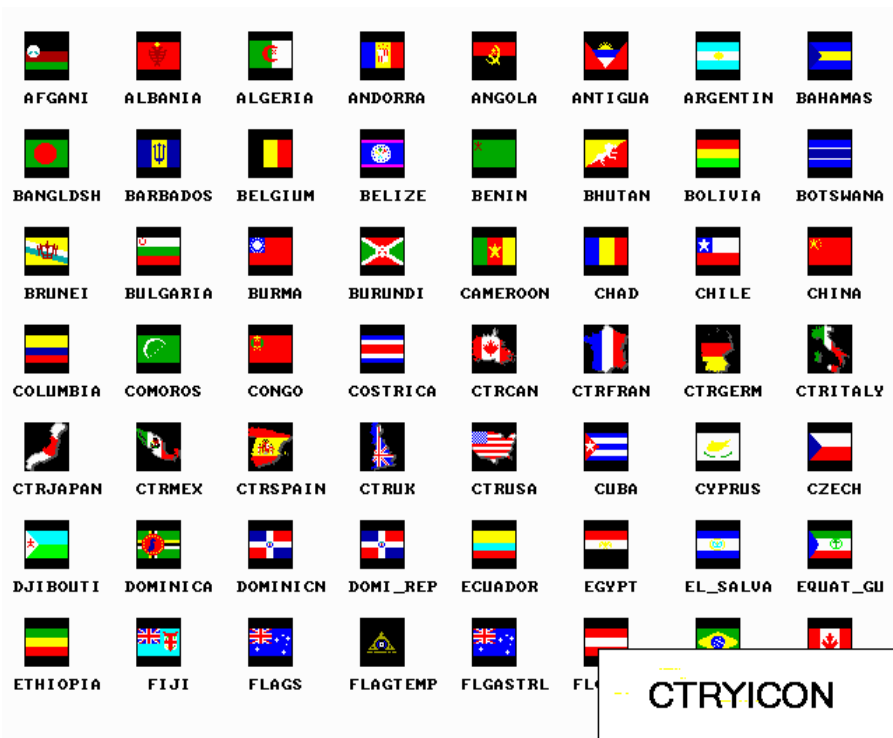
MEDMAG3*

Medinsure Magic (32-bit) 3.0 provides a systematic way to keep a record of your medical costs, medical history, and to ensure that your insurance claims have been paid. It provides an easy way to record medical costs as they occur and to retrieve important information. Requires Win95. Reg Fee \$13-\$15

SETUPW31 (Win 31)

SETUPW95 (Win95)*

Mom's Classic Knitting Utility (16-bit) 1.0.1 works up the needed stitch or row numbers when knitting by hand or with a manual knitting machine. Reg Fee \$49-\$59



GRAPHICS

TRACK (Win31)

TTRACK32 (Win95)*

TimeSlice Lite (16-bit) 2.0.0 is a powerful time tracking and billing package for consultants, programmers, attorneys, graphic designers or anyone who bills for time or just wants a simple solution for keeping track of time events. Features include handy start/stop and pause/resume buttons, full cut/copy/paste facilities, a print preview option, the ability to display time in 1/6/15 minute intervals, and much more. Reg Fee \$25

WALLET20

PCWallet 2.0 is a database for Windows that provides a place to put all that information you ordinarily keep in your wallet such as phone numbers, addresses, credit card numbers, or any other type of information. All information is protected by data encryption and a personal password. It also has a handy calendar and calculator. Reg Fee \$5

VTUTOR20

Tutor.COM - Viruses 2.0 is an anti-virus tutorial covering everything the average computer user needs to know about this important subject. Both viruses and myths/hoaxes are covered. Reg Fee \$0

CTRYICON

Country Icons contains over 150 icons with flags of different countries from around the world. Reg Fee \$?

GIFCON32*

GIF Construction Set 95 1.0P is a powerful collection of tools to work with multiple-block GIF files in Win95. It will allow you to assemble GIF files containing image blocks, plain text blocks, comment blocks and control blocks, and provides facilities to manage palettes and merge multiple GIF files together. Reg Fee \$20

PSP412

Paint Shop Pro 4.12 is a powerful graphics program for image creation, viewing, and manipulation. Features include painting with 8 brushes, photo retouching, image enhancement and editing, colour enhancement, an image browser, batch conversion, and scanner support. Included are 20 standard filters and 12 deformations. Over 30 graphic file formats are supported. Reg Fee \$69

SDRAW303

SmartDraw 3.03 allows you to draw flow-charts, diagrams and other business graphics in WIN31. It provides drag and drop drawing,

automatic connecting lines between shapes, built-in design styles, shape libraries, and much more. This will work with the Microsoft Office and other programs as an OLE Server. Reg Fee \$35-\$49

LABELS

DXL31 (Win31)

DXL95 (Win95)*

DesignExpress Labels (16-bit) 1.1 is a powerful WYSIWYG label design package for laser and inkjet printers. Features include a built-in address book, full Avery label support, a variety of graphic tools, support for rotated text, and more. Reg Fee \$40

VL19_16 (Win31)

VL19_32 (Win95)*

Visual Labels for Windows 1.9 is an easy-to-use label design and printing package which allows you to create an unlimited variety of labels using text, pictures, boxes, ovals, lines, counters, and patterns in any font, colour, or rotation. This includes a comprehensive database of Avery label and business card templates. Reg Fee \$20-\$43

STORY TELLERS

Classic tales which combine the familiar story with many pictures that can be coloured in on-screen. The point-and-click interface is very easy to use. Reg Fee \$8

BWCWDOWN - The Boy Who Cried Wolf

H_GDOWN - Hansel & Gretel

JACKBEAN - Jack & the Beanstalk

TORNDOWN - Homesteaders on the high plains of the Texas Panhandle

UTILITIES

CALMON12*

CALMon 95 1.2 is a clock, alarm, scheduler and performance monitor for Win95. It normally runs while the system is idle and consumes very little resources. It displays the date, time and four important performance indicators in real time. It can remind you of meetings and appointments, as well as run programs at specific times and on set dates. Reg Fee £10.

DOCCLEAR*

ClearDoc 1.0 automatically clears the Win95 Document menu after a specified amount of time. Features include the ability to bypass confirmations, and the ability to choose whether the files are deleted to the Recycle Bin or not. Reg Fee \$5

DSKPIE21

Disk Piecharter for Windows (32-bit) 2.1 is a graphical disk explorer that shows piecharts of disk usage. Features include support for long filenames, multi-threading and more. Reg Fee \$15 and printing capabilities, and more. Reg Fee \$28

FG95_402*

Folder Guard for Win95 4.02 allows you to selectively hide folders and/or add password restriction to other resources. This makes folders invisible to any application, Explorer, MS Office, MS-DOS prompt, common dialogs, etc. This is highly customisable, and is suitable for both home and business use. Reg Fee \$30.50

FSHRED

Fshred 1.10 is a powerful file deletion utility that helps prevent the reconstruction of deleted files. It renames the file to be deleted and overwrites it at least twice with nonsense characters before finally deleting it. Reg Fee \$5

HXP3004

HEXPert for Windows 3.0 allows you to view and edit binary data in both hexadecimal and ASCII formats, as well as eight different numeric formats, including signed and unsigned integers and floating point. Instead of looking for the hex equivalent of a floating point number, you can simply view the data in all formats simultaneously. The program allows editing, searching, or replacing of the data in any of these formats. Files can be up to 16 Mb in size. Both 16- and 32-bit versions are provided. Reg Fee \$20

LOCKWK11*

Lock Workstation 1.1 is a system security package for Win95 that adds password protection to the following keys: CTRL+ALT+DEL, ALT+TAB, and CTRL+ESC. Features include a log file of the attempts to access your machine, the ability to play a wav file every time someone enters the wrong password, and the ability to display a custom message to the person who is trying to enter your machine. Requires the 32-bit VB4 runtime files. Reg Fee \$0

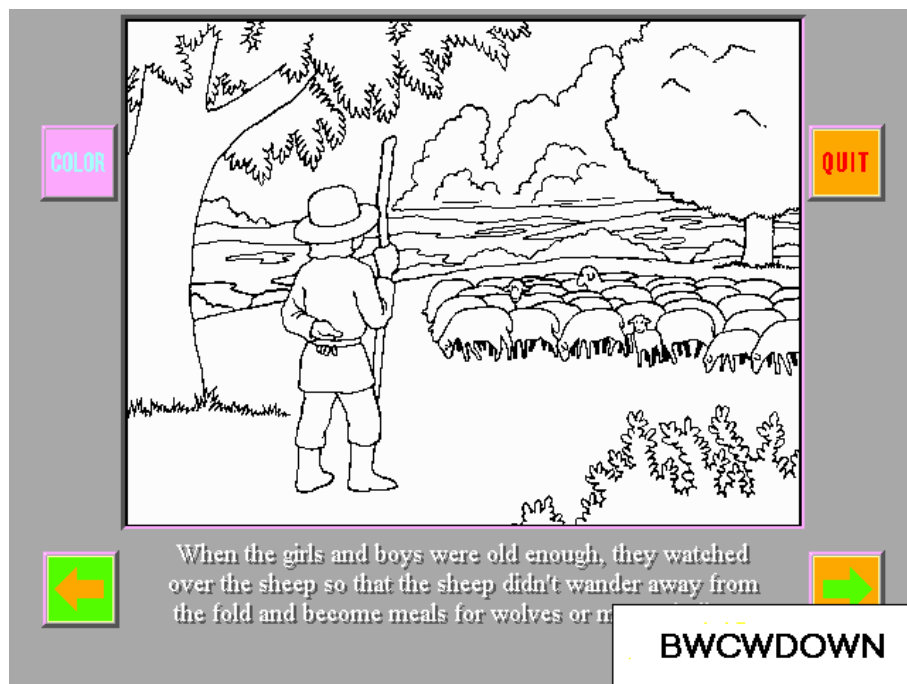
MDISK4

MAXIDisk 4w allows you to format floppy disks beyond their normal capacity. It can format 360 Kb disks to 420 Kb, 720 Kb to 800 Kb, 1.2 Mb to 1.4 Mb and 1.44 Mb to 1.6 Mb or 1.7 Mb, and 2.88 Mb to 3.2 Mb. Reg Fee \$25

MIDG16 (Win31)

MIDG32 (Win95)*

Midget/16 1.14 is a powerful replacement calculator. Features include 27 functions, 6 memories (variables), deg/min/sec, fractions, unit conversion, save/restore, and on-line help. Reg Fee \$10-\$14



PASSLITE*

Password Memorizer 1.0 is a complete storage program that encrypts all your passwords into a single file. You just have to remember a single password to access them all. Requires Win95 and the 32-bit VB4 runtime files. Reg Fee \$10

QDPRO2

QuikDial Pro 2.0 is a WIN31 telephone dialling utility for voice calls. Features include a handy toolbar, user-defined dialling directory with a maximum of 750 entries, a scratch pad for note-taking while on the phone, and much more. Reg Fee \$15

RESCUE95*

Rescue 95 1.01 helps backup and restore you Windows 95 configuration. If Win95 should fail to load correctly, it can fix most problems automatically. A DOS version is included that can do all the repairing from outside Windows. Reg Fee \$24

SETMEUP*

Set Me Up 2.x is an advanced system configuration tool for Win95. This allows you to easily add items to the Start menu, change the size of Explorer icons, customise startup options, and much more. Reg Fee \$10

TKFCT120

TechFacts 1.20 allows you to view all aspects of Windows, DOS, Heap, memory, networks and your system. You can search for DLLs, icons and duplicate files, and you have four configurable resource monitors and multiple resource/disk alarms. Data may be transmitted by fax/modem, or by MAPI Email or by SMTP Internet Email, which allows you to get critical data to technical support quickly and clearly. Reg Fee \$20

WORDS

NOTPAD*

Notepad 2.2 is a powerful text editor for Win95. Features include Unix and Macintosh file support, print preview, the ability to revert to the last saved version of a file, automatic loading of important Windows system files, and much more. Reg Fee \$10-\$15

QE16 (Win16)

QE32 (Win95)*

QuickEdit (16-bit) 1.0 is an enhanced replacement for Notepad, with unlimited file size capabilities, unlimited undo/redo, an

auto-indent mode for programmers, and more. Reg Fee \$0

WE31 (Win31)

WE95 (Win95)*

WordExpress for Windows 2.00 is a full-featured word processing package. It contains a multitude of professional features including WYSIWYG editing, scalable fonts, multiple column support, a user-customisable tool bar, powerful page layout features, headers/footers, mail merge options, built-in spelling checker/thesaurus, and much more. Reg Fee \$50

NEW AND UPDATED DOS PROGRAMS

GAMES

AKINTES

Akintes 1.0 is a tank combat action game that uses the keyboard and mouse to control a tank on a 640 x 480 scrolling battlefield. In this game you will command a tank through a dangerous battlefield of enemy tanks and cannon turrets to find and destroy an enemy helicopter. Reg Fee \$80

BRIDGE28

Contract Bridge (RLW) 2.8 lets you play bridge against the computer. The program bids, plays and scores rubber matches. Hands are evaluated according to the Goren Point-Count method. Although the program doesn't have fancy graphics or a lot of options, it

seems to bid and play reasonably well. Reg Fee \$19

NOTYET

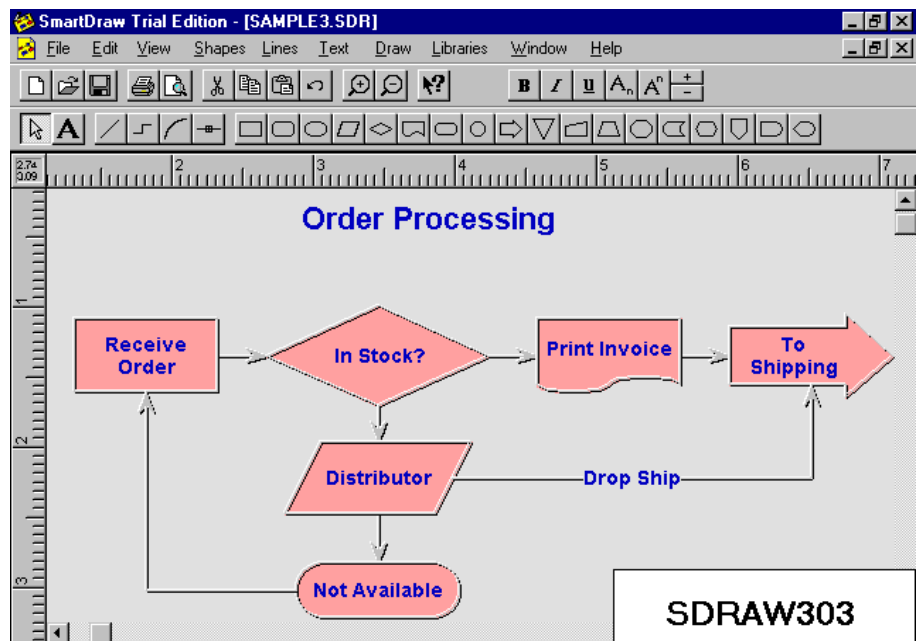
Notyet is a unique and challenging arcade game where you must try to match up coloured trigrams to clear a level before advancing to more complex levels. Your 'blaster' resides in the center of several spinning circles, and you shoot the trigrams so they will line up. Special effects such as warps, black holes, yin/yangs, and more will impede your progress. Reg Fee \$20

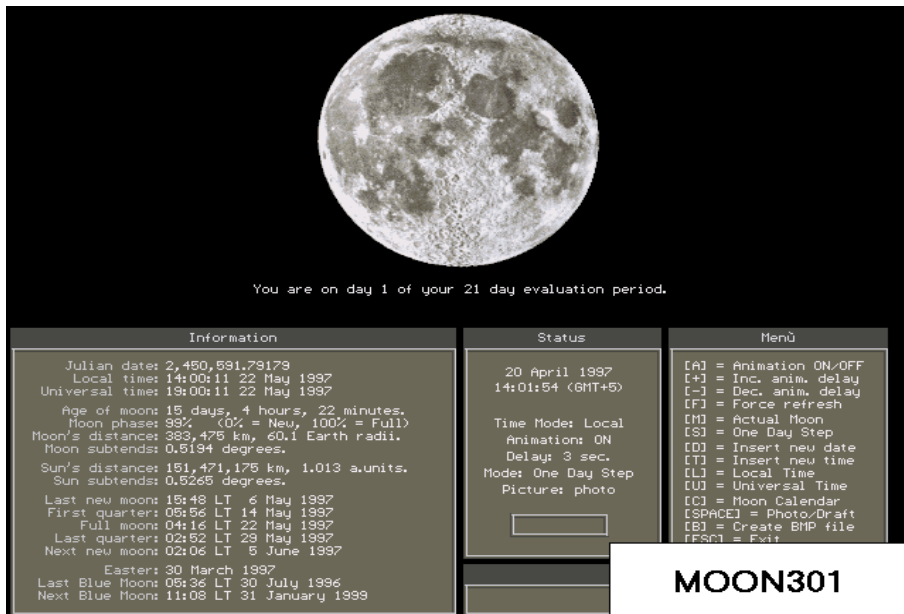
NOVA112

Nova Chess 1.12 is a chess game which pits you against the computer. You can control the strength of the game by limiting the number of moves-ahead the computer can consider, or by requiring the computer to throw some less intelligent moves in between the good ones. Reg Fee \$0

WSR6_0

Wall Street Raider 6.0 is a simulation game of corporate finance, in which one to four players (including the computer) engage in hostile takeovers, empire building, participate in greenmail payoffs and more. Created by a Harvard lawyer/CPA/economist, Michael Jenkins, this game allows you to use the same techniques as real corporate raiders on Wall Street. Not only is the game fun to play, but also you will really learn a lot about business. WSR has been a long time in the making. Jenkins says: 'There hasn't been a month in the last 20 years when I haven't done





PLOTR81

Plotter 8.1 is a scientific data plotting and analysis program. It includes a full-screen data editor, curve fitting, Fast Fourier transforms, and digital filtering. Screen images can be saved in PCX format. Reg Fee \$25

TTIME40

Talking Time Tutor 4.0 teaches children to tell time. The time is spoken using high quality digitised speech. Four different activities are included, each with three skill levels. Activities include setting the analog clock to match the digital clock, setting the digital clock to match the analog clock, setting the analog clock to the spoken or written time, and setting the analog clock to a future or past time. Requires 640Kb RAM, hard drive, 640Kb, and EGA/VGA. A 286 or higher is needed for speech capability. Reg Fee \$15

UTILITIES

BELT1D

Utility_Belt 1.1d is a collection of 18 utilities for creating professional looking DOS batch files. There are six interactive utilities allowing user input during a batch file execution, nine video utilities with screen sculpting tools and special effects, and three security-oriented utilities. An interactive demo and extensive documentation are also provided. Reg Fee \$12

EBAK71

Easy Backup 7.1 makes compressed, self-restoring backups. It backs up subdirectories automatically and has an archive option which will remove the backed up directory structure from the hard disk. Reg Fee \$40

FILL612

Fill (BG) 6.12 will fill up floppies with the maximum number of files that will fit into them. Reg Fee \$0

PHONE102

Phone Book (CS) 1.02 is a combination point-and-click phone book and auto-dialling package. A mouse is required. Reg Fee \$15

RINGR_10

RingRes 1.0 detects incoming phone calls and rings a tone through your PC speaker. This occupies just 304 bytes in conventional/high memory and requires only a phone line attached to your modem. Reg Fee \$15

something on it. It takes five or ten minutes to learn, but a lifetime to master.' NEW: added chat mode for network players, new scenarios. Reg Fee \$25-45

GENERAL

FRENCH23

French <—> English Flashcards 2.3 helps you build your French vocabulary through the use of two 20-card flashcard sets. The program randomly selects from the 20 cards, and you must not incur more than two errors if you wish to proceed to the second level. This version contains 200 vocabulary words. Reg Fee \$15

LILPIC13

Lil' Picasso 1.30 is a colouring book for children. It features a push button interface which makes it easy for even the youngest child to create a masterpiece. It includes several pre-drawn pictures, ready to colour and hundreds of colours/patterns. Printer support is provided. Requires VGA, mouse, and a hard disk. Reg Fee \$11-\$13

MEMDTX23

English <—> Spanish Flashcards 2.3 is a Spanish vocabulary drill. Options include English to Spanish or Spanish to English. Progress is measured by a score keeper and a timer. Over 300 words in 8 lessons are included. The object is to complete 50 questions without incurring more than three errors. Reg Fee \$15

MOON301

Moon Viewer 3.01 displays a photographic representation of the Moon for virtually any date. Features include support for dates between 1900 and 9999 AD, a lunar calendar, Easter and 'Blue Moon' calculator, and more. Reg Fee \$10

PCAL1497

Personal Calendar 14.97 displays a three-month scrollable calendar, a running analog and digital clock, and appointment and note lists. The program will alert you when a scheduled event is coming due or overdue. By swapping to EMS or hard disk, the program only uses 6 Kb of DOS RAM. improved use with Windows 95, improved rescheduling of multi-weekly repeating events, position of cursor now placed at most important position on each screen to help facilitate operation of speech-to-text interfaces for blind users. Reg Fee \$39

PEOPLE20

People Clip Art 2.0 contains 30 colour PCX images of people at work and play. This includes artist, babies, bank, business, construction, cleaning, florist, dancing, chef, groom, hippie, landscape, doctor, nurse, musician, police, sports, romance, student, teacher, and more. The included installer shows you samples before the clip art is unpacked. Reg Fee \$25

COOL URLS

Compiled by Jim Hume

Books and Magazines



CBooks Express is a great resource for finding what Computer Books are available and includes comprehensive book reviews. It includes a Title Search Engine. <http://www.cbooks.com/>

HOMEPC

HomePC is a monthly online magazine which covers almost the whole spectrum including Gamepower, A Consumer Lab (This month Multifunction devices, All-in-one machines), OnLine Connections, Do-It-Yourself (This month contains an excellent article on spring cleaning Windows95), Hot Stuff and Kid Raves. You can also look at back issues online. In the April Edition there was an excellent article on Collectible bargains. Hot sites for hobbyists. <http://techweb.cmp.com/hpc/may97/>

Educational



Forests for the Future Website, although oriented towards the USA it includes a plethora of information and is presented in order to realise the full potential of the Internet for education and outreach on the issues and dangers facing one of our precious natural resources- the forests. The Green pages provide forest related Web links. <http://baaction.org/cyberforest/>



Ask The Dentist starts with the offer of a free download of fun educational software to give children the opportunity to explore good dental hygiene in an easy and fun manner, and goes on to provide family tips for a better smile including what causes cavities, what is the most effective toothpaste, flourides: Questions and answers and a whole range of other dental issues. My grandchildren were greatly impressed with the download. <http://www.parentsplace.com/cgi-bin/objects/dentist/index.html>



Canberra's University of the Third Age is an organisation which facilitates courses covering a wide range of topics for over 1200 Senior Citizens in the ACT. There is a small charge for being a member of U3A and each course recovers its direct costs. The course leaders provide their services free. So it is basically a "Seniors helping Seniors" arrangement. You can view the 1997 Prospectus on the Web. <http://www.u3acanberra.org.au>



Amersa is an association of multidisciplinary health care professionals in the field of substance abuse dedicated to improving education about alcohol tobacco and other drugs. The goals of the organisation are to expand academic preparation in substance abuse so that it is a requirement in the training of all health

care professionals. To initiate a rigorous research into substance abuse that fosters a multidisciplinary and multicultural approach to prevention, intervention and treatment and to promote and disseminate a body of knowledge and literature about substance abuse. <http://center.butler.brown.edu/AMERSA/amersa-profile.html#mission>

Free Speech and Censorship



The Blue Ribbon Campaign. A blue ribbon was chosen as the symbol for the preservation of basic civil rights in the electronic media. It was inspired by the yellow POW/MIA and red AIDS/HIV ribbons and also by the various (USA) 2nd Amendment, child abuse, Israel awareness, and public land usage rights. Concern in Australia arose from the UN Declaration of Human Rights in 1948 being eroded by the 1996 Telecom Bill. The Blue Ribbon is appearing on more Web Pages both locally and globally and is a way for the quiet voice of reason to be heard.. <http://www.eff.org/blueribbon.html>



The Net Censorship Dilemma debates the issue of Governments in many parts of the World attempting to censor what we can see and read or say and write on the Internet. If you are not sure what side of the fence you're on, or simply want to be better informed about the issues and/or

Travel



The accommodation search engine is an interesting addition. It allows you to select the Country you are interested in, you then select the price you can afford. For accommodation There are steps from less than \$US50 per person per night in steps to more than \$200. You then select the type of accommodation you require from Hostels through B&B to Hotels, then you enter desired facilities followed by desired activities. Searching Canberra failed to list The Youth Hostel and local caravan parks but the search engine appeared to do better on the American Continents and in Europe.

Nevertheless it does provide a rough guide to the costs and sorts of accommodation you might need in planning an overseas trip <http://ase.net/>

Miscellaneous



Trading Post On-Line now has a fresh, new look with graphics designed to ensure optimum speed of download. If you are using a browser previous to Netscape2.0 or Internet Explorer 3.0 you may have difficulties with the graphics and navigating the Information pages <http://www.tradingpost.com.au>



"The Friendly "Grrrls" Guide to the Internet. Wacky Sites". I could not resist ending my contributions to Qool URL's with this entertaining site which includes a link to the Geek Girl. Enough said it really is Wacky Stuff. <http://www.youth.nsw.gov.au/rob.upload/friendly/fwacky.html>

ways of protecting children, these pages aim to help. <http://www.thehub.com.au/~rene/liberty/>

Genealogy



The Public Record Office of Victoria provides an alphabetical index of the family names of passengers extracted from the passenger lists. The current version is a compilation of a series of documents each document containing between 150 and 200 names and instructions on how to search. <http://www.vicnet.net.au/~provic/18259/use5259.htm>



The National Heritage Foundation's VicGold genealogy database contains information about individuals(638,000) and families(98,000) extracted from the Victorian Registrar's birth, death and marriage certificates and early, church records for families who immigrated to Victoria. It describes persons who are married or had at least one child prior to 1860. The database covers Victoria's gold rush era. Searching hints are provided <http://www.ke.com.au/cgi-bin/texthtml?form=VicGold>



FishInternet Australia. Australia's largest recreational fishing and boating site. It is an absolute gem for the keen recreational fisherman with sections on boats, guides, lodges, tackle, fish, weather, clubs and links. It is also a valuable guide for overseas tourists interested in fishing. <http://www.fishnet.com.au/>



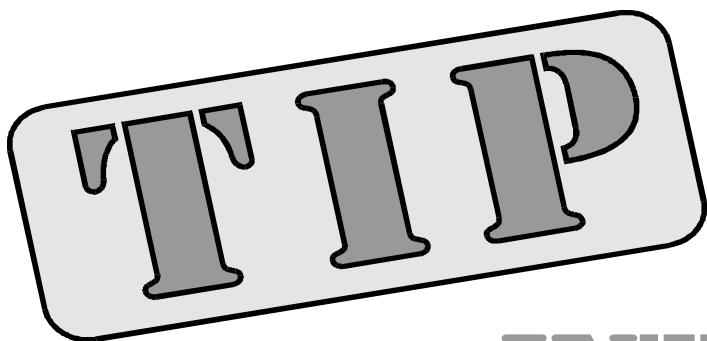
Dr Webster's Site of the day. A new cool web site brought to you every day by Dr Webster, includes Fun sites, cool sites, search engines, awards of the day, funky sites, a daily horoscope and useful sites. Well worth a bookmark. <http://www.drwebster.com/>



For the Comic Book enthusiast C/net's MediaDome is a good looking interactive comic book site that requires Shockwave for the best results. <http://www.mediadome.com/>



Specially for the Shareware Junkies. This site is tailored to the Shareware Junkie. It tests the programs for you and provides excellent reviews and links to other reviews. It even provides a service for email questions on any Microsoft based program or just a general computer question. You email the question and the answer appears on the Ask Jerry? Page. <http://www.sharewarejunkies.com/>



THE INTERNET PROJECT

By Iain Gould

Here are all the tips about the news that made the news on TIP this month...

Well actually, its been a fairly quiet month, has April. Too many holidays, I guess. Things seem to be chugging along quite nicely since the upgraded link, although due to the increase in the quantity of news articles coming in, we have been forced to retain them for shorter periods of time. Hmm, guess we'll have to upgrade our news-server disks again.

We seem to still be having many new users applying for access. That is good. TIP's philosophy has always been to provide relatively cheap access to as many of our members as possible. Our model doesn't suit all users; we are attempting to give everyone a taste for the wider Internet. If you find that TIP can no longer meet your needs, we hope that you might leave us with kind thoughts, recalling TIP as the place that you first sampled the delights of cyber-space.

I have had a couple of questions regarding the current speed of the TIP modems. To set the record straight, the modems connected to the AUUG side of the house (7) are external Maestro 33.6 kbit/s units. Those on the PCUG side (60) are internal Cisco/ 28.8 kbit/s devices. The good news is that it is extremely simple to upgrade these slower modems to the higher rate. The bad news is that I have had trouble finding the time. Over the next month or so, I fully intend to download the new software to the modems and get PCUG's members flying at even greater speeds.

You may have heard noise in the press (and elsewhere) about a new 'standard' for modems running at 56 kbit/s. To put some perspective on all the FUD (fear, uncertainty

& doubt) that surrounds this new twist for Internet users, I wanted to give my personal opinion on the matter. This is not official TIP policy, and I may be corrected or over-ruled at any moment now, but here goes.

There are, in fact, two standards (to stretch the term a bit). They both define an asymmetric transmission technique - meaning that you only get 56 kbit/s in one direction: from the Internet to you. The reverse direction operates at normal current modem speeds. The two standards are currently *incompatible*. This means that if your service provider (i.e. TIP) decides to implement one, then you are more or less forced to use that standard also.

There are no (or very few) products shipping now.

Your service provider will need 'digital modems' to implement this standard. In other words at least one end of the connection needs to be a good quality digital link also. The Cisco AS5200 that TIP uses (on the PCUG side anyway) is a box that can support this. We are one of the few existing ISP's who can. However it would require a physical modem upgrade to do so; a non-trivial cost.

If you thought that our link to the Internet (operating at 256 kbit/s) was congested now, consider what would happen if we put in these high speed modems - the mathematics is straight forward.

The bottom line in my ad-hoc evaluation is this: until the standards are finalised (and preferably made compatible) and until we can afford a much higher speed up-link, I don't see TIP putting this technology into play.

Anyway, off my soap box and onto ...

The Internet Joke of the Month!

This one has been around for a while (and its getting hard to find clean jokes out there - at least in the places I look), however its scary to think that I actually do some of these!

You may addicted to the internet if...

- 1 You wake up at 3am to go to the bathroom and stop to check your e-mail on the way back to bed, but not your children.
- 2 You get a tattoo that reads best viewed with Netscape Navigator 2.01 or higher. [I told you its been around for a while!]
- 3 You name your children, Eudora, Mozilla, and Dotcom.
- 4 You turn off your modem and get this awful empty feeling, like you just pulled the plug on a loved one.
- 5 You spend half your plane trip with your laptop in your lap and your child in the overhead compartment.
- 6 You decide to stay in college for an extra year or two, just for the free internet access.
- 7 You laugh at people with 2400 baud modems. [Sigh, perhaps you could read this as 'people with 9600/14400/28800 etc']
- 8 You start using smileys in your snail mail.
- 9 Your hard drive crashes. You havent logged in for two hours. You start to twitch. You pick up the phone and manually dial your ISP's access number. You try to hum to communicate with the modem.
- 10 You succeed. :-) [damn]



Tips On Tip Help

Please **do not** call on the Internet Project help team for answers to general computing questions, or with questions like "how do I find such-and-such software" - the tip.help newsgroup is appropriate for these topics. **Do** call on us if you can't get our kits to work, or if you believe there is a problem with the system. Here's the right way to go about it:

- 1 Read the TIP Help Pages, available from the TIP World Wide Web site at <http://www.tip.net.au/tip/help/>
- 2 Browse the newsgroup tip.help to see if someone else has solved your problem already. Browse tip.announce and tip.general for any relevant announcements.
- 3 If the problem is not urgent, post a request for assistance in tip.help
- 4 If the problem is urgent, send mail to "help" requesting advice

Please! - describe your problem clearly, concisely and completely;

tell us **WHEN** it happened

tell us **WHAT OPERATING SYSTEM** you are using

tell us **WHAT SOFTWARE** you are using (esp. version)

tell us **WHAT HARDWARE** you are using (esp. modem)

tell us any relevant **SETUP DETAILS** (eg., connection speed)

tell us what **TIP login name** (e.g. mmouse) you are using

- 5 As a last resort (ie., when email is not possible) contact Iain Gould on 255 2405 between 7pm and 8pm ONLY.

The TIP Help Team

The methods of supplying TIP help and support, and the levels of help provided are under almost constant review and discussion. Your feedback on the existing systems and constructive suggestions for improvement, particularly within the existing resource constraints, are welcome.

This can be done in the tip.* newsgroups if you would like general discussion of your ideas, by email to the TIP Help Team at help@tip.net.au, or by sending email to amikkels@pcug.org.au who will forward it to the appropriate people.

Nhan Tran's Now Official TIP Web Help Pages

<http://www.tip.net.au/tip/help>

- What's new
History of changes to TIP help page
- TIP Contact Details
Phone numbers, domain, proxies, email addresses
- Useful TIP information
Time allocation, usage statistics
- TIP documents
Agreement, Charging Scheme, Acceptable Use Policy, Access Application
- InternetFAQ
Answers to the Frequently Asked Questions about the Internet: what is the Internet, what you can do, netiquette
- TIP help FAQ
- Answers to the Frequently Asked Questions about various problems other people may have had with The Internet Project; your problem may not be a new one
- 'How-to' documents
How to set up and use various programs needed to make the most of your Internet account.
- Glossary
Translating acronyms, computer jargon, 'netese and emoticons like ;-) in plain English.

TIP Technical Information

Domain (PCUG)	pcug.org.au
Domain (AUUG)	auug.org.au
DNS server	203.10.76.34
Mail server	mailhost. Domain
News Server	newshost. Domain
ftp server	ftp. Domain
WWW server	www. Domain
Proxies	proxy.tip.net.au port 8080

Iain Gould is one of the many volunteers that keep TIP ticking. He can be contacted by email - iain@pcug.org.au

Journal of the PC Users Group (ACT) Inc
SIXTEEN BITS
Online

<http://www.pcug.org.au/pcug/16bits/>

Now in Adobe Acrobat format!

The INTERNET Project

New Applications

- NEW Application for **ADVANCED ACCESS**
 NEW Application for **BASIC ACCESS**

Login name request, in order of preference (optional)

- 1 _____
2 _____
3 _____

Your login name must be 2 to 8 characters long. It may contain only letters and numbers, and MUST be clearly based on your real name.

Existing Users

- Change from **BASIC** to **ADVANCED ACCESS**
 Renewal for **ADVANCED ACCESS** - 12 months

Current Login Name _____

Applicant Details (Required)

First Name _____

Last Name _____

Principal Organisation

- AUUG
 PCUG

Membership Number _____

Payment (Advanced Access Only)

Please make cheques payable to:

PC Users Group (ACT) Inc
Payment \$120

- Cash Cheque Visa Bankcard Mastercard

Card Number _____

Expiry Date ____/____

Name on Card _____

Signature _____

Important Notes - Please Read

1. Access to The Internet Project is governed by the Internet Project Acceptable Use Policy, copies of which can be obtained at the PCUG Centre, or downloaded from the PCUG BBS or from The Internet Project.
2. There is a limit of one Internet account per non-corporate membership. Corporate members may sponsor up to three individuals, who are then personally responsible for the operation of their accounts. Please complete one application for each person.
3. Part of your email address will be determined by the principal organisation. If your membership of that organisation expires, so too does your membership of The Internet Project. In this event, no refunds for unused allocation will be made.
4. The Internet Project reserves the right to alter prices and services offered at any time. Fees paid for Internet access are non-refundable and non-transferable.
5. Note: Hours debited do not necessarily equate to real hours on-line; time allocation will be debited in a non-linear fashion depending on the amount of time spent on-line in any given day. The debit rate is set from time to time by the Internet Project Management Committee.
6. Basic Access
 - a) Basic Access provides non PPP email and news only.
 - b) Basic Access is free on application.
 - c) In any calendar year, calculated from the date of application, Basic Access provides up to 100 'hours' usage.
7. Advanced Access
 - a) Advanced Access includes full access to the Internet using SLIP/PPP.
 - b) Advanced Access is not free. Current rates are \$120 for one calendar year of access with up to 300 'hours' usage.
 - c) When your Advanced Access subscription expires OR you use 300 hours of access (whichever is earlier), you will be required to purchase another subscription for one calendar year from that date.
 - d) Advanced Access users also receive a Basic Access allocation - see above.
8. All users joining The Internet Project receive a one-off, free five hour allocation of Advanced Access.

Collecting Your Login Details

9. A waiting period of two months applies to new members of the PC Users Group (ACT) Inc.
10. For existing members, please allow up to two weeks for your application to be processed.
11. Login details can be collected - in person by the applicant - from the PC Users Group Centre. We recommend that you phone the Centre first to check that the details are waiting for you.
12. You (and your parent/guardian if you are under 18 years of age) will be required to sign an Acceptable Use Policy Declaration when you pick up your login details. Photographic proof of identity may be required at that time.

Member Services

These special offers and services are only available to PCUG members. Please bring your membership card with you when collecting orders.

Disks & Tapes

We offer high quality disks and tape cartridges in various formats at very reasonable prices.

Disks & tapes are available from the PCUG Centre Monday, Wednesday & Friday 10am to 2pm or between 9am and 5pm on weekends.

BBS Access

New members wishing to access the PC Users Group (ACT) InterActive Bulletin Board Service (BBS) should dial (06) 253 4933 and create an account on the system. Once the main menu is presented, select the 'Goodbye' option followed by the 'Yes' option to leave a message to the Sysop.

In this message state your membership number (from your card or magazine address label) and request an access upgrade. This will usually occur within a few days.

Shareware

Members have access to a huge selection of "shareware" software. The PCUG subscribes to a CD-ROM which provides over 250 Mb of new and updated software titles on each monthly CD.

One complete section of the permanent library is also contained on each CD-ROM. In addition, there are many programs on the PCUG BBS which members have uploaded or which come from other sources.

This software is provided as "shareware". If you continue to use it, you must register the software with the author. The Group does not "sell" the software - it charges a fee to cover the cost of obtaining the software, maintaining the library and copying the software to the member.

Computers are available at the Centre which are connected to the BBS enabling members to download software.

Hardware & Video Library

The hardware and video library is located at the PC Users Group Centre. Items may be collected and returned on Saturdays and Sundays between 9am and 5pm (loans are for one week). Please bring your membership card with you.

The library provides access to equipment which members would not normally have readily available. Most items have instructions manuals and software where appropriate. Modems do not include software; check the Shareware Library for suitable packages. Items may be borrowed for one week. There is no charge, but you must collect and return the items yourself.

Equipment available includes

- modems
- soundblaster card

Videos include

- Developing Applications with Microsoft Office
- Using Windows 95



Stuffed Again

The following members and friends are thanked for assisting with stuffing our journal for mailing.

Bruce Black
Owen & Roslyn Cook
Eddie de Bear
Jim Goodspeed
John Hempenstall
Joy Hewitt
John Killips
Jenny Laraman
Geoff Lau
John Loggie
Jovo Mastilovic
Allan Mikkelsen
Don Nicol
Peter Roberts
Felicity Simmons
Rod Smith
Ross Stephens
Graeme Taylor
Gordon Urquhart
Marion Van Wely
Wolf Liske

We are *always* looking for volunteers to assist us with the 'stuffing' of our journal. We start around 5.30pm (latecomers are welcome) *usually* on the 2nd last Monday of every month and are generally finished by 8.00pm. Refreshments are provided and any of your knotty computer problems can be debated 'at the round table' in congenial company. If you would like to help, please ring Petra Dwyer at the PCUG Centre on 253 4911 and she will fill you in on all the details.

The following members and friends are thanked for assisting with stuffing our journal for mailing.

Next Stuffing

5.30pm **Monday 23 June 1997**
at Northpoint Plaza, Belconnen.
(see map page 6)

**We now have a
"Giveaway" Table at the
PCUG Centre.**

**If you have any SMALL
items of computer related
equipment (software or
hardware) that you no
longer need or use and
don't want to throw them
away, put them on the
table and someone else
may find a use for it.**

**Just bring it to the Centre
when its open and we'll
pass it on for you.**

WHAT'S

Compiled by Jim Hume

NEWS?



Want to visit Canada? and the opportunity to win \$250,000 first prize

Corel are offering \$3 million in prizes and \$250,000 to awarded to the overall winner in their Annual design contest for the best digital artwork in the computer industry.

The contest is intended to recognise and encourage Corel's international community of enthusiasts and to award exceptional talent. To encourage entries Corel will donate \$5 US to a charity of choice for each entry.

Two winners from each of the eight categories are awarded a trip to Ottawa to participate in the 8th Annual Corel World design gala and awards ceremony. Entries close September 30th 1997.

This year the competition has been extended to WordPerfect users. In addition to five graphic product categories, three Business Application Categories have been added.

In the graphics category, applicants will be requested to create a design using any version or platform of CorelDRAW, CorelPHOTO-PAINT, CorelDREAM3D, CorelXARA or CorelCAD. They will be judged in the following categories:

- 1 People, Plants and Animals.
- 2 Landscapes and Landmarks.
- 3 Abstracts.
- 4 Technical drawings .
- 5 Corporate and/or Product Information.

In the business applications category applicants will be required to use Corel WordPerfect Suite, Corel Office Professional, Corel VENTURA or any of Corel Web's publishing products in the following categories: Publishing, Third party solutions and Macros.

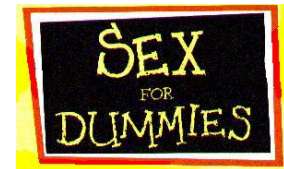
Contest Rules and an entry form can be obtained by faxing 613-728-0826 extension 810609. For specific questions, the World Design Contest can be reached by e-mail at wdc@corel.com or at <http://www.corel.com/contests>

FORTE, inc.

Forte has announced a new version of Free Agent called Free Agent 1.11. It is a minor upgrade which solves two problems reported by a small number of Free Agent users. It removes the 32,000m newsgroup limit that exists in the 16 bit version (The 32 Bit version does not have this problem). It also rectifies a problem where Free Agent was re-retrieving message headers for some news "farms" (news services with multiple news servers), most notably Zippo.. It can be downloaded from <ftp.mira.net.au>

digital

Digital Equipment Corporation has stepped up Australian PC manufacturing with the unvailing of a A\$500 million build-to-order PC Factory replacing an earlier assembly operation. It follows closely similar operations by Compaq and Hewlett-Packard seeking to match direct sales operations like Dell and Gateway 2000 on delivery times and pricing to corporate customers.



We have all at least browsed into IDG Computer Books for Dummies and most of us have praised them for their plain English. Some 19 million readers have bought them. Now, their latest title is *Sex for Dummies*. You may raise your eyebrows and could well say such a title has no place in a Computer Magazine. Certainly it is not about hard disks and bytes neither does it contain the erotica that seems to plague certain sections of the Internet. But I believe for that very reason it is appropriate particularly to parents with teenage children. There is a whole Chapter on Cybersex and the Computer. Starting with the basics, Dr Ruth K Westheimer covers it all, from procreation to puberty to courtship and commitment. She gives you no-nonsense tips, advice, techniques and suggestions. With helpful case studies and Icons she cuts through all the jargon and medical terminology to provide clear and concise information in a fun and easy to read format. From Romance to family planning, discussion on STD's and heaps more. An ideal 90's reference to safer sex and more. Available now in the USA at \$16.90



Corel have announced the following upcoming releases:-

Business Applications

Corel WordPerfect Suite 8 which will be offered in two configurations Suite8 and Suite 8 Professional, the former as a small business/home office package and the

latter for power users or enterprises. Both expected to be available in June 1997

Corel Word Perfect Suite 8 includes Corel WordPerfect 8, Quattropro 8, Presentations 8, Photo House, Envoy 7 Viewer, Netscape Navigator 3, Software Developer's Kit, Fonts, Clip Art and photos and registered users will be able to obtain CorelCENTRAL with Netscape Communicator free of charge when it becomes available. Suite 8 Professional includes Corel WordPerfect 8, Quattro Pro8, Presentations 8, Paradox 8, Time Line, Web. Site builder, Fed Ex Powership, Envoy 7, CorelCENTRAL which integrates Netscape CVCommunicator, and WordPerfect Suite 7 for Windows 3.1 which includes WordPerfect 7, Quattro Pro 7, Presentations 7 Paradox 7, Time Line, Address Book, Flow 2, Rhymer, Envoy 1.0a, Netscape Navigator 2.02, Sidekick 2.0, Dashboard 3, 1,000 fonts, 10,000 Clip Art Images and 200 Photos.

Available July 1997:

CorelCAD 2. Which advances the modelling capabilities of CorelCAD.

Available August 1997:

Corel Visual CADD 3 will concentrate on compatibility with CorelCAD 2, with improved automation and drafting and conversion capabilities. Available August 1997.

Internet Applications

Corel WebMaster (Home Edition) is targeted toward the home user and small business owner. It combines state-of-the-art Web site authoring with expert site management functionality, advanced database publishing, sophisticated graphic design programs as well as animation authoring, 3D VRML world creation and over 8,000 internet-ready images. This edition will include Web. Designer, Web. Site Manager, PhotoHouse, Web.Gallery 2. Available July 1997

Medical Series

First Aid and CPR. The Corel Medical Series title First Aid and CPR is an excellent multimedia reference guide. It demonstrates how to administer first aid and CPR through detailed illustrations,

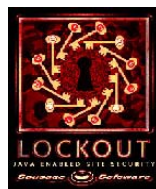
animated and narration. Designed for anyone who wants to learn or refresh their knowledge of basic first aid and CPR techniques, it is an ideal way to prepare for medical emergencies. Available May 1997.



Netscape and Yahoo! Have announced the new Netscape Guide by Yahoo! A customizable information and navigation service, Get dynamic content delivered to your desktop with Netscape Caster, the newest component of Netscape Communicator. Intraware offers a quick and cost-effective way for corporations to manage upgrades and download intranet software. . Netscape Communicator Preview Release 3 is now available for download. <http://www.netscape.com.au/>

Netscape has also struck a marketing and development agreement with icat, which makes software that allows users to chat on IRC. It will modify its client software so that it can be offered as a plug-in to Netscape's browser software. The companies also announced that they will draft a proposal for extending the IRC standard to give to the Internet Engineering Task Force.

The US Department of Commerce has approved the first part of Netscape Communications Corps international cryptography plan, paving the way for Netscape to export 56-bit encrypted products overseas.



Lockout is the latest offering from the Australian Company Sausage Software. It is designed to provide Web site owners with a secure means of controlling access to certain pages on a web site. It is a Java applet in which you load images, set the background and size of the image and specify the successful and unsuccessful

URLs. Sausage believe that people remember facial features better than numerical sequences.



Design and Print your own T-shirts with CopyFantasy Inkjet Transfer Film which is specially designed for people who, with the aid of a PC inkjet printer and an iron, can realise their own creative ideas and produce a special article that is both individual and unique. Scanned in photographs, pictures from CDs, motifs, cartoons and slogans in your choice of typestyle can be printed by means of standard software programs and easily transferred onto light coloured fabrics Works best on cotton mix fabrics. \$15 for 5 sheet pack with full instructions. Available from The Software Shop, Phillip.



Guardian Data are to distribute NEC's revolutionary PD-CD Drive. While ZIP drives are proving popular they present several limitations and lack the overall flexibility of PD-CD drives. Jaz drives are also significantly slower than the NEC PD-CD Drive now shipping as a 6X speed CD-ROM reader and phase-change optical storage device designed to streamline and simplify the process of archiving text and graphic files, and video. It also allows you to tack backup data, graphics and video quickly and reliably onto a removal PD cartridge. These 1.3 G-bytes of data can be overwritten again and again and users can access individual files quickly and easily from these removable cartridges.

The PC-CD Drive is also ideal for users who have to share PCs in their work place. Each user can be equipped with their own drive, and simply plug it in before starting work. The PD-CD Drive is available as an external SCSI or parallel unit, or as an internally fitted unit For further information.

<http://www.nec.com.au>

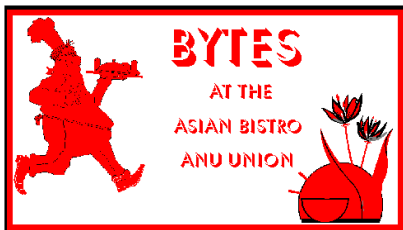


Special Interest Groups



The Internet SIG

This is a get together of those members of the PCUG who love to explore the Internet for interesting sites, new Internet tools and novel applications. It holds an informal meeting once a month on the first Thursday (January excepted), at 7.30pm. The meeting has no set agenda but free flowing chat on various Internet related topics and events. On occasion, we had presentations of interesting software. Among topics that are discussed from time to time are the upgrade of TIP, cable and wireless access to the Internet and the regulation of the Internet. The web page for the SIG is at: <http://www.pcug.org.au/~ejoseph/intsig.htm>



Bytes

The Bytes SIG is designed for those who like to talk about computing over a meal. It meets from 6 pm at the Asian Bistro, Australian National University Union, on the PCUG meeting nights. There are no Bytes SIG meetings in November, December, or January. Contact person: Andrew Freeman Phone: 258 7411 Email: afreeman@pcug.org.au or WWW at <http://www.pcug.org.au/~afreeman/cvsig.html>

AutoCAD

Geoffrey May 295 5942 Monday-Fri 4-5pm. Please call for details.

C/C++

Peter Corcoran . peterc@pcug.org.au 2nd Tuesday 7.30pm PCUG Centre

GUI Developers

Peter Harris 287 1484 pharris@pcug.org.au Please call for details



The OS/2 SIG

An enthusiastic forum for those operating or interested in OS/2 Warp. Meetings include wide ranging discussion and interesting hands on demonstrations. Meetings are held on the third Thursday at 7.30pm for 7.30pm at the IBM Building 8 Brisbane Ave, Barton. Contact David Thrum Phone 201-8806 (bh)

The Delphi SIG

A lively forum for software developers who are working with or interested in Delphi.



Our meetings include wide ranging discussion and interesting hands-on demonstrations. Come and see why Delphi is RAD! Some of our recent meetings have discussed Delphi components, best shareware tools, database applications, and HTML tools. Meeting 3rd Tuesday of each month 7.30pm at PCUG Centre. Convenor Al Kabaila email akabaila@pcug.org.au. You are welcome to also subscribe to the PCUG Delphi mailing list by sending message "subscribe act-delphi-l@pcug.org.au [your email address]" to Majordomo@auug.org.au

Linux User Group

Stephen Rothwell 291 6550 (ah) Stephen Rothwell @ canb.auug.org.au 4th Thursday 7.30pm Room N101 Computer Science Dept ANU.

Networks

Garry Thomson 241 2399 gthomson@pcug.org.au Thursday after main meeting Please call for venue.

Computer and Vegetarianism

This SIG is designed for those who have an interest in both computers and vegetarianism. It generally meets with the Bytes SIG. No meetings are held in November, December, or January. Contact person: Andrew Freeman Phone: 258 7411 Email freeman@pcug.org.au or WWW at <http://www.pcug.org.au/~afreeman/cvsig.html>



The Coffee and Chat Group meet at the PCUG Centre in Belconnen on alternate Tuesdays from 10.30am to 11.30am with another 30 minutes to 12.00 for those who want to stay. The dates of these meetings are shown in the Calendar of Events. On the alternate Tuesday a virtual Coffee and Chat Meeting is held on the Internet at 10.30am using Internet Relay Chat (IRC) address irchost.pcug.org.au Port 6667. Full details about the online meetings can be obtained from <http://www.pcug.org.au/~ejoseph/vcc.htm>.

Internet Daytime Demo and Discussion SIG



Meets every second Monday at the PCUG Centre from 10:00AM to noon. We meet to discuss internet issues, software, sites (and anything else of relevance), and demonstrate, on Centre equipment, selected software and techniques. The meeting starts with informal discussion and coffee, followed by a more in-depth look at a particular topic of interest. There is also time for discussion (and hopefully solving) of members problems with the internet. A home page for the SIG is at <http://www.pcug.org.au/~amikkels/intddd.html> Enquiries or suggestions for topics are welcome at amikkels@pcug.org.au.

Convenors are requested to email any changes in contacts or venue and additional information about the activities of their group by the first Friday in the month of publication to pcug.editor@pcug.org.au.

Training News

by Paul Balnaves

The training program for 1997 is settled, subject to ongoing adjustments in the light of developments.

Note the heavy emphasis on Internet courses. This reflects the clear demand of members at the moment. A number of days are designated 'TBA'. These days allow for the introduction of Internet related courses as discussed last month, including home pages, MS Internet Explorer, Web tips and tricks and so on. They also allow for possible courses on the Web oriented MS Office 97.

Course content for Internet courses is still under development, and subject to meetings of trainers.

In addition to the weekend courses, a range of short evening courses, mainly Internet related as above, will be introduced. These are still in the planning stages.

Our training courses are very popular. Unfortunately, some people book and then don't turn up for their course. Someone on the waiting list for the course could have filled the spot left vacant. To overcome this problem, if you book for a course but don't pay for it by the Monday before it is run, the spot will be offered to someone else.

Contacts

Course bookings: Petra Dwyer, at the PCUG Centre on 253 4911.

Training coordinator and course information (not bookings): Paul Balnaves, 241-4671 (h) 7.00pm to 9.00pm, 282-3488 (w)

Microsoft Product courses (not bookings): Michael Lane 242-9278 (h) 7.00pm to 9.00pm



All courses are held at the PCUG Centre, Northpoint Plaza, Belconnen - maximum 8 people.

Courses cost \$35 unless otherwise indicated. Full day courses run from 9.30am to approximately 3.00pm. AM Courses commence at 9.30am. PM courses commence at 1.30pm.

June	Sun	1	Intro - Using the BBS effectively	Internet - Basic Access
	Sat	7	Centre closed	Centre closed
	Sun	8	Centre closed	Centre closed
	Sat	14	Editorial day	Continues
	Sun	15	Internet - Advanced Access Intro	Continues
	Sat	21	Internet - HTML extended	Continues
	Sun	22	Internet - TBA	Internet - TBA
	Sat	28	Internet - Advanced Access Intro	Continues
	Sun	29	Intro - Using the BBS effectively	Internet - Basic Access
July	Sat	5	Editorial day	Continues
	Sun	6	Internet - TBA	Internet - TBA
	Sat	12	Internet - TBA	Internet - TBA
	Sun	13	Internet - Advanced Access Intro	Continues
	Sat	19	Internet - TBA	Internet - TBA
	Sun	20	Internet - TBA	Internet - TBA
	Sat	26	Internet - Advanced Access Intro	Continues
	Sun	27	Intro - Using the BBS effectively	Internet - Basic Access
August	Sat	2	Editorial day	Continues
	Sun	3	Intro - Intro to computers	Continues
	Sat	9	Intro - Intro to Windows 95	Continues
	Sun	10	Intro - PC Maintenance and Troubleshooting	Continues
	Sat	16	Internet - Advanced Access Intro	Continues
	Sun	17	Programming - Intro to concepts using Basic	Continues
	Sat	23	Programming - First steps in C	Continues
	Sun	24	Internet - HTML Intro	Continues
	Sat	30	Internet - Advanced Access Intro	Continues
	Sun	31	Intro - Using the BBS effectively	Internet - Basic Access

Vendor Discount Scheme

The following local vendors offer discounts to PCUG members


- Present your PCUG membership card when making a purchase
- Benefits may not apply to some sale items
- The PCUG does not necessarily recommend or endorse the products being offered




If you offer a discount to PCUG members and are not in this list, please contact our advertising manager listed on page 2.

**Australian
Management Control**

Suite 4, 32 - 36 Colbee Court
PHILLIP
285 4888

**5% discount on
'Recordkeeping' & 'Payroll'
courses**

<p style="text-align: center;">Amalgamated Business Machines</p> <p style="text-align: center;">65 Kembla Street FYSHWICK 280 4887</p> <p style="text-align: center;">5% discount on repairs through this company</p>	<p style="text-align: center;">ANU Union Asian Bistro</p> <p style="text-align: center;">Upstairs, Union Building Union Court ANU (next to main meeting venue)</p> <p style="text-align: center;">Union member discount on PCUG main meeting nights (ONLY)</p>	<p style="text-align: center;">Capital Simulations</p> <p style="text-align: center;">PO Box 329 Belconnen ACT 2616 Fax/message 258 0110</p> <p style="text-align: center;">Free postage and handling (normally \$4) & 2 free modem opponents 'wanted' notices (normally \$10)</p>
<p style="text-align: center;">Bettownd & Taltech Solutions</p> <p style="text-align: center;">Unit 5, Centrecourt 1 Pirie St, FYSHWICK 239 1043</p> <p style="text-align: center;">Prompt, guaranteed, fixed price repairs to monitors and terminals 5% discount to members</p>	<p style="text-align: center;">Nhan Tran</p> <p style="text-align: center;">Internet Software Installation & Configuration in your home</p> <p style="text-align: center;">PH 254 5293</p> <p style="text-align: center;">Fixed price, 20% discount for PCUG members</p>	<p style="text-align: center;">NET MATH TUTOR</p> <p style="text-align: center;">Email based maths tutoring service provided by experienced teacher (high school to uni level)</p> <p style="text-align: center;">http://www.teknet.net.au/~plavers/ Email: plavers@canberra.teknet.net.au Phone (06) 258 4791</p> <p style="text-align: center;">10% Discount</p>
<p style="text-align: center;">Lesley Piko Certified Practising Accountant Registered Tax Agent</p> <p style="text-align: center;">Suite 1, 17 Trenerry St Weston, ACT 288 8888</p> <p style="text-align: center;">personal and business taxation services general accounting services</p> <p style="text-align: center;">15% discount off our quoted fee</p>	<p style="text-align: center;">ACT VALLEY COMPUTER REPAIRS</p> <div style="display: flex; align-items: center;"> <ul style="list-style-type: none"> • REPAIRS • UPGRADES • NEW SYSTEMS • SOFTWARE INSTALLATION • LOW RATES • OPEN 7 DAYS  </div> <p style="text-align: center;">294 2592 or 019 323435</p> <p style="text-align: center;">10% DISCOUNT ON REPAIRS AND UPGRADES TO MEMBERS</p>	<p style="text-align: center;">Clarion Database Systems</p> <ul style="list-style-type: none"> • Computing consulting • Business applications development • Software sale <p style="text-align: center;">041 108 7754</p> <p style="text-align: center;">10% discount off RRP on Microsoft & other vendors' products and consulting services</p>

<p>Collins Booksellers</p> <p>BELCONNEN MALL Phone 251 4813 Fax 251 3926</p> <p>We carry a wide selection of computer titles for the novice and also advanced computer user</p> <p>10% Discount off computer book purchases only</p>	<p style="text-align: center;"> DALTONS BOOKS</p> <p style="text-align: center;">NO 1 for COMPUTER & BUSINESS</p> <p>54 Marcus Clarke St Canberra City PH: 249 1844 • Fax: 247 5753</p> <p>10% Discount off RRP of Computer Books <i>Celebrating over 28 Years in Bookselling</i></p>	<p>hi-micro Computers</p> <p>5% Discount On Accessories & Upgrade Installation</p> <p>Ph: 280 7520 Fax: 280 7540 6/18 Whyalla St Fyshwick</p>
<p>L&S Associates</p> <p>69 Paterson Street AINSLIE 257 7555</p> <p>Special price on any Microsoft product Dealer price plus 5%</p>	<p>Aspect Computing Education Services</p> <p>86 Northbourne Avenue Braddon, ACT 2601 247 7608</p> <p>10% Discount to PCUG members</p>	<p>NULLARBOR <small>electronic publishing</small></p> <p></p> <p>www.nullarbor.com.au nep@nullarbor.com.au Ph/Fax: 06 248 6656 5% discount Web/WinHelp publishing & training</p>
<p>Peng LEE BA, BEc, FCA Chartered Accountant Registered Tax Agent</p> <p>A fee schedule will be forwarded upon request</p> <p>6 McGuiness Place McKELLAR ACT 2617 Phone 258 0156 Fax 258 0157</p> <p>10% fee discount to PCUG members</p>	<p>Rob's Computer Help Desk</p> <p>292 3211 (24 hours / 7 days)</p> <p>For telephone and on-site help for ALL your computer and support needs</p> <p>5% discount on consulting services to PCUG members</p>	<p style="text-align: center;"> SYCOM CONSULTING</p> <p>15% off normal fees</p> <p>We can - Fix - Upgrade - Maintain</p> <p>your PC on location 24 hours a day</p> <p>Ph : 015 909 352 015 786 610</p>
<p>The Software Shop</p> <p>42 Townsend Street PHILLIP 285 4622</p> <p>5% discount off our already low prices</p>	<p>NCH - SWIFT SOUND</p> <p>"EMAIL TO WAV" professional voice overs, music and SFX for multimedia, IVR, games and software.</p> <p>25% discount to non-corporate members</p>	<p>The Cartridge Factory</p> <p>Canberra Business Centre 49 Wentworth Ave KINGSTON 295 5935</p> <p>10% discount on remanufactured laser toner cartridges 10% discount on inkjet refill kits No discount available on new ink or toner cartridges</p>

Members' Ads

FOR SALE

386 SX with math co-processor. SVGA 14" monitor, 105MB HDD, 4Meg RAM, 3 1/2" and 5 1/4" FDD, keyboard, mouse \$300 obo.
Ben Hinton 291 0279 (h) after 6.00pm.

Golf Games and Courses

Games: Microsoft Golf CD Version 1.0 \$5, Microsoft Golf CD Version 2.0 \$10, Links 386 Pro 3.5" boxed \$20.
Courses: The Belfry 3.5" (original boxed) course \$10, Banff Springs 3.5" (original boxed) course \$10, Mauna Kea 3.5" (original boxed) course \$10, Firestone 3.5" (original boxed) course \$10
Phone Brian (06) 255 2028 7.30-9.00 pm.

Intel Pentium 120 CPUs (two) with heatsink/fan assemblies. \$100 each or \$175 the pair.
Canon BJ300 Bubble Jet Printer with auto sheet feeder, in excellent condition. \$150.
Paul Golding 251 5438 any time.

Borland Turbo Pascal 7.0 for DOS \$50
DBase books, **Inside dBase 5 For Windows** (with Disk) and **dBase 5 for Windows Developers Guide** (with Disk), \$20/ea. Darrell (06) 258.3786 anytime.

WANTED

A 40mb, 60mb or 80mb (preferred) external SCSI HDD for a Mactintosh Plus
Only lowest prices considered. Can be swapped for software or speakers.
Chris (06) 2971042 or cbeck@pcug.org.au

Home Reference Library (CD ROM). Particularlyly Softkey's Infopedia and Multipedia, Microsoft Bookshelf, any Encyclopedia of Australia and History of Australia, Superseded versions OK, to keep cost to me low.
Bob Ross (06) 286 3431.

14.4kbps PCMCIA Card Modem
Ph 216 5687 or 247 1497(ah)

Help Requested

I am having problems with the setup of my Panasonic KX-P1124 printer. It prints too slowly and it has a very high quality print, but it takes 30 mins to print one page. What is the problem? (The driver is set to draft mode) I am using Win 95 and have 2 Lpt ports. Please call Chris on (06) 2971042 (preferred) or email cbeck@pcug.org.au

PC Users Group Membership Application / Renewal

Annual Fees Applicable (one)

- General¹ \$ 50
 Concessional² \$ 25
 Corporate³ \$130
 Additional Corporate⁴ \$ 50
 International (Air Mail) \$130

Notes

- 1 General membership covers all members of a household except for BBS and Internet access. Two month waiting period applies to Internet access.
 2 Concessions apply to full time students and pensioners.
 3 Corporate Membership covers up to three nominees.
 4 Additional Corporate nominees may be added at \$50 each.

I am paying by (one)

- Cash (if paying by person) Cheque to *PC Users Group (ACT) Inc*
 Credit card

Title	Given Name	Surname
Organisation (if applicable)		PCUG Membership Number (if applicable)
Postal Address		
Phone (h)	Phone (w)	Concession Type (if applicable)
Credit Card Type / Number	Expiry Date	Signature

I would like to (one or more)

- Become a new member for ____ year(s)
 Renew for ____ year(s)
 Change my address details
 Change Corporate nominees
 Take my address off advertising list
 Access the Bulletin Board (BBS)

Reasons for Joining ((one or more)

- Sixteen Bits Magazine Training Courses
 The Internet Project Advice and help

Other _____

TOTAL PAYMENT DUE \$ _____

Please Post your application with payment to:

PC Users Group (ACT) Inc
PO Box 42 Belconnen ACT 2616

Additional Corporate Membership Nominees

Title	Given Name	Surname
Position (if applicable)	Phone (h)	Phone (w)
Title	Given Name	Surname
Position (if applicable)	Phone (h)	Phone (w)

The Help Directory

The people in this directory are *volunteers* so please observe the times given. The Help Directory is designed to help individual users and should not be used as a substitute for corporate support calls to vendors! This service is provided for *members only*. Please quote your membership number to the helper. For those helpers with an asterisk *, messages may be left on the BBS in either the General message area or as a Netmail message on 3:620/243. Send updates to pcug.editor@pcug.org.au or via post to the PCUG Centre.

Subject	Name / Email	Phone	Days	Times
Access for Windows	Graheme Fry	288 3138	All days	7.30pm - 8.30pm
Accounting -TAS+ Exogen Attache NewViews	P Goerman	231 2304	All days	9.00am - 9.00pm
Advanced Revelation	John Curby	286 5777	Mon - Fri	9.00am - 9.00pm
Assembly Language	Thomas McCoy	294 2226	Mon - Fri	8.00pm - 10.00pm
AutoCad	Geoffrey May *	295 5942	Mon - Fri	4.00pm - 5.00pm
AutoCAD Rel 12, 13 and LT	Neil Moffat	292 7108	All days	Noon - 10.00pm
BASIC + Machine Language	George McLintock	295 6590	All days	8.30pm - 10.00pm
Basic hardware help	Mick Howe	(044) 729812	All days	Noon - Midnight
Bluewave	Jorge Garcia	282 2681	All Days	7.00pm - 9.00pm
Batch Files, TSRs, Utilities	Bill Ghysen	287 1234	Mon - Fri	8.00pm - 10.00pm
Bulletin Board Service	Michael Phillips *	253 4966	All days	7.30pm - 8.30pm
Chinese Star for Windows	Peng Lee	258 0156	All days	1.00pm - 9.00pm
Clipper	Cedric Bear	258 3169	All days	7.30pm - 8.30pm
Corel Draw	Fabian Stelco	241 1743	Mon - Fri	7.30pm - 9.00pm
Corel WordPerfect Suite 7 for Win95	Peter Tilbrook kermit@dynamite.com.au	242 8696	All days	Anytime
DOS	Mick Howe	(044) 729812	All days	Noon - Midnight
Excel	Graheme Fry	288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery lowery@pcug.org.au	258 1583	All days	Anytime
Foxpro	Greg Atkinson	241 7903	Mon - Fri Sat / Sun	7.00pm - 9.00pm From 11.00am
Free Agent / Agent Newsreading	Allan Mikkelsen	278 3164	All days	Noon - 9.00pm
General Help	Allan Miller	(044) 711187	Mon - Fri	7.30pm - 8.30pm
General Help	Brian Gosling	259 1116	All days	7.30pm - 8.30pm
GEOS/GeoWorks	Phil Jones	288 5288	All days	6.00pm - 10.00pm
Hardware	Anthony Glenn	288 8332	All days	Anytime
HDK	Lis Shelley lshelley@pcug.org.au	248 6656	Mon - Fri	7.30pm - 8.30pm
HDK	Ivana Leonard	231 4169	Mon - Thu	7.00pm - 9.00pm
ISR CADDSMAN Modeller (Win)	Neil Moffat	292 7108	All days	Noon - 10.00pm
LINUX, PC Unix	Andrew Tridgell	254 8209	All days	6.00pm - 8.00pm
Lotus 1-2-3	Doug Jenkins	286 2243	All days	7.30pm - 9.00pm
Lotus Ami Pro 3 / Word Pro 96 ed	Peter Tilbrook kermit@dynamite.com.au	242 8696	All days	Anytime
Microstation Cad	Andrew Novinc	258 1907	All days	6.00pm - 10.00pm
Modem Communications	Michael Phillips *	281 1980 or	All days	7.30pm - 8.30pm
Networks	Gary Thompson	241 2399	All days	7.30pm - 9.00pm
Online doc using Help Compiler (Win3)	John Carroll jcarroll@pcug.org.au	248 0781	All days	7.30pm - 10.00pm
OS/2 v.2	Mark Beileiter	283 2429	Mon - Fri	8.00am - 3.30pm
OS/2	Mick Howe	(044) 729812	All days	Noon - Midnight
OS/2	Michael Lightfoot *	258 8185	All days	7.30pm - 9.30pm
Project (Microsoft)	Steve Ramsden	287 1500	Mon - Wed	8.00pm - 10.00pm
SBT Accounting	Greg Atkinson	241 7903	Mon - Fri	7.00pm - 9.00pm
Scream Tracker 3 (3SM) / MOD Music	Chris Collins	258 8276	Mon - Fri	7.30pm - 9.00pm
Small Business Computing	Nick Thomson	241 3239	Mon - Thu	7.30pm - 9.30pm
SuperBase	Paul Blair	288 3584	All days	7.30pm - 9.30pm
Telix	Michael Phillips *	281 1980	All days	7.30pm - 8.30pm
SCO Unix & Xenix	J. Bishop	291 0478	All days	7.00pm - 9.00pm
Unix	Michael Lightfoot *	258 8185	All days	7.30pm - 9.30pm
Turbo Pascal	Michael Phillips *	281 1980	All days	7.30pm - 8.30pm
Vision Impaired	Adam Morris	291 4522	All days	7.00pm - 9.00pm
Windows 3.1x	Mick Howe	(044) 729812	All days	Noon - Midnight
Word for Windows	Lis Shelley lshelley@pcug.org.au	248 6656	Mon - Fri	7.30pm - 8.30pm
WordPerfect 5.1 DOS, 6.1 Win	Gayle Scott gayles@pcug.org.au	254 1579	All days	7.30pm - 9.30pm
WordPerfect 6.1 / 7 for Win95	Peter Tilbrook kermit@dynamite.com	242 8696	All days	Anytime
WordStar	Dave Hay	258 7310	All days	7.00pm - 9.00pm

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Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
						TRAINING DAY PCUG Centre 9.30-12.30 Using the BBS effectively <hr/> 1.30pm-4.30pm Internet - Basic Access Intro  1
Internet Daytime Demo and Discussion 10am-12noon PCUG Centre <hr/> New Members' Night 7.30pm PCUG Centre  2	*Virtual* Coffee & Chat TIP IRC Server 10.30-11.30 am 3		Internet SIG 7.30pm PCUG Centre  4	SIXTEEN BITS Commercial Ad deadline for June  5	LONG WEEKEND PCUG Centre closed <hr/> SIXTEEN BITS Layout Day 10am  6	LONG WEEKEND PCUG Centre closed  7
LONG WEEKEND PCUG Centre closed  9	Coffee & Chat 10.30am PCUG Centre <hr/> C++ SIG 7.30pm PCUG Centre  10				Internet Connection Clinic 9.30-1pm PCUG Centre  14	TRAINING DAY Internet: Advanced Acces Intro 9.30-4.30 PCUG Centre  15
Internet Daytime Demo and Discussion 10am-12noon PCUG Centre 16	*Virtual* Coffee & Chat TIP IRC Server 10.30-11.30am <hr/> Delphi SIG 7.30pm PCUG Centre  17	Committee Meeting 7.30pm PCUG Centre  18	OS/2 SIG 7 for 7.30pm IBM Building 8 Brisbane Ave Barton  19		TRAINING DAY Internet: HTML extended 9.30-4.30 PCUG Centre <hr/> Meet the Committee 2-4pm PCUG Centre  21	TRAINING DAY Intro to Windows 95  22
SIXTEEN BITS Stuffing and Mailing 5.30pm PCUG Centre 23	Coffee & Chat 10.30am PCUG Centre 24		Linux User Group 7.30pm RmN101 Computer Science Dept ANU  26	SIXTEEN BITS Article deadline for June 27	TRAINING DAY Internet: Advanced Access Intro 9.30-4.30 PCUG Centre  28	TRAINING DAY PCUG Centre 9.30-12.30 Using the BBS effectively <hr/> 1.30pm-4.30pm Internet - Basic Access Intro  29
Main Meeting Manning Clark Theatre 1 Crisp Building ANU 7 for 7.30pm  30	Bytes SIG 6pm Asian Bistro ANU (before PCUG meeting)					