Features

8 Random Jottings Ken Meadows goes to the Fair

10 **An Internet Discussion** Wayne Corbin tells thefuture

15 Modem Logs
Owen Cook tells us how we use our hours

16 Cookies!

Terry Bibo makes a batch

18 Ockham's Razor

Transcripts from Auntie

20 **@law - Think Before You Link** The legal aspects explained by Geoff Purvis-Smith

21 The Rosetta Page Don Nicol philosophises

22 CD ROM Column

Nick Thompson reviews a selection of software

24 That Car Computer

Jim Fogg finishes the saga

25 CGI Scripting 3

Owen Cook continues his series on programming

26 Woody's Office Watch

File open tricks and traps

27 Saving Space in Excel 97 Greg Baker contunues the tutorials

28 Anguish!
Andrew Geraghty will never log on again

29 Linux

Lawrence Magid explains the hype

30 **Bits and Bytes** Have a laugh with Andrew Clayton

31 Puzzle Page

Exercise the old grey cells with Vic Bushell

32 Software Library News

Phil Trudinger reviews a selection of Software

38 What's News

Malcolm Morrison keeps up with the lates

Profile

2 Editorial Information

How to contribute to Sixteen Bits

3 Contact Information

How to contact us

4 Editorial

Anne Greiner

4 President's Letter

Anne Greiner

6 Letters

From our readers...

PCUG News & Services

7 Membership Notes

Mike Burke with information for new members

15 TIP News

Allan Mikkelsen updates us on TIP

40 Internet Project Application

Get connected with TIP

41 Member Services

Details of services available to members only

42 Special Interest Groups

Where the real action is

43 Training News

Low cost training for members

44 Vendor Discounts

Membership has its privileges

46 Members' Ads/PCUG Membership form

Check here first for bargains

47 Help Directory

Stuck? Call the experts

48 Calendar

What's on next month

Advertiser & Product Information

AB&T Systems 11

12 Context

L&S 14

17 Interact

24 Bettowynd

44 Vendor Discount Scheme

SIXTEEN BITS (ISSN 0817-0991)

is published monthly by the

PC Users Group (ACT) Inc PO Box 42 Belconnen ACT 2616 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 Sixteen Bits Web site at http://www.pcug.org.au/pcug/16bits/16guide.htm).

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 fax to (02) 6253 4922
- By mail to the Centre's address above.

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.

© Copyright 1999, by the PC Users Group (ACT) Inc. All rights reserved. Permission for reproduction in whole or in part must be obtained from the Managing Editor and is generally given, provided the author also agrees and credit is given to SIXTEEN BITS and the author(s) of the reproduced material. All other reproduction without prior permission of the PC Users Group (ACT) Inc is prohibited.

Members of the PC Users Group (ACT) Inc receive SIXTEEN BITS each month. Registered by Australia Post, Print Post Publication No. PP226480/00009.

Although it is editorial policy to check all material in SIXTEEN BITS for accuracy, usefulness and suitability, no warranty either express or implied is offered for any losses due to the use of the material in the journal. Unless specifically stated otherwise, the experiences and opinions expressed in any column or article are those of the author and do not represent an official position of, or endorsement by, the PC Users Group (ACT) Inc. The PC Users Group (ACT) Inc is not liable for inaccuracy in any advertisement and does not accept responsibility for any claims made by advertisers. It is the buyer's responsibility to investigate the claims made by advertisers. Any material considered misleading or inappropriate will be withheld at editorial discretion. Names of hardware, software and other products offered on a commercial basis may be registered names and trademarks of the vendors concerned. SIXTEEN BITS uses such names only in an editorial fashion and to the benefit of the trademark owners, with no intent of infringement of the trademark.

Managing Editor

Anne Greiner pcug.editor@pcug.org.au agreiner@pcug.org.au

Online Editor

Tamsin Sowden tsowden@pcug.org.au

Editorial Team

Mike Burke, Tamsin Sowden, Andrew Clayton, Malcolm Morrison, Ann Byrne, Ivan Kramer, Vic Bushell, Brian Thomason

Cover Design

Russell Kerrison

Technical Editor Michael Phillip

Photographer Brad Van Wely

Commercial Advertising Manager

Brian Thomason pcug.ads@pcug.org.au

Production

Petra Dwyer and the Stuffing Team

Contributors for this issue

Mike Burke, Anne Greiner, Malcolm Morrison, Phil Trudinger, Victor Bushell, Tamsin Sowden, Peter Elliott, Ann Byrne, Don Nicol, Andrew Clayton, Geoff Purvis-Smith, Terry Bibo, Owen Cook, Andrew Geraghty, Wayne Corbin, Glenn Pure, John Plunidis, Nick Thompson, Greg Baker

Authors and Advertisers please note

Articles from SIXTEEN BITS are also published on the Internet as Sixteen Bits Online at http://www.pcug.org.au/pcug/16bits/

Material published on the Web and broadcast on radio is subject to copyright law and reproduction in any form without permission of the editor and the author is prohibited. If however you, as an author, object to publication of your material on the Internet or on radio for any reason, you must contact the Editor to request that your articles be omitted from the online version.

Deadlines For June1999 Issue

Articles and Member Ads Friday 23 April 1999 Commercial Ads Friday 30 April 1999

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, Brian Thomason, on

(02) 6295 2423 for further information.

Sixteen Bits

is produced with the products and support of



PCUG Committee

President	Anne Greiner agreiner@pcug.org.au	6288	2810
Vice President	Ann Byrne boop@pcug.org.au	6282	2536
Secretary & Public Officer	Hugh Bambrick pcug.secretary@pcug.org.au	6249	7667
Treasurer	Rod Farr pcug.treasurer@pcug.org.au	6286	1597
General Committee	Allan Mikkelsen amikkels@pcug.org.au	6278	3164
General Committee	David Schwabe dschwabe@pcug.org.au	6254	9086
General Committee	Russell Kerrison rkerriso@pcug.org.au	6257	4063
General Committee	Michael Lightfoot MichaelLightfoot@canb.auug.org	6258 g.au	8185
General Committee	Peter Elliott pelliott@pcug.org.au	6258	9806
General Committee	Ted Macarthur ebm@pcug.org.au	6286	3536
General Committee	Anne Meade ameade@pcug.org.au	6231	7881
General Committee	Tamsin Sowden tsowden@pcug.org.au	6286	4340
General Committee	Nhan Tran ntran@pcug.org.au	6254	5293
General Committee	David Voss dvoss@pcug.org.au	6258	2178

PCUG Committee email to: pcug.committee@pcug.org.au

Other Contacts

Executive Secretary Petra Dwyer pcug.execsec@pcug.org.au Mike Burke Membership Secretary pcug.membership@pcug.org.au Novell Network Michael Phillips 6253 4966 Administrator NT Network **David Schwabe** 6254 9086 Administrator dschwabe@pcug.org.au **BBS Sysop** Michael **Phillips** 6253 4966 pcug.sysop@pcug.org.au Centre Manager Wolf Lieske 6258 5250 wlieske@pcug.org.au

The phone numbers listed above are home numbers unless otherwise

Training Rm Mngr David Voss

pcug.hire@pcug.org.au

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

(02) 6253 4911 for bookings.

PCUG Main Phone number

(02) 6253 4911 (Answering machine when Centre unattended)

Fax number

(02) 6253 4922

⊕Email

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

☐ The INTERNET Project

(02) 6206 6200 help@pcug.org.au



World Wide Web page

http://www.pcug.org.au/pcug/

■ Bulletin Board Service (BBS)

(02) 6253 4933 (5 lines 33.6k bps) Fidonet address 3:620/243

BBS Sysop voice number

(02) 6253 4966 (6.00pm - 9.00pm)

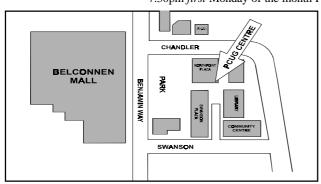
Main Meeting

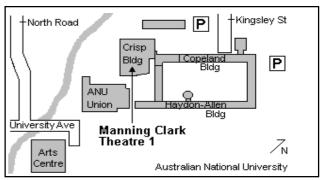
Main meetings are held 7.00pm for 7.30pm, *usually* on the last Monday of every month at Manning Clark Theatre 1, Crisp Building Australian National University.

specified. Please restrict calls to between 7.30pm and 9.00pm. New Members' Information Night

6258 2178

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







Editor's Desk Top

Anne Greiner, Managing Editor

Oh, am I ever looking forward to John Hilvert's presentation this month, and it's not to find out how to buy a new computer - I simply can't afford one - but the opportunity to compare notes, and to see if he feels that we have carried the banner with some style since he left. I am really looking forward to finding out how a large national

plays in it, and of course, will he give me a lovely job at a wonderful salary so I can go and live in Glebe and improve my publishing jargon.

I guess we are all prone to parochialism,

and that great wish to be part of the group,

and perhaps even to exclude others from that

group. This is, of course, particularly evident

magazine is put together, and what part he

in the jargon that any group, from the Hell's Angels to Unix gurus, develops for itself.

I'm multilingual in jargon, speaking a number of different jargons, but am probably most fluent in Medical jargon, I can bandy hepatosplenomegalies and haemoangiopericytomas with the best of them, knowing full well that my colleagues and not the patient will understand what I'm saying. I have a moderate familiarity with mechanical jargon, as many years ago I owned a very venerable old MG sports car, and had enough money to put petrol in it or fix it, but not both, so I bought a workshop manual. My mechanical jargon however, is dated, having not been used for some years.

I speak quite good IT jargon, but only in certain fields in which I am competent, and the good Lord knows there are numbers of IT fields of which I have less than a passing acquaintance.

We do this for a number of reasons. Foremost is the verbal shorthand that we can

employ to facilitate rapid communication among busy people, but each one of us would have to admit, if pushed, that we will all use jargon occasionally to keep out the outsider.

It is for this reason that I wish to start up a new course at PCUG. I want to try and prevent the days of anguish that I went through when I set up my Internet account, when I had absolutely no idea what Winsock was, or POP, or domain names ("Dunroamin", perhaps), or gateways, or any other of a hundred or more words or acronyms that sounded familiar, but slid away from me when I fixed an eye on them. If there is anyone interested, give Peter Elliott or Petra Dwyer a ring (numbers in the mag.) and we'll see what we can do.

In the meantime, enjoy your computing, be kind to your mother who is probably not as computer literate as you are, and remember, computers are not intelligent. They only think they are.

President's Letter

Anne Greiner

his month I want to have a closer look at the phenomenon of the great Australian Dummy Spit. The time for this appraisal has come because some of our volunteers, notably those from TIP Help and TIP Admin, seem to be reaching their use by dates, and the rumblings that I'm hearing indicate that some are in imminent danger of saying "had enough!" and heading off for the ski slopes in Colorado.

There is never one single reason for a really big dummy spit, and it is often some completely innocuous, otherwise unrelated happenstance that sets one off. Some of the contributory factors here are the new Cisco AS 5300 and all the many and varied concomitant modem and connection and configuration problems, etc., etc., however the one that I hear most about, and the one that seems to cause the more irascible side of these volunteers to become most apparent, is the *demand* for service from their ISP by a (thankfully) small number of our more vocal members.

There are several very important points here. Firstly, we are primarily a Users Group, first and foremost. This is what we were set up as, and this is what we remain. As a Users Group we provide a number of services and provide a number of benefits to our members. These benefits and services for members include a software library on the bulletin board, hardware loan, equipment at the Centre for members to use, help lines for a wide variety of software and hardware, a monthly magazine, etc., etc., and last but not least, connection to the internet at *very* reasonable prices.

Secondly, we have *one* paid employee in the entire organisation, and that is Petra Dwyer, the least of whose duties is running the Centre on Monday, Wednesday and Friday. She is integral to the smooth operations of the group, and does most of the day to day financial and administrative business. *All* the other officials, committee, staffers, help personnel, stuffers, and the like, are volunteers, and donate their time, energy and expertise for the good of the group.

Thus, TIP is a service available to members, like any other service or benefit available to members. TIP is *not* a commercial ISP, and was never envisaged as such. It was set up and maintained by a

group of knowledgable and dedicated volunteers (who, to be honest, also got and get a lot of enjoyment out of the challenge!) to provide internet connection for those of our members that wished to utilise it. We offer to those members free help and support, but not around the clock. We offer a service that will set up your hardware (the Internet Clinic, first Saturday of the month at the PCUG Centre), which is conducted by some of the most able technical people around, but this is a Users Group, and we expect you to have had a darn good try yourself first. If you can't get to the Internet Clinic, try the HIT team, who will come to your home (and charge \$30 for travel and admin.). Again, they are happy if you have had a go first. To aid the "have a go" ethos, we are considering adding to the usual courses of Win 95/98 and Internet, a new 3 hour, evening course, run once or twice a month, on how to actually connect, where someone will go through the standard instructions, explain the terminology, and hand out a set of notes that may help those of us with a lesser amount of technical expertise to actually be able to say "I did it myself!".

continued on page 5 ...

Main Meeting

John Hilvert Guest Speaker: 26 April 1999 Date:

ohn Hilvert is the deputy editor of Australian PC User, our most widely

computer monthly and editor of School PC Australia, a niche magazine that students, parents and educational professionals love.

Specialising in reporting on the problems PC users face, since 1990, he recently addressed a computer summit of regulators and industry in Melbourne on how and why purchasing and after-sales support can really suck.

He has also been Canberra-based reporter for The Australian's weekly computer section and Computer World magazine. But he got his break into computer press as the editor of 16 Bits, some 10 years ago. Before that he was a public servant.

His ever diminishing contributions to the internet community include his lost crusade

against the use of Adobe Acrobat (PDF) files and his tagline: The shallower you are, the more ground you cover.

His topic is:

SHOPPING PC AND SUPPORT: WHY DO WE HAVE TO PUT UP WITH IT?

The theme derives from John's disillusionment with PC buying. No matter how smart you are, the chances are one in six you'll run into an installation problem, one in three that something will not work the way it

that you wished there was an easier way. His talk will illustrate the issues with case studies, survey research, marketing intelligence, with whatever glitz he can

should in a full year, and almost a 100%

muster from PowerPoint 97.

For those that can't make it, the answer to these obstacles is NOT to shop around.

The solution requires improved consumer education and consumer industry reforms.

For those that can make it, the answer is still NOT to shop around. The solution requires improved consumer education and consumer industry reforms.

It should be an excellent evening

continued from page 4...

Just remember, when you are totally frustrated, that the person you are complaining to is trying to fix your problem and is doing it out of the goodness of his or her heart and is not being paid for the privilege, and quite possibly has done a day's work somewhere else already. Like you, the person who answers a query about a modem, teaches you the basics of desktop publishing or Perl scripting, or who is part of the team that puts this magazine together, is also a member, and is volunteering that particular service.

As Abe Lincoln said, "You can please some of the people all of the time, and all of the people some of the time, but you can't please all of the people all of the time. TIP satisfies most of its users most of the time. and we always appreciate feedback, good as well as bad, and we always try to act upon it. We will help you as much as we can, and provide as good a service as we can. Maybe you would like to come and help us help you 🕤

From the Committee

Excerpts from the MarchCommittee Meeting:

\$495 spent on the purchase of an Apple Laser Postscipt Printer for the Editor, Letter to be sent to Sitec to confirm Cisco maintenance contract. LS120 drive has been installed at the centre

TIP - it is predicted that TIP will run at a small loss this financial year. Bandwith has stablilised at just under 60% but the peering link is not working satisfactorily if the link was upgraded the the cost could be recouped in lesser Access One fees. Long term options include expenditure on hardware (increase the proxy cache, either upgrade the sun systems or go the PC hardware) will result in enough of an improvement to bring TIP out of the red.

Complaint have been received from and about TIP members. The IPMC noted they will act on complaints received and will give information to the Australian Federal Police. However the IPMC will not give out details of members to other members.

David Schawbe asked that a notice be put in Sixteen Bits seeking an Assistant Network Administrator. Nhan Tran is also looking for more HIT team members.

Note that these exerpts are always from the previous month - these minutes they are taken from have been confirmed by the committee.

Letters



Dear Editor

Have just received the April Edition of 16 Bits and read with great interest Glen Pure's article on CD writers.

My partner purchased one from Harvey Norman (our first big mistake!) not to be used for audio but for archiving graphics.

Unfortunately one of the discs gave a corrupt message at the end of writing . We need to access the data on the CD and I am wondering if you know anyone who can help us.

I thought I remembered seeing an ad for someone who "fixes" corrupted CD's...my partner is reasonably computer smart, so if you know of an easy way to solve our problem, we could even try it ourselves.

We were writing publisher files to CD. Smart & freindly CD-R 2006plus is the writer we are using. Any clues?

Thanks,

Jane

jane@daltons.com.au

Dear Editor

Can you please include an entry for this in the Calendar for every second Thursday from 1000 to 1200, starting Thursday 29th April. It will be on the alternate weeks to the VB SIG.

The following can appear on the SIGs page:-

Linux Learners SIG

For newcomers to Linux - installation and use of one of the currently available Linux distributions. Designed for the end user rather than the systems programmer or administrator, Meets 10 until 12 every second Thursday. Contact: Allan Mikkelsen 6278 3164 or amikkels@pcug.org.au.

Allan Mikkelsen

Dear Editor

In January this year my house was struck by a fireball. I looked out the lounge room window and saw a red ball about two metres in diameter which exploded with a huge bang. It took out a phone, a fax, a modem and computer. I replaced the computer, the modem and the fax. Telstra replaced the phone.

My new computer worked OK, but I could not get the modem to connect with the internet. My supplier replaced the modem with another model which worked in the shop, but not at home. After many fruitless attempts to connect,Big Pond help desk advised me that there was apparently nothing wrong with my computer modem settings, and suggested there was something wrong with my line. Three attempts by Telstre staff to help indicated that there was nothing wrong with the phone line.

Now I have a four wire Telstra line which supports two services - two wires run the phones, and the other two run a fax on an entirely separate number. I can phone the home fax number from my home telephone. Some sort of white man magic, I suppose.

A clever thehnician from my computer provider ran an extension from my modem to the fax line and established a connection with the internet. Proof at least that there was nothing wrong with either the computer or the modem. (or the fax line).

Armed with this evidence, I managed to get a Telstra technician back again. Tested the phone line. Nothing wrong. Attempted to connect to the internet. No dial tone. Connected an IBM laptop at 9200 to a Telstra test site - it worked! Reduced my modem speed to 9000 - no dial tone. Telstra man went home, advising that there was nothing wrong the Telstra line, but that mymodem would not work on it. He did not know why. Probably something wrong with the modem or the computer.

I really would like to connect to the internet from my phone line. I there anyone out there in Sixteen Bits Territory who knows how?

Ian Uhlmann

2 Tristania St Rivett 2611

Ten Years ago in Sixteen Bits ...

Compiled by Andrew Clayton from: Volume 6, Number 4, May 1989

obert Fox's editorial was about the rapid technological advancement in computer hardware, citing the recent release of Intel's 80486 chips (ed. when did they drop the 80 nomenclature?) The monthly meeting was hosted by Chess Krawczyk, all about hardware and software development. I would love to repost in full, the article by Alan Salmon, on the trials and tribulations of being a Sysop for the PCUG Bulletin Board. Stories of being applauded and blasted in alternating phone calls, and the bitter disappointment of implementing broken software. The highlight of the article was revealing that the Opus BBS software had a bug that made it fail on Feb 28th 1988 — Australians got the problem, reported it to the authors of Opus, who fixed the bug and within 12 hours had delivered (through Fidonet) the software all across America and Europe. A precursor of the mass hysteria the world is heaping upon the dreaded Y2K bug. I expect in 10 years time, there will be references to the global non-disaster surrounding Y2K.

Michael Lightfoot bemoaned the lack of response to his Unix columns. He explained unix data copying mechanisms (dump, restor, tar, cpio, dd, volcopy), and went on to talk about file systems, permissions and finally continued his Unix glossary (this month was terminology beginning with the letter D). I'm sure the Linux users of todays PCUG users, would love to see this stuff explained again!

Karl Auer wrote about QNX, and revealed that his 66MB HD had filled up and he had to purchase a 130MB drive. Tony Solazzo wrote about demands upon the PCUG to provide advise on purchasing new computer systems. This was the impetus behind the PCUG's 'A Consumer Awareness Guide for the purchase of computer hardware.' (Available on main meeting nights for \$2). There were articles on databases, and Malcolm Street had his usual diversionary whinges about a wide range of subjects related to computers in the ACT.

.. by Mike Burke





elcome members to reading Bits for the first time, 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 May 1999 RENEW NOW to avoid losing access to The Internet Project.

Your Membership Card

Your membership card and, for new members, a New Member's Information Disk, will normally be mailed to you on the third Monday of the month in which you join or renew your membership. Those who join or renew after the third Monday will receive their card/disk the following month. If you lose your card, please leave a message with the Executive Secretary on 6253 4911, or contact me directly via TIP at pcug.membership@pcug.org.au and it will be replaced without charge..

Information Disk

New members should also receive a disk containing information about the Group and its services. Please read the inform-ation on the disk carefully as you will find the answers to most of your questions there. This disk now contains instructions on how to connect to the Internet Project.

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 Jan-uary) at the PC Users Group Centre (see map page 3). These meetings are a chance 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.

Other Good Stuff

For those who haven't yet learnt through bitter personal experience, please remem-ber 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.

Don't forget! RENEW TODAY, if not yesterday, if this copy of Sixteen Bits arrived with a pink label.

As a further service, one month before your membership is due to expire, I will send a reminder letter with a renewal form on the reverse. This letter, printed on paper of a very noticeablecolour, should arrive a day or so before Sixteen Bits.

> **Next New Members' Night** 3 May 1999 7.30pm **PCUG Centre** Northpoint Plaza, Belconnen

RAIDOM JOTTINGS

... by Ken Meadows

any years ago, (well nine actually), I started a column in 16 Bits and looking at my copies I see there were 23 published before I gave up the keyboard. These articles were mainly directed at beginners and those like myself who dabble with computers. It was called Random Jottings and related my experiences with programs and my efforts to control a computer, which at times seemed to have a mind of it's own. These articles came to mind as I struggled to 'upgrade' from my 486 to the 20th century. So here I go again.

I do not claim expertise so here is a disclaimer. I am not responsible for any mishaps if you follow what I do. Much of what I did (and do) is only possible by help from other members of the PCUG, mainly those active in the Coffee, Com-puter and Chat group (CCC) and from articles and books. Recognition will be given where appropriate.

My computer was in a tower case. It was a 486 with Windows 95 installed, 32 Megs of RAM, an AMD 120 CPU and a 15-inch monitor. It had two hard drives, one 1.2 gigabytes and one 250 megabytes. One 3½ inch and one 5¼ inch floppy drives were fitted and a 16 speed CDROM drive that had replaced a 2-speed drive. A 33.6 modem connected me to the World Wide Web. The CDROM drive and the modem were the only 'modern' items. My aim was to transfer the key items to a midi case I had. Only the monitor and CDROM drive being transferred to a new computer. I

liked my present keyboard and mouse so would use them with the new computer and I had a spare keyboard, mouse and 3½ inch floppy. The existing computer was considered pretty good before the days of the Pentium but you know we computer junkies. What we have now is never good enough.

I considered three ways of upgrading. The chicken way, studying advertise-ments and selecting what appeared to be the best deal, the cautious way, making up a list of preferred components then getting quotes from a number of dealers to supply and assemble and the gung ho way—buying the

bits and then assem-bling it. I chose the

I know from experience that whichever way you venture you will have moments of doubt. Each dealer will tell you why HIS make, model etc is the best. And they all sound so plausible! If after a lot of consideration you choose a certain type and make of component that suits your purpose don't be persuaded by the dealer. He is trying to make a sale - not make you happy. In some cases though, you will have alternatives and the dealer (or availability or price!) may sway your choice.

My preferred list was:

Motherboard. My preferred choice was an ASUS P2B. I chose this board after much casting around on the net and I found 'tom's hardware guide' www.tomshardware.com a good site to determine the relative merits of the various boards. I wanted to be able to upgrade later if I wished. This board used Intels 100MHz 440BX AGP chipset, had a slot 1 for the Intel Pentium 2 processor (233MHz - 450MHz) which also accepted the Celeron processor, had DIMM sockets with PC100 (100MHz) compliant SDRAM interface and other goodies. If all this is just jargon to you just accept that a BX board is the leading type board at the present moment and allows the processor and RAM to be upgraded. Note I said the ASUS board was my preferred choice as it headed a list of four makes. There was not a great difference between them and any one would have been

Ever since seeing a CD Writer in use I have hankered after one.

a good choice—at least according to Tom's Hardware Guide.

Processor. An Intel Celeron 333MHz processor was the optimum. It was a lot cheaper than Pentium 2's and almost as fast. Later, when prices of Pentium 2's drop, and they are and will fall much further over the coming months or years, I can, if I feel the need, replace the Celeron with a Pentium 2. Also, not that I want to, according to what I read the Celeron in a BX motherboard can

be safely over-clocked. That is, by changing the settings on the board the processor can be made to run faster.

RAM. 64Mb's of RAM seem pretty good these days and the boards have the sockets to allow the amount of RAM to be increased. But, knowing how, like Oliver you always seem to want more I decided to fit one 128Mb SDRAM memory module.

Video Card. One intended use for my new computer was to edit video film. After months studying the relevant news group I decided on the Matrox Marvel G200 video card. In a later article I may discuss its use for video editing. Selected for video editing the bonus is that the card is a top video card.

Hard Drives. Editing video film requires a large hard drive. Perceived wisdom is/was that a SCSI drive is the only way to go. This was disputed in the news group. Perhaps for professional use but it was claimed that advances in IDE drive technology have put the IDE drives up there with the present SCSI drives. For home use the latest Ultra UDMA IDE hard drives were considered suitable and further, that the fastest drives were not necessary. From the resultant discussions and test results I chose from the IBM Deskstar 16GP family which run at 5,400 rpm. These run cool (an

important consideration) and have a high transfer rate up to 33.3 MB/ sec. It was also suggested it was preferable that the drive on which the video was captured and rendered be dedicated to that

purpose. My shopping list included two drives of around 14 GB capacity.

CD-Rom Drive. Ever since seeing a CD Writer in use I have hankered after one. This was my chance. I could use it in conjunction with my existing 16 times CD-Rom drive. Then I saw a favourable review of the HP 8100i and I was hooked. No need to switch the 16 times drive over, this was a CD-ReWritable drive. The HP 8100i could write

at 4 times, re-write at 2 times and read at 24 times. Definitely on my shopping list.

Operating System. While not sold on Windows 98 I decided to give it a go and would install it on a clean hard drive. From the CCC I got the idea that I need not buy the full version—an upgrade would be satisfactory as I had original discs from DOS 6.22, Windows 3.1 and Windows 95 and any one of these would allow me to install the upgrade. Indeed, after listening to the woes of one of the CCC group I think I made the right choice. She was upgrading and bought the full version. And could not install it! Got the message that Windows was already installed on her computer.

Listening to the more adventurous in the CCC I had been intrigued by their experiences in buying from the Computer Fairs that are held monthly in Canberra. They seemed to obtain such bargains. That was what I wanted. Now, while overseas last year I noted that these fairs were not peculiar to Australia so attended some computer fairs in Northampton. There were bargains. I drooled but at the time was not into buying. Back in Canberra my upgrade gave me the chance to be adventurous myself so with my list in hand I attended my first Canberra fair. It happened to be the first after Christmas.

I had been advised to go about lunch time as by then the crowds would have thinned, parking would be easy, the entry queue would be non existent and the stalls would not be too crowded. Maybe that is the general pattern but it WAS the first after Christmas. At noon that day parking was difficult, there was a long queue and the stalls were crowded. The advice to go at midday was generally good as I found out from later ventures.

In several ways I was disappointed. What the stallholders were selling were items in demand that would sell quickly. Brands or items that did not sell well were not available. For example, while there were CD Writers on sale the HP 8100i was not among them. It was several hundred dollars dearer than other brands and not a big seller. As the HP was a must for me I had to buy it retail. Similarly, my choice of motherboard was not to be seen. There were, though, other brands of mother-boards that were on my short list so I had no hesitation in buying an AOPEN AX6B-at least I thought it was. It was actually the AX6BC that was arguably better as the 6BC had five PCI slots and two ISA slots compared to four PCI and three ISA on the 6B. The slots hold cards such as

video and sound cards and most cards for ISA slots are now considered 'legacy'-that is, cards which are old and super-seded. I needed at least two ISA slots. One for my existing ISA scanner card and one for a sound card as according to the gurus on the Video newsgroup, ISA sound cards integrate more smoothly with my preferred video card. That day I went home with my motherboard, Celeron CPU and 128 SDRAM memory module.

From my first foray into Computer Fairing it seemed I would not be able to obtain my HP CD-Rom Rewritable drive, my choice of hard drives nor my Matrox Marvel video card from a Computer Fair. I noted that hard drives were particularly cheap. If you are after a hard drive they are bargains but are not supplied with cables, attachment hardware etc.

My second disappointment was that the stallholders were anonymous. Only one had a name and address displayed. If you have to return an article, and some CCC members have had to do that after a purchase had proved faulty, how do you find the seller next time? That is one of the problems with buying at a Fair-it may take more than a month to return and get a replacement! Identification is important for guarantee purposes. I was told, later, that many have business cards that can be picked up from the stall. My method though, was to insist on a receipt with the name, address and phone number on it. Some sellers give receipts without a name and address so check it before leaving the stall. Some Fairs require you to show a receipt on exiting to show you have not nicked an item.

I was now at the stage where I could disassemble my 486 in the tower case, reassemble the bits in the midi case and start assembling. Well, I could dis-assemble and reassemble but I was in for a shock. Discussing my plans with Gordon Urquart he said. 'If you have an ATX motherboard you know you cannot use your existing tower case. The power supply is different and the connections do not match the cutouts in the case'. Well, I didn't know.

ATX motherboard? What's that? I will not try and explain what that ATX busi-ness is (I can't!) but an ATX board will only fit in an ATX case and it has most of the goodies that make the latest com-puters, well, the latest.

The next show, fortunately the foll-owing week and put on by a different mob, saw me purchasing an ATX midi case, my

upgrade to Windows 98 and various bits and pieces. I was fast becoming a Com-puter Fair addict.

Three items were necessary before I could start the actual assembly. Ringing around Canberra for a price on the HP CD-Rom drive gave me prices up to \$1,000 and as one of the Computer News Groups had mentioned that Centari Systems of Sydney was the best place, price wise, for HP items, I rang them and got a quote of \$720. This was too good to miss so I placed an order with them for my final four items-an HP CD-Writer, two IBM Deskstar 13.5 GB hard drives, one Matrox Marvel G200 8 Meg Video Card and a U.S. Robotics 56k Message Modem.

On receipt I was able to start assembly. But that is a story yet to be told.



Hello, tech support.

Hello, I'm calling for a keyboard replacement.

Well, are you having trouble with the one that came with your computer?

Our whole office had to be cleared out this morning because of it. There were toxic fumes.

Toxic fumes? From a keyboard?

Well I spilled my coffee on it yesterday.

And that caused the fumes?

No, but I unplugged it and took it to the washroom to rinse it off.

I don't see how that could have caused....

I put it on the radiator to dry off in the afternoon and I forgot about it. When we came in to work this morning, it had melted. The fumes were awful.

MARDECI Part one of this article ran last month in by Wayne Corbin the April issue of Sixteen BitsEd

hat about building a home Page ? I will limit what I say here because I could write a whole book on this subject.

If you wish (or are likely to want to in the future) to build a home page then you should consider this when you are looking at your service providers. Costs vary from free upwards. Some providers charge a flat rate per month for the page while others charge you for each person who accesses your page.

There are a lot of tools around to build web pages and there are new releases coming out, which are very easy to use.

Issues for designing a good page

- A compromise between basic screens which load fast and graphical screens which load slow.
- No 2 browsers show the page identically
- Not all HTML commands work for all browsers
- Design for different
- number of colours,
- screen resolutions
- Consider people with slow access
- Consider people with disabilities blind people have trouble with sites using frames.
- If you use the latest extensions to Html or Add-ins most people can't read your page
- Some sites don't support Java or Active-x

There are many sites which give good advice of show good examples eg. Sun Micro systems, Sausage software, "TheBandwidth society", Microsoft top ten sites, ...

How do you get Value for Money increase performance?

There are a couple of things to consider when trying to get performance out of the

If you consider the web like a pipeline The smallest bottleneck sets the overall speed.

Access times: When the web is loaded you get the worst performance. 8:00 - 10:00pm is usually the worst time to try to get onto the PC Users group while this may be a good time to get onto someone like Netinfo because they cater mainly for businesses. If you get on at 6pm you will have less traffic in Australia and if your accessing US sites (which is probable) it will be 2am in Chicago so hopefully the US traffic may be less. This ignores that people all over the world will be hitting the US at any hour of the day or night.

Mirroe sites: There are a number of sites in Australia which are mirror sites. Mirror sites are sites which on a nightly basis synchronise their web pages and files with another site. EG it you use TUCOWS in the US there are at least 3 sites in Australia which have exact copies of the US screens and files. It is much faster for me to download files from the ACT than to get them from the US. It can be faster some times to actually download from the US than to get it local, again it depends on where the bottlenecks are.

Caching: The PC Users Group (ACT inc) Internet project caches all file requests. If you ask for a web page which somebody else has recently requested it will be stored locally and you will receive the local copy. This is very fast but if the site changes very regularly you will be pulling down an obsolete page. At this stage I'm not aware of a way to flush a site out of cache beyond requesting personal intervention.

What is Java?

Java is a scripting language similar to the C programming Language which allows programmers to write an application which can be used over the Internet.

If your browser has java activated in it, when it finds a request in the web page it will

- 1) down load the code from the Web site
- 2) compile the code
- 3) Run the code
- 4) Deletes all code when finished. (Leaves no trace of what it has done)

What can Java do?

Good

- animation
- true formatting of text
- runs an application which interprets data downloaded and displays Graph, Gauge, ...
- Validate Data, interpret and respond to data Games, ...
- Restricted in access to your computer

Bad

- poor or destructive code can thrash your connection
- send information about your usage to another site.

What is Active-X?

Active X is Microsoft alternative to Java. It allows a variant of visual basic to be used to develop Internet applications. I believe that it is restricted to running on NT servers only (won't work on PC Users Group using unix server) while Java will work on any server.

While Java is limited in its ability to access files, ... Active X has no such restrictions.

If you visit Microsoft Windows 98 upgrade an Active X Application:

- Scans you hard disk
- Confirms versions of files on your Harddisk
- Downloads files and applies them to your PC.

In theory Active X can format your hard disk, copy files, ... One demo shows Active X transferring money between accounts using MS money.

What are add-ins

Most browsers have the ability to support for additions. There are literally 100's of add-ins available Eg.

Acrobat reader, Video Players, Audio Players, application viewers (word, excel,...), Graphics viewers, Virtual reality worlds...

Can you get viruses from the net?

The net is simply a conglomeration of computers around the world which can be updated from any source (excluding those with security). The quality of information at those sites varies and viruses are a probability. The probability of getting a virus off a web is similar to getting a virus from a friend or bulletin board, or work or

There are various virus protection packages around I won't recommend any because there are a number of good ones. Just be careful of products that depend on identifying viruses by the signatures they already know. Because viruses can travel quickly across the net you don't want to wait

until the virus is identified, sent to virius company, then they release a patch.

Is your access private?

Most people think that what they do on the net is invisible. There are very strong rumours that top secret organisations all over the world (at least Australia and US) have watching agents which are programs which strip our information going across the net based upon rules. For Example when a prominent Canberra would-be polly was up for sending/receiving pornography across the net it was one of these organisations which picked up his messages and alerted authorities. A sub point is immediately after he was arrested a number of innocent people had there premises raided because they had received mail from him in the proceeding months. (most relating to his political stands)

The other side is when you connect to a site it knows who you are, what Web reader you are using and what site you came from amongst other things.

Yet another thing to know is that browsers can create files called cookies which store information

on your hard disk for the web site you visit. This allows the web site to track if you have been there before how often, etc. Cookies are not necessarily bad they are needed by sites to keep track of whats happening for a multiple page process, remembering your preferences, ...

Can you monitor what your Kids are accessing?





Before we start I will again state I am not an expert in this area.

Unfortunately like life you can't control everything your kids do. The best thing is to create rules and penalties if the rules are broken eg no access. If you really wish to, most web browser keep a history of where they have been. If the kids haven't deleted the file you can look and see where they have

There are a number of packages around eg Nanny Net which are supposed to help, but as I understand it, there is only 3 ways of controlling what sites you and your kids can see.

1) Create a list of sites that are not to be visited. I believe that these lists exist and are regularly updated but with up to 1000 new sites a day being added to the web it is impossible to find and list all sites.

2) The 2nd way is to have a list of banned words and search each page downloaded.



Depending on the content of the page either let it through or lock it out. Early packages would lock out sites like Borland because it had the words male, female and sex on it's survey.

3) The 3^{rd} way is to use the PICS rating. Unfortunately a large number of sites don't have ratings.

2 sites of many with information on this subject are http://www.cnet.com/Central/ Tv/Stories/Porn/safe.html and

http://www.owt.com/software/ blockers.html

PICS

The World Wide Consortium(W3C) launched the PICS ("Platform for Internet Content Selection") program in order to develop technical standards that would support parents' ability to filter and screen material that their children see on the Web. The Consortium intends that PICS will provide the ability for third parties, as well as individual content providers, to rate content on the Internet in a variety of ways. When fully implemented, PICS-compatible World Wide Web browsers, Usenet News Group readers, and other Internet applications, will provide parents the ability to choose from a variety of rating services, or a combination of

Until a majority of sites on the Internet have been rated by a PICS rating service, PICS will initially function as a "positive" ratings system in which only those sites that have been rated will be displayed using PICS compatible software.

In other words, PICS will initially function as a site inclusion list rather than a site exclusion list. The default configuration for a PICS compatible Internet application will be to block access to all sites which have not been rated by a PICS rating service, while allowing access to sites which have a PICS rating for appropriate content.

Cyber Patrol

Microsystems Software, Inc. in August 1995 decided to develop and market Windows and Macintosh Internet software. Cyber Patrol was the first parental empowerment application to be compatible with the PICS standard. In February of 1996, Microsystems put the first PICS ratings server on the Internet. The CyberNOT list

contains approximately 7000 sites in twelve categories. The software is designed to enable parents to selectively block access to any or all of the twelve CyberNOT categories. These categories are listed in the table below.

Microsystems employs people to search the Internet for sites containing material in these categories. Since new sites are constantly coming online, Microsystems updates the CyberNOT list on a weekly basis. Once installed on the home PC, the copy of Cyber Patrol receives automatic updates to the CyberNOT list over the Internet every seven days. Microsystems is working with the Recreational Software Advisory Council (RSAC), a non-profit corporation which developed rating systems for video games, to implement the RSAC rating system for the Internet.

Can I order stuff by credit Card?

Basically your details can be passed through a lot of sites before it gets to the place it is being sent. If any site in between has a packet sniffer looking for the word

Violence/Profanity	Drugs/Drug Culture	Nudity	Sexual Acts
Gross Depictions	Racism/Ethnic	Satanic/Cult	Gambling
	Impropriety		
Militant/Extremist	Alcohol, Beer & Wine	Questionable/Illegal	Partial Nudity

Practical small system development



Training & Consulting Pty Ltd

ACN 008 643 703 - Established 1988

- ✓ Microsoft Access™ development
- ✓ Up-sizing to SQL Server™
- Support for existing systems

E-mail	Context@email.net.au
Phone	02 6287 1500
Fax	02 6287 1508

Free telephone support to PCUG members.

* Offer does not apply where commercially inappropriate

visa, mastercard,... it can down load that message and read it.

Sending your credit card details in an e-mail is not recommended however given the massive amount of data passed through the web you are reasonably safe because packet sniffing is not cost effective but it is a risk. Most browsers support secured links for transmission of data. If you use a secure link you are very safe. supercomputers it is possible to crack the encryption, but for the time and equipment needed to find your Internet message packets and decode and assemble them the crooks would be much better off looking for your discarded slips in the dumpster at the rear of David Jones.

I have on a number of occasions purchased items over the net without any problems. The most common problems other people have experienced are slow delivery, no delivery, or the item isn't what they expected.

Which Web reader should I use?

This is a debate which I can't possibly win. I believe that you should try to use either Netscape or Microsoft Explorer, others will say Opera, ...

I personally use Explorer because it is built into Win98 but Netscape works equally as well. I have friends who use both. I recommend you try one and if your not satisfied then try the other.

Which news reader should I use?

Which one do you like ? - Agent, Netscape, Ms Outlook. News follows 1 protocol, the deciding differences in newsreaders is their ability to group the information and their ability to read and answer messages off-line.

What is the Future?

1987 - NSFNET

1990 - Advanced Network Services

1994 - CERN

1996 - Very high speed Network Services go into production (0C-12)

1997 - Internet 2

1998 - Abilene project announced (OC-48)

Future Terms

Here's a few terms to dazzle your friends with:

Gigapop - High speed large bandwidth point of presence (Gigabit)

IPv6 - Internet protocol Version 6 SONET - Synchronised Optical Network

How fast is a Fast network?

Type	Speed	To transfer 680 megs (Almost a cd)		
Modem	28.8 Kbps	53 hrs 44 minutes		
Modem	56 Kbps	26 hrs 37 minutes		
ISDN - 1 channel	64 Kbps	24hrs, 10 minutes		
ISDN - 2 channels	128 Kbps	12hrs, 5 minutes		
T1	1.544 Mbps	1 hour		
T3	45 Mbps	2 minutes		
OC-3	155 Mbps	35 seconds		
OC-12	622 Mbps	8.8 seconds		
OC-48	2.5 Gbps	2.2 Seconds		
OC-192	9.5 Gbps	½ second		
??? - to be announced	???			

Future - NGI

Next Generation Internet - initiative by US government to maintain it's lead in Internet

Future vBNS

Very high-speed Backbone Network Services. A project focused on connecting research universities and research laboratories

Future - INTERNET II

Internet II is a project of the University Corporation for Advanced Internet Development (UCAID), focused on high education applications and engineering

Future - ABILENE

Focused on creating a fast network. Abilene is a project of the University Corporation for Advanced Internet Development (UCAID), together with Qwest, Cisco Systems, and Nortel. The project has developed an advanced backbone network to connect regional network aggregation points, called GigaPoPs, being developed by UCAID members, and is intended to complement existing research networks already being used by UCAID member researchers and educators. Albiene has developed a OC-48 network (Michigan USA) and is moving towards a OC-192 network this year.

Future - XML (almost here now) SGML:

The idea that markup should be standard and separate from format information led to the creation of Standard Generalized Markup Language (SGML) in 1978. Designated an ISO standard in 1986, SGML provided two key markup innovations. The first was to provide a language for describing markup, not just a particular set of markup elements. The second was to separate the tagging of content from its presentation or style. In other words, you do not mark up content according to SGML, you write an SGML application that tags the content according to the rules set forth in the Document Type Definition (DTD). These rules do not define whether or not the content is centered or bold. Instead they define the structural elements that the content represents. The DTD describes what these elements are and an application aware of the specific DTD tags the content accordingly. Unfortunately SGML and its companion language for writing style sheets, called DSSSL, are very complex. SGML requires a great deal of effort and expertise to be used effectively. While tools have been developed to assist in the process, because of SGML's complexity, they have been quite expensive.

In 1996 the World Wide Web Consortium and 80 SGML experts joined forces to develop a permanent solution to the problems of HTML. The result was a new language called XML (eXtensible Markup Language) together with a new style language called XSL (eXtensible Stylesheet Language) and, later, a new link language called XLink (eXtensible Links). XML is a simplified subset of SGML that is easy to use, designed specifically for the Web, and oriented toward content structure, not style. XML technology has a number of advantages over SGML. First, XML is simpler to use and process than SGML, making it more likely that low cost tools that accept XML will be widely available. Second, because XML has been developed as an enhancement to the Web. it has broad industry support. XML has been adopted by Sun and Microsoft, giving it a prominent place in Unix and Windows workplaces. Third, significant progress has already been made in defining standard XML DTDs for a variety of applications.

BENEFITS:

Because XML is used to define the data and a separate DTD defines the format it becomes relatively easy for the same data to be displayed in different ways for different people simply by using different DTD's. All major players are adopting XML however since the XLL standard hasn't yet been agreed to t's use is still limited. As with any new developments they are resolving some of the problems which have been identified with HTML. The formating allowed with XML will be much better. Microsoft is proposing using XML as it's standard format for storing most application data. Office 2000 is coming with XML as the default storage format.

Food for thought

- Why send a letter when you can send a note instantly to anywhere in the world?
- Why use a phone when you can talk to anywhere in the world for virtually the cost of a local call. (No wonder that Telstra is fighting to take back full control of the internet backbone in Australia)
- Once we have the bandwidth into our homes it will be possible to deliver full motion and sound video into our home. Since it is interactive will TV compete?
- All ACT schools have internet access, teachers already are using the internet as another tool to enhance our kid's education.
- Why should I pay high wages for staff to program here in Australia, or the US when I can get people with better skills in India to do the work for almost nothing. Using the internet means it doesn't matter whether the staff on the phone/Email are 1 building or 1 billion miles away.
- Why do I need to go out to meet people when I can interact with people from behind a safe keyboard?

Conclusions?

What is good about the net?

The net expands at a phenomenal rate. There are literally a 1000 new pages created every day.

If you want a program or information on some topic it is bound to be on the Internet. I mainly use the web to

- Download Update drivers and patches to hardware and software I use
- get electronic magazines on topics of interest to me.
- read information about companies and products I use.
- send letters to relatives interstate and overseas
- Check for new phone numbers (more up to date than 013)

What is bad about the net?

• The net has no real controls on it. I don't believe that any amount of government legislation will control it. Anybody can say virtually anything on the net. Just because you read it doesn't mean it is true. Presently I am putting together my own home page. I can put whatever I like on

that page within reason. Any relationship between what I place on the page and the truth may be only coincidental.

- Searching on the net is a nightmare. The amount of information is Horrendous. I know the information must be on one of those 40 million pages but which one? CSIRO and other sites are researching better ways to view the data. The WWW is one example of how menu based searching has been improved.
- Working across a 28.8K modem can be slow. Some files I have tried to down load have taken literally hours.

The internet cost me \$120 for a new modem and will cost about \$120 a year at the moment to connect to a service provider. For me I definitely get that much benefit out of it. The connection fee is about 30 cents per hour (Plus the cost of a phone call) which works out less than the cost of a newspaper. For this I get the latest information on any subject imaginable from anywhere in the world.

• • • • • • • • • • • •

We want to give you the best service.

We custom build your computer to your requirements.

CALL FOR GREAT PRICES ON

SYSTEMS, UPGRADES, SOFTWARE, COMPONENTS, MONITORS, PRINTERS

ALWAYS FOR QUALITY SERVICE & PRODUCT

PH: 2577555 L & S ASSOCIATES FX: 2472880

69 PATERSON STREET, AINSLIE A.C.T. 2602

SALES - SUPPORT - SERVICE - NETWORKS - COMPONENTS - SOFTWARE - REPAIRS

Try our Web site on www.ls.com.au



PROJECT

...by Allan Mikkeisen

ur TIP web server software was recently upgraded (to Apache version 1.3.4) and some changes were made to the operation of the server. These will be of particular use to those members who maintain a home page. One change is that it is now possible for TIP users to configure their own web directories using the .htaccess configuration file mechanism. This allows you to apply password protection to your web pages so that only users authorised by you can browse some or all of your web pages.

See http://www.tip.net.au/tip/info/ userconf.html for details (and warnings) on how to use these facilities.

One side effect of these changes happens if you have old "trial" .htaccess files in your directories. These were previously ignored but it is now possible that your web pages will no longer be accessible if the files are not correct. This has already happened with at least one user. The best advice is "If you are not fully competent in configuring .htaccess files, make sure that none exist in your web directories".

Many users have problems with our oft-repeated advice to read the tip.* newsgroups, particularly tip.announce. To simplify things for those users who do not know how to access usenet newsgroups, we are now trialing web-based access to local newsgroups. See http://www.tip.net.au/ local/ to read any of our local newsgroups. By default, these can only be accessed if you are dialled in to TIP, but users with other ISP or work accounts can be granted password controlled access on application.

I have discovered that one of the TIP accounting FAQ answers in the March 1999 TIP column was mangled by a printers gremlin. The correct answer has now been added to the TIP web site and can be accessed through the TIP help pages http://www.tip.net.au/tip/help/.

For those not used to internet newsgroups but tempted to try with our new easy access, remember "Opinions are like armpits - everyone's got at least two, and sometimes they smell or need washing."

MODEM LL

...by Owen Cook

ere is a "How To" for those who wish to record the activity of your modem. It applies only to Microsoft W95/W98 users

Double click on My Computer Double click on Dial-up Networking Right click on your TIP connection Icon Go to Properties At the General tab, press the configure button at the bottom Now go to the Connection tab Click/Press the Advanced settings button Now make sure there is a tick in the "Record a log file" option.

This log is recorded in C:\Windows as Modemlog.txt, so you can open it in a text editor (eg Notepad provided it is not too big).

It records all sorts of things, including when you log on, log off, data sent up to TIP and data sent down from TIP

Cull this file out every now and then, as it just grows and grows.

If anyone has perl on their machine I can send you a program that will summarise this file, here is the last few days of mine.

I have checked these times against TIP's records, and every logon session, it varies by 4 to 6 onehundredths of a second, sort of close enough for my books.

----001011100101010001110----

03-22-1999 On line	20.13 mins	Downloaded	1797525	Uploaded	57996
03-22-1999 On line	7.31 mins	Downloaded	485183	Uploaded	33214
03-23-1999 On line	19.7 mins	Downloaded	2170638	Uploaded	64505
03-23-1999 On line	23.28 mins	Downloaded	1797888	Uploaded	78076
03-24-1999 On line	12.39 mins	Downloaded	1244778	Uploaded	49254
03-24-1999 On line	11.1 mins	Downloaded	1070302	Uploaded	31082
Total time 408:0 mi	ns Download	led 28759076	5	Uploaded	1886526
Compiled 24/2/1999 at 10:1:22					

Volunteer Comms Expert

TIP requires a competent Comms expert with experience with Cisco devices, preferably the AS series of access servers. Initially this person will assist our comms person, but it is hoped that eventually much of the work can be taken off his hands.

It would be preferable if we were able to attract two new volunteers for this task as that would make for lighter load on each person.

Remember, if you have specific Unix/Internet/Comms skills the TIP admin team is always looking for fresh faces.

Vhat? Where? When? How? Why?

by Terry Bibo

hat is a Cookie? For an answer to that — the cause of so much angst — I consulted Matisse Enzer's Glossary of Internet Terms. http:/ /www.matisse.net/files/glossary.html .

'The most common meaning of "Cookie" on the Internet refers to a piece of information sent by a Web Server to a Web Browser that the Browser software is expected to save and to send back to the Server whenever the browser makes additional requests from the Server. Depending on the type of Cookie used, and the Browser's settings, the Browser may accept or not accept the Cookie, and may save the Cookie for either a short time or a long time.

Cookies might contain information such as login or registration information, online "shopping cart" information, user preferences, etc.

When a Server receives a request from a Browser that includes a Cookie, the Server is able to use the information stored in the Cookie. For example, the Server might customize what is sent back to the user, or keep a log of particular user's requests.

Cookies are usually set to expire after a predetermined amount of time and are usually saved in memory until the Browser software is closed down, at which time they may be saved to disk if their "expire time" has not been reached.

Cookies do not read your hard drive and send your life story to the CIA, but they can be used to gather more information about a user than would be possible without them.'

We can elaborate on that for a richer explanation. They are, in fact, small text files on your computer that store specific information about your computer and its activity for use by Internet sites you log on to. They are created by a Set-Cookie header in the HTTP response to a request from your browser for a URL. HTTP is the HyperText Transfer Protocol of the Internet, and a URL is a Universal Resource Locater (an Internet address.)

They do not contain programs and, to the best of my research, cannot contain viruses. In Windows 95/98 there cannot be more than a total of 300 Cookies stored on your computer at any time. When this limit is reached Cookies will be discarded, with the least recently used being discarded first. No individual server can send you more than 20 Cookies and Cookies have a maximum size of 4 kilobytes, but are generally well below 200 bytes.

Internet Explorer does not recognise the limit of 20 Cookies from each server, which is only a Netscape specification.

Where are they found?

Internet Explorer stores its Cookies in



places. Primarily they are kept as text files in the Cookies folder within the Windows folder. Here their format is that of username@domain. One of mine is terry bibo@support_microsoft(1).txt and was probably created when I executed the Windows Update for Win98. The content of this Cookie is viewable, but not necessarily intelligible, in any text editor such as Notepad.

It is impossible to interpret a Cookie file without knowing the script that wrote it, generally but not exclusively CGI (Common Gateway Interface) or JavaScript.

The basic components of a Cookie are: name — self explanatory; expiry date unless it is intended only for that session; path — restricting the path to a particular sub-directory in the server's tree; domain generally defaulting to the server domain supplying the HTTP document that contains the Cookie; and a TRUE/FALSE security setting for those that require a secure communications channel.

Not knowing what the Cookie is saying about you is probably the main cause for the paranoia about Cookies.

They are also found in the Temporary Internet Files folder under Windows where their format differs by defining them as Cookie:terry eg. bibo@altavista.com and where they appear as links, not text files. I presume, from their format and location, that these are Cookies sent back to the server, while those in the Cookies folder are originated by the server.

Netscape stores all its Cookies in the one file named Cookies.txt.

When are they useful?

They are there to make life easier for both you and the server you are currently accessing on the Internet. The server is the computer or program supplying your browser with information at any time, and you will obviously contact a number of them in any Internet session. Their prime purpose was to obviate the necessity to repeat constant information. They were first used in Navigator v1 by Netscape who maintain the Netscape Cookie Specification.

They may record any or all of the following information, and possibly more besides: your name, password, how you have configured the page you are viewing, what search engine you are using, and a unique identity code that relates you to that server. Cookies can recognise your operating system and browser, track the number of times you visited the site and when you last visited, and present you with any updated

information since your last visit. Anyone doing regular Windows 98 Updates will appreciate leaving the Microsoft Cookie in place rather than working through the script every time.

They provide encryption for your secure transactions, and keep account of registered customers where charges are made for services provided. They can track your interest in advertisements and use this information for market survey purposes, and there is ample evidence that this is being legally exploited without being evident to the user.

Once this Cookie's worth of information is recorded on your hard disk, the next time you access that particular site your browser will immediately send all the pertinent details to that server. You will not have to reconfigure and re-establish the preferences you were using on the previous

Incidentally, a lot of the information gathered by Cookies is also made public every time you log on to a web site. This includes your service provider, operating system, browser type and IP address.

How can they be controlled?

In IE4 go to View | Internet Options | Advanced and scroll down to the Cookies section. Here you can opt to accept all Cookies, disable all Cookies, or be warned before accepting any Cookie. In IE3, View |

Options | Advanced only offers the choice of being warned before accepting Cookies.

In Netscape Communicator, Edit | Preferences | Advanced offers the same three options as IE4 plus the option to accept only Cookies that are returned to the server.

Cookies, individual or all, can safely be deleted from the folders in Internet Explorer, and the Cookies.txt file can be deleted in Netscape. If you do this during an Internet session you may still end up with Cookies on your disk from those still in memory



whose expire time — commonly from 30 days to one year - exceeds your Internet session time.

Remember that when you delete Cookies, or employ Cookie-blocking third party software, you will not be able to retain personalised settings for the domains you have blocked. I imagine this could be very important in online banking and other secure transactions.

Why should I worry?

Cookies are only used by the server that created them and cannot be read by other servers. So your personal information and preferences are not shared around the Internet.

Cookies cannot read your hard disk and extract data from it. They only contain information that you have voluntarily entered in the course of your browsing.

When Java and JavaScript were first unleashed on the Internet they apparently permitted Cookies to read personal data from the hard disk, but these loopholes have long since been closed after a public outcry.

Among the millions of people accessing the Internet every day I do not think I rate highly as worthy of a dossier. I accept Cookies. Unless you are paranoid about privacy, and prepared to overlook all other existing avenues of extracting demographic information, you will probably find Cookies more value than nuisance.

So why should you worry?

Enjoy your computing. Terry Bibo

When it comes to customer service and reliability - the choice is clear.

TECHNOLOGY GROUP

Internet Access • Web Services • Training • Network Solutions

Plans to suit your needs

Free support 7 days a week

Basic and Advanced Internet courses

Now in Golburn, Yass, Wagga, **Bathurst & Orange**

25 Torrens St. Braddon - ACT 2612 http://www.interact.net.au - info@interact.net.au

obyn Williams: I have never used the Internet. There, I've said it. And when you do say something like that it's fun to see how agitated people get. It's almost as if you've sworn in church, or not noticed the latest fashion in frocks. But the reason I've not used the Internet is that I'm more concerned about a shelf of books waiting to be read, than the need to look up some factoid on the cybersmorgasbord.

Sol Encel is similarly equivocal about the Internet. He likes some bits, is sceptical about others. He's now a visitor to the virtual village and is known to his friends and colleagues as Professor Emeritus in Sociology at the University of New South Wales.

Sol Encel: A few months ago, I attended a conference in Holland, devoted to the subject of 'virtual communities'. The idea of a virtual community, like the idea of virtual reality, is the product of the computer age, although groups of like-minded people have communicated regularly in the past. A classic example from the history of science was the so-called 'invisible college' of research workers and scholars, who exchanged ideas and discoveries which became established principles shared

by a comm-unity of scientists. The Royal Society of London grew out of such an invisible college, transforming a virtual community into a face-to-face organisation. The rapid growth of the Internet

provided vastly more opportunities for such contacts, which can now take minutes rather than months. or years. Marshall McLuhan's vision of a global electronic village was an earlier version of the virtual community, but the Internet has stimulated people to make claims which go well beyond McLuhan, who was in any case concerned mainly with television and its impact on older forms of comm-unication.

Although virtual communities have existed in one form or another for centuries, the current popularity of the term can be dated from a book of that name by the American writer Howard Rheingold, published in 1994. Rheingold and other writers in this vein, have adopted the concept of a 'public sphere' from the German social theorist, Jurgen Habermas, who emphasises that it is an essential component of a democratic civil society. Rheingold and others like him may be described as 'cyberoptimists', who regard the Internet as an instrument of democracy. Rheingold writes as follows: 'There is an intimate connection between informal conversations, the kind that take place in communities and virtual comm-unities, in the coffee shops and computer conferences, and the ability of large social groups to govern themselves without monarchs or dictators. This socialpolitical connection shares a metaphor with the idea of cyberspace, for it takes place in a kind of virtual space known as the public

An authentic public sphere, according to Rheingold, entails 'open access, participation outside institutional roles, generation of public opinion through assemblies of citizens who engage in rational argument, the freedom to express opinions and the freedom to discuss matters

...the dangers of a society in which the growth of information technology created a divide between the 'information rich' and the 'information poor'.

> of State and the way State power is organised.' He regards the use of electronic bulletin boards as a central feature of a virtual public sphere, because they are free from direct State control and provide formal equality of individual rights in terms of access and utilisation of information.

> The growth of the Internet has predictably spawned a rapidly increasing literature, much of it written by cyber-optimists like Rheingold. In the last 12 months, for example, I have noted at least six books in

English devoted to the subject. Frances Cairneross, a senior writer on the British weekly, The Economist, entitles her book 'The Death of Distance'. The title says it all. It should have particular resonance for Australian readers familiar with Geoffrey Blainey's book 'The Tyranny of Distance'. Cairncross enumerates no less than 30 features of the new era of communication, including communities of practice, which are bound by common interests, experiences and pursuits. She also rejects the view that modern mass communication is flattening out cultural differences by arguing that the Internet will encourage the growth of distinctive communities of culture.

Another optimistic account comes from a French philosopher, Pierre Levy. His book is entitled 'Collective Intell-igence' or 'The Anthropology of Cyber-space', written in the French grand manner, with heavy metaphysical overtones. Modern methods of comm-unication, according to Levy, have gen-erated something called the 'knowledge space', governed by a new form of collective consciousness which he calls the 'hypercortex'. The hypercortex enables us to create what Levy calls a 'virtual agora', the high-tech successor to the classical agora

> of ancient Athens, where the citizens met to debate public issues. Cyberspace, he concludes, will become the 'most perfectly integrated medium for problem analysis, group discussion, awareness of complex proc-esses, collective decisionmaking and evaluation.'

The conference I attended in Holland was also peopled by cyber-optimists who urged the audience to exploit the vast potentialities of the Internet. One of the speakers described an international group of communal settlements called the Global Ecovillage Network, or GEN for short. GEN's objective is to encourage sustain-able human settlements along the lines of resolutions passed at the Earth Summit in Rio de Janeiro in 1992. It has a number of regional offices around the world, including one situated at an Australian comm-une,

Reflections on the Internet

Crystal Springs. GEN proclaims its objective as the integration of ecology, spirituality, community, and business activity, by developing a range of skills covering all aspects of sustainable development, using the Internet to further this work in new and innovative ways.

Although the enthusiasm and commitment of the people associated with GEN were impressive, I have to admit to being a cyber-pessimist. The books I have quoted, and others like them, largely avoid the awkward questions of ownership and control associated with the Internet, as they are with all other forms of commun-ication. Frances Cairncross, for instance, treats the Internet as a shining example of the free market in operation. This ignores the way in which online services are rapidly being absorbed into existing media empires. Internet services are still delivered by a number of small providers, but many of them have been taken over by large corporations, partly because the speed of development of computer technology is so swift that only an organisation with massive resources can keep up with this growth. In the United States, for example, the bulk of online services are now provided by five large corporations. One of these, Delphi, should be of particular interest to Australian listeners. It began as a small service in the 1980s, set up by a group of computer engineers. By 1993, it could not develop further without a large injection of capital, and after several attempts to attract investors, the group sold out to Rupert Murdoch's News Corporation.

Referring to the Delphi deal, an American commentator described Murdoch's ambition to 'create an integrated global empire for the production, distribution, and dissemination of what the emperor coldbloodedly refers to as "copyright". This vision has led Murdoch to purchase or create television stations, cable firms, and controlling interests in two direct satellite broadcasters. The goal is simple: global domination through vertical integration and synergy between competing media.'

Another awkward question, largely avoided by the cyber-optimists, is the role of the Internet in relation to commercial transactions. Electronic communication has greatly increased the mobility of capital

flows around the world. A recent estimate by The Economist magazine puts the total amount of funds circulating around the world's money markets at \$US3-trillion. Recent events have under-lined the catastrophic effects on weak economies like those of South East Asia and Latin America, when large amounts are suddenly withdrawn. In the 1970s, the American economist, James Tobin, ironic-ally remarked that international money markets were becoming 'excessively efficient', and suggested that govern-ments should 'throw some sand in the wheels' by agreeing to tax international currency transactions. His proposal involved an internationally uniform tax on all spot conversions of one currency into another, proportional to the size of the conversion. Tobin argued that such a tax would particular deter 'short-term financial round-trip excursions into another currency.' We are now all too familiar with the damaging effects of such short-term excursions, which the Internet and other electronic means of communication, have made even easier

Tobin, who was awarded the Nobel Prize in Economics in 1981, returned to the subject in an article published in 1994, in which he emphasised that the 'speculative opportunities created by the technologies of modern financial markets and financial institutions, are a threat to rational policies, both national and international.' More recently, a report by an expert group appointed by the European Commission has proposed a version of Robin's scheme which they describe as a 'bit tax', in response to what they call the 'distributional challenges of the emerging Information Society'. Their argument for a bit tax rests on the recognition that the modern economy is increasingly characterised by the production, distribution and con-sumption of intangible rather than tan-gible goods, but this is not recognised in taxation policies. The result is a rapid erosion of the tax base. In the United States, it has been estimated that during 1995, the use of the Internet to access mail-order companies and thus to avoid sales taxes, meant a reduction in sales tax revenue of more than \$3-billion.

The proposal for a bit tax has received support from a number of politicians in the European Union. The Belgian Minister for

Telecommunications has estimated that a tax levied at the rate of 1% per megabit of information transmitted would add 4% to Belgium's gross domestic product. However, the idea of such a tax has been rejected by the Americans, who see the Internet as a global free trade zone. In a statement issued in July 1997, President Clinton endorsed the views of a Presidential Task Force which opposed any taxation of business transactions through the Internet. Perhaps he's now having second thoughts about the uncontrolled use of the Internet by his political enemies.

Back in 1971, the French sociologist, Alain Touraine, foresaw the dangers of a society in which the growth of information technology created a divide between the 'information rich' and the 'information poor'. Significantly, the report of the European Commission's expert group is titled 'Building the Information Society for us All', and calls for its benefits to be more equally distributed. The bit tax is put forward as an instrument towards this objective. The Internet, in other words, whatever its possibilities in relation to free discussion, is potentially a source of the increased social inequality foreseen by Touraine and others. Regrettably, it is this aspect of information technology which has been largely overlooked in the current wave of cyber-optimism.

Robyn Williams: Some second thoughts about doing business on the net. As for gambling, well that can have even more serious ramifications. Sol Encel is Professor Emeritus in Sociology at the University of New South Wales.

Ockham's Razor is broadcast at 8.45am every Sunday and repeated at 2am every Thursday on Radio National, the Australian Broadcasting Corporation's national radio network of ideas.

The transcripts are reprinted here with the kind permission of the Australian Broadcasting Corporation.



The legality of the common practice of linking from one Internet site to another has been tested by a spate of litigation in the US and the UK. Australia may not be too far behind.

Although the largest cases have been settled prior to judgments being delivered, the cases serve as important warnings for organisations and individuals who incorporate unauthorised links or trade marks in their sites.

In the UK, an interim injunction was granted in October 1996 prohibiting the Shetland News' site from linking directly to the text of Shetland Times, a local newspaper. By linking directly to the text in the Times' site, the Shetland News effectively allowed its users to bypass any advertising on the *Times*' home page.

The injunction was based on copyright laws. It prevented the Shetland News from providing this service to its users for over a year. This undoubtedly restricted the quality of service it could provide to its customers. The case was finally settled in November 1997. The terms of settlement provided that the links must go through the Shetland Times' main page, thereby protecting the integrity of the Times' copyright and their advertisers.

In the US, the *Total News* site provided 1,350 links to news sites. However, instead of directly linking to those sites, Total News used a series of frames to partially obscure the target sites' advertising and URL. It did this while preserving the substantive information, but surrounded it with its own advertising and displaying its own URL.

Prominent news providers, whose sites were targeted by Total News, mounted an action alleging that Total News had engaged in the Internet equivalent of piracy by infringing their intellectual property rights. To avoid an expensive trial and adverse publicity, Total News settled the dispute out of court. The settlement allows Total News to link to the other news services if it complies with certain conditions - including a stipulation that frames must not be used.

In another case Microsoft was sued for its unauthorised links to the Ticketmaster site. The parties had tried, but failed, to come to an agreement on linking. Despite this, Microsoft maintained its links to the Ticketmaster site. In an attempt to defeat the software giant, Ticketmaster employed



new technology to prevent users linking to its site from the Microsoft site by installing the electronic equivalent of a brick wall. These are effective and becoming more and more common.

The issue of businesses profiting from others' trade marks, goodwill and reputations is not new. Traditionally, the law has protected businesses from unscrupulous competitors through legislation such as the



Trade Practices Act, the Copyright Act and the Trade Mark Act as well as common law actions. There are prohibitions against the use of an organisation's name or trade mark to imply a relationship between the organisation and other goods or services which do not exist. The laws allow organisations to control how their names, reputations and products are used.

We are now seeing a number of large corporations flexing their corporate muscle against individuals who have sites dedicated to bands, television series and movies. Most of the time, the individual prudently complies with the request immediately.

What is uncertain is how our traditional laws actually apply, or should apply, to the Internet. The recent UK and US cases clearly demonstrate that courts are being forced to confront these issues as the Internet becomes merely another tool of commerce. Unfortunately, our present laws fall sadly behind modern technology. While there are draft Bills in the works, whether they will satisfactorily handle the technology of the new millennium remains to be seen.

When setting up a new site which links to other sites, you must give serious consideration to the legal implications of unauthorised linking and the use of others' trade marks or material. Improper use of links, trade marks or material may mean that your site could infringe someone else's intellectual property, be misleading or deceive potential users. If that happens, you can be sued.

Geoff Purvis-Smith is a lawyer with Clayton Utz, Canberra. He specialises in litigation and IT issues. He can be contacted on (02) 6274 0803 or gpurvis-smith@claytonutz.com.au . This article is reproduced with the permission of Clayton Utz.





oth motherboard and CPU have been damaged,' said the repairman, 'and both will have to be

Robert is computer illiterate. He was given the immediate decision to leave his 130Mhz machine or to lug it somewhere else. Not unexpectedly he left his machine at the repair-shop pending his decision to authorise the repair to proceed.

He was later told by a well-meaning friend that it is unlikely that both CPU and motherboard would stop working but, when he returned to the repair-shop he found that that trader had since gone into receivership and that the new trader (who was also dealing in computers) did not want to know him and did not know of the whereabouts of his machine. The result? The unenviable decision to either write it off or conduct a long round of foot-slogging in attempt to try to recover a machine that could be worthless.

How do we save the Roberts of the world from this sort of situation? I really don't know.

This repair-shop had been in business for 20 years. The premises are imposing and glittering. Robert had no inkling that he was surrendering his property into danger.

Like most people who enter into negotiations from a position of ignorance Robert was on the defensive; and vulnerable. He no doubt felt embarrassed by his lack of understanding. The repairman, on the other hand, had a knowledge of computers and was empowered. But he was acting out of desperation. He was in a corner and in need of customers for a survival that was hopeless.

In my opinion, the continued survival of any computer retailer in our current environment is a matter of wonderment. The accelerating cyclic push towards 'biggerbetter-faster' in an atmosphere of savage price competition are forces which require the very best of skills in merchan-dising, warehousing and finance. If you add to these the necessity to understand computers

(architecture; mechanics; and jargon) then you have a very special individual who dares attempt such a business venture. This last year must have been particularly difficult because of the additional pricinguncertainties caused by the Asian economic crisis.

Now Robert has a good job in a government department and continuously deals with the techniques of work scheduling. One such technique called 'Just-In-Time' provisioning (developed during the recent past recession) has found a permanent place as a current management tool. JIT seeks to balance the costs of local storage and its certainty with the costs and questionable reliability of 'delivery-asneeded'. Robert should have been aware that JIT management is just as much a criteria for survival in small business as it is in the big organisations which developed it (a sole trader can no more be expected to keep replenishment stocks for obsolescent equipment than can our biggest retailer). Most retailers would consider a 130Mhz machine to be obsolescent. This means, of course, that many computer retailers could not 'repair' Robert's machine (with a replacement CPU because of the stock-out situation) but could upgrade it with a new CPU/mother-board/memory combination. The price of the 'upgrade' would be five times the cost of the 'repair' option but Robert would be getting a far better machine and the retailer would not have to maintain excessive stocks of spare parts.

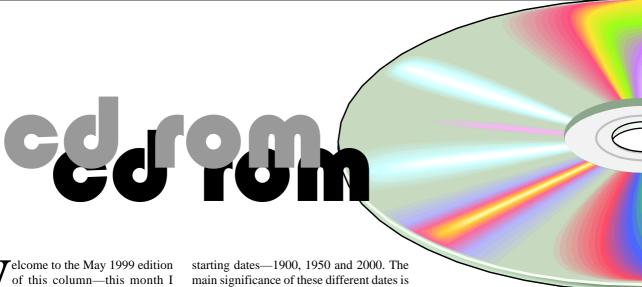
When does a thing become obsolescent? Who knows? Obsolescence undoubtedly is tied to the pace of development. Current media suggests that the rate of obsolescence in the computer industry is two years. The Taxation Depreciation Schedule allows fiveyears. Some zealots suggest that it is closer to six months. To take an average, this means that computer repair shops are at risk if they stock replacement items that are more than two-years old. In the past this has not been too great a problem because it has been possible to upgrade in steps (you could better your monitor in year One; your CPU in year Two; and your hard-drive in year Three as a rotational plan) but this scheme looks to be thwarted by the latest changes in architectural design (see the article on this by Chess Krawczyk at page 10 of the March issue of Sixteen Bits).

Before transistors were introduced in the late 50's the thought that a radio might be a consumable item of expenditure never entered the minds of us mere mortals. Radio shops were prolific. They used to store hundreds of different types of thermionic valves (which expired at about the same frequency as an electric light bulb). Radio technicians aspired to a lifetime of full employment. Not too many people now-adays would seek to repair a radio set. It took about ten to twenty years for the local radio repair shops to disappear (from about 1965). Will computers go the same way at the same pace?

I've heard that somewhere in Australia some entrepreneur bought up all the imperial bathroom tiles in existence when we converted to metric measurement. Now that the glue on pre-metric installations is surrendering some of its captives to destruction on the floor this entrepreneur is bound to make a fortune for his foresight. But what a long wait he's had. Perhaps some enterprising young fellah might start collecting all the obsolescent computer parts to take similar opportunity for the time that the owner's of such machines might spurn the option to upgrade. Not likely, I'm afraid.

Perhaps the only advice that I can give to the Roberts of this world is that, if you must leave computer equipment for repair, leave only those components that are broken. The repairman did not have to have Robert's monitor; keyboard; mouse and modem for the task in hand. Adequate identification of property is another worthwhile topic for discussion but this subject is broad enough for a separate article all of its own.

.



have included reviews of four of the 20 products that I have reviewed for InfoRom during the last month—to see the other reviews check www.inforom.com.au. It features reviews of educational, home reference and entertainment CD-ROMs.

The reviews are of SimCity 3000, Age of Empires; Rise of Rome, and Build a Math Bug. Copyright for the reviews rests with InfoRom.

SIMCITY 3000

SimCity 3000 is the latest version of one of the most popular simulation games of all time. It allows you to take complete control of the design, building and maintenance of a city from the ground up, and if offers a host of options for custom-isation and development. You can also unleash disasters such as fire and tornadoes on it. Because of its high levels of realism and (optional) complexity, the game has a great deal of educational value.

This new version includes a number of Australian landmarks such as the Melbourne Cricket Ground and the Sydney Opera House; high resolution graphics that allow you to appreciate the extraordinary attention to detail that is a hallmark of this game and its predecess-ors; and a new zoom level of magnification that allows you to move right in so that you can see individual houses and the Sims walking along the street. Although the range of options is quite complex, it is not difficult to get going in the game, particularly if you follow the tutorial in the user guide.

When you start a new city you have a choice of four sizes of city, three levels of difficulty (determined by the amount of money in your budget), and a choice of three the technologies available for your power, water and garbage disposal. For example, in 1950 the only option available is garbage disposal, whereas in 2000 you can choose between options such as incineration or recycling. This version lacks the range of futuristic and military technologies that came with the Urban Renewal Kit add-on to SimCity 2000. However, there are quite a few interesting ideas and downloads available from the dedicated website (see below).

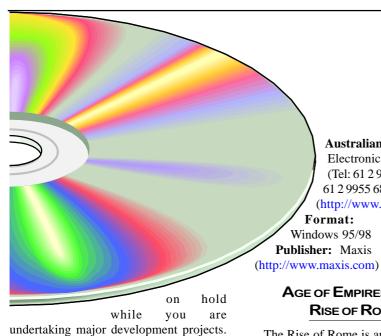
Typically, the construction of a new city might include steps such as the following:

- Lay out the terrain—you can specify the topography as well as the relative density of hills, trees and waterways;
- Start to lay down your network of roads and highways;
- Lay out residential, commercial and industrial zones. Residential is for living, commercial for shops etc, and industrial for industry. You need all three, but getting the right balance can be quite tricky. You can choose between high, medium and low density—the latter is cheaper, but takes up more space. The other issue of course is that Sims will only come and live in your city if it is attractive—overcrowded polluted cities will not attract very many Sims and so you won't be able to charge very high tax rates.
- Add special buildings such as police station, fire station and garbage recycling;
- Place a power station and then run power lines from it to the various

- parts of the city so that they will have power;
- Place a pumping station near the closest source of water and then run pipes from it to the various parts of the city;
- Add buildings of special interest, or landmark buildings from a choice of about 70 from all over the world that include the Eiffel Tower, the Melbourne Cricket Ground; the Sydney Opera House and the World Trade Center. These are beautifully rendered and cert-ainly add interest to your city.
- Add airport, seaport, special recreational facilities, parks, etc, etc, almost ad infinitum.

Once you have got the city up and running, you need to pay close attention to its maintenance and to the budget. You are regaled with regular news items, and at any time you can consult your panel of expert advisors for a general briefing or for suggestions as to what you should do about some sort of problem. They will help you make decisions about issues such as transport, utilities and pollution, and will certainly keep you on the hop. These advisors provide considerably more input than in previous versions, and they help to make game play easier. One of the key aims of the game (unlike real life!) is to try to stay within your budget or even (gasp!) make money—you do this by charging taxes and by staying on top of the host of expenses. As the city grows so does the complexity of the decision making process-all in all it can quickly become quite engrossing.

You can pause the simulation at any time, which is handy, as it puts everything



Australian Distributor: Electronic Arts (Tel: 61 2 9955 7744) (Fax: 61 2 9955 6868) (http://www.ea.com)

Format: One CD for Windows 95/98 **Publisher:** Maxis

AGE OF EMPIRES - THE

The Rise of Rome is an add-on to Age of Empires, the excellent historical simulation game of empire building and conquest. It uses exactly the same screen layout, options, etc as Age of Empires, but provides players with a whole new set of campaigns and scenarios based around Rome-one of the greatest empires of them all. The add-on provides four basic options:

- Random Map;
- Campaign;
- Death Match:
- Scenario.

Death Match is the only new option in this add-on. It enables you to participate in a short game against one or more other civilisations (eg Carthage, Greece, Macedonia), where the basic objectives are usually to construct a wonder, capture all the ruins/artifacts on the map and conquer your enemies.

The main new feature of this add-on is the Campaigns segment—four new segments that chronicle various critical periods in the rise of the Roman Empire. They are as follows:

- Rise of Rome (Birth of Rome);
- Ave Caesar (Caesar vs the pirates of the Mediterranean);
- Enemies of Rome (Hannibal's crossing of the Alps on his elephants and subsequent campaign against Rome).

Each one consists of a series of scenarios, with successful completion of one required before you can move on to the next one, and each one can be played at any one of four levels of difficulty. For example, the basic objective of the first scenario in the Enemies of Rome campaign is to get your armoured elephants through the mountains and into Italy, dealing effectively with any Roman garrisons that you may encounter.

As with the original game, the attention to detail and visual realism within each scenario is excellent. New Roman buildings, technologies and weapons become available as you move through the various phases. My only complaint is that the characters don't talk in Latin! The 14 yearold evaluator pounced on the game as soon as it arrived and has already progressed through several scenarios of the Ave Caesar campaign. I was privileged enough to watch him launch an attack with eight Roman triremes on a pirate shore base. Essentially he used the catapults on the triremes to pound the shore defences with large boulders, then unloaded several 'platoons' of soldiers onto the shore to deal with the survivors. The quality of both sound and graphics is excellent, and one can quickly become quite engrossed in these new campaigns.

Although much of the emphasis of these new campaigns is on battle, you still have to pay attention to building up resources, developing towns and cities and feeding your people (as you do in the other Age of Empires campaigns).

Those who enjoyed the original Age of Empires campaigns will find this add-on very worthwhile.

Australian Distributor: Microsoft (Tel: 61 2 9870 2362) (Fax: 61 2 9805 1108) (http://www.microsoft.com.au)

Format: One CD-ROM for Windows

95/NT

Publisher: Microsoft

(http://www.microsoft.com/games)

Build a Math Bug

Build a Math Bug is an introduction to numbers and quantities from 1-10 for 3-5 year old children. It is one of the Brain Bytes

continued on page 24...



often you wish to intervene. When you start up there is also the option of loading a pre-designed city and trying to keep it going. Alternatively, if you are in the mood for a little action, you can unleash a disaster such as earthquake or tornado (but no Godzilla!) on the city, and then try to clean up and rebuild.

Once the simulation is running you have

a choice of four speeds (from 'Turtle' to

'African Swallow') —depending on how

fast you want things to happen and how

There is a good, dedicated website at www.simcity.com. This provides a range of options, including:

- Downloads of additional land-marks or features, eg Manhattan terrain, Guggenheim Library;
- Detailed instructions on how to do things such as develop a high-tech industry or build tunnels;
- A downloadable Building Arch-itect Tool which you can use to build all sorts of custom buildings;
- A list of cheat codes, including one very topical one that allows you to get your Cousin Vinnie to run a fundraising dinner, after which your town coffers will be mysteriously swelled with add-itional cash!

It is possible to download cities that have been created in SimCity 2000, and you can also trade with neighbouring cities.

There is detailed online help and a range of useful tips accessible, including a 112page user guide that provides a very good introduction to all program features, as well as a useful introductory tutorial.

IAT CAR COMPLITE

I recently wrote an article relating to car computers ('SIXTEEN BITS' Feb '99), that raised some interest (and not a little concern) with several of our members. So I pursued the subject further.

I have always been vaguely surprised that once upon a time I successfully negotiated a four year degree in 'Automobile Engineering. That was in the early sixties when the closest thing to a car computer was the clock in the dashboard (if you were fortunate/rich enough to have a car with a dashboard). Most of my practical experience however, has been with much larger vehicles that travel on, or under the world's oceans, (but they do have computers). I tell you this so that you will be aware that I do know the difference between a fan belt and a spark plug-well some of the time anyway.

So what's all this kafuffle over recharging the battery after a complete discharge and a 'jumper lead' start-up?

Well a car's computer might more accurately be referred to as a 'chip', and its main function is to look after the engine's management system usually referred to simply as the EMS. (Incidentally, if you wish to impress your non-mechanically minded friends during a discussion on cars, casually refer to 'The EMS' and at the same time look as though you know what you're talking about).

It seems that this chip, and its associated circuitry, may at times be susceptible to electrical 'spikes' in much the same way as your modem during a thunderstorm. This is particularly so during a 'jump-start' when the EMS is most vulnerable. The result of such spikes is probably unpre-dictable, and will vary with different models of cars. The systems and circuitry associated with the EMS for different models are complex, a bit of 'a closed book' and probably the subject of intellectual property rights. Apparently, some manufacturers install built in safety devices (usually a one way diode and a resistor) on some of these circuits. It is probably good practice not to rely on them for protection.

'Jump starting' is the fly in the woodpile. Avoid it if you can, and if you can't, then at least use 'suppressed' jumper leads.

Simon Lilley of the NRMA stated in

reference to jumpstarting: 'The NRMA road service has adopted a precautionary procedure

• • • • • • • • • • •

mode you have to follow instructions, eg 'Build a bug with 5 eyes and 2 tails'.

The program is well explained and easy for youngsters to follow, and the graphics and sound effects are quite good.

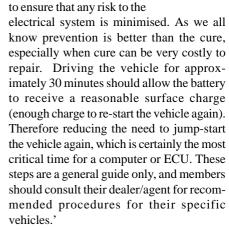
There is a 12-page user guide on disk that provides a brief outline of program features, as well as troubleshooting hints.

Australian Distributor: Dataflow (Tel: 61 2 9417 9700) (Fax: 61 2 9417 9797) (http:// www.dataflow.com.au)

Format: One CD-ROM for Windows 3.1/ 95/98 and Macintosh

Publisher: Edmark (http://

www.edmark.com)



(Thanks for your help Simon! Thanks also to Graham Nicholson for all the legwork.)

SO NOW YOU'VE BEEN TOLD!

BETTOWYND

monitor repair specialists No Fix --- No Fee

Prompt, guaranteed repairs to ALL types of monitors and terminals (including Apple and NEC)

Fixed price, with discount to **Members**

QUALITY SECOND HAND MONITORS ARE ALSO AVAILABLE FOR PURCHASE

Unit 5 Centrecourt, 1 Pirie st, **FYSHWICK**

... continued from page 23

series from Edmark/IBM ('bite-size learning fun'). The basic idea is to build a weird and wonderful bug with various numbers of eyes, ears, antennae, spots, feet and tail. In so doing you learn about numerals from 1-10, their corresponding quantities, the relationship of parts to a whole and plurals, eg two antennae. It has two modes:

- **Question and Answer**;
- Explore.

In Explore mode you create a bug by attaching the various body parts to it. You are given audio and visual cues as you go along, eg 'Five! Five tails!' The bug is quite colourful, and you can change the colour of the face. Once the bug is complete you can print it, and if you have a microphone you can record a sound or name for it. In Q & A

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.

suppose you all have heard about the Scotsman who walked to work, saved him the fourpenny bus fare. One morning he arrived at work grinning from ear to ear, the fare had gone up a penny, so he was saving so much more!

Well, hunting around for an ISP, I came across Ozemail who charges \$300 a year for CGI facilities, so all you guys and gals who want to play CGI, you can think of yourself as \$300 a year better off by using TIP's facilities. It's there to be used and it's a great to be able to try out your programs on the real cyberworld. Particularly if you are developing an application for commercial use, it needs to be thoroughly tested and TIP is ideal for this purpose.

For security reasons, like protecting TIP from faulty programs, malicious hackers and the like, all your programs run through one of two security packages. If you make a program with a .cgi extension, you can run it from any one of your directories, and todays trivia is that it will operate through a program called suexec. However if you call your program anything else, (and it doesn't need an extension), it must be in your cgibin directory and it will then run through the CGI protection program called cgi-wrap.

It has been brought to my attention that Cute-FTP is available on magazine CDs and is a good for 30 days, so that is an alternative to using WS_FTP. Cute-FTP has a few cool features, and like most programs, it is a matter of what you get used to. Both the paid for versions of WS_FTP and Cute-FTP have a "resume" function, very handy when you are downloading that 26 megabyte file, you can spread the download over several days.

Anyway, enough of the chit chat, how did you get on with the CGI? I am writing this before the April issue of Sixteen Bits hits the streets, so I have had no feedback yet, anyway, this month I will show you how to do a couple of small things. Firstly, how to get the time.

There is a function called 'localtime ' that produces nine outputs, seconds, minutes, the hour, the day of the month, the year and a few others. If we give some nice names to these things we can write

(\$secs,\$mins,\$hours,\$dayofmonth,\$month,\$year) = localtime();, then these values can then be used anywhere.

Now we also might be interested in who is using our scripts. By way of introduction, have a look some time at http://www.pcug.org.au/cgi-bin/cgiwrap/ ~rcook/enviro.cgi . It lists all the variables



that are generated when you log onto a page, so we will just use one of either the REMOTE_HOST or REMOTE_ADDR, one, but not both, is sent by the remote terminal or server. Just add these lines below to your test1.cgi, or download the whole lot from http://www.pcug.org.au/~rcook/info/ test1.txt and then rename it test1.cgi.

\$logfile = "logfile.txt";

unless (\$ENV{REMOTE_HOST} eq ") { \$Originator = \$ENV{REMOTE_HOST} else **\$Originator** \$ENV{REMOTE ADDR} }

(\$secs,\$mins,\$hours,\$dayofmonth,\$month,\$year) = localtime(); open (LOG, ">>\$logfile"); print LOG "My test CGI was accessed from \$Originator on \$dayofmonth/\$month/\$year at \$hours:\$mins:\$secs \n";

close (LOG); A short explanation now, Line one just creates a name (\$logfile) for the file to which will write the hits, this will be logfile.txt. Lines 2,3 and 4 say "We will create a name \$Originator, and give it a value of either \$ENV{REMOTE_HOST} \$ENV{REMOTE_ADDR} depending on which one was sent.

Line 5 is just the code to produce the date and time for printing later.

Lines 6 and 8 open and shut the file printing routine, and line 7 does the writing, producing a line in the logging.txt file thus: "My test CGI was accessed from act.gov.au on 31/2/99 at 10:15:6".

Notice the date as 31 Feb! The value of \$mon is 1 less than the actual value, so you have to add one to get the correct date, I will leave that to you to sort out. Also you might ask what happens in the year 2000. Answer, the value of \$year will be 100, so most programs just add 1900 to the year value and you get a neat looking year. That is another exercise for you.

by Owen Cook

If you are interested in learning more about CGI, there is a wealth of information on the Net, in fact probably too much. If you are just starting out it can be a bit daunting. Perl is the general language used with CGI, though C and Python, even Visual Basic can be used, but on TIP, just use Perl.

Perl is now also available, free of charge, for Windows 95, 98 or NT. The latest version of perl can be down loaded http://www.activestate.com/ ActivePerl/default.htm, and it installs in seconds. There is also a few newsgroups devoted to Perl and CGI, the main ones comp.lang.perl.misc comp.infosystems.www.authoring.cgi.

Go into bookshops like Dymocks and in the computer section you will find a number of books, from the beginners level to the high flaluting and incomprehensible. Perl for Dummies was what I started with, and it even covered a bit of CGI. Perl for Dummies, by Paul Hoffman, is also in the ACT Library system, it has been well read by yours truly!

If you want to try something that is fairly simple, download the maileme.pl, http://www.pcug.org.au/tip/info/ examples/mailme.pl and mailme.htm from http://www.pcug.org.au/tip/info/ examples/mailme.html , read the instructions at http://www.pcug.org.au/ tip/info/usercgi.html and try configuring them for your home page. It really is fairly straightforward so long as if you have conquered the simple exercise given in this series. If it doesn't work, remember to ask yourself: Was it uploaded as an ASCII file? Were the permissions changed?

Good luck and enjoy those facilities.

WOODY'S OFFICE WATCH

File Open Tricks and Traps

he humble File | Open dialogue box in Office 97 is worth another look – there are some nifty tools hiding there.

Make sure you know how to use all the buttons on the top toolbar. They control the type of display (list, details, properties or preview). Preview can be a little slow on older machines since it has to open each document to get the contents for display. I usually prefer the details view because you can sort the list quickly by clicking on the headings for each column.

Click on a document, then under the right mouse menu you'll find useful options like:

Open as read-only

The opened document can't be saved over the original file.

Open as copy

This creates a clone of the selected document in the same folder using the same name but prefixed with 'Copy of'. Great for making a new document based on an existing document.

Print

Sends a single copy of the selected document to the default printer. Word 97 will hang if you attempt to print a document in this way when it's already open in Word. You can also select multiple documents for printing but Word may not print them all if too many are selected (there's no fixed limit on this known bug).

Properties

Shows you the same details as File | Properties but without having to fully open the document. An abbreviated version of Properties is shown with the toolbar display button.

You'll find some of the same options under the 'Commands and Settings' toolbar button on the top right of the File | Open dialogue plus some other handy commands:

Sorting

Changes the display order in the file list, but a faster way is to click on the heading you want to sort by (click a second time to reverse the order) when in details view mode.

Search subfolders

This is very useful for seeing a display of all the files in the current folder and all those in sub-folders, organised into a single

Group file by folder

This option works with 'Search subfolders' to show the files in all subfolders by in a standard 'tree' view by folder.

Ouick searches

The four drop-down lists at the bottom of the dialogue box can be used to filter a long list of documents. Click or type the setting you want then press the Find Now button.

File name

You can type in a wildcard for a file name (eg *.txt or *Budget). But there's a faster way: just type in the word you want and hit the Find Now button. This will show you all documents with that word anywhere in the file name.

You can also enter a drive/path to quickly switch to another folder. Putting a semicolon between two or more drive/path combinations will show the files from both folders in one list (eg c:\My Documents;g:\Storage). I use this to combine the lists of documents on a notebook and desktop computer, but you could also use it to see the documents from two of more members of a team.

File of type

Displays files of the specified type based on their file extension. Some file formats are supported within the program while others need additional files to work. These additional files are either installed as part of the 'Typical' installation or need to be selected using 'Custom' setup. Yet more converters are made available by Microsoft from their web site or from third party providers. If you can't find the converter you want, the first thing to try is running the Office setup and choosing some of all of the text converters that are available (Typical Install doesn't include all the converters which misleads many people into thinking that the one they need doesn't exist.).

Text or property

Let you find the occurrence of a word or property within a document. This can be slow (again, it has to open each document) but effective if the document you want has gone AWOL especially when used in conjunction with the 'Search subfolders' option to broaden the search. Just type in the word or phrase to look for and press Find Now

Last modified

Is made simple with a set of options like Today, This Week (today and the previous 6 days), Last Week (the 7 days before that), This month (calendar month), Last Month or Any time (default). Use this to narrow down a long search to more plausible candidates.

The New Search button will remove any search settings you've made and quickly return you to the default values.

You can make much more complex searches by hitting the Advanced button, but the search options on the File | Open dialogue are enough for most people.

Find Fast

This is a 'feature' in Office 95 and 97 which sits in the background and creates indexes of your documents for faster searching. If you do a lot of searches on the contents of documents you may want to leave Find Fast running, but for most users it's more trouble than it's worth (system speed loss and possible system crashes are among the less advertised 'benefits' of Find Fast). See Word 97 Annoyances pages 23-24 or Woody Leonhard Teaches Microsoft Office pages 20–22. The final judgment on Find Fast came from Microsoft – later versions of Office 97 do not install it by default and installing Windows 98 over a Win95/Office setup will also disable it.

Word 97 Annoyances pages 242–248 shows you how to customise the File | Open dialogue including changing the default document and template extensions.

WOW – Woody's Office Watch
(your own Microsoft Word and Office
guru every week!)
24 March 1999 Vol 4 No 13
Tip and traps using the File | Open
command in Office
Tell your friends to join WOW. Hear
the latest Office news free and first,
send blank email
mailto:wow@wopr.com or http://
www.woodyswatch.com/wow/. And
don't forget our free Windows
newsletter http://
www.woodyswatch.com/www/ or
mailto:www@woodyswatch.com

raving workspace

f you ever need to work on several workbooks in the one work session and need to use them reasonably frequently in this way it is possible to have Excel 97 open them together and ready for use as you want them on screen.

The open workbooks whether

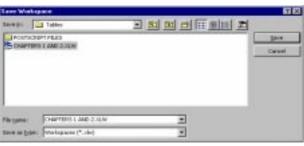
maximised or minimised are called the workspace and this technique saves workspace in what is called a workspace file, making it ready for later work sessions.

The workspace file saves information about all open workbooks including their locations, window sizes and screen positions.

Saving a workspace file is particularly useful when the workbooks that you want to work on are filed in different directories. Excel 97 opens them all and you do not need to mouse click around through a myriad of directories and sub-directories to find the workbooks you want.

To set up your workspace ready to save, open all relevant workbooks and arrange them on screen as you want them. If you want these workbooks can be tiled or one can be maximised and the others minimised

Next select File | Save Workspace. This will bring up the following dialogue box.



In the Save as type box select Workspaces (*.xlw). Enter the file name and path for your workspace file including if you want the file name extension .xlw. Then click on Save or press Enter. The workspace is now saved.

If you have made changes to the workbooks without saving them you will be



prompted to save the new versions of the workbooks thus:



Responding Yes will save the workbook. Note that you can make and save as many workspaces as you want.

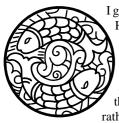
Opening a workspace

When you want to open these workbooks it is simply a matter of opening the workspace file.

To do this select File | Open to bring up the standard file open dialogue box as follows.



Electronic Haiku



I guess you've heard of Haiku - that rather esoteric Japanese zen poetry that has the syllabic form of 5-7-5...well these, I thought would sooth rather than ruffle your

working day...

Sony has announced its own computer operating system now available on its hot new portable PC called the Vaio. Instead of producing the cryptic error messages characteristic of Microsoft's Windows 95, 3.1, and DOS operating systems, Sony's chairman Asai Tawara said, "We intend to capture the high ground by putting a human, Japanese face on what has been - until now - an operating system that reflects Western cultural hegemony. For example, we have replaced the impersonal and unhelpful

Microsoft error messages with our own Japanese haiku poetry." [In English,

The chairman went on to give examples of Sony's new error messages:



A file that big? It might be very useful. But now it is gone.



The Web site you seek cannot be located but countless more exist



Chaos reigns within. Reflect, repent, and reboot. Order shall return.



ABORTED effort: Close all that you have worked on. You ask way too

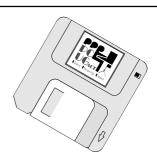


Yesterday it worked Today it is not working Windows is like that.

continued on page 28 ...

Go to the sub-directory where your workspace file is filed, select it and click on Open. Excel 97 opens the workbooks for you and arranges them ready for work.

This material is copyright. It may not be reproduced in any form without permission from the





MY FIRST (AND LAST EXPERIENCE) OF THE INTERNET



Bill Gates is a bastard. An outright bastard. I hasten to say this is a personal opinion, and not a policy statement by PCUG, of which I am not right now a member. (I get lots of personal attention from members insisting I join and I am concerned, perhaps falsely, that this attention will wane if I pay a sub).

... continued from page 27



First snow, then silence. This thousand dollar screen dies so beautifully.



With searching comes loss and the presence of absence: "My Novel" not found



The Tao that is seen Is not the true Tao, until You bring fresh toner.



Windows NT crashed. I am the Blue Screen of Death. No one hears your screams.



Stay the patient course Of little worth is your ire The network is down



A crash reduces your expensive computer to a simple stone.



Three things are certain: Death, taxes, and lost data. Guess which has occurred.



You step in the stream, but the water has moved on. This page is not here.



Out of memory. We wish to hold the whole sky, But we never will.



-Having been erased, The document you're seeking Must now be retyped.



Serious error. All shortcuts have disappeared. Screen. Mind. Both are blank. Anyway, Gates is a bastard. An agent of the forces of darkness, one of Satan's spawn who inflicts on the world something that drives us crazy, costs us money and yet we can't seem to do without it. Eden did not have the Internet, and with good reason.

When I got email there were few providers in Australia. I joined Ozemail, and it didn't even have a node in Canberra back then. It took a couple of months to log on, because membership didn't come with logon set-up instructions back then. (This was back in the Dark Ages, about 1995 or so, when I thought our 486 computer was ace technology).

Trying to log on for the first time, I was only getting computer garbage, not characters, on the log-in screen. Lots of spitting and cursing and STD calls to Sydney, to be put on hold at STD rates. Typical pioneering stuff.

It was about this time I made my assessment of Bill Gates, computers and the Internet. Our internet access lay dormant for a while. Two computer upgrades and an extra phone line later, I am as bleary-eyed as any other Net addict. Tapping away replies to emails in the wee small hours to people I would never have the patience to write a letter to. (Last night, as I recall, apologising to a Malay for his excellent English when he, quite rightly, pointed out that as a Commonwealth country they often spoke immaculate English.)

I have friends across the world now and I get gossip and jokes faster than CNN. I have even written a short story, published it on the Net, and had it praised three hours before I published it (an anomaly of the date line).

The pain of the early Net days is (almost) history. I am not just communicating, I am Neticating. And now I find time to reflect on my ISP.

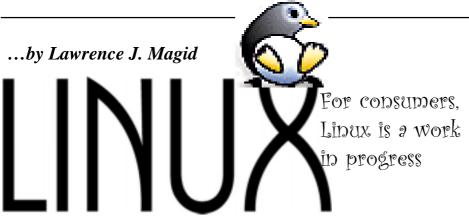
ISPs are popping up like mushrooms in a cow paddock, and some of us are wary of how poisonous some of them may prove. My ISP advised me it is not accepting any more customers in the fixed-price access plans. It won't say why and it won't say when this will change. It had invited me to join a plan, but I queried the conditions, they promised to get back, never did – and are now penalising me for their oversight.

Last month and the month before I paid a total of \$300 for 'casual rate' connectivity. Enough is enough. I have decided to switch ISPs. I have found one that, for \$99 more than I've paid the past two months, I can get a year's access for up to 50 hours a month. If I find I'm using more, I can change plans with no delay and no penalty.

To join, I made a 'local call' to a 13-code intelligent network number, discussed my needs with my new ISP, who were frank and helpful. In just 12 minutes they assessed my needs, recommended a plan, assured me about their Canberra node, access capacity and user-to-modem ratio, taken my details, checked and approved my choice of userID and, 20 minutes later, faxed me a couple of pages of simple but comprehensive log-on instructions.

Okay, I fibbed. It's not my last Internet experience. Just my last experience with one ISP. In three years, I suspect some older ISPs will spend hundreds if not thousands of dollars on loyalty programs, when a bit of 'customer service' might have held those customers longer. But then, they haven't learnt the lesson from the Master Bastard, who worked out long ago that customer service isn't the answer - it's all about creating a product everyone wants, incorporating the smart ideas of competitors in subsequent upgrades and making people form a queue to buy it. Then it doesn't matter if the product crashes during your Big Launch, because everyone will still buy it anyway.

[The author can be contacted via his lawyers or the embassy of the Dominican Republic.]



hile the Justice Department challenges Microsoft in court, thousands of computer experts around the world are pursuing what could, in the long run, be an even more powerful way to break up the company's monopoly. They are using Linux, a competing operating system that, like the various flavors of Windows, can be used to run both PCs and servers

Linux is a very robust server operating system used on millions of machines throughout the world. Many Internet service providers, for example, use Linux. It's also popular on campuses and at government agencies and corporate sites. Although it is possible to use Linux as a desktop operating system, it has a way to go — as I found out after installing it on two of my home machines.

The operating system is named for its developer, Linus Torvalds, and the Unix operating system from which it's derived. What is most interesting about Linux is that it is distributed under what is called the GNU General Public License, which is often referred to as a "copyleft" licensing agreement. Unlike copyrighted software, which is owned and controlled by the copyright holder, the GNU license is specifically "intended to guarantee your freedom to share and change free software — to make sure the software is free for all its users."

As subversive as this concept may seem, it's been embraced by some rather established companies, including IBM, Hewlett-Packard and Intel.

Software distributed under the GNU can be given away free to other users, and it can be modified, enhanced and resold by others, even for a profit. There's only one catch. If you add value to GNU software, you must authorize others to freely enhance and distribute your code. Don't ask me why, but GNU stands for "GNU's Not Unix."

Using that GNU license, several companies have created versions of Linux, called "distributions," that are based on the same Linux source code with various enhancements. Several of these distributions consist of a reasonably complete set of tools and applications such as text editors, Web servers and file managers. Leading Linux distribution publishers include Red Hat, Caldera, Debian and SUSE.

With a lot of help from an expert, I now have Linux running on a borrowed IBM ThinkPad 600 notebook PC and a Gateway Pentium desktop system. After using it for several days, I'm convinced that it has the potential to evolve into a consumer operating system, but it's not there yet.

As with any operating system, there is a learning curve and I'm still very much a Linux novice. But even experienced Linux users I talked with admit that the operating system has a way to go before it's ready for consumers.

Unlike Windows and Macintosh, there is no single company that controls the operating system. For many Linux users, that's a big plus. They don't have to worry about proprietary software, and they're not at the mercy of a single company to enhance, improve and support the oper-ating system. But even though Linux is stable and reliable, it's hard to assemble a complete system with everything you need to be productive. Most of the pieces are there, but you must get them from a variety of sources, and installing them and getting them to work is quite a challenge. Short of spending an enormous amount of time poring over manuals and calling help desks, I don't think I could have installed Linux if it weren't for Robert Berger, a Linux expert and owner of Internet Bandwidth Development.

Berger spent several hours at my house helping me install the operating system, a graphical user interface and several applications. But once the system was working properly, I was able to use it to surf the Web, write the first draft of this article and send e-mail. I also had a chance to play with a photo-editing program, a presentation

program and several other software programs Berger installed on the system. Linux doesn't come with an icon-and-menubased screen, as Windows does. Experienced users can control the oper-ating system by typing commands from a prompt that makes MS-DOS seem user-friendly by comparison. But there are several available graphical interfaces for Linux. At Berger's suggestion, I installed the K Desktop Environment (KDE), which has a look and feel similar to Windows 98 or Macintosh. The interface, which is distributed by Germany's KDE Desktop Environment Project, provides you with a "what you see is what you get" interface that's very easy to use. You can open multiple applications, each in its own window and, like Microsoft Windows and the Mac, you can copy and paste text between docum-ents and select commands by clicking on icons or pulling down menus. You can launch programs by clicking on their icon or by clicking on the Application Starter, which looks remarkably similar to the Windows 95/98 Start menu. Like Windows, there also is a task bar that shows your active applications. My only major complaint about KDE is that you don't get immediate feedback when you click on an icon. In Windows, you get an hourglass, but with KDE you see nothing until the application loads. I'm an impat-ient sort, and if I don't get feedback I keep clicking, which results in loading multiple copies of an application.

KDE isn't the only graphical interface. Another option is Gnome, which is distributed by a group of programmers that "intends to build a complete, user-friendly desktop based entirely on free software." "Intends" seems to be an operative word when it comes to programs that turn Linux into a user-friendly operating environment. Although Linux is well-tuned as a server operating system for professionals, it is more of a work in progress as a desktop platform for the masses. Yet, there is reason to be optim-istic. There has been a great deal of progress in the last year, and the nature of the GNU license creates an incentive for programmers to keep enhancing the system. If one programmer makes it just a little better, another can take it a step or two further. Eventually, someone will come up with a system that has what it takes.

(Lawrence J. Magid can be reached at magid@latimes.com. His Web page is at http://www.larrysworld.com. On America Online use keyword LarryMagid)

Copyright © 1999, By Lawrence J. Magid Distributed by Los Angeles Times Syndicate

its and http://www.rjlsoftware.com/software/ Some excerpts:

entertainment/default.shtml

has some funky fake applications with which you could annoy many a computerjunkie.

The following is sampled from http://www.humorspace.com/humor/ jokes/jpentium.htm

Q: Why is the Pentium 2 called Pentium II? A: Because the Romans never figured out floating points.

Q: What do you get when you cross a Pentium PC with a research grant? A: A mad scientist.

Q: What's another name for the "Intel Inside" sticker they put on Pentiums?

A1: Warning label. A2: Truth in advertising.

Q: According to Intel, the Pentium conforms to the IEEE standards 754 and 854 for floating point arithmetic. If you fly in aircraft designed using a Pentium, what is the

correct pronunciation of "IEEE"? A: Aaaaaaiiiiiiiiieeeeeeeeee!

TOP TEN NEW INTEL SLOGANS FOR THE PENTIUM

9.9999973251 It's a FLAW, Dammit, not a Bug 8.9999163362 It's Close Enough, We Say So! 7.9999414610 Nearly 300 Correct Opcodes 6.9999831538 You Don't Know What's Inside 5.9999835137 Redefining the Computer and Arithmatic As Well. 4.9999999021 We Fixed It, Really. 3.9998245917 Division Considered Harmful 2.9991523619 Why Do You Think They Call It *Floating* Point?

1.9999103517 We're Looking for a Few Good

0.9999999998 The Errata Inside

http://home.earthlink.net/~chellec/

contains a canonical (complete) list of wierd band names These are actual band names. Warning, some of the band names on that site are highly offensive.

The Amazing Embarrasonic Human Karaoke Machine

Band That Shot Liberty Valence

Curious George and the Homophobes

Draw Your Own Cow [Rita din egen ko]

Electric Blue Peggy Sue and the Revolutionions from Mars

Flaming Technicolor Vomit

Gee That's A Large Beetle I Wonder If It's Poisonous

Hollow Chocolate Bunnies of Death

If Pigs Could Talk Would You Still Eat Them

The Jean Paul Sartre Experience

Kung Fu Action Clergy Persons

Lucifer Loves Tarantino

Me First and the Gimmee Gimmees

Norman Bates and the Shower Heads

Ozzy Beard Spaghetti

Post Nasal Drip

The Rampant Hedgehogs

Question Mark & the Mysterians

Screaming Moist Accountants

Throw That Beat In the Garbagecan

Ultimate Spinach

Voodoo Tuna

Why Do You Keep Cutting Off My Hands?

(0)

The Yams from Outer Space



"Isn't it great? The User Manual came with a free wheelbarrow."

Puzzle Corner

ongratulations to our two regulars
Phil McFadden and Paul Free and
also to K A Moylan and Barrie
Shepherd for their solutions to the March
puzzles. I have used some of their comments
in the following explanations.

Smallest possible product is 3185 which is 13 X 245. Largest possible product is 22,412 which is 52 X 431.

These are easily obtained by first noticing that the smallest product would result if we place the smallest digit, 1, in the 10's column of the 2-digit multiplier and the next smallest, 2, in the hundred's column of the 3-digit multiplicand. Similarly, the largest product results from placing the largest digit, 5, in the 10's column of the 2-digit multiplier and the next largest, 4, in the hundred's column of the 3-digit multiplicand. Then after a little experimentation, we can place the other digits as shown.

The original blue block was a 6"cube. A side of n units will have 8 corners showing 3 coloured faces; 12(n-2) edge faces showing 2 colours; 6(n-2)^2 centre faces showing 1 colour and (n-2)^3 showing no colour. Play with a Rubic cube! (Incidentally, the structure of the Rubic cube is based on a branch of modern algebra and can be used as an aid to its study, and whose techniques, in turn, can be used to solve the cube.)

The results for n = 3 (ie for the red block) are 8, 12, 6 and 1 respectively as given in the problem data. The blue cube showed 8 times as many plain cubes as those with three colours, ie 8 X 8 = 64 plain cubes. So $(n-2)^3 = 64$ and n = 6.

In Calcularia, there are 8 Pieces to the Bit and 14 Bits to the Sum.

On adding the Pieces column one may be tempted to assume that there are 24 Pieces to the Bit, but then the rest of the sum would work only if we were to assume 13 Bits to the Sum. This is impossible because 13 actually appears in one place in the Bits column.

Clearly, there must be more than 7 Pieces to the Bit and more than 13 Bits to the Sum. The actual total of Sums is 20, so 2 of the total represent a carry over of Bits. Similarly,

the total of Bits is 37 and of Pieces is 25. Pieces must be carried over as 3 Bits of 8 Pieces, or 2 of 12. The latter would then give 37 Bits which is not consistent with an even carry over, so the Pieces carry over must be 3 X 8.

This gives 40 actual Bits less 12 Bits = 28 Bits which are carried over as 2 Sums. The result follows.

As Barrie pointed out, this simple puzzle could be made more complicated if Calcularia did not have a decimal system of units and it was first necessary to determine the base of their number system.

The statement would be true only if spoken on a Thursday.

For then last Saturday would be six days away from tomorrow (Friday) and yesterday (Wednesday) would be six days away from next Tuesday.

I was not alone in finding it hard to disentangle the information but my (partial) reasoning goes something like this.

On what day can we speak of last Monday as "a week ago yesterday"? Tuesday of the following week. Moreover, six days back from next Tuesday would be Wednesday of this week. And Wednesday is "yesterday" of this week so today is Thursday. So "tomorrow" is Friday. And six days back from tomorrow (Friday) is Saturday of the previous week.

And so to this month's puzzles — a bit of this and a bit of that ...

Calcularian citizens are either Soothsayers (never lie), Dissemblers (always lie) and Diplomats (alternately lie and tell the truth).

If you were to meet a Calcularian citizen, how, with just two questions, can you determine to which group the citizen belongs?

There are ten cities in Calcularia arranged in the form of a circle. A salesman visits these ten cities, spending a day in each. He proceeds clockwise from one city to the next, except whenever leaving the tenth city he may either go to the first or jump to the second city. How many days must elapse before his location is completely indeterminate, ie, when he could be in any one of the cities?

Economists have advised the Parliament of Calcularia to divide the population into ten income groups.

They plan to average the wealth between each pair of neighboring groups, starting with the two lowest, then groups two and three, ending with the top two groups. An amendment to this plan has been proposed to work from the top down. Which plan should the poorest group prefer? The richest?

(It is a matter of considerable debate amongst the population as to which groups (income and veracity) the Honourable Members belong!)

Ted was visiting his friend Charlie. "It's been four years since I last saw you. How old are your two kids now?"

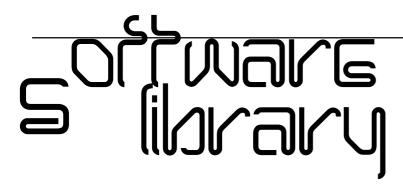
"Three, not two. We've had another meanwhile. And if you multiply their three ages you get ninety-six, but if you add their ages you get the number of our house." "That's clever," Ted replied, "but it still doesn't tell me for sure." His friend chuckled. "Sure it does. Just think." What do you make those ages?

They got to discussing Calcularian changes, and the matter of the painting of the Main Street lamp posts came up.

Bill and Jake were to do the job, but Jake arrived early and started right away. He had just finished three posts when Bill appeared on the scene. "That's my side you've done," grumbled Bill. "You're supposed to do the East side." Jake laughed. "I'm easy," he said, carrying his gear across the narrow street. For a while they both painted. Then Bill went over to Jake. "I've finished my side," he declared, "so I'll give you a hand." "Okay," agreed Jake. "But we won't work on the same post." The job was soon completed. "You're a fine painter," chuckled Jake. "The same number of posts had to be done on each side, but I've done twice as many as you."

He was right. So how many had Bill painted?

Send your replys (or gifts and/or bribes) to Vic at: vicbus@pcug.org.au



Phil Trudinger Ph: 6248 8939 (11am-6pm) Email: ptruding@pcug.org.au

Every month the library receives several hundred files on CD-ROM from the Public software Library in Houston, Texas. Each CD features a different category of files (eg, Games, Utilities, Communications etc) as well as a batch of new and updated files. It is from the latter that the files described in these news-letters are selected (NOTE: all are ZIP files).

The CD-ROMs themselves are not available to members but the latest 7 are on the Bulletin Board and are available for downloading. The text files, CD1 through 7, in Area 1 of the Board are the monthly file lists.

The BBS and CD-ROMs can be accessed using a communications program such as Telix, or via the Internet with Netscape. However, in the latter case the local sites must be cleared first by entering 'pcug.org.au,tip.net.au,auug.org.au' in the 'no proxy for' box of the Proxy option. Now the URL ftp://pcugbbs.pcug.org.au/ will display a list of the CD-ROM and hard disk directories. Note the terminal forward slash: if this is omitted, or the local sites are not cleared, only the hard disk information will appear. Also note that the trick does not work with MS-Explorer.

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.

Files from CD-ROM Vol 7 No 3. March 1999, Category 'Business'

FaxMail Network for Windows 9.02 adds faxing capabilities to Windows applications. Features include an auto-print on receive option, background operation, custom cover pages, a fast fax viewer, timed sends, logging of all past and future fax events, and much more. Reg Fee \$55-\$59

GAMES

ARCDJSAW (589851 bytes)

Arcade Jigsaw Puzzle 1.05 is a fun jigsaw puzzle game for Windows. It includes 11 different puzzles and features excellent sound effects. Other features include an on-screen timer and a high score listing. Reg Fee \$0

BINFUN (545876 bytes)

Bingo Fun lets you play Bingo on your computer. The computer can call numbers for you - you control the speed of the calling and decide whether you want the numbers to be spoken (requires a sound card). You can play one of thirteen different pre-defined Bingo var-iations (or define your own game) using

up to four cards on the computer screen. Reg Fee \$?

BJIG32* (554453 bytes)

B-Jigsaw for Windows (32-bit) 2.1 allows you to create your own jigsaw puzzles with any BMP file. There are three levels of difficulty - Beginner, Intermediate, and Expert. Each level corresponds with a certain size of puzzle pieces; Beginner - large pieces, Intermediate - normal pieces, Expert - small pieces. Reg Fee \$10

BWDSETUP (2567853 bytes)

Battle of Words 1.1 is a unique combination of Hangman and Battleship. You name each ship with a noun or proper name, and hide it on the playing grid. You take turns with the com-puter shooting areas on the grid, in hopes of uncovering a ship. After you have discovered the ship, you attempt to guess the word on the ship. Excellent graphics and sound effects add to the fun. Reg Fee \$20-

CSISETUP* (1889794 bytes)

Cross Image 1.0 is a computerised version of the old 'graph paper picture' game. You have to figure out which little squares to fill in by



looking at the cross-reference numbers provided. An option is provided to set the time limit for each puzzle, and you can also print puzzles to be worked out on paper. Requires Win95/NT. Reg Fee \$20-\$30

HXGSETUP (5289605 bytes)

HEXaGEM 1.0 is a Tetris-type game, with a twist. Jewels of various colours fly out randomly from the sides of a jewellery box and glide toward a big diamond located in the centre of the box. You need to control these flying jewels by turning and attaching as many as you can so they form hexagons. Reg Fee \$20-\$30

L98V21SW (1191102 bytes)

Lines'98 2.1 is a game where the object is to make balls of a certain colour form different shapes. You're trying to form lines, squares, or blocks with the coloured balls, but each time you move a ball three new balls pop up at different places and in different colours and they may not be where you would want them. The game has sounds and a timer to add some excitement, plus loads of options to configure it the way you desire. Reg Fee \$9

NCKSETUP (2650370 bytes)

NutCracker 1.0 is a 3D, first-person game where you become a Brave knight and battle the evil King and Queen of Rats on Magical Christmas Night. In order to rescue the princess, you will need to make your way through a twisting maze and destroy all the evil rats that will challenge you. The graphics and sound effects are very well done. Reg Fee \$12.95

TMJSETUP (2152815 bytes)

Time Jumper 1.0 travel through past and future time and collect items left behind by careless time travellers. You are the hero who protects the course of history. Watch out for poison mushrooms, deadly dinosaurs, and other dangers. Reg Fee \$12.95

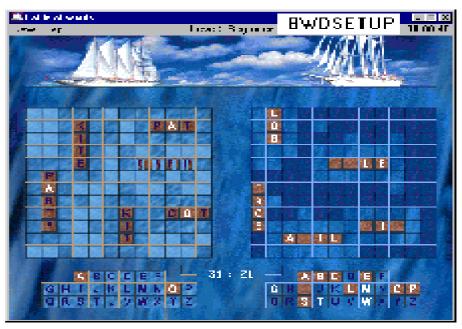
GRAPHICS

3DVIEW (4751999 bytes)

3D View 3.0 is a powerful 3D CAD/CAM viewer. Features include native CATIA(tm) support, the ability to view multiple parts in different file formats, real-time cross sectioning, the ability to annotate 3D models with multimedia notes, and more. Reg Fee \$120

AIPICT30 (895421 bytes)

AI Picture Utility 3.0 is a fast 32-bit JPEG viewer for Windows95/NT. Features include fast previewing, a flexible and easy to use interface, support for VidFun AVL slideshows, common image functions (gamma, contrast, brightness, etc), and more. Reg Fee \$25



ALLNVIEW (1585711 bytes)

ALLnView 2.7.8 is a graphics viewer that automatically re-sizes image files to fit your screen if they are larger than your viewable window. Features include slideshow capabilities, a variety of file management functions, and support for JPG, WMF, GIF, BMP and ICO formats. Reg Fee \$19

AW2GOETZ (2752154 bytes)

24-bit Aquatic Wallpaper II contains seven beautiful aquatic scenes, including beaches, fish, coral, and other sea-life. Reg Fee \$0

BWPROOF (2375263 bytes)

BWProof is a powerful image viewing package that allows you to easily view ALL of the images in ANY directory on any of your disks. You can view up to six thumbnails of all JPEG, BMP, GIF, or TIFF images in a photographic-like proof-sheet. View any single image in its own window along with embedded c0aption information. Save the image to another location or delete it from your drive to save space. Print the six images displayed in colour with image information. Reg Fee \$20

CS32V100 (1072996 bytes)

CompuShow 32 1.00 A Windows 95/98/NT graphic viewer, printer, converter, catalogue, and explorer for GIF, JPEG, PNG, BMP, PCX, etc, plus movies, music, and sound, a Windows screen saver, scripted multi-media slide shows and a thumbnail-based explorer which immediately displays small versions of the pictures on your computer as you open any folder. Double-click a thumbnail to display it full-size, print or convert it, or drag and drop it to move, copy, etc. Reg Fee \$35

INSTP3D1 (2312366 bytes)

Photo3D for Windows allows you to create 3D models from photographs. Using multiple photographs you can create more complex 3D models. Photo3D creates textures to be mapped on the model surface. Created models can be immediately examined in the preview mode. Reg Fee \$30

IRVIEW* (403863 bytes)

IrfanView32 2.97 is a fast image viewer/ converter for Win95/NT. Supported file formats include JPEG, GIF, BMP, DIB, RLE, PCX, PNG, TIFF, TGA, RAS, ICO, AVI, WMF, EMF and Photo-CD. Other features include drag and drop support, fast directory viewing, a print option, and more. Reg Fee

PSP501EV* (7276697 bytes)

Paint Shop Pro (32-bit) 5.01 is a comprehensive Win95/NT graphics utility for image creation, viewing, and manipulation. Features include painting with eight brushes, photo retouching, image enhancement and editing, colour enhancement, image browser, batch conversion, and scanner support. Other features include 20 standard filters, deformations, plug-in filters, and support for over 30 file formats. Reg Fee \$69

SDINSTAL (1780533 bytes) SD95INST (1731983 bytes)

SmartDraw 4.0 allows you to draw flowcharts, diagrams and other business graphics. 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 \$49



INTERNET

1AWR1 0 (921757 bytes)

AgentWebRanking 1.0 helps you improve, optimise, monitor and maintain you web position. It queries 13 of the top search engines for your web site and key-words, showing where you and your competitors are positioned. This eliminates the time-consuming chore of visiting each search engine, typing in your key-words, and analysing the results. Reg Fee \$0

1JUMP235 (1606773 bytes)

1Jump 2.3.5 is a next-generation desktop search and content tool for people who want to reach sites directly, without relying on search engines. Using proprietary databases, it 'jumps' people directly to sites with just a site name, company name, or product name. Once there, it provides context-sensitive information on a site, including a real-time branching site index; site and popularity ratings; related links; detailed brand info; site ownership info; company background; a standardised contact form; and more. Reg Fee \$0

32PSDP13* (3046461 bytes)

DB-HTML Converter PRO 1.30 generates HTML documents from DBase, Paradox, FoxPro, Clipper, MS Access, Oracle, Informix, MS SQL, DB2, and Sybase databases. It provides flexible HTML and database maintenance functions: network support, SQL, sort, filter, headers, footers, titles, menus, graphic conversion, colours

selection, font size and type selection, insertion into templates, and more. Requires Win95/98/NT. Reg Fee \$100

ACEXPERT (3444465 bytes)

AceExpert 3.00h allows you to easily create and post pages on the World Wide Web. It has a user-friendly interface with a graphic tool-bars, and there is a set of tabs which organises the tools by category to make it easy for the user to find his way through this impressive array of tools. Features include 20 templates of Web sites (including graphics), HTML syntax checking, a spell checker, 50 predef-ined Java Applets, 12 predefined Javascripts, 2 CGI programs (Counter and Form), and 2500 images for your Web pages (animated GIFs, backgrounds, etc). Reg Fee \$50-\$60

ADBUSTER (1541586 bytes)

AdBuster Rising helps filter out annoying advertise-ments from newsgroup articles. Reg Fee \$19

APPPSSWD (569530 bytes)

Applet Password Wizard 1.1 creates usernames and passwords to protect your Web Pages. Each user can have a unique URL to link them to. This is great for securing content-sensitive stuff on your website. Reg Fee \$10

CCHECKNS (773417 bytes)

Cache & Cookie Washer for Netscape 2.3 cleans up the tracks that you leave behind when using Netscape. It will automatically run in the background and clean up your tracks, when you want, and which ones you want. You can have it automatically clean when Windows is started or shutdown and you can also schedule timed cleanings. Reg Fee \$14.95

CODEMO (5028080 bytes)

Ulead COOL 3D 2.0 is a powerful 3D titling program that lets you create high-impact, three-dimensional still and animated titles and headlines for documents, presentations, reports, videos, multimedia titles, and web pages. Requires DirectX. Reg Fee \$?

COOKWASH (919516 bytes)

Cache & Cookie Washer for IE 2.3 cleans up the tracks that you leave behind when using Internet Explorer. It will automatically run in the background and clean up your tracks, when you want, and which ones you want. You can have it automatically clean when Windows is started or shutdown and you can also schedule timed cleanings. Reg Fee \$14.95

CYBRCN11 (827656 bytes)

CyberClean 1.02 quickly and efficiently erases Internet debris from your computer's hard drive, freeing additional hard drive space and erasing evidence of your Internet surfing. This is very fast and easy to use. Reg Fee \$10.95

EDITPLUS (1004080 bytes)

EditPlus 1.21 is an Internet-ready, fullfeatured text file editor for HTML, C/C++ and Java. Features include syntax highlighting, HTML Toolbar, user tools and help files, auto completion, cliptext library, multiple settings, the ability to edit large files, powerful undo/redo, word wrap, line number, drag and drop editing, powerful search and replace, spell checker, splitter window, keystroke recording, and more. Reg Fee \$20

EZHTML (2886536 bytes)

EzHtmlHelp 1.0 is a complete WYSIWYG environment for creating HTML Help files. It comes with a royalty-free run-time redistributable that goes with your help projects that provides a complete user interface for accessing your HTML Help file without the use of a browser. Reg Fee \$20

GETRT331 (1201903 bytes)

GetRight 3.3.1 allows your browser to resume a failed download and only retrieve the remaining part of the file. You simply copy a URL to the Clipboard and the file immed-iately starts to download. You can also schedule file downloads to occur at a later time, and give the program a list of alternative download locations to try. It can also be run from the command line. Reg Fee

HUTMIL32* (2483147 bytes)

Hutmil 3.0 is a powerful group HTML fileediting program for Win95/98. It provides wizards and drop-down dialogs that make it extremely easy-to-use. This is suitable for both novices and experienced users alike. Reg Fee \$50

ITSDIAG (920633 bytes)

ITSDiag 1.2 checks a user's computer for its Internet, Network, and Modem configuration, then can analyse the results and make some real world suggestions to improve connection quality and speed. Based on years of Tech Support Experience, ITSDiag can really help with many common types of problems. Reg Fee \$0

PHOTOPAC (2563248 bytes)

PhotoPac DragNDrop makes packaging digital images for distribution to friends and business associates easy. Drag images from Windows Explorer, Olympus PhotoAlbum or other OLE server, or import using a twain com-pliant device. It automatically creates a table-type presentation your viewers look at with their Internet browser. The presentation consists of thumbnail renderings of each image and links to the full size images. Reg Fee \$29.95

SURFSAVE (3967972 bytes)

SurfSaver 1.5 creates searchable archives from information you collect on the Internet. It saves pages (graphics, frames, and other formats) directly from your browser. You can then instantly search this information for any word or phrase. Reg Fee \$29.95

WFILER32 (443535 bytes)

W3Filer(32) 1.6.3 is a file downloading and uploading package using FTP and HTTP protocols. URLs can be specified either manually or by dragging and dropping files from your Internet browser. Once URLs have been added to the list, you simply tell W3Filer to fetch those files either immediately or at a later scheduled time. Reg Fee \$20

WINTEL (590632 bytes)

WinTel 4.5.10 is a full-featured communications package for Windows. Features include a phonebook which stores your remote service names, phone numbers and communic-ation settings, ASCII/xmodem/ xmodem1k/ymodem batch/zmodem protocol support, a real-time 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

WPCLEAN (2845521 bytes)

WipeClean 1.0.1 allows you to automatically clean your tracks in Windows with the click of a button. It can be configured to automatically clean: Windows temporary folder, Windows recent documents history, default Internet browser cache folder, default Internet browser cookie folder, and any selected custom folders. Reg Fee \$19.95

MISCELLANEOUS

GROOVM22 (782574 bytes)

The Groove Mechanic 2.2 helps to dramatically improve the quality of your old vinyl LP records and cassette tapes while getting them ready to record on a CD. It allows you to capture the audio from LPs or tapes (or other sources) into audio files on your computer, analyse the quality of the sound, remove the 'clicks and pops' that often plague older LPs, remove the 'rumble' that is sometimes apparent in both new and old LPs, and remove the 'hiss' that is often audible on tapes. The output from Groove Mechanic is WAV files, which are accepted by nearly every CD-recording software package. The resulting CDs can be played back on any audio or computer CD player. Reg Fee \$50

GTM1_1 (725778 bytes)

GuitarMan 1.1 teaches recreational guitar and helps lay a foundation you can continue to build upon. It offers guitar tuning, transposing chart, simple finger picking style, print screens to refer to while offline, and a Play-Along style song-book. GuitarMan attempts to encourage you and leave no excuse to quit until you can play guitar. Reg Fee \$25

PEPPER* (6042589 bytes)

Pepper Babies Play Pack 1.0 is a fun package for young children, with an on-screen colouring book, a card-matching game, tictac-toe, and a music playing module. The graphics and sound effects are very well done. Requires Win95/98/NT. Reg Fee \$20

SECURITY

BKPLUS (4604539 bytes)

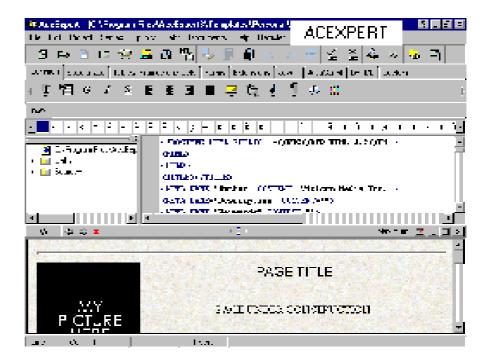
Backup Plus allows easy backup of all your important data. You can choose to create backups based on individual files, folders or even full drives. Choose to back your data up to a single archive or simply span backups across multiple floppy disks or any external drive (Zip, CDR, etc). Reg Fee \$29.95

CLEAN102* (163619 bytes)

The Cleaner 1.02 helps clean unwanted characters from text files in Win95/98/NT. It eliminates leading white-spaces and 'arrowed' characters, ensures one and only one space between words and two spaces after each period, and combines lines that are in the same paragraph (so that sentences will be split up by word wrapping, instead of having a fixed width). Reg Fee \$0

FG95* (524472 bytes)

Folder Guard 4.08e 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. Requires Win95/98. Reg Fee \$49.95

IHT12EV* (52897 bytes)

Impel Hide Task 1.2 uncovers the programs and tasks that Windows hides. It also allows you to hide program windows of your choice and unhide those that make you suspicious. The AutoHide feature allows you to build a custom list of running programs to hide at your own discretion. Requires Win95/98/NT. Reg Fee \$12

LOCKIT30 (779325 bytes)

ScreenLock 3.0 provides easy, yet secure access to your desktop while denying others attempts to access Windows. Keep intruders and unwanted visitors from invading your privacy and track their unauthorised attempts to access your system. It is unlocked via answering a question that you provide yourself and can change or edit at any time. Reg Fee \$19.95

RAVPR654 (1512763 bytes)

Romanian AntiVirus 6.54 is a powerful virus scanner combined with a code emulator that is able to detect most advanced macro and polymorphic viruses. Reg Fee \$29

SSHRED10* (2066053 bytes)

SecureShred 1.0 is a 32-bit program that allows you to quickly, easily, and permanently remove data from your system without the possibility of software or hardware-based data recovery. It can quickly remove one or more files/folders in one click. Delete everything under one folder by dragging and dropping that folder onto SecureShred. AutoShred your Recycle Bin and any other files in one or more user-defined folders at system shutdown. SecureShred also has an optional password form at start up. Reg Fee \$25

UTILITIES

1TTL152C (243805 bytes)

#1-TuffTEST-Lite 1.52 is an automatic PC Diagnostic Software package. It will create a self-booting disk with its own proprietary operating system. Reg Fee \$0

A1IMAGE4* (1870748 bytes)

A-1 Image Screen Saver 4.0 allows you to float an unlimited amount of graphic images on your Win95/98 desktop. Features include the ability to add a main caption for the screen saver, choose font colour, type, and size, adjust the time delay between images, and more. Reg Fee \$15

APPLNCH7* (1331158 bytes)

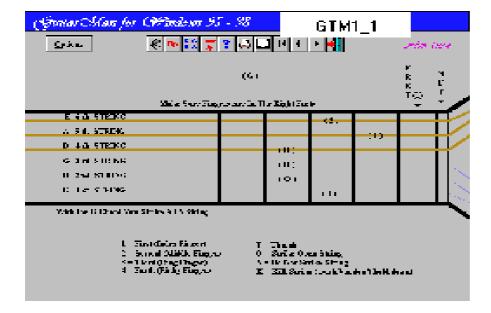
App Launcher provides a convenient way for organising and starting up your programs and for opening the folders and documents which you frequently need to access. Your applications and documents can be arranged in categories, each of which can contain up to 100 buttons. Each button can be used to launch a particular program or file, and displays the icon of the application or file associated with it. Requires Win95/98/NT. Reg Fee \$15

AQUADUX (3531237 bytes)

Aqua Deluxe 1.6 is a beautiful screen saver with realistic fish. Features include 20 different fish, full customisation options, and more. Reg Fee \$12.95

C3RPV107 (174212 bytes)

RunPager C3 1.07 logs calls and hangs up on unwanted calls. It also offers 'hands off'



speaker-phone answering and hang up without you having to lift a receiver. You set the program for a pre-determined number of rings, it shows you who is calling and, unless you turn the speaker-phone off, it picks up the line for you. It also hangs up when the other party hangs up automatically. Includes a phone dialler for returning calls. Reg Fee \$20

CLIPC212* (881579 bytes)

ClipCache 2.12 enhances the Windows clipboard by automatically saving the clipboard contents each time it changes. The three-pane views: Group, Item and Preview allow easy management of clips. Requires Win95/98/NT. Reg Fee \$?

CONFIGLG* (1433878 bytes)

Configuration LifeGuard 2.1 makes duplicates of the Win95 configuration files as well as the main system files. These duplicates are stored at an easily accessible but safe place on the hard disk. You can restore any or all of these files at any time from either DOS or Windows 95. This can be a lifesaver in the case of a system crash or installation that throws your system out of whack. Requires the VB5 run-time files. Reg Fee \$15

DLLSHOW* (149259 bytes)

DLL Show for Win95 4.0 displays a list of all tasks and processes currently running on your Win95 system. Reg Fee \$0

DM400 (923895 bytes)

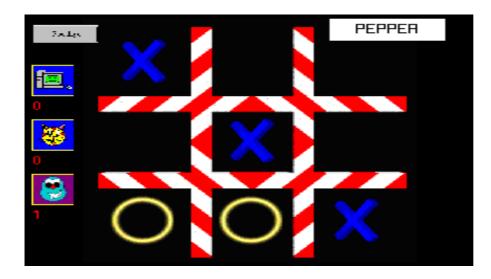
Directory Monitor 4.03 monitors chosen directory pairs and performs specified actions on the files and sub directories therein. It is capable of copying or moving files from a chosen source directory to a chosen destination directory with several options that can be selected by the user for each directory monitored. Directories are monitored on a user specified time interval which is adjustable for each directory. Directories to be monitored can exist on a LAN or remote servers reachable via FTP. Reg Fee \$50-\$100

MASK98* (187654 bytes)

Mask for Windows - PRWin98 4.00 provides WIN31 users with the ability to update the visual appearance of that operating system with that of the more attractive Windows 95/ 98 3-D styles, including menus, windows and desktop. Reg Fee \$25

MCROM41C* (832177 bytes)

Macro Magic (IT) 4.1c allows you to set up an unlimited number of 'macros' that simplify complex or repetitive tasks and operations into a single step. You can create macros by recording your own actions or by using the powerful Step by Step Builder. Requires Win95/98/NT. Reg Fee \$39.95



MILLC110 (85581 bytes)

MILLCARE Millennium Care 1.10 is a clock test and repair utility for PCs and PS/2s in combination with DOS, WIN31, and Windows 95/98. Contains the smallest TSR solut-ion on the market that adjusts the PC clock at December 31, 1999 at midnight. Reg Fee \$39

PKV10 (3752528 bytes)

Package Plus 1.0 allows easy creation of selfextracting 'EXE' archives that are fully config-urable and can perform many tasks that other self-extracting archives cannot. It can create both 16- and 32-Bit packages for distribution on multiple platforms. Reg Fee \$49.95

PROKAL70* (762442 bytes)

ProKalc 7.0 is a scientific/financial calculator for Win95/NT. Features include full 15-digit accuracy with no rounding errors, integrated help on all functions, 10 memory locations, and more. Reg Fee \$16

REGSRCH2* (665334 bytes)

Registry Search & Replace 2.10 simplifies the maintenance of the Win95/NT registration databases Reg Fee \$25

SS100SET* (3226246 bytes)

SPHINX Shell 1.0 is a unique file management and navigation tool for Win95/ 98/NT. It com-bines the strengths of a command line inter-face with the abilities of a mouse controlled file manager. Features include a scroll-back view history with mouse selection and pop up command menu, quick viewing of graphic files, quick playing of WAV files, and much more. Reg Fee \$10

TBE* (302186 bytes)

Taskbar Enhancer 1.0 allows you to add your favourite programs and files to Taskbar's system tray. Requires Win95/NT. Reg Fee \$10

WHOCLL41* (5878470 bytes)

Who's Calling 4.1 is a caller ID package for Windows 95/98/NT. It stores your phone numbers in a phonebook and upon matching an incoming phone number with a number in your phonebook alerts you as to the caller's identity. It can also email you at work whenever you receive a call, with the number, the name of the caller (if found) and the time and date of the call. Reg Fee \$?

NEW AND UPDATED DOS PROGRAMS

ANGAM42S (1147136 bytes)

AntiGame Plus 4.2 frees-up disk space on your network server drive by detecting and optionally deleting any games that it finds. The program searches through files in the specified directories for signatures that match those in a database. The file signatures are not based on the filename, so renaming a game will not prevent its detection. Games that are detected may be logged to a file or deleted. This demo limits detection to 100 games. A Windows version is also included. Reg Fee \$69.95

CACHCHK7 (53194 bytes)

CacheCHK 7.0 performs memory access timing tests to determine if you have a cache, the number of caches, and the access speed of each. The program will run the access tests using all the memory in your machine, so you will know if it is all cached. Reg Fee \$0

PORTS20 (35694 bytes)

PORTS 2.0 reports the serial port UART address and UART type (8250, 16450, or 16550) for all ports. Reg Fee \$0

SHOWSIZE (474260 bytes)

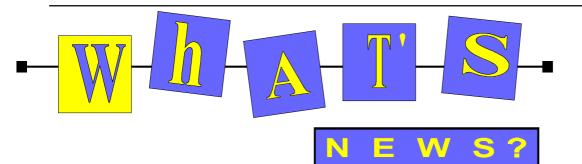
ShowSize 2.0 will quickly find the total disk space occupied by a directory. It also lists sizes of the top-level subdirectories of a given directory. This program is useful for keeping track of the disk-space usage. It also includes a utility to show file extensions. Reg Fee \$25













Try Opera



Tired of 10MB+ downloads, megabytes of updates, sluggish performance, HTML standard violations, desktop domination, instability, the seductive word 'free', and a browser war that left you as the only casualty? Then welcome to Opera! Small, fast, customizable, powerful but userfriendly, it takes the wait out of the Internet, reduces your online charges and does what the others tried in vain: it puts a big smile on your face. It also is - surprise, surprise well worth paying for. Okay, you need to pay for Opera - but the program soon pays for itself in the time you save. It wins the browser category because it works on older machines, and because it's small, fast and



user-friendly. You can try it out for 30 days free and by that time you'll be addicted to it. The many special features include: multiple windows — Opera retrieves multiple documents and graphics at the same time; a full keyboard interface; document scaling and zooming; and a simple and useable bookmarks manager. Purchase price: US\$35.00 See: www.operasoftware.com for more details. Troll Tech AS, producer of the Qt crossplatform application framework and Opera Software AS, producer of Opera, the fastest and most user friendly Internet browser, have announced a cooperative development effort to make Opera available on the increasingly popular Linux platform. This initiative between the two companies, Opera Software AS and Troll Tech AS, is taken to secure a rapid offering of the Opera web browser on the Linux platform.

IE5 Order on CD

Tired of trying to download IE5? Tired of waiting for it to appear on CDROM? You can order Internet Explorer 5 and Internet Tools on CD. Place your order through the easy-to-use Web Order form, or by calling Microsoft on 13 20 58. This offer includes Internet Explorer 5 on CD for just A\$13.95 including postage and handling. This offer is only available in Australia. A valid credit card is required to order.

Demand for Internet Explorer 5 Sets New Record



By the time you read this sentence, another Web surfer will be doing and finding stuff on the Internet faster than ever before. Microsoft announced in late March that there have been more than 1 million downloads-more than two every secondof Internet Explorer 5 since the company made its new browser technology available on March 18. This new Microsoft record more than triples the number of downloads of Internet Explorer 4.0 during its first week of availability. In addition, traffic on Microsoft's Web sites has increased, and reviewers from several industry magazines have given Internet Explorer 5 high praise for its speed, flexibility and ease of use.

Dragon Takes Wing

Dragon NaturallySpeaking - Mobile is the complete speech recognition system for people on the move. It's the easy, fast, natural way to capture your thoughts, whether you're heading to an appointment, waiting for a flight, or going about your business.

It includes Dragon NaturallySpeaking Preferred software, the ergonomic, handheld Dragon NaturallyMobile digital recorder - the first recorder specifically

designed for speech recognition - special linking software, and a high-quality headset microphone for use with your PC.



The Dragon NaturallyMobile recorder holds up to 40 minutes of continuous speech in its built-in memory, and up to 80 additional minutes on available removable memory cards. Just press "Record" and speak



naturally into the recorder. To review your dictation, play it back using the builtin speaker. Back at the office, attach the recorder to your PC, select the recording, click "Transcribe", and your dictation is immediately, automatically transcribed. A complete copy of the award-winning Dragon NaturallySpeaking Preferred lets you dictate, edit, and format text by

voice at your PC, using Select-and-SayTM technology, directly into your favorite Windows applications, including Corel WordPerfect 8, Microsoft Word 97, Microsoft Outlook, Microsoft WordPad, Microsoft Chat 2.1 and 2.5, and GoldMine.

pdQ - The Smarter Phone

The pdQ smartphone combines state of the art CDMA technology with the most popular, fastest-selling handheld computer platform - the Palm Computing® platform. Simplify your life and lighten your briefcase with the pdQ smartphone from QUALCOMM.

It's the perfect wireless way to stay connected. For starters, the pdQ smartphone is a CDMA wireless phone. Plus, it puts

important Personal Information Management applications like an address book and a date book right at your fingertips, anytime you need them. With the pdQ smartphone, downloading applications or enhanced features from the web or a CD Rom is a breeze.

LIALCOMM

The pdQ smartphone is made exclusively by QUALCOMM, the world's leading manufacturer of CDMA digital phones. Nobody knows CDMA like QUALCOMM, because they developed the CDMA digital technology that's now used by wireless service providers worldwide. For quality



and technology leadership in digital phones, look to QUALCOMM. So go ahead. See how much more productive you'll be with the pdQ smartphone, the two-inone portable communications tool exclusively from QUALCOMM.

The pdQ smartphone is a single, powerful solution to your organizational and communication needs. It combines CDMA digital wireless phone technology with one of today's best electronic organizers in one handheld productivity tool. With the pdQ smartphone's tap 'n dial feature, you can make calls right from your address book, wirelessly access information on the Internet and worldwide web, and send and receive e-mail.

The pdQ smartphone will run applications designed for the Palm Computing® platform. Also included are custom e-mail, web and Alert Manager applications created for the pdQ smartphone.

KDE Wins

The K Desktop Environment (KDE), an advanced and user-friendly desktop for the increasingly popular Linux/Unix operating system, was awarded top honors at CeBIT, the worlds largest computer trade fair, as "Innovation of the Year 1998/99" in the category "Software". Several large software vendors have announced support of KDE in recent weeks, including Red Hat Software, Inc. and Corel Corporation.

KDE is a network transparent contemporary desktop environment for UNIX workstations. KDE seeks to fill the need for an easy to use desktop for Unix workstations, similar to the desktop environments found under the MacOS or Window95/NT. KDE believes that the UNIX operating system is the best operating system available today. In fact UNIX has been the undisputed choice of the information technology professional for many years. When it comes to stability, scalability and openness there is no competition to UNIX. However, the lack of an easy to use contemporary desktop environment for UNIX has prevented UNIX from finding its way onto the desktops of the typical computer user in offices and homes. UNIX dominates the server market and is the preferred computing platform for computing professional and scientists. Without UNIX the internet would not be. But UNIX did not address the needs of the average computer user. This fact is particularly unfortunate since a number of implementations of UNIX (Linux, FreeBSD, NetBSD etc.) are freely available on the internet. With KDE there is now an easy to use contemporary desktop environment available for UNIX. Together with a free implementation of UNIX such as Linux, UNIX/KDE constitutes a completely free and open computing platform available to anyone free of charge including its source code for anyone to modify.

KDE The Office Application Suite

Leveraging the KDE application development framework, a great number of applications have been built for the K Desktop Environment. A selection of those applications is contained in the KDE base distribution. At this moment KDE is developing an office application suite based on KDE's KOM/OpenParts technology consisting of a spread-sheet, a presentation applications, an organizer, an email and news client and more.

What is FreeBSD?

FreeBSD is an advanced BSD UNIX operating system for "PC-compatible" computers, developed and maintained by a large team of individuals. FreeBSD offers advanced networking, performance, security and compatibility features today which are still missing in other operating systems, even some of the

best commercial ones.

FreeBSD makes an ideal Internet or Intranet server. It provides robust network services, even under the heaviest of loads, and uses memory efficiently to maintain good response times for hundreds, or even thousands, of simultaneous user processes. The quality of FreeBSD combined with today's low-cost, high-speed PC hardware makes FreeBSD a very economical alternative to commercial UNIX workstations. It is well-suited for a great number of both desktop and server applications.



FreeBSD can be installed from a variety of media including CD-ROM, floppy disk, magnetic tape, an MS-DOS partition, or if you have a network connection, you can install it directly over anonymous FTP or NFS. All you need is pair of blank, 1.44MB

While you might expect an operating system with these features to sell for a high price, FreeBSD is available free of charge and comes with full source code.

There is no doubt that so-called open systems are the requirement for today's computing applications. But no commercial vendor-supplied solution is more open than one which includes full source code to the entire operating system, including the kernel plus all of the system daemons, programs, and utilities. You can modify any part of FreeBSD to suit your personal, organizational, or corporate needs. With its generous licensing policy, you can use FreeBSD as the basis for any number of free or commercial applications.

Learning Linux



Want to know more about Linux - try www.linux.org/ which offers lots of links, FAQs and online help.

The INTERNET Project

Applicant Details (mandatory)	
First Name	
Last Name	
Principal Organisation	
AUUG PCUG Membership Number	
Membership Number	terms of
this application, and affirm that the details the provided are correct.	
piovided are contest.	
Signed:	
Existing Accounts	
Change from LIMITED to FULL ACCESS	
☐ Renewal for FULL ACCESS - 12 months	
Current Login Name	
New Accounts	
NEW Application for FULL ACCESS	
☐ NEW Application for LIMITED ACCESS	
Login name request, in order of preference (o	
1	
2	
3	
Your login name must be 2 to 8 characters log may contain only letters and numbers, and M	
clearly based on your real name	
Payment (Full Access only)	
Please make cheques payable to:	
PC Users Group (ACT) Inc.	
Payment: 12 months: \$120.00	
6 months: \$65.00	
3 months: \$35.00 •	
Method of payment: ☐ Cash ☐ Chequ	
☐ Visa ☐ Bankcard ☐ Masterca	
Card Number:	
Expiry Date:/	
Name on Card:	
Signature:	
PCUG Office Use Only	
Processed by Accounts://	
Signature:	_

Important Notes - please read

- Access to The Internet Project is available only to members of PCUG or AUUG and 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.
- The Internet Project is managed and administered by volunteers. The Internet Project aims to offer affordable access to as many members as possible, allowing members to experience all the resources of the Internet. No minimum level of access or service is offered or guaranteed.
- 3. 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.
- 4. 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.
- 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.

Access Categories

- 6. 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. For more details, refer to http://www.tip.net.au/tip/charging
- 7. Limited Access
 - a) Limited Access provides terminal-based email and news only.
 - b) Limited Access is free on application.
 - c) In any calender year, calculated from the 1st February, Limited Access provides up to 100 'hours' usage.
- 8. Full Access
 - a) Full Access provides PPP or SLIP access and includes email, news, WWW, etc.
 - Advance Access is not free. Current rates are shown at left with up to 25 'hours' per month usage over the period.
 - c) When your Full Access subscription expires OR you use up your hours of access (whichever is earlier), you will be required to purchase another subscription.
 - d) Full Access users also receive a Limited Access allocation see above.
- All users joining The Internet Project receive a one-off, free five hour allocation of Full Access.

Collecting Your Login Details

- 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. Proof of identification will be required at that time.

Member Services

These special offers and services are only available to PCUG members. Please bring your memberhip 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 (02) 6253 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

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 (33.6k and 14.4k)
- zip drives.

Videos include:

- Developing Applications with Microsoft
- Using Windows 95

Stuffed Again

We would like to thank the following members and friends for assisting with the mailing out of our Journal.

(the best turn-out yet!!)

Bruce Black Owen Cook

Eddie & Raymond de Bear

Jim & Chris Fogg

Ken Ford

Rufus Garcia

John Hempenstall

Janette James

Emil Joseph

Keith Kloosterman

Vernon Kronenberg

Geoff Lau

Neville Maddern

David Meggs

Allan Mikkelsen Antonio Moreno-Lagar

Don Nicol

Peter Roberts

Keith Sayers

Fred Schaeffer

Ruth & Roy Smalley Rod Smith Harry Souter John Starr **Graeme Taylor Gordon Urquhart**

Marion Van Wely John Warren Sylvia & Lew Yardley

We are always looking for volunteers to assist us with the 'stuffing' of our journal. We start around 5.00pm (latecomers are welcome) usually on the 2nd last Monday of every month and are generally finished by 8.00pm. Refreshments are provided. If you would like to help, please ring Petra Dwyer at the PCUG Centre on 6253 4911.

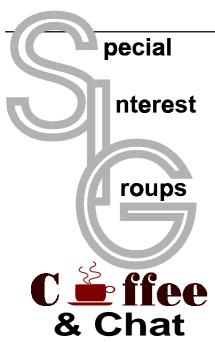
Next Stuffing

5.00pm Monday 19 April '99 at Northpoint Plaza, Belconnen. (see map page 3)

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 away, put them on the table and someone else may find a use for them.

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



The Coffee and Chat Group meet at the PCUG Centre in Belconnen on alternate Tuesdays from 10.30am to 11.30am The doors are open from 9.30 to 12.00 for 30 minutes of individual discussion before and after the meeting. The dates of these meetings are shown in the Calendar of Events.



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: 6258 7411 Email: afreeman@pcug.org.au or WWW at http:// www.pcug.org.au/~afreeman/cvsig.html

AutoCAD

Geoffrey May 6295 5942 Monday-Fri 4-5pm. Please call for details.

The Investment SIG

The group meets at the PCUG Centre at 7.30pm on the fourth Thursday of every month except for December to discuss investment affairs, especially the stock market and share ideas and information. Matters covered may be someone's hot stock, or a tax problem or an interesting Web site, and sometimes a software demo. We are looking for volunteers to present brief reviews of a favourite stock. Contact Mick Preskett ph 6252 5036.



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 (except January) at 7.00pm for 7.30pm at the IBM Building 8 Brisbane Ave, Barton.

Contact David Thrum Phone 6201 8806 (bh). Full details about the OS/2 SIG can be obtained from http://www.pcug.org.au/ ~aacton/os2/welcome.htm.



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 David Gray email graydr@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

Networks

Garry Thomson 6241 2399 gthomson@pcug.org.au Thursday after main meeting Please call for venue.

Computers 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: 6258 7411 Email freeman@pcug.org.au or WWW at http:// www.pcug.org.au/~afreeman/cvsig.html lowery@pcug.org.au

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 indepth 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.



Linux User Group

Stephen Rothwell 6231 6648 (ah) Stephen Rothwell@canb.auug.org.au 4th Thursday 7.00pm Room N101 Computer Science Dept ANU.

Linux Learners SIG

For newcomers to Linux - installation and use of one of the currently available Linux distributions. Designed for the end user rather than the systems programmer or administrator, Meets 10 until 12 every second Thursday. Contact: Allan Mikkelsen 6278 3164 or amikkels@pcug.org.au.



The VB SIG

Meets 10am to 12Noon on alternate Thursday mornings (in the Coffee & Chat week) to discuss the tips and tricks not disclosed in the Help files. Enquiries welcome.

Don Nicol (02) 6254 6584 dnicol@pcug.org.au

Flight Simulator

Meets 1.30 - 3.30 on Tuesday afternoons (if room available) following Coffee and Chat and on every 2nd Wed at 6.30 - 8.30 pm at the PCUG Centre. Enquiries welcome. Roger Lowery (02) 6258 1583



The Games SIG:

A SIG that runs Fridays in school holidays at the PCUG centre. Contact John: Phone 6281 2350, email plum@pcug.org.au, or ICQ# 25886924"

Training News

he program for 1999 has been adjusted to meet the demand for particular courses especially Windows95 and Internet courses. PCUG Training is able to, and willing, to conduct a variety of courses in other areas of computing. If you have an interest in a particular computer course and it is not scheduled, contact Petra at the Centre at the Centre and let us know

Our training courses are very popular. Unfortunately, some people book and then do not turn up for their course. Someone on the waiting list for the course could have filled the spot left vacant. If you have booked for a course and are unable to attend please let Petra know as early as possible so that another member can attend.

Courses

The Full Access intro to the Internet course is an introduction to the programs used to access the World Wide Web including how to download files, send and receive e-mail and participate in news groups. If you would like to attend the course, you will need Full Access (Advanced Access) to the Internet. Please note that Netscape Communicator 4.05 will be used to teach this course.

Intro to designing your own web page: In may there will be an intro to designing your own web page conducted at the Centre. The course will cover the basics in design and layout of a web page and a how to use HTML.

The Win95 - Intro course is designed to introduce members in the use of Win95 including creating folders and files, how to cut, copy and paste. The course also covers lots of tips and tricks to make Win95 work for you. Please note that if you have Win98 as an operating system, then most if not all of the content of this course will be applicable to Win98 users.

A Visual Basic Programming - Intro course is planned for May. This course is designed for those members who are interested in the popular programming language Visual BASIC. Participants will be taught the basics of how to prepare simple user -friendly form based screens. No pre-requisite of programming is required.

The PCUG is seeking members with some experience (either Win95, Internet software eg. Netscape), that can help out the group by training members on weekends. It's voluntary work of course, so if you're (even slightly)



interested and would like to help, please call peter on 62589806.

Contacts

Course bookings: Petra Dwyer, at the **PCUG Centre on 6253 4911**

Training coordinator and course information (**not** bookings):

Peter Elliott 6258 9806 (h) 7.00pm to 9.00pm

Microsoft Product courses (**not** bookings): Henk Brummelaar 6258 9332 (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.

	Date	Day	Course	Length
May	1	Sat	Sixteen Bits Layout Day/Internet Clinic	Clinic:Morning
	2	Sun	Word 7 - Intro	Full Day
	8	Sat	Win95 - Intro (suitable for Win98 users)	Full Day
	9	Sun	Intro to the Internet – Full Access	Full Day
	15	Sat	Designing your own web page - Intro	Full Day
	16	Sun	Excel 7 - Intro	Full Day
	22	Sat	MYOB	Full Day
	23	Sun	Intro to the Internet – Full Access	Full Day
	29	Sat	Visual Basic - Intro	Full Day
	30	Sun	Win95 - Intro (suitable for Win98 users)	Full Day
June	5	Sat	Sixteen Bits Layout Day/Internet Clinic	Clinic:Morning
	6	Sun	Word 7 - Intermediate	Full Day
	12	Sat	CLOSED	Full Day
	13	Sun	CLOSED	Full Day
	19	Sat	Intro to the Internet – Full Access	Full Day
	20	Sun	Designing your own web page - Intermediate	Full Day
	26	Sat	Win95 – Intro (suitable for Win98 users)	Full Day
	27	Sun	Excel 7 - Intermediate	Full Day

endor 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.

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Accountants				
Peng Lee BA, BEc(ANU), FCA Chartered accountant Registered tax agent Holder of Certificate of Public Practice	Accounting and taxation services A fee schedule published 1 year in advance will be forwarded upon request	Ph: 6258 0156 Fax: 6258 0157 Mobile: 0419 625 801 Email: leep@pcug.org.au	6 McGuiness Place McKellar ACT 2617	10% discount off the published fee schedule to PCUG members
Lesley Piko Certified practising accountant, registered tax agent	Personal and business taxation services General accounting services	Ph: 6288 8888	Suite 1 17 Trenerry St Weston ACT	15% discount off quoted fee
Books				
Collins Booksellers	A wide selection of computer titles for the novice and also advanced computer user	Ph: 6251 4813 Fax: 6251 3926	Belconnen Mall	10% discount off computer book purchases only
Daltons Books	No. 1 for computer and business books	Ph: 6249 1844 Fax: 6247 5753	54 Marcus Clarke St Canberra City	10% off RRP of computer books
Computer related				
ACT Valley Computer Repairs	Repairs, upgrades, new systems, software installation. Low rates Open 7 days	Ph: 6294 2592 Mobile: 019 323 435		10% discount on upgrades and repairs
Amalgamated Business Machines	open r days	Ph: 6280 4887	65 Kembla St Fyshwick	5% discount on repairs
Capital Simulations		Fax/message: 6258 0110	PO Box 329 Belconnen ACT 2616	Free postage and handling (normally \$4) and 2 free modem opponents 'wanted' notices (normally \$10)
Clarion Database Systems	Computer consulting Business applications, development Software sales	Mobile: 041 108 7754		10% off RRP on Microsoft and other vendor products and consulting services
The Cartridge Factory		Ph.: 6260 4571 Fax: 6260 4572 info@tcf.com.au www.tcf.com.au	65-B Dundas Court Phillip ACT	10% discount on remanufactured laser toner cartridges 10% discount on inkjet refill kits No discount available on new ink or toner cartridges

- 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.

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Computer related (cont)				
Bettowynd	Prompt, guaranteed, fixed price repairs to monitors and terminals	Ph: 6239 1043	Unit 5, Centrecourt 1 Pirie St, Fyshwick	5% discount
Hi-Micro Computers		Ph: 6280 7520 Fax: 6280 7540	6/18 Whyalla St Fyshwick	5% discount on accessories and upgrade installation
L & S Associates		Ph: 6257 7555	69 Paterson St Ainslie	Special price on any Microsoft product: dealer price plus 5%
NCH–Swift Sound	Email to wav Professional voice overs, music and SFX for multimedia, IVR, games, software	Ph: 6281 6124		25% discount to non- corporate members
PE Computers & Software Solutions	New systems Upgrades Hardware and software installation, setup and home PC support Software tuition including Win95 and Internet software	Ph/fax: 6258 9806 Mobile: 015 484 711 Email: pelliott@pcug.org.au		5% discount on all new systems and upgrades 20% discount on installation, tuition and home PC support
Rob's Computer Help Desk	Telephone and on-site help for <i>all</i> your computer and support needs	Ph: 6292 3211 (24 hours/7 days)		5% discount on consulting services
The Software Shop	Suppliers of all business, educational and personal software, plus selected hardware.	Ph: 6285 4622	42 Townsend St Phillip	5% discount off our already low prices
Sproatley Computer Services Pty Ltd	Upgrades New and used PCs MYOB specialists Software installation 24 hour help desk	Mobile: 0412 231 224 Fax: 6231 3605		10% discount on all services
Michael Vetz/Mobile PC Support	Home PC support available for all PC problems including upgrades and tuition at your place – all hours	Ph: 6251 2184 Fax/Message: 62512184 Mvetz@pcug.org.au	P.O. Box 485 Belconnen ACT 2617	Discount of \$25 per hour – maximum charge \$50
Kelehe Bisnis Sevis	ACT written software for home & small business from Total Office Management.New release of Automobile Workshop Business Systems	Ph: 02 6231 1813 jardee@effect.net.au	P.O. Box 1187 Tuggeranong ACT 2901	5% for single copies, higher discounts for resellers
World Wide Web Consultants Canberra (W3C2)	Your key to the Internet. Training, consulting and web site services.	Ph: 02 6292 3211 Fax: 02 6292 3914 Mobile: 019 440 608 Email: fcmoore@w3c2.com.au	PO Box 5145 Chisholm 2905	5% to a maximum of \$100 on web site services.
Other				
ANU Union Asian Bistro			Upstairs, Union Building, Union Court, ANU (next to main meeting venue)	Union member discount on PCUG main meeting nights ONLY
Green-Grass Mower Service	Lawn mower service, spares and repairs	Ph: 6291 1458	8 Hutchinson St Monash	10% discount
Aspect Computing Education Services		Ph: 6247 7608	86 Northbourne Ave Braddon	10% discount
Australian Management Control		Ph: 6285 4888	Suite 4, 32–36 Colbee Court, Phillip	5% discount on recordkeeping and payroll courses
Net Maths Tutor	Email-based maths tutoring service provided by experienced teacher (high school to uni level)	Ph: 6258 4791 Email: plavers@canberra. teknet.net.au www.teknet.net.au/ ~plavers/		10% discount

Members' Ads

FOR SALE

Members for sale ad.

No, I am not selling members!!!! But am upgrading some hardware.

56.6 kbps V.90 MODEM - US Robotics Sportster Flash Data, fax, voice modem new \$249 asking \$149

(Upgrading to V.90 + V.80 video conferencing)

214 MB Seagate IDE HDD \$35 (Use for backup?)

Quantum 2.1 GB Fireball ST Ultra DMA (Upgraded recently to obscene size disk) \$100

ATX Power supply (no case) 250W (Need 300W) \$30



FOR SALE

LOGITECH Colour Hand Scanner, parallel port with Xerox Textbridge OCR software. \$45. (No longer have notebook)

Chess Krawczyk chessk@usa.net

MEMORY EXPANSION BOARD for ISA slot required.

Please ring **Jim Sheaves** on 62582809 or email *djsheave@pcug.org.au*



PC Users Group Membership Application / Renewal

Annual Fees Applicable (☑ one)	
☐ General ¹	\$ 50
☐ Concessional ²	\$ 25
☐ Corporate ³	\$130
☐ Additional Corporate ⁴	\$ 50
☐ International (Air Mail)	\$130
Notes 1 General membership covers all members of Internet access. 2 Concessions apply to full time students and 3 Corporate Membership covers up to three 4 Additional Corporate nominees may be act I am paying by (☑ one) ☐ Cash (if paying by person) ☐ Cheque ☐ Credit card — Bankcard, Mastercard on	d pensioners. nominees. Ided at \$50 each. ne to PC Users Group (ACT) Inc
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 r	new member f	or year(s)	
☐ Renew for	year(s)		
☐ Change m	y address deta	ils	
☐ Change Co	orporate nomi	nees	
☐ Take my a	ddress off adv	vertising list	
☐ Access the	Bulletin Boa	rd (BBS)	
Reasons for Jo			
☐ Sixteen Bi	ts Magazine	☐ Training (Courses
		☐ Advice an	
Other			
TOTAL PAYM	ENT DUE	8	
Please Post your	application with	payment to:	
PC Users Group	, ,		
PO Box 42 Bel	connen ACT	2616	
Additional Corpo	rate Membershi	p Nominees	
Title Give	n Name	Surn	ame
Position (if appl	icable)	Phone (h)	Phone (w)
Title Give	n Name	Surn	ame

Phone (h)

Phone (w)

Position (if applicable)

The Help Directory

 $The people in this directory are \textit{volunteers} \ so\ please\ observe\ the\ times\ given.\ The\ Help\ Directory\ is\ designed\ to\ help\ individual\ users\ and\ should\ not\ be$ 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	Graham Fry	6288 3138	All days	7.30pm - 8.30pm
Access 97	Andrew Bartlett abartlet@pcug.org.au	6254 0272	M-F (ex Tue)	4.00pm - 9.00pm
			Weekends	10.00am - 9.00pm
Assembly Language	Thomas McCoy	6294 2226	Mon - Fri	8.00pm - 10.00pm
Audio	Peter van Runt	6288 5556	Mon - Fri	All day
			Weekends	12noon - 8pm
AutoCad	Geoffrey May *	6295 5942	Mon - Fri	4.00pm - 5.00pm
AutoCAD Rel 12, 13 and LT	Neil Moffat	6292 7108	All days	Noon - 10.00pm
BASIC + Machine Language	George McLintock	6295 6590	All days	8.30pm -10.00pm
Bluewave	Jorge Garcia	6282 2681	All Days	7.00pm - 9.00pm
Batch Files, TSRs, Utilities	Bill Ghysen	6287 1234	Mon - Fri	8.00pm - 10.00pm
Bulletin Board Service	Michael Phillips *	6253 4966	All days	7.30pm - 8.30pm
C/C++	Nhan Tran ntran@pcug org.au	6254 5293	All except	7.00pm – 9.00pm
			w/end & Tue	
Chinese Star for Windows	Peng Lee	6258 0156	All days	1.00pm - 9.00pm
Eudora	Nhan Tran ntran@pcug org.au	6254 5293	All except w/end & Tue	7.00pm - 9.00pm
Excel	Graheme Fry	6288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery lowery@pcug.org.au	6258 1583	All days	Anytime
Free Agent / Agent Newsreading	Allan Mikkelsen	6278 3164	All days	Noon - 9.00pm
GEOS/GeoWorks	Phil Jones	6288 5288	All days	6.00pm - 10.00pm
Hardware	Anthony Glenn	6288 8332	All days	Anytime
HDK	Lis Shelley lis@nullarbor.com.au			
HDK	Ivana Leonard	6231 4169	Mon - Thu	7.00pm - 9.00pm
Hypertext Markup Language	Peter Tilbrook webmaster@dynamite.com.au	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm 6253 8153 (ah)
Internet Connection	Nhan Tran ntran@pcug org.au	6254 5293	All except w/end & Tue	7.00pm - 9.00pm
Internet Explorer (Microsoft)	Peter Tilbrook webmaster@dynamite.com.au	6242 4000	Weekdays	10.00am - 6.00pm
		0411 508 169		6253 8153 (ah)
ISR CADDSMAN Modeller (Win)	Neil Moffat	6292 7108	All days	Noon - 10.00pm
Microstation Cad	Andrew Novinc	6258 1907	All days	6.00pm - 10.00pm
Midi	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
Microsoft Front Page	Peter Tilbrook webmaster@dynamite.com.au	6242 4000	Weekdays	10.00am - 6.00pm
		0411 508 169		6253 8153 (ah)
Modem Communications	Michael Phillips *	6281 1980 or	All days	7.30pm - 8.30pm
Noteworthy Composer	Andrew Purdam apurdam@pcug.org.au	6230 2231	All days	Anytime
Online doc using Help Compiler (Win3)	John Carroll jcarroll@pcug.org.au	6248 0781	All days	7.30pm - 10.00pm
OS/2	Andrew Acton aacton@pcug.org.au	6293 1684	All days	9am-9pm
OS/2	Dave Thrum davet@ozemail.com.au	6201 8806	Mon-Fri	8am-6pm
OS/2	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Scream Tracker 3 (3SM) / MOD Music	Chris Collins	6258 8276	Mon - Fri	7.30pm - 9.00pm
Small Business Computing	Nick Thomson	6241 3239	Mon - Thu	7.30pm - 9.30pm
Telix	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
SCO Unix & Xenix	Jeremy Bishop	6291 0478	All days	7.00pm - 9.00pm
Unix	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Unix/Linux/*BSD	Jonathon Ross	6288 1428	All days	6.00pm - 10.00pm
Turbo Pascal	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
Visual Basic for Windows	Cedric Bear cbear@interact.net.au	6258 3169	All days	7.30pm - 8.30pm
Windows 95	Graeme Challinor gchallin@pcug.org.au	6236 8166	All days	10.00am - 4.00pm
Windows 95 and 98	Chess Krawczyk ckrawczy@pcug.org.au	6247 1218	All days	7.00pm - 9.30pm
Word for Windows	Lis Shelley lis@nullarbor.com.au			
WordPerfect 5.1 DOS, 6.1 Win	Gayle Scott gayles@pcug.org.au	6254 1579	All days	7.30pm - 9.30pm
WordStar	Dave Hay	6258 7310	All days	7.00pm - 9.00pm

May

Main Meeting Manning Clark Theatre I Crisp Bilds, ANU 7.00 for 730 Layout Day for Sixteen Bils 10.00am PCUG Centre 9.30 Layout Day for Sixteen Bils 10.00am PCUG Centre 9.30 10.00am PCUG Centre 9.30am FCUG Centre 9.30am PCUG Centre 9.30am PCUG Centre 9.30am 10.00am 12.00 Flight Simulator PCUG Centre 6.30pm-8.30pm 10 Flight Simulator PCUG Centre 10.00am-2.00pm 10 Flight Simulator PCUG Centre 10.00am-2.00pm 10 Internet Clinic PCUG Centre 9.30am FCUG Centre 9.30am PCUG Centre 10.00am-12.00 PCUG Centre 10.00am-2.00pm 11 12 13 TRAINING DAY PCUG Centre PCUG Centre 10.00-12.00 PCUG Cent	day
Manning Clark Theatret Centre P.30-1.00pm Sixteen Bits 1.000am Word 7 - Layout Day for Sixteen Bits 10.00am PCUG Centre PCUG Centre PCUG Centre 10.00am PCUG	
Sixteen Bits 10.00am	
Asia Bisto AND Asia Bisto AND Asia Bisto AND Asia Bisto And Delphi SIG	
Night PCUG Centre 9.30am 12.00 PCUG Centre 9.30am 12.00 PCUG Centre 9.30am 12.00 PCUG Centre 9.30am 11.200 PCUG Centre 10.00-12.00 PCUG Centre	2
Introduction to Windows 95 Internet Day-time Demo and Discussion SIG PCUG Centre 10.00am-2.00pm Committee Meeting PCUG Centre 7.30pm 10 11 12 13 Introduction to Windows 95 Introduction 10 Introduction to Windows 95 Introduction 10 Internet PcUG Centre 9.30am Introduction 10 Introduction 10 Introduction 10 Internet PcUG Centre 9.30am Introduction 10 Introduction 10 Internet PcUG Centre 9.30am Introduction 10	
Internet Day-time Demo and Discussion SIG PCUG Centre 10.00am-2.00pm Committee Meeting PCUG Centre 7.30pm 10 11 12 13 14 15 15 16 Bits Stuffing and Mailing PCUG Centre 5.00pm Coffee and Chat PCUG Centre 9.30am Designing your own Web page - Intro OS/2 SIG IBM Building 8 Brisbane Ave Barton 7.00 for 7.30pm Delphi SIG PCUG Centre 9.30am Designing your own Web page - Intro TRAINING DAY PCUG Centre 9.30am Designing your own Web page - Intro TRAINING DAY PCUG Centre 9.30am Designing your own Web page - Intro Sixteen Bits article deadline for July 9.30am MYOB TRAINING DAY PCUG Centre 9.30am Intro to the Internet - Full Action of the Internet - Full Action o	et –
Internet Day-time Demo and Discussion SIG PCUG Centre 10.00am-2.00pm Committee Meeting PCUG Centre 7.30pm 10 11 12 13 14 15 16 Bits Stuffing and Mailing PCUG Centre 9.30am—12.00 Committee Meeting PCUG Centre 9.30am—12.00 Committee Meeting PCUG Centre 7.30pm Delphi SIG Delphi SIG Flight Simulator PCUG Centre 10.00x Learners SIG PCUG Centre 10.00x 12.00 PCUG Centre 10.00x 12.00 PCUG Centre 10.00x 12.00 PCUG Centre 10.00x 12.00 Sixteen Bits article deadline for July PCUG Centre 9.30am PCUG Centre 9.30am MYOB TRAINING DAY PCUG Centre 10.00x 12.00 PCUG Centre 10.00x 12.00x 12.00 PCUG Centre 10.00x 12.00x 12.00 PCUG Centre 10.00x 12.00x 12.0	9
PCUG Centre 10.00am-2.00pm Committee Meeting PCUG Centre 7.30pm 10 11 12 13 14 15 16 Bits Stuffing and Mailing PCUG Centre 5.00pm Coffee and Chat PCUG Centre 9.30am Designing your own Web page – Intro Sixteen Bits article deadline for July PCUG Centre 9.30am Designing your own Web page – Intro TRAINING DAY PCUG Centre 9.30am PCUG Centre 9.30am ITRAINING DAY PCUG Centre 9.30am MYOB PCUG Centre 9.30am ITRAINING DAY PCUG Centre PCUG Centre 9.30am ITRAINING DAY PCUG Centre PCUG Centre 9.30am ITRAINING DAY PCUG Centre PCUG Centre 9.30am Intro to the Internet Full Active Committee Neeting PCUG Centre 9.30am Intro to the Internet Full Active Committee Neeting PCUG Centre 9.30am MYOB	
Committee Meeting PCUG Centre 7.30pm 10 11 12 13 14 15 16 Bits Stuffing and Mailing PCUG Centre 5.00pm Coffee and Chat PCUG Centre 9.30am—12.00 Delphi SIG Delphi SIG Visual Basic SIG New Sixteen Bits article deadline for July PCUG Centre 9.30am MYOB TRAINING DAY PCUG Centre 9.30am MYOB Intro to the Internet Full Activities Visual Basic SIG	Intro
16 Bits Stuffing and Mailing PCUG Centre 5.00pm Coffee and Chat PCUG Centre 9.30am—12.00 Delphi SIG Delphi SIG Coffee and Chat PCUG Centre 9.30am—12.00 Sixteen Bits article deadline for July Sixteen Bits article deadline for July 9.30am MYOB TRAINING DAY PCUG Centre 9.30am Intro to the Internet — Full According to the In	16
PCUG Centre 5.00pm PCUG Centre 9.30am-12.00 Barton 7.00 for 7.30pm PCUG Centre 9.30am MYOB Intro to the Internet - Full Acceptable	G DAY
Delphi SIG Visual Basic SIG Visual Basic SIG	
7.30pm PCUG Centre 20 21 22	23
Internet Flight Simulator Linux Users Group Sixteen Bits TRAINING DAY	G DAY
Daytime Demo and Discussion SIG PCUG Centre 10.00am-2.00pm PCUG Centre 10.00am-2.00pm PCUG Centre 10.00am-2.00pm PCUG Centre 10.00am-2.00pm PCUG Centre PCUG Centr	ion to
Investment SIG PCUG Centre 7.30pm Linux Learners SIG PCUG Centre 10.00-12.00 27 28 29	30