This month in



Features

- 10 The Registry Revisited *Terry Bibo*
- 12 **Beyond Linux Free BSD** Nathan Robertson
- 14 Are Your Inoculations up to date?
- 15 Random Jottings Ken Meadows
- 18 Ockham's Razor Teacherless Education
- 21 Vale Eddie de Bear
- 24 I, Thy Client Andrew Geraghty
- 25 The long and Winding Road Glenn Pure'
- 27 Towards 2100 Malcolm Morrison
- 28 An Introduction to Delphi Peter Williams
- 30 Bits and Bytes Andrew Clayton
- 31 Puzzle Page Vic Bushell
- 32 Book Review C++ Programming Glenn Pure
- 34 What's News Malcolm Morrison

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
- 5 Main Meeting What's on next
- 5 Letters From our readers...

PCUG News & Services

- 7 Membership Notes Mike Burke with information for new members
- 13 **TIP News** Allan Mikkelsen
- 36 Internet Project Application Get connected with TIP
- 37 Member Services Details of services available to members only
- 38 **Special Interest Groups** *Where the real action is*
- 39 Training News Low cost training for members
- 40 Vendor Discounts Membership has its privileges
- 42 Members' Ads/PCUG Membership form Check here first for bargains
- 43 Help Directory Stuck? Call the experts
- 44 Calendar What's on next month

| Advertiser & Product Information | | | |
|----------------------------------|------------------------|--|--|
| 11 | AB&T | | |
| 13, 15, 17 | Hi-Micro | | |
| 14 | Interact | | |
| 16 | L&S | | |
| 20 | Context | | |
| 22, 23 | Corel | | |
| 24 | Computer Fairs | | |
| 26 | Bettowynd | | |
| 36 | Vendor Discount Scheme | | |
| Inside Front | eisa/Dynamite | | |
| Inside Back | Software Shop | | |
| Outside Back | Select Approach | | |
| | | | |

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.

Disclaimer:

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, Andrew Clayton, Malcolm Morrison, Ann Byrne, Vic Bushell, Peter Williams, Andrew Geraghty, Anne Meade, Brian Thomason, Philip Grundy

> 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, Victor Bushell, Ann Byrne, Ken Meadows, Terry Bibo, Allan Mikkelsen, Glenn Pure, Nathan Robertson, Anne Meade, Peter Williams

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 March Issue

Articles and Member Ads Friday 28 January2000 Commercial Ads Friday 04 February 2000

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.



PCUG Committee

| President | Anne Greiner agreiner @pcug.org.au | 6288 2810 |
|-------------------------------|--|---------------------------|
| Vice President | Allan Mikkelsen amikkels @pcug.org.au | 62783164 |
| Secretary & Public Officer | Hugh Bambrick pcug.secretary@pcug.org.au | 6249 7667 |
| Treasurer | Rod Farr pcug.treasurer@pcug.org.au | 6286 1597 |
| General Committee | Michael Lightfoot MichaelLightfoot@canb.auug.or | 6258 8185 <i>rg.au</i> |
| General Committee | Anne Meade ameade@pcug.org.au | 6231 7881 |
| General Committee | David Voss dvoss@pcug.org.au | 6258 2178 |
| General Committee | George Beaton gbeaton@pcug.org.au | 6254 6434 |
| General Committee | Mike Dinn mdinn@pcug.org.au | 6281 4877 |
| General Committee | Peter Ortner port@pcug.org.au | 6285 2388 |
| General Committee | David Lewis dl@pcug.org.au | 6226 8811 |
| General Committee | Alan Vidler avidler @pcug.org.au | 6254 5373 |
| General Committee | Nathan Robertson nathanr@pcug.org.au | 6295 2106 |
| General Committee | Peter Hay pw.hay@dynamite.com.au | |

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

Other Contacts

| Executive Secretary | Petra Dwyer pcug.execsec @pcug.org.au | |
|---------------------------------|--|-----------|
| Membership Secretary | Mike Burke pcug.membership@pcug.org.au | u - |
| Novell Network Administrator | Michael Phillips | 6253 4966 |
| NT Network Administrator | David Schwabe dschwabe @pcug.org.au | 62549086 |
| Training Manager | Marion van Wely pcug.training@pcug.org.au | 6258 8750 |
| Centre Manager | David Lewis dl@pcug.org.au | 6226 8811 |
| Training Rm Mngr | David Voss pcug.hire@pcug.org.au | 62582178 |

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

How To Make Contact

| 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 | |
| | |
| (02) 6206 6200 help@pcug.org.au | |
| Source World Wide Web page http://www.pcug.org.au/pcug/ | |
| Bulletin Board Service (BBS) (02) 6253 4933 (5 lines 33.6k bps) | |

2) 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.

New Members' Information Night

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







hen is a computer not a comp uter?

Answer: when the motherboard

develops anarchistic tendencies that

are at odds with the directions given by carbon

based life form that is under the patently

incorrect assumption that it is in control of a

given series of electronic transactions. The

motherboard on my computer failed last week,

and no matter what I told it to do, it chose not

to comply, and somewhere during the

transaction, it would either freeze and refuse

to cooperate any further, leaving the last few

really clever things that one had done unsaved

so that when the inevitable reboot came they

were lost, or it would flash up the screen that

says, 'It is now safe to turn off your computer',

when one knows that it patently is not, and

that if Scandisk runs any more it will wear out.

I know that many of you are familiar with the

absolute frustration that goes with this sort of

scenario - desperately trying to meet a

Editor's Desk Top

Anne Greiner, Managing Editor

deadline, and having an inanimate collection of electronic bits and pieces foil all such attempts.

It was at this stage, having shocked the rest of my household with the level of invective coming from my office, that I gave up and called in the experts, who diagnosed catastrophic motherboard failure after a series of the usual embarressing questions and answers: ('Have you run Scandisk?', 'Yes, about fifty times, all of them involuntary.'. 'Are all the cables connected properly?', 'I think so, but I've only checked twenty or so times, cuoldn't think of anything else clever to do', 'What were you doing when it crashed?'.) and much rummaging among the thingies and whatzits and all the cables that join them all together inside the box.

The whole encounter was difficult and frustrating for me, and I think what I found most difficult was the level of communications. I ended up not understanding everything, but not knowing how much I *did* understand in the first place, how much I was told but did not understand, and how much I was not told. The end result was raised levels of anxiety and gastric acid, and, as is usual in these situations, expensive. In this case I have been left with a

new OS (Win 98, which I don't like yet), a new motherboard which is supposed to be faster (can't see it), a new video card (don't like it, fuzzy), and a whole pile of new settings that I don't like either. It all cost me a lot of money. I'm sure it will all get better, rsn.

I think the major issue here though, has been communication rather than hardware. As in matters medical, the knowledge gap can be very large, many misunderstandings occur, and tempers become easily frayed at both ends of the equation. The not so knowledgeable among us become frustrated with what they consider (quite rightly) patronising behaviour, and the more knowledgeable among us become (understandably) frustrated with abysmal ignorance and stupidity. Most of us are somewhere in the middle ground, but there is common ground, even for those of us at either end of the scale, however, and we should all strive to achieve that common ground of understanding.

Blessed are the mediators, because if they are not careful, they will end by having both sides of any argument cross with them...

me 0

President's Letter

his is the first chance I've had to say Happy New Year to many of you, and you will note that I've been very careful not to even mention the 'M' word. I watched the sun go down on 1999, and I watched (after much good food and wine) the fireworks over Lake Burley Griffin. We got home about 1.30 or so on New Year's Day, and I just couldn't resist. I went into the study, turned the computer on, and it booted! OK, one up to sanity, but I have to admit to just a very tiny twinge of relief. I couldn't stop there, and clicked the connection to TIP icon. Oh Joy, Oh Bliss, Vindaloo answered me and told me the state of my mailbox - end of a pretty good evening. I must own up that I didn't see the sun come up on 2000 though.

I want to start this year by thanking the group as a whole, and the committee in particular, for a good year last year, and ask your help to push the group onwards in the new year. Whilst I am well aware that if everyone volunteered, we wouldn't know what to do with you all, but there are a few areas in which we could do with some help. The trick is to have sufficient people involved in any project so that the workload is not too onerous. That way no one burns out, and everyone is happy.

First of all, we need people to supervise the centre at weekends and to sit on a PCUG table at the Canberra Computer Fairs and answer questions about the group. Neither duty is difficult, and can in fact be rather fun. Next is trainers for the courses we run at the centre. These courses range from the very basic to very advanced, depending on subject matter, and you can share your knowledge, either by teaching a course, or assisting a more experienced trainer. In many of the subjects there are already detailed curricula and course notes available.

The Admin team would be delighted to meet any aspiring Admin or Comms people, either experienced with Systems Administration or having theoretical knowledge and willing to be apprenticed. The Internet Clinic can always use an experienced pair of hands, and the HIT Team would just love to see you (to set up internet connections in members' homes, not to take out contracts J

I of course would be absolutely delighted if anyone would like to write for Sixteen Bits, and am happy to have a chat about any ideas for articles, from the highly technical to the basic 'how to'. Because of the wide range of member's interests, a range of articles is needed.

Talk to any of the people responsible for these areas, or give me a call or an email and

Main Meeting

Guest Speaker: Kimberly Heitman Subject: Net Censorship Date: 31 January 2000

E.F.A. Electronic Frontiers Australia Inc.

E.F.A is a not for profit national organisation formed to protect and promote the civil liberties of users and operators of computer equipment operators based on communications systems. It was formed in January 1994. "Quis custodiet ipsos custodes?" [Who watches the watchman?] Juvenal,Satires,VI,347. Our Speaker Kim Heitman is a Perth lawyer with a long interest in legal issues concerning on line services.Chairperson of E.F.A. and spokesperson for the WA Internet Association. He coordinates legal work and assists related organisations,general enquiries and official



submissions. To date there have been a large number of these submissions to the appropriate bodies making them a body of great strength and credibility. Using the following objectives Kim is involved in

1. Making submissions to Govt. and Parliamentary enquiries.

2.A.G's task force on regulation of bulletin board services.

3.Senate committee [select] committee on community standards/info tech.

4. Broard Band services, export groups.

5. The Dept of Communication.

6. The Information Economy of the Arts.

7. The A.B.C. Authority enquiry into online services.....

and many more.

Kim is a terrific and contraversial speaker, and has a lot to offer us, come along and enjoy, be surprised and informed, bring your questions and see you there.



I'll put you in touch with the appropriate people. As I said earlier, the work is not onerous, and you'll meet lots of interesting people, and have a lot of fun.

.

Start thinking, too, about you want from this Committee, and about the Committee for next year. Exciting and difficult times are ahead of us with Governments trying to regulate us, and larger ISPs trying to swallow up smaller ones, and technology moving on so quickly that we have to run to catch up.

Have a great 2000.

Anne Greiner





Dear Editor,

I read my Sixteen Bits with interest every month (sometimes belatedly) and find much that is of interest. Of interest, but not in a positive sense, was Jim Fogg's article 'Black Holes....'. Even given the broad amount of uncertainty and speculation in Cosmology in general and Stellar Evolution and Black Holes in particular, I feel there are some matters of fact which have been incorrectly reported in this article. The Sun has sufficient Hydrogen (mass) to continue to burn for approximately several billion years give or take an order of magnitude. This is at least 100 times the remaining life quoted (Ref - The new concise Atlas of the Universe).

The sun is not massive enough to evolve into a black hole. At some time around one billion years in the future the sun will become a Red Giant and then contract to become a White Dwarf. There is a particular mass below which their is insufficient mass to overcome such forces as electron degeneracy, and the neutron density limit to allow the 'alleged' collapse to a singularity. I say alleged because, despite there being some observational evidence, there have been no established candidates for first black hole to date (ref http:// www.ncsa.uiuc.edu/Cyberia/NumRel/ BlackHoleFormation.html).

While Stephen Hawking, and others, would have the public believe that the Big Bang and Black Holes are established fact this is far from being the case. Happy to take up discussion of this topic in private mailto: lkeay@pcug.org.au

Lindsay Keay

letters continued Page 6...



G'Day

You will be most surprised to learn that one of our readers has found a scientific inaccuracy in the "Twinkle, Twinkle Little Star" article, (December "16 Bits"). It would seem that while many stars finish up as black holes, the sun will not, in fact not suffer such a terrible fate. In order to obviate the keen disappointment that is bound to result from lack of public access to this Black Hole, I am recommending that interested readers follow the alternate "elastic band method" fully described in the same article. This particular procedure appears to be perfectly acceptable I have a diligent ear open for any signs of unrest within the scientific community in general.

Best Regards Jim Fogg



manners

The PCUG needs volunteers to join the team of trainers in a number of different fields.

You would be asked to train or assist a trainer with a class of up to eight members in our own fully equipped training room.

If you are interested, or want to know more about it, phone or email us.

Email expressions of interest, telling where your expertise lies, to *pcug.editor@pcug.org.au*

IMPORTANT NOTICE - The GST starts to bite

First, the bad news. PCUG Membership fees will be subject to the GST. They will therefore have to rise by 10%.

And now for the worse news.

The PCUG is already incurring GST on memberships. It happens this way.

PCUG membership is for 12 months. Some part of every new and renewed membership since 1 July 1999 is in respect of the period after 30 June 2000. It is that part of the membership that is subject to GST. The amount of GST in respect of that part of the membership will have to be paid after 30 June 2000.

Reluctantly, the Committee has raised membership fees to incorporate the GST that will have to be paid in respect of periods after 30 June 2000.

Why doesn't the schedule of membership fees work from the day on joining? Well, there is alays a period ogf grace allowed for renewals of membership. You have until the end of the month in which you joined to renew. Counting the renewal or joining as therefore starting at the beginning of the next month means that GST is payable for whole months only.

| The new f | fees are: | \$55.00 | \$35.00 | \$25.00 |
|--|---------------------------------|--|--|--|
| GST pa | | \$5.50 | \$3.50 | \$2.50 |
| Renew | GST | Ordinary | Concessional | Associate |
| From | Months | Member | Member | Member |
| Oct Nov Dec Jan Feb Mar Apr May | 3 4 5 6 7 8 9 | \$56.38 \$56.83 \$57.29 \$57.75 \$58.21 \$58.67 \$59.13 \$59.58 | \$35.88 \$36.17 \$36.46 \$36.75 \$37.04 \$37.33 \$37.63 \$37.02 | \$25.63 \$25.83 \$26.04 \$26.25 \$26.46 \$26.67 \$26.88 \$27.08 |
| May | 10 | \$59.58 | \$37.92 | \$27.08 |
| Jun | 11 | \$60.04 | \$38.21 | \$27.29 |

GST will also be payable in respect of the unexpired portion of TIP access when 30 June 2000 rolls around.

We intend to handle TIP in this way:

1. Any usage after 1 July 2000 will be subject to GST

2. On 30 June 2000, we will calculate for each TIP subscriber the value of their outstanding TIP credits.

3. The amount of the outstanding credits will be notionally refunded to each subscriber.

4. Each subscriber will then be notionally credited with new TIP access credits for the amount of 10/11 ths of his or her outstanding credit.

5. The value of the other 1/11 th will be sent to the ATO to cover the 10% GST on the TIP access being used after 1 July 2000.

This method ensures that all access prior to 1 July is GST free and all after is GST paid. TIP subscribers will just have to renew a little earlier!





elcome to new members reading Sixteen 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 February 2000 **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 immediate-ly. 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.

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

Next New Members' Night 7 February 2000 7.30pm **PCUG Centre** Northpoint Plaza, Belconnen



STRENGTH

With about 3,000 members, Canberra PCUG is one of Australia's larger PC User groups. It was founded in 1982, and is still run for the members, by the members. The motto of the group is *Users Helping Users*.

The Group employs one part-time Executive Secretary. Most functions of the club magazine writing and editing, online services maintenance, collection and distribution of shareware, organisation of SIG and monthly meetings etc, are performed by volunteers. The Group has a membership from all walks of life, with a broad range of knowledge, as well as access to a vast store of information and help in many fields.

SIXTEEN BITS MAGAZINE

The group's magazine Sixteen Bits is published eleven times a year. It is the award winning primary communications mechanism within the group. The magazine contains articles primarily contributed by PCUG members, reviews, notices of upcoming events, contact details for the various functions within the group, a handy calendar, the new software library acquisitions, the HELP directory, vendor discount scheme, etc. The magazine is created with the aid of Adobe Pagemaker, and Microsoft Office, and other software products, at the PCUG's Northpoint Plaza office. Members who wish to contribute articles to the magazine, or participate in the editorial team magazine layout day held each month, should contact the editor (pcug.editor@pcug.org.au). Contributions are welcome! The magazine has details on the preferred format of contributions. Contributions can be on virtually any topic you care to cover, from software reviews, to hardware disaster stories, or how you used your computer in a strange and unusual way.

THE INTERNET PROJECT

TIP was started as a collaborative effort between the Australian Unix Users Group (AUUG) and the PCUG, The Internet Project (TIP) offers membership access to the Internet, via 60 (soon to be 72) dial in lines. Two forms of access are provided – Limited Access, which allows people to access email and news via PINE, via a basic unix shell. Full Access provides for Point to Point (PPP) connections effectively putting your computer onto the internet, providing full access to email, news, world wide web, IRC, telnet, ftp, onlinequake-playing, anything a regular Internet Service Provider offers. Full Access accounts provide 10Mbytes of disk space per account, which can be used for the storage of personal web pages, accessible via the internet 24 hours a day. TIP started for business in 1995, offering amazingly cheap access to the internet. Even with various policy changes by the group's uplink provider, TIP still manages to offer the cheapest internet access in Canberra. TIP policies are determined by the Internet Project Management Committee. The day to day administration of TIP is by volunteers, mostly from the AUUG. TIP has about 2,000 members, making it one of the largest subscriber ISP's in the region.

BULLETIN BOARD SERVICE

PCUG has been offering access to a Bulletin Board Service of some description, since late 1986. The current BBS offers five-line access to Fidonet echomail areas, private Fidonet email, a local file download area, access to the PCUG's CDROM library of shareware, and ability to renew PCUG membership and perform other 'online shopping' functions. Since the widespread use of the internet, the BBS has become somewhat less exciting that it once might have been, but it still serves a purpose, and access to it is free for PCUG members.

MONTHLY MEETINGS

Each month (except January) the group holds its monthly meeting, normally at the Manning Clarke Theatre, (1, Crisp Building, Australian National University) usually on the last Monday of the month, at 7:30pm. Each meeting has a guest speaker, usually giving a demonstration/ talk about some software or hardware product, or upcoming technology. Speakers from a wide range of businesses are invited to give their product or service a public hearing. Prior to the main meeting you can renew group or TIP membership, purchase blank floppy diskettes, or attend the BYTES SIG at the Asian Bistro in the ANU Union building. Attendees are eligible for a lucky door prize – sometimes these are valuable, once someone was given Unix software valued at many thousands of dollars. The Annual General Meeting is where the outgoing PCUG committee report on the year's achievements and what the status of the treasury is, and this meeting is where the new PCUG committee is elected.

PCUG CENTRE

Located in a modern air-conditioned office. at Northpoint Plaza, Belconnen, the PCUG centre is the site of the main administration office. It holds the BBS and TIP communications centre, an 8-machine training room with light-projector, and various training aids. There are a number of machines available for use at the centre, including a colour scanner, a CD copier, a photocopier, and access to the internet. The centre hosts the PCUG committee meetings, the monthly Internet Clinic day, and is where the PCUG magazine, Sixteen Bits, is created. The PCUG centre is staffed on weekends (9am-5pm EXCEPT long weekends such as Easter or Anzac day), and during the week (10am-2pm, Monday, Wednesday, Friday); during these times members can renew their membership, purchase blank media, or arrange access to TIP. Various training courses are on offer (\$40 for full day courses) on certain weekends, such as Word 7, Excel 7, Designing a Web page, or Introduction to the Internet. Places are limited, so be sure to book a place in advance.

SPECIAL INTEREST GROUPS

The PCUG comprises a large number of people with a wide range of interests. Smaller groups of people, interested in specific areas of personal computing, get together to form Special Interest Groups, which have their own meetings, and projects. Some SIGS currently in operation are, "Coffee and Chat", "C/C++", "The Investment SIG", "The OS/2 SIG", the "Linux Users Group", "Flight Simulator SIG", "Internet Daytime Demo and Discussion Sig". Contact details are published in Sixteen Bits. Anyone can start a SIG - just ask in one of the TIP specific newsgroups (tip.general) if anyone is interested in a formal get-together, and arrange things such as demonstrations, discussions, or picnics!

TRAINING COURSES

Training courses on a wide variety of subjects from Windows 95/98 and Introductory Internet Connection to MYOB, and various programming languages are offered to our members and their families. If there is a perceived need for a particular course, our training group will attempt to organise a trainer and a curriculum.

MEDIA SALES

The group offers high quality disk and tape cartridges for sale to its members at very reasonable prices. Contact the PCUG centre during its business hours (10am-2pm Monday, Wednesday, Friday, 9am-5pm on weekends) for details.

SHAREWARE SOFTWARE LIBRARY

Each month the group gets a new CDROM of the latest shareware. The magazine publishes excerpts from the current CDROM. Titles are available for download from the BBS (which is also accessible from the internet via ftp:// bbs.pcug.org.au), and whilst this is a free service to members, the programs themselves are usually shareware, and require payment directly to the author if you intend to use the program in question on a regular basis.

HARDWARE AND VIDEO LIBRARY

Various hardware is available for loan. Currently the group has 33.6K and 14.4K modems, and ZIP drives available to members, as well as some videos including 'Developing Applications with Microsoft Office' and 'Using Windows 95'. Items may be borrowed for one week at a time, there is no charge, but you must collect and return the items yourself.

Enjoy the group!

THREE WISE WOMEN

Do you know what would have happened if it had been Three Wise Women instead of Three Wise Men?

They would have asked directions, arrived on time, helped deliver the baby. cleaned the stable, made a casserole, and brought practical gifts.

TIP Help Pages

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

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

TIP Technical Information

Domain pcug.org.au DNS server Mail server News Server ftp server WWW server

203.10.76.34 mailhost.pcug.org.au newshost.pcug.org.au ftp.pcug.org.au www.pcug.org.au Time server vindaloo.pcug.org.au

> For users who access TIP as AUUG members, replace 'pcug' with 'auug' in these addresses



The Registry, Revisited



The registry is the heart of the Windows operating system, and there is no doubt that only slight alterations in the wrong places could render the computer or some program within the computer inoperable. Hence the almost invariable warning in any advice about changing the registry to tweak performance or correct unbearable anomalies. But that does not mean the registry cannot be changed with impunity by the average, careful user.

Some time ago I downloaded IE4.01 SP1 as the update for IE3.02 on my Win95 computer, only to find that my Windows Address Book was now called UserMPS instead of Terry Bibo. My address book imported from my Win98 computer remained unrecognised until I rechristened it with this ponderous name. After a few futile attempts to overcome the problem I finally accepted that the only way I was going to retrieve my name was by editing the registry. I have now done that and my computer is still running. Further more Outlook Express now recognises Terry Bibo.wab as the legitimate address book.

There are really two basic ways of editing the registry. The first is to use Regedit.exe that comes as part of Win95/98. This presumes a certain familiarity and confidence that may not be apparent to the user until it is tested. The second is to use third-party software like Registry Search + Replace (REGSRCH.EXE) by Steven J. Hoek Software Development

(http://www.iserv.net/~sjhswdev). This is a shareware program that permits 25 free uses before it has to be registered. The author's homepage provides an excellent tutorial, a FAQ and the latest version of the program. This is a powerful program that, because it does not require any basic knowledge of the registry, can be equally as destructive as Regedit if used unwisely. I would advise putting some time and thought into acquiring an overall appreciation of the registry structure before using either of these programs.

Without getting too technical we will look at the Windows Registry. It is a layered hierarchical structure like the folders on the hard disk, well illustrated in this screen shot from REGSRCH. There are Keys and Values. Keys are like your folders and sub-folders and



can contain other keys and values, and the values equate to your files. There are six primary Keys, also called handles, which accounts for the Н in their names: HKEY_CLASSES_ROOT, HKEY_CURRENT_USER, $H K E Y _ L O C A L _ M A C H I N E ,$ H K E Y _ U S E R S HKEY_CURRENT_CONFIG, HKEY_DYN_DATA. Don't get too bogged down in this level of computing unless you really want to. Just recognise the terms for what they are as you encounter them in searching or

playing with the registry. Generally the tips that are handed out through countless help files and discussion groups on the Internet are specific, and will detail the levels you must traverse to get to data that is to be changed. Eg Run the Registry Editor Open (REGEDIT.EXE). HKEY_LOCAL_MACHINE SOFTWARE\ Microsoft\ Windows\ CurrentVersion. To change the values ofthe RegisteredOrganization, RegisteredOwner, or ProductId, simply double-click on them. Negotiating levels is just like using Windows Explorer: click on the plus (+) sign to expand a level; click on the level's name to reveal the contents.

You **can** play safely with the registry to learn more about it. If you are sufficiently disciplined you can safely use Regedit. If you wish to be

super-cautious you can use a program like RegView (Registry Viewer), a read-only registry viewing application that is compatible

with Windows 95 and Windows 98. And it's free, from www.xmission.com/ ~myq/swoosie.html.

Here is a part-screenshot of RegView's presentation. By following the chain from HKEY_CURRENT_USER through the subkeys and keys we can see that we are looking at Software by

Microsoft and that software is Internet Explorer. There are further subkeys available for selection, but already one of our values is showing: the Download Directory for Internet Explorer is D:\Temp. Values can be String, Binary, or DWORD depending on the argument. In this case it is obviously String which, out of the three values, we as nonprogrammers will probably be most concerned with.

Do yourself a favour and download this program, if only to get a background knowledge to what is really seen as an



NOTEBOOK SEC/AL SALE !!

* 64M RAM, 4.0G HDD, 1.44M FDD; * 24X CD & PCI 3D SOUND, SPEAKERS, MIC; * 4M DISPLAY, TOUCH PAD, KEYBOARD; * 2xPCMCIA II, 1xUSB, FAST INFRARED;

* BATTERY, CARRY CASE, WINDOWS 98; * 56K PCMCIA MODEM & NET ACCESS.









Life after Linux **- FreeBSD**

The growth of Linux over the past four years has been truly amazing. It has been pleasing to watch an alternative to Windows appear, offering a true choice in Operating System for servers, workstations and home PC's. I first took the step towards Linux in 1997, back when RedHat Linux 4.2 dominated a somewhat unknown market. As times moved along, I upgraded RedHat releases, tried Slackware and Debian, even Sun Solaris for Intel. I finally settled on a New OS which I have been using for about a year now: FreeBSD.

FreeBSD is a 4.4BSD Lite derivitive which is based on the BSD research project from The University of California at Berkeley which began in 1977 and finished in June 1995 with the release of the majority of the source code for the BSD Operating System. From this code, three open source OS's appeared - the most popular being FreeBSD. Because of this firm academic background and Open Source nature, FreeBSD is arguably the fastest, most efficient and reliable Operating System in existance, hence its major historical use: web serving. In fact, Yahoo! and HotMail both run on FreeBSD (if you don't believe me about Microsoft's HotMail check http:// www.netcraft.com), as does the worlds busiest FTP server (ftp.cdrom.com), which runs on a single 500Mhz Xeon processor FreeBSD machine. If you wish to read Yahoo! co-founder David Filo's statement about his experiences with FreeBSD, he has made it available at http:// /www.freebsdmall.com/newsletter1/ yahoo_and_freebsd.phtml.

FreeBSD has had "The Power to Serve" for six years now, and its maturity as a server has been the result of a huge team of volunteers, not too dissimilar to how the Linux kernel is written. However, since the inception of Linux, FreeBSD has been getting more attention as an alternative to Linux, with a large proportion of the FreeBSD converts coming from Linux backgrounds in search of extra speed, stability and security. Due to this, FreeBSD is now becoming a true candidate to knock Linux from its position of "chief alternative OS". To quote Marshall Kirk McKusick (head of the BSD project at Berkeley for 4.3 and 4.4BSD) "It's the pioneers that get the arrows in their backs, and it's the settlers that get the land. I'm more than happy to let Linux continue to be the open source pioneers.".

The installation and use of FreeBSD is suprisingly easy, particularly for those who come from a Linux / UNIX background. The distribution itself is very well documented in "The FreeBSD Handbook", available on the projects website (http://www.freebsd.org). Additionally, there is a forum set up on FreeBSD Rocks! (http:// www.freebsdrocks.com) and many IRC channels and newsgroups on the Internet. Although a seasoned Linux / UNIX veteran will find FreeBSD to be an easy transition, this changeover is made much easier for "the rest" by the book "The Complete FreeBSD": 1000+ pages on how to use FreeBSD, along with the 4 CD set of FreeBSD, written by Greg Lehey with the help of the people who actually wrote FreeBSD. Everybody should buy this book, as even the most seasoned veteran will refer back to "The Bible". It is available by mail order from http:// www.lsl.com.au for just under 80 dollars. Alternatively, the 4 CD set can be purchased for just over 40 dollars, as the download of the OS (which is Free as the name suggests) is large. If you are feeling keen on downloading the 600+MB distribution it is on http:// mirror.aarnet.edu.au.

The ports collection is one of the most commonly recognised positive points of all the 4.4BSD derivitives, and FreeBSD is no different. It is a hierarchy of 9'685 different applications, games, daemons, servers and other services split up into 56 different categories is an impressive feat of organization on its own. If you wish to install a web server, all you have to do is find the port you wish to use and type "make install". After this, the machine will look for the files on your machine, download any files that you don't have that are nessisary, patch them for known problems, compile them then install. Finally, the port will be added to the package database.

Customisation of the core of Operating System is a lot less stressful task with FreeBSD than Linux. The kernel is much easier to compile, as you need to edit one text file, and type three commands, reboot, and you have a new kernel. Incidentally, it doesn't take long to compile the kernel under FreeBSD either, just 4 minutes first time and 3 minutes (or less) for subsequent recompiles (benchmarks done on an AMD K6-2 400, 128MB RAM). This

... by Nathan Robertson

in itself is enough to make any Linux user sit up and take notice.

One of the latest additions to FreeBSD is "Linux Emulation", which lets the FreeBSD Operating System run Linux applications. There have been reports of successful emulations of StarOffice for Linux, Oracle for Linux, Half-Life server for Linux, and even VMWare for Linux, although I haven't personally tried any of these (If you don't believe me about the VMWare, go to http:// www.mindspring.com/~vsilyaev/vmware/).

So, why use FreeBSD? Firstly, performance. This was the one that really got me. In my opinion, it is the fastest OS for Intel computers by far. It has the fastest TCP/IP Stack implementation, the very well tested UFS filesystem. Second, it is a well organised project with only one distribution, not a large variety of different distributions which have a kernel in common like Linux. Thirdly, the FreeBSD distribution is well organised and the package management services (the equivalent of the Windows registry) are well proven and tested, and doesn't break and lock like the RedHat RPM registry can. Fourthly, stability - FreeBSD machines are extremely resilient and reliable and simply don't crash (from my experience). Lastly, FreeBSD is secure - if its good enough in this department for Yahoo!, its good enough for me...

On the downside, FreeBSD lacks commercial third party applications (with the notable exception of the ApplixWare Office suite) at this stage, something that the Linux community has been able to overcome with ports of Oracle and Lotus Domino amongst other large names. This lack of support is generally attributed to the low key approach taken by the BSD community in general. Support on laptops is improving due to a large participation of the Japanese FreeBSD community, however APM (Power Management) on laptops (not desktops) is an issue on my Toshiba 430CDT.

FreeBSD has great potential and is becoming the platform of choice for many (including me). The latest release version (at time of printing) is FreeBSD 3.4-RELEASE, and the latest development release is FreeBSD 4.0-CURRENT. Certainly an Operating System to keep a close eye on.



e are pleased to announce that TIP now has a number of dedicated lines restricted to short term connections that should enable users to collect their mail at any time. These lines are accessed using a different phone number (currently 6253 4966) and allow a maximum connection of 10 min-utes. During this time you can download mail and news, browse the local web sites, and download files from our ftp site. After 10 minutes, you will be unceremoniously disconnected without warning! Of course, we would like you to disconnect before 10 minutes are up if you have got all your mail and news so that others can use the service.

This service uses analog modems, so will give a maximum speed of 33.6. The analog modems also support vfc modems so users with these dinosaurs (I have one myself) will be able to connect to the new lines at 28.8 rather than the maximum 14.4 they can get from kryten. It can also be useful for those users having difficulty connecting to TIP (or helping new users connect to TIP). While some (most?) problems relate to difficulties between kryten and some modem brands, and a connection will eventually be needed, a connection to these new lines will remove a number of possible causes of problems from consideration.

This service is still being fine-tuned and could change as we get more exp-erience with it - for example the 10 minute limit could be changed. Any changes will be announced in the *tip.announce* newsgroup. We would appreciate any feedback from interested or affected users. This should be emailed to *ipmc@tip.net.au* or posted in the *tip.general* newsgroup for discussion.

Another change to TIP access is that we have reduced the maximum connection time to kryten from 12 hours to 8 hours. We also intend to soon implement an automatic disconnection after 30 minutes of inactivity. In the meantime, all users are urged to implement their own inactivity timer on their own computers - with a local timer you can control the inactivity period and be warned of imminent disconnection. One monitor used by many of our users is tick, available from *www.reallyeffectivesoftware.co.uk*.

PROJECT

THE

INTERNET

If you need to contact TIP for any reason, please try to use the appropriate email address. All of us get large quantities of mail and do NOT need extra mail which is not relevant to the positions we hold in TIP. Your mail also has much more chance of a positive response if it is sent as text only. Many of us use standard email clients and messages containing HTML or attachments are an inconvenience to read (and thus are often read much later if at all). Some addresses to be used include

ipmc@tip.net.au - for feedback, requests, comment or suggestions relat-ing to policies governing TIP and its operation.

tip.accounts@tip.net.au - for queries relating to your TIP account, requests for change of name or username etc. Please do NOT request "what is the current time credit on my account" - we provide facilities for you to check this yourself - see *http:// www.tip.net.au/tip/help/* and follow the links.

webmaster@tip.net.au - for queries relating to the operation of our web servers and proxy servers - this is NOT a catch-all address!

postmaster@*tip.net.au* - for queries relating to email.

newsmaster@*tip.net.au* - for queries relating to our usenet news feed and TIP newsgroups.

ftpmaster@*tip.net.au* - for queries relating to our ftp server.

helpmaster@*tip.net.au* - for suggestions and comment on the content of our help pages - this is NOT a source of help itself.

spam@tip.net.au - for reports of spam received - please include the whole message including ALL headers.

If you are unsure of the appropriate address to use, write to *help@tip.net.au* and the message will be either dealt with or forwarded to the right place. Please do not send queries unrelated to TIP to any of these addresses - questions such as "How do I get the new xxx I bought at the markets to work" should be asked in the tip.help newsgroup or the relevant usenet newsgroup.

I have written all these addresses as *xxx@tip.net.au* - they are equally valid as

xxx@pcug.org.au or *xxx@canb.auug.org.au*. We suggest that when using email addresses you use the most sensible for the usage - your user group for your own personal email and tip.net.au for TIP services not specific to either PCUG or AUUG.

On the other side of the email fence, if you have not been receiving your email please check the "Attention: MAIL HOGS!" posting made every week to tip.announce and tip.general newsgroups. We enforce strict quotas on how much email can be left on our mail server and once the limits are exceeded, all mail to you will bounce back to the sender. If you are in this list and do not understand why, you can ask *help@tip.net.au*.

HI-MICRO

SINCE 1987

YOUR NEW PC

SUPPLIER PENTIUM III 450 INTEL 64MB SDRAM 6.4 GIG HARD DISK 16MB BANSHEE 2D/3D 40X CDROM 32BIT SOUND 3D 120W SPKRS SONY FLOPPY 15" DIGITAL MONITOR KEYBRD, MOUSE WINDOWS 98 DELUX MIDI CASE





s your computer protected against the latest viruses? Which virus protection program should you use? Does it have regular updates which are easily available?

Don't know the answers to these questions? Then the following may provide the answers.

Inoculate*It*ä is an anti virus program available free on the Internet for personal use. Following are simple instructions on downloading the program.

www.antivirus.cai.com (Computer Associates)

Click button **Download free antivirus** software

Complete the Inoculate*IT* a registration form. N.B. certain fields must contain information for the form to be accepted.

When all information has been accepted you are thanked for registering and given a 'Customer Number'. Make a note of this number, also referred to as your 'Customer ID'. You may be asked to quote this number at a later date.

Click on the appropriate download button (remember this program is only available for WIN 95/987 or WIN NT). If you are asked to put a disk in the FDD click the **Cancel** key. It will then save as IPESetup95 on your Desktop.

Click Save. The download (2405K) could take several minutes – 12 minutes in my case.

Take the time to view the WIN 95/908 User Guide.

When the download is completed close any programs you may have open. Click on IPESetup95 on your Desktop and follow the prompts.

During installation you will be asked to insert a disk to create a Reference Disk, so have a blank formatted disk handy.

Inoculate IT^{TM} will then scan your hard drive (C:)

Each time you turn your computer on Inoculate IT^{TM} will scan the boot files on your

hard drive. It is recommended that, say once a week, you scan the whole of your hard drive(s).

Regular updates are available to download on the Internet. Signature file updates ensure that your PC is protected from the latest viruses. Computer Associates receives several new viruses every day and posts new updates that detect and cure these viruses when updated. It is very important to make sure that you have the latest signature on your PC.

Go to *www.antivirus.cai.com* Click on Inoculate IT^{TM} Personal Edition Update then follow the prompts to get the latest free signature file update.

Download the file: IPEUp***.exe

Run the executable from the browser when prompted or save the file to a directory on your PC and execute it later. The signature update is in a self extracting exe and will automatically install on your PC when you run it.

Your InoculateIT Personal Edition is now updated.

interact advert





BLANK PAGE UPDATING WINDOWS 98

Explorer 4. When I went to the Explorer 4. When I went to the windows update page on Micro-soft's Web Site I started getting a blank page. This is a well-known problem and has been discussed in Computer Mag-azines and in the Canberra Times with a number of solutions given. Working through the given solutions corrected it.

I upgraded to Internet Explorer 5 and after a period of use again started getting a blank page when going to the Microsoft update page. This time, though, the given solutions were not successful. It was not a major disaster but, coupled with another small annoying problem with my system (see below), I contemplated reformatting my hard drive and starting again. Not something to be done lightly, but before going that far I managed to fix the blank page problem. It was a solution I had never seen and I stumbled on it by accident.

As a last resort I thought I would uninstall IE5 then reinstall it. Going to Start/Settings/ Control Panel I clicked on the icon for Add/ Remove programs. An Install/Uninstall panel popped up and in the list of programs I clicked on 'Internet Explorer 5 and Internet Tools'. The Add/Remove button, which was greyed, became visible. Clicking on it another panel came up with two choices, 'Add a component' and 'Repair Internet Explorer'. With nothing to lose I chose 'Repair Internet Explorer' and clicked on 'OK'. A message came up 'Some problems with Internet Explorer can be repaired auto-matically. If you are experiencing diff-iculties using Internet Explorer, you can click Yes to detect and repair incorrectly installed software.' I clicked yes, expecting to be asked to insert the CD-ROM. But no, there was some hard drive activity then the statement that I had to restart the computer to make the repair work.

The repair did work and I can now implement the many bug fixes put out by Microsoft.

If you are using Internet Explorer and having problems, do what I did. It cannot do any harm, and you might be lucky.

COMPUTER FREEZING

My second problem was the really annoying one. Nothing to do with winter, but

intermittently using the mouse the computer would freeze for 25 seconds. That does not sound very long but believe me, it seems to be minutes, not seconds when it happens. Especially when opening a series of web pages off line and it happens every time. Various solutions were suggested and tried—delete fast update, change the mouse driver, etc—but still I got this annoying problem. It was this annoyance that decided me to bite the bullet and reformat.

Casually surfing the web I saw a site www.nowonder.com in which a panel of experts supplied answers to problems posed by surfers. Before putting my own question I looked at recent problems and under Windows 98 was one where the computer intermittently froze but in this case it was not for 25 seconds. It just froze and the only way out was to reboot. There were two suggested solutions and I tried one of them.

Go to Start/Run, type in msconfig and click OK. A sysconfig window comes up. Click on the Startup tab and a list appears. Go down the list and uncheck everything but System Tray. Click Apply then reboot. If the problem disappears then it is one of those background programs causing the problem. To find the pesky program, tick a program, reboot, and if the problem reappears, that program is the culprit.

In my case there were 28 items which start up and run in the background when the computer is booted. Why this is so I do not know but looking at them it was apparent many could be unticked without any problem. I unticked 15 that I thought I did not need to have running in the background all the time, leaving 13 ticked. Rebooted, and carried on normally. Weeks later, with no more freezing and no other problems it seems one of the programs I unticked was the culprit.

HELP FILES—UGH!

One of my pet hates, and I know many of you are of the same view, is the help file that takes the place of a manual these days. You know - the unhelpful screen that pops up when you press help in a Windows program. Given that they are too lousy to provide a manual for the hundreds of dollars you paid for the program, surely a manual in PDF format (I'll explain PDF later) should be on the CD. Some prog-rams do come with a manual provided in PDF format but most rely on a Windows help (what a misnomer) file.

To use the help file you have to think of a word that describes what you want help on. The word you use is rarely the word the author of the help file uses. You struggle on and eventually get to a screen that describes about a quarter of what you want to know. If you are lucky you understand it but you need to know more. Three times more.

There are hyperlinks (a hyperlink takes you somewhere else) that you can click on for further information. You click on the first one and it is not what you want. You click on the other four or five hyperlinks and get another fragment of information. These hyperlinks in turn have hyperlinks. After trying some you give up in disgust, none the wiser. And they call these help files?





On occasion I have complained bitterly about them to Chess Krawczyk who loves help files - probably written them himself. Chess just shakes his head and says 'The information is all there. All you have to do is find it'. Now Chess is a whiz on computers, probably knows the answer without looking it up, certainly knows the key words and is able to skip from hyperlink to hyperlink. It's all right for Whiz Kids but what about ordinary users of the program?

Try and print a help file out and you can only print on a topic by topic basis. The printed output provides few of the formatting and visual cues you expect from a manual. There are no page numbers, indexes, and tables of contents or page references. It can be done though, by means of a program called 'Help to RTF'.

This program takes the help file and turns it into a document in Microsoft's RTF (Rich Text Format) file format which is a document format supported in virtually all major word processors. An RTF-capable word processor is needed to print the document. Microsoft Word, Microsoft Works, WordPerfect, Ami Pro, the Free Microsoft Word 97 Viewer and Windows 95s built in WordPad word processor are all capable of loading and printing RTF files.

The generation of page numbers, indices and table of contents require Microsoft Word to be used as the word processor from which the printout is made. Help to RTF generates page reference and index field control codes, which are specific to Word. Newer import filters from other word processors such as WordPerfect and Lotus Pro may support these features as part of their MS Word compatibility software but this is by no means guaranteed.

I saw a reference to Help to RTF and downloaded it from the author's Web site. I tried it and was so impressed I bought it, though the trial output is not useable as every page has a big banner across it. The downloaded file is made useable by means of the unlocking key supplied when purchased. The unlocking key and the latest copy of the file was sent to me by E-mail. At my first attempt at preparing a print ready document I could not get the page references to update after I had edited it by deleting quite a few pages and making minor changes. An E-mail to the author brought a prompt reply. The fault is apparently not the program but rather some bugs in Word (sounds familiar?). This could be overcome before printing by: Disabling the display of hidden text in word options Press Ctrl+A Press F9 This is not mentioned in the documentation. The author was prompt and helpful, replying to E-mails overnight.

Help to RTF may be downloaded from www.herdsoft.com and costs \$US44. Payment if made by credit card on the Internet has the card number encrypted.

Since then I have converted a number of help files and printed them out, the biggest being for Word 97. My version has 497 pages after judicious pruning. As expect-ed, it is not as good as a proper manual. It is, however, much easier to follow than the help file as it puts common themes together, has references to other pages and has a comprehensive index. You can browse which is something you cannot do in a help file.

PDF FORMAT

I had already written this piece on PDF format when I realised that the PDF extension could indicate more than one type of file. If you don't know, the extension is the part of the file name after the dot, may be one to three characters, and it's purpose is to indicate the type of information the file contains. Extensions are not set in concrete. You can give a file any extension you like but there are certain conventions, which must be adhered to, such as programs to be run have an extension exe, com or bat. Other programs expect a certain extension and if the program does not recognise it, the program may not operate on it. If a file has an extension the program expects but the file is not of that type you get an error message. One extension used for two completely different file types is PDF. It can indicate a Printer Definition File or an Adobe Portable Document Format file. An aside here, when I installed the Acrobat Reader it went ahead and changed all the icons for my Printer Definition Files to the Acrobat icon. Naughty, that.

Files in PDF format are frequently seen these days. These files are documents that have been converted to Adobe's propriet-ary format by the program Adobe Acrobat. Acrobat converts any document to Adobe Portable Document Format (PDF), a format that faithfully captures and preserves the look of the original docu-ment complete with fonts, colours, images and formatting. A PDF file is very com-pact, much smaller than the original, which makes it ideal for including on a CD or a Web site. Because of these features, Adobe's PDF has become a de facto standard for the transmission of docu-ments.

14 years of corporate, SOHO and personal computing support – that's reliability!

We supply systems, upgrades, software, components, monitors, printers. We design and build to your exact requirements, using the best components. We'll install your software, and do a demonstration test run before you take delivery – that's reassurance!

L&S ASSOCIATES ALWAYS FOR QUALITY SERVICE & PRODUCT

PHONE OR FAX FOR PRICES, VISIT OUR WEB SITE www.ls.com.au FOR DETAILS, CALL IN FOR GUIDANCE ON SYSTEM NEEDS

PH: 6257-7555

69 PATERSON ST, AINSLIE, ACT 2602

FAX: 6247-2880

The Internet Clinic

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

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

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

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

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

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

dschwabe @pcug.org.au

To read Acrobat files a special reader in needed. Acrobat Reader is freely available and allows anyone to view, navigate and print PDF documents. Where documents are supplied in PDF format the reader is frequently supplied at the same time. The latest version is V4.0 and can be down-loaded from Adobe's web site www.adobe.com. You may also find it on PC Magazine cover discs.

GENEALOGY

Many genealogists have servicemen and women in their ancestry, perhaps going back hundreds of years, but any service connection with Australia cannot go further back than 1788. From 1788 until the Colonies raised their own navy or army units in the mid-1850's, the services were British, and it is mainly British records that genealogists need to access for inform-ation. To access British records you need to know the unit your ancestor served in. I have never looked at British service records and to obtain help the best advice I can give is to ask questions in the soc.genealogy.britain newsgroup. The same advice applies if an ancestor served with another country, the question being asked in the appropriate newsgroup covering that country.

While Australian volunteers served in NZ in the 1860's in the second Maori war, the first Australian raised military force to be sent overseas in war service was the Sudan Contingent of 734 men from NSW. Units from the various Colonies served in the Boer War from 1899, just 100 years ago. In 1901 the State (formerly Colonial forces) were taken under control of the Commonwealth. Thus, State (Colonial) records would need to be researched for information prior to 1901 and Common-wealth records for service details from 1901.

What information can we get on Australian service records using the computer? Quite a lot, but generally only as references if you look for people though there is enough information on the various campaigns etc to let you write a book. Having references, you will need to write for further information or better still, go yourself and look at the records. Here are a few Web pages to whet your appetite.

www.adfa.edu.au/HISTORY/andrew/ diggers.html Lots of links to Great War sites.

www.lighthorse.org.au All about the Light Horse from the Boer War on. www.awm.gov.au Australian War Mem-orial. This is a must for research, both on the net and in person. Has links to the ANGAM database of the National Arch-ives, which contains details of Common-wealth records held by the National Archives and the Australian War Mem-orial. Using this database you may get a reference to service personnel from which you can apply for their service record. www.cwgc.org Commonwealth War Graves Commission has an on line data base of 1.7 million service war dead and 60,000 civilians in 150 countries. A must if you have war dead. www.hagsoc.org.au The web site of the Heraldry and Geneal-ogy Society of Canberra has a database of Australian soldiers who died in the Boer War. A selection of photographs of headstones and monuments record the burial places of members of the Australian contingent.

There are many more but this is enough to get you going. If you are really keen, do a search with a good search engine. I tried FastSearch for 'Australian war records' and got 25,865 documents— that would keep you happy over a wet weekend!





omputers have invaded just about every Computers have invaded every sphere of our daily lives and education is no exception.

Robyn Williams: It so happens that where I work, making radio and TV programs, for every comment I receive about the language used or the production values, I get 100 about computers or the new technology.

Everyone seems obsessed by machines, unmoved by words. Why is this so? Are the digital mechanics more interesting to Australians than the ideas they are supposed to transport? Or is it that the technology is more saleable than the concepts? And how does all this apply to education?

Well Michael Green has a view on this. He's from the faculty of Engineering and Information Technology at the Australian National University in Canberra.

Michael Green: Popular accounts of the information revolution depict exciting technical innovations and their awesome social implications. They describe a dazzling variety of new products which will transform our homes, our work, and our institutions for the

better. As if by magic, problems which have been with us since the dawn of civilisation will disappear as a by-product of embracing the computer. Education is no exception. When techno-utopians do acknowledge difficulties, they tend to dismiss them as things people will just get over, or will just have to get over. Show-case instances are offered to illustrate that the difficulties are not insurmountable.

In his Foreword to last year's Review of High Education Financing Policy, Roderick West acknowledged that 'many universities have invested heavily in the latest technology and then found the gains . to have been elusive.' But almost in the same breath, he says 'the promise of information and communications technology in our universities is high,' noting 'there are already some success stories.' As Internet-enabled computers have become more common, the techno-utopian rhetoric of the early 1990s has lost some of its shine. More people now have direct experience of the technology and its limitations, and researchers can assess actual outcomes against the claims made by enthusiasts and promoters.

Thomas Landauer reports that in studies comparing online text with a paper and print equivalent, most users are quicker and more successful using the paper-based form. He Both studies agree that effective applications of educational technologies require committed teachers well versed in integrating technologies into a strong curriculum in which the design of students' learning experiences is based on sound educational scholarship, and who are supported by adequate technical and financial resources. These characteristics are unlikely to be realised in the current funding environment except in isolated 'show case' instances.

What are we to make of a situation in which resources continue to be channelled into computer-based education in circumstances we know are not conducive to its successful implementation?

John Ralston Saul believes our civilisation suffers from an inability to see reality, and addiction to large illusions in the form of ideology. One of these ideologies is the belief that technological progress promotes the wellbeing of humanity. As historian David Noble puts it, 'We have come to believe in an automatic future, one driven and directed by an autonomous technological advance and leading inescapably to the best of all possible worlds.'

After World War II, generals and politicians dreamed of a soldierless battlefield, while manufacturing managers dreamed of a workerless factory. And technologists, heavily subsidised by Cold War funding, have largely delivered. The NATO air campaign in Kosovo provides an example of how far we have come towards these objectives.

This idea keeps at bay the anxietyprovoking experience that technologydriven progress has not always been good for us or for the world in which we live. It also allows the interests of the

American computer-based teaching advocate Fred Bennett says, 'all (the) daunting problems (of education) . would vanish if computers were teaching.'

Such claims are part of a long tradition of technological utopianism in which 'the use of specific technologies . makes life enchanting and liberating for nearly everyone.' Technoutopians avoid analysing how the technology will bring about the benefits they claim, relying instead on vague, semi-magical language that reinforces the belief that technology itself has transcendent powers. Bennett, for example, believes that 'computers . could easily analyse and determine individual student needs and provide appropriate lessons.' believes the paperless office would have long since arrived if it were not for one stumbling block: people hate electronic documents. Even Bill Gates admits to printing out anything more than a few pages long.

Shirley Alexander's recent study of computer-based teaching projects in Australian universities found that although 87% of projects expected to improve learning, only 30% reported this as an actual outcome.

Jane Healy's analysis of computer use in American schools suggests that new technologies have been vastly oversold by promoters and that they drain badly needed funds from proven educational needs. powerful to proceed under cover of an impersonal ideology of progress against which resistance is not only useless, but misguided.

After World War II, generals and politicians dreamed of a soldierless battlefield, while manufacturing managers dreamed of a workerless factory. And technologists, heavily subsidised by Cold War funding, have largely delivered. The NATO air campaign in Kosovo provides an example of how far we have come towards these objectives.

Computer-aided instruction springs from the same Cold War context. Do our leaders now dream of teacherless education? Are educational technologists producing solutions

Teacherless Education?

designed not to help teachers, but to replicate or replace them?

The Department of Education, Training and Youth Affairs, promotes the use of information and communication technology like no other teaching innovation. It acknowledges that historically these have been linked to distance education, but it now sees them as having a greater role in on-campus education as well.

The West Review says large audiences and standardisation are needed to cover the production and maintenance costs. Academics' reluctance to use materials 'not invented here' is seen as the main obstacle, and their concerns are trivialised as contributing only to a [Image] self-serving and expensive fragmentation.

Fred Bennett is more explicit. The problem, he says, is that teachers only select software which agrees with their teaching agenda. His solution? 'Free teachers from their usual duties and let computers teach students without an intermediary human instructor.'

These promoters see technology as essential to the future of education, teachers as optional, falling for the hyper-rationalist view that a school or university is a knowledgetransfer machine in which the weakest link is the inefficiency and variability of the teacher, who is to be controlled or eliminated.

Lauchlan Chipman, Vice-Chancellor of Central Queensland University, and who was a member of the West Review Committee, outlines the strategy, asserting that 'not all of the people involved in designing courses, authoring courseware and, most important of all, teaching students, need to be researchers at all, nor even possess the level of expertise as scholars which is typical among academics in a modern university.' This is a classically Taylorist approach in which execution is separated from design and planning. Execution tasks are dissected into elements that can be standardized and mechanized. Look forward to glitzy drill-andpractice software, computer-generated answers to frequently-asked questions, automated grading, essay marking software, perhaps even computer-generated virtual tutors offering 'individualized' instruction.

The approach is capital intensive because it is much more expensive than people imagine to encode expertise in a machine or program. Public universities do not have the necessary capital, so the typical approach is to raise money from a private company, who in return gets to own the courseware commodity which encodes the expertise of the staff.

For example, the University of California, Los Angeles, through its extension arm, UNEX, has granted The Home Education Network (THEN)'the sole, exclusive and irrevocable right under copyright and otherwise to exhibit, perform, broadcast, transmit, publish, reproduce, manufacture, distribute, advertise, sell, rent, lease, market, publicise, promote, (and) exploit . the (courseware) by all means and technology and in all media and forms of language throughout the university . in perpetuity.'

Will Australian university be among THEN's customers, conducting teaching operations via the Internet from virtually anywhere there is virtually free courseware support?

Robert Reid's 1959 study of fraudulent educational institutions, dubbed degree mills, described them as having 'faculties (who are) untrained, if not actually non-existent,' a 'campus (which) is usually a post-office box . with no classrooms,' 'instruction by correspondence lessons (which) is a travesty on reputable correspondence education' and 'officers (who) are unethical self-seekers.'

Many of the models of Internet-based education would appear to qualify as digital degree mills. Behind the rhetoric of choice and flexibility lies a model of education as the delivery of information through a slick, hyperrational interface in which the machine is the authority and the curriculum cannot be debated. An eight year old boy reveals the hidden curriculum when he says, 'The computer is smarter than a human being because it always tells the right answers.'

It's worth remembering that computer-aided instruction was developed by the military to train people to perform their highly specific roles in the man-machine systems of high-tech warfare within authoritarian command and control hierarchies. Its strengths are mechanistic, rational and linear. It tends to narrowness and is fearful of the uncontrolled idea, person or event, as well as of intuitive or creative characteristics.

The Encyclopedia of the New Economy, published by the digital culture magazine Wired, points out to its technoenthusiast readers the problem with this approach. 'Knowledge,' it says, 'isn't like other inventory, it just can't sit around and then be dusted off and used. It has to be kept fresh, relevant and alive. It has to be exercised through continual discussion and revision. And it cannot be managed separately from the people in whose heads it resides. That's the reason companies that successfully manage their knowledge focus on putting people in touch not with vast databases, but with other people.'

It is not my intention to leave the impression that technology has no role to play in our schools and universities. My purpose is to question the motives of the most influential



Vale, Eddie de Bear

He had fought a fifteen year battle with Non Hodgkin's Lymphoma, and very nearly won. Most of us know Eddie through the PCUG, of which he has been a member for 10 years, and during all that time has rarely (once on holidays, and just recently in hospital) missed a stuffing night for Sixteen Bits. He was the one who loaded all those mailbags into his

4WD (the one with the sticker saying, "When all else fails, hug your teddy" - how appropriate is that for a man called de Bear?) and trailer and carted them off for postage.

I first met Eddie when I became editor and started coming to stuffing, and immediately made a friend. He was irreverent, told me some awful jokes, stirred up anvone who would bite, bossed his wife Sharon and his family and friends alike, and worked like a wharfie (or probably harder) every second last Monday. He was just the same when he was in hospital, as he was more frequently over the last few months. I used to walk across to his ward and eat my sandwiches with him at lunchtime, and he never failed to find a smile and a cheeky word, even when he had barely enough energy to breathe. The nursing and medical staff had a deal of admiration for his tenacity and his fierce will to beat his disease. I count it a prive ledge to have known him.

The following was written for me by Eddie's wife Sharon in September last year.

Although Eddie was born in the Netherlands in 1949, as he immigrated with his parents, sister and two brothers in 1954, he has very few memories of his country

of birth, except being nearly run over by a train while riding on the back of a bicycle being ridden by his mother.

Eddie moved to Canberra in February 1955, and it a bone of contention with Sharon, his wife of twenty-two years who was born and bred in Canberra, that he has lived here longer than she has (six weeks). As a result they have seen a lot of changes in Canberra.

Eddie's first job involved one of his passions in life. Cars! It was while he was doing his apprenticeship as a motor mechanic that he met another apprentice who introduce him to ballroom dancing. Eddie had some success at the competition level, and it was at Ballroom Dancing that Eddie and Sharon met.

It was while Eddie was in the Public Service, that he was given his first opportunity to dabble in another of his passions -Computers! In 1978 he was promoted to a clerical position supporting the Honeywell Computers at Department of Defence - taking 1985, worked one day and went of on sick leave - not a very auspicious start in his new position. After many investigations, Eddie was diagnosed with cancer - lymphoma. Although he successfully fought this, it was to return again in 1989. It was at this time that his wife and doctor ganged up on him and all but forced him to resign from his job. Unfortunately 1989 was not the end of the story as far as Eddie's

cancer is concerned. In 1990 he had a further relapse, and recently, after some seven and a half years and thinking that he had bet it completely, Eddie was diagnosed with a recurrence in February of this year.

Following his retirement, however, and to compensate him for the loss of his beloved computers, however, Eddie started what has now become a collection of home computers. Since his first computer - a 286 with 640K memory and 42 meg MFM hard drive - Eddie has gone on to have his own network at home which includes 2 x 486 DX2 66 and a Pentium Pro 200. Eddie and Sharon have recently moved from their little govvie cottage in Kaleen to a bigger home in Amaroo to give the growing computer collection room to expand a bit more!

Eddie joined the PCUG in 1991 and has spent one day a month every month since then helping with the stuffing particularly the transporting of the mail bags to the Post Office, and has seen the circulation numbers increase at least threefold in that time. When he first started, the bags where placed in his 4WD van, but as the club expanded he has had to fix up his box trailer and

fills that and his 4WD each month. With the current member numbers so hight Eddie is only grateful that with the on-line catalogue on the BBS that the PCUG no longer publish an annual catalogue - he does not know where

he could get a semi from. Eddie has also helped out at the ACT Alive shows, and has even lent a hand on occasion assisting other over the phone with their computer problems.

When all else fails, hug your teddy



charge of all those 1/2 inch and 3/4 inch tapes and distributing all those thousands of kilometres of paper output. In 1982 he undertook a Trainee Computer Operator Course with DSS Melbourne. His training completed, he worked on many mainframe systems at Special Minister of State, Aviation and Australian Tax Office.

Starting at the ATO was the start also of another chapter in Eddie's life. And a chapter which led him to the PCUG. Eddie started work on the beginning of the shift, on the Thursday before the long weekend in October

I, Thy Client

... by Andrew Geraghty

Observe what I command you this day.

Behold, I will drive before you the Luddites, the Troglodytes, the Parasites and the Witless.

Take heed of yourself, lest you make a covenant with any other Clients from any other industries whither you go, and it becomes a snare in your midst. You shall tear down their altars, and break their operating systems, and you will destroy their inner sanctums.

For you shall worship no other Client save me, for I am a jealous Client.

Beware should you make a covenant with the inhabitants of other industries, and when they play the harlot after their Clients and sacrifice to them and one of them invites you to share that sacrifice, and you take one of their staff to cleave to your staff, and their staff play the harlot after their Clients and make your staff do likewise.

You shall make for yourself no dissoluble gods or contracts.

The feast of unleavened commonsense you shall keep.

Seven days you partake of unleavened commonsense, as I have commanded you when you came out of industrial slavery.

Six days you shall work, but on the seventh day you shall receive double time and a half.

You shall observe the feast of weeks, the fruits of your labours and the feast of ingathering at the financial year's end.

Three times in the year shall all your staff appear before their Client, God of Manna.

For I will cast out other unenlightened, nonprogressive corporations before you, and enlarge your customer base. And neither shall anyone despise your operations when you go to appear before your Client.

You shall not offer blood sacrifice with leaven; everyone shall seek forgiveness for their own mistakes of which they shall freely admit in my presence.

The first of the fruits of your staff you shall bring to the house of your Client (be they site plans, machinery or process innovations).

Write these words, in accordance with these words I have made a covenant with you and your people.



the long & winding road ... to a new computer



Glenn.Pure@pcug.org.au

H ave you ever wondered about building a new computer from bits and pieces bought at the computer markets – you know, the ones at Exhibition Park and Lyneham? Well if so, read on, as this is one such story.

I wrote an article a year ago for Sixteen Bits on my first experiences with purchases at the markets. At that time, I bought a CD writer and a new hard disc to go with it. Both worked fine and I have been very happy with my purchases. However, the CD writer showed up just how deficient my current system was. It is an old AMD 586 133 MHz machine – equivalent to about a Pentium 75 or 90 I'm told. The CD writer would work but the computer had trouble keeping up. The result is that I have produced my fair share of coasters due to the notorious buffer underrun errors that will be familiar to many people with a CD writer.

More recently, I decided to have a bit of a look at all this MP3 music stuff. The idea sounded great but my first attempt to play some high quality MP3 on my current system was my last. The machine was completely incapable of decoding fast enough to give me any kind of continuous output. (I've also heard that WinAmp also doesn't help as it's a bit of a resource hog.)

The old machine had given me quite a few years of good service and was still good for a lot of things like word processing and even most of the kids' games. But it was becoming apparent that I wouldn't be able to put off an upgrade for much longer. I decided some time ago that the only viable alternative is to simply build a new box (or buy one) rather than try and upgrade some of the bits and pieces in the old box. This is especially true now as all the machines require ATX motherboards and cases that are incompatible with the old machines.

Motivated by the potentially large savings possible from building my own machine – especially with bargain-priced components from the markets – I was keen to go this route. It would also be a good learning experience, I told myself. All I had to do was pluck up the courage to do something about it as I'm definitely no expert at this stuff. So on a beautiful spring morning one Saturday late in November, I set off for Exhibition Park armed with my shopping list and \$900. Here is the shopping list:

- Intel Celeron processor (I would determine the processor speed to buy based on market prices on the day)
- AOpen motherboard but a Gigabyte would have been fine too (I was warned to avoid Abit boards)
- Adapter board so the Celeron could plug into the 'Socket 1' motherboard
- 64 megabytes of Apacer SD-RAM
- 8 megabyte AGP video card
- ATX case and power supply
- 1.44 M floppy drive
- CD-ROM
- keyboard and mouse

I also left open the option of buying a new hard disc. I had two at home already. One was the 1.2 gig hard disc from the old computer which I replaced last year with a 3 or 4 gigabyte disc when I bought the CD writer.

I looked around checking prices here and there and eventually settled on the stalls I would buy from. I bought my processor and adapter board from one and all the other bits from a second stall. The processor I ended up buying was an Intel Celeron 433 MHz. I also decided to upgrade the hard disc as well and bought a 10.2 gigabyte Quantum fireball drive from a third stall. All told, I spent just over \$850.

Having not built up a PC like this before, the first thing I did when I got home was pull all the bits out and start looking at the documentation that came with them. The key document was the instruction book for the motherboard. Fortunately, this was clear and quite helpful. The motherboard is also a 'jumperless' type and auto-detects most things so there aren't lots of fiddly jumpers to manually set. The instructions that came with the new processor were also very helpful and showed me how to connect the cooling fan to the processor and mount it in its socket.

Assembly of the bits was pretty straight forward and wasn't terribly challenging. The worst was getting the cables on the floppy disc and the hard disc the right way around. Neither had the pin 1 marking for the connector socket marked in a way that was easy to find. In fact, the hard disc didn't appear to have pin 1 of the IDE connector marked at all! I had to deduce the correct connection by looking at the connector on my old machine.

Eventually the big moment arrived to power up the new machine. I plugged my old monitor into the video socket, then fired up the computer. Nothing happened. There was no video, no beeps from the new computer – a big nothing – except for the power LED coming on.

I first made sure all the boards and plugs of various parts were pushed in properly but to no avail. The machine was still as dead as a dodo. I ended up wasting the rest of the day trying to get the machine going and tried everything I could think of. Nothing helped. Was the problem a dead video card? I removed it and took the old PCI video card from my old PC. That didn't make any difference. Well, I didn't think it did. Once or twice the machine did actually start but shortly after startup, it stalled. Most of the time though, the machine would not do anything. It didn't make any difference whether the AGP card was in or the old PCI card. So it seemed the AGP card was OK.

Was some other peripheral causing a problem (a flaky disc drive, keyboard, mouse etc)? In the end, I disconnected them all only leaving the video card in place. The machine should still start in that state and run through its POST (power-on, self test). Video should appear and the machine should eventually stall when it realises there are no peripherals connected. But even with everything disconnected, the machine was still completely dead.

My hope that a peripheral was the cause now vanished. If it was a peripheral this would mean the main core of the machine was OK (ie the motherboard, processor and RAM). But it now seemed obvious that the problem was in one of the core components. The problem could have also been in the power supply, but this seemed to be supplying power and making lights go on so I though this was unlikely to be the culprit.

Tired after a long and frustrating day, and fearing I had a long haul ahead of me, I put the machine aside and went to bed. I didn't get back to it until the middle of Sunday evening. Having thought about what the problem might be on and off during the day, I focused on the processor and its adapter board. I had already pulled the RAM in and out a couple of times to make sure it was properly seated. And it was good quality RAM so I was hoping it would be OK. The motherboard, also being a good quality one, was not likely to be a problem. The processor itself should have been alright too - being a genuine new Intel. The processor adapter board was probably the cheapest and most suspect component.

So I pulled out the adapter board and then removed the processor from it. I checked that the processor was fitting in properly. All seemed OK. I then checked the adapter board as best as I could by manually inspecting it and prodding components (being careful to ground myself so I didn't zap it with static). All seemed well there too and, in fact, the quality of manufacturing looked very good. I put the processor back in and was about to plug the adapter board and processor back into the motherboard when the room light caught on the back of the adapter board. What I saw was that a few of the conductors on the edge connector were duller than the rest.

Closer inspection revealed that a small section of the edge connector had some kind of thin scum on it. I couldn't tell what it was but it may have been enough to stop the processor from connecting properly to the motherboard. I carefully removed the processor again (to avoid zapping it with static). I polished the scum off with Silvo – this took a bit of work as the scum wasn't easy to shift. I then cleaned up with a small swab of metho and put everything back together.

That little flash of light had saved me. The machine immediately fired up and has run faultlessly since – well save for the occasional crash of Windows 95 that I don't blame on the machine's hardware.

All must be working well, otherwise you wouldn't be reading this - as I have just typed it on the new machine. My CD writer is excellent now too. I have already written a couple of CDs with absolutely no hitch or hint of buffer underruns. I've yet to get back to WinAmp and MP3 but am confident this will now perform like a circus clown.

So that is my little tale of building my own computer. All in all, a happy ending but if it wasn't for that bit of good fortune, I might still be pulling my hair out.

Now most of my software is loaded, the next job is to try and tune the machine up a bit to get optimal performance. However, that will be another learning exercise and most of the CMOS setting don't mean much to me. Maybe it is time for some hardware hack out there to write and article for *Sixteen Bits* on the subject?

Until then, happy computing...

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 Telephone 6239 1043



Towards 2100...



On a monthly basis What's News tries to point the way to the future. What about the longer term? What do the next ten years hold for the PC user?

Looking ten years ahead is difficult. Who in 1990 would have spoken of 600 Mhz processor speeds, 13 Gigabyte hard drives, voice recognition, scanners with OCR, desktop publishing and colour printing all cheap enough for home use, or of course the Internet in all its complexity.

But much remains the same. Despite voice recognition, input today is mainly by QWERTY keyboard, an outdated instrument if ever there was one. The main uses of a PC are still word processing, spreadsheets, databases and game playing. Using the Internet is the one big new thing. So what lies ahead in 2009 or K2_9 as it should be known?

We will have seen the arrival of set and forget hardware: the box you bring home, plug in (or insert batteries or activate a solar panel) and away it goes with no more technical knowledge than you need to use a dishwasher or washing machine. Microsoft and Sun are talking of "thin" PC boxes where the software sits on servers connected by the Internet. The advantage to the user is that someone else maintains the software, does the recovery after crashes and maybe even does the backups. The provider can charge by the minute for its use and there is no pirating. Something between a laptop and a desktop will become the personal universal device (the PUD).

The keyboard will have disappeared, replaced by a combination of voice recognition and a remote signalling device - maybe a digital universal household intelligent control indicator (a DUHICI).

Wireless connections, already demonstrated by Apple, will have done away with the tangled mess of wires we all struggle with. Put a PUD within range of a printer, telephone line, cable connection or another PUD and it will automatically link up with them.

Will the TV set and PC become one? Probably - at least for the few who can afford a digital TV. Most families will probably have multiple devices – with small screens for individual use and one or more large screens for group use. Internet 2.0 will have multiple options for high speed, high volume, Internet and voice/video communications: via ACTEW's cable network, xDSL systems on the telephone line, and digital TV variants with wireless or microwave interactive capacity. One sure thing is that the Federal Government's current attempt to regulate digital TV will have sunk without trace. Another is that we will be paying for everything by the minute. One way or another the untimed local phone call will have disappeared.

There may be less choice in terms of service providers. Big providers are likely to swallow the small. New entrants to the market will be deterred by higher start-up costs for more advanced technology. Whether PCUG can survive as an Internet 2.0 entry point is debatable. The future may belong to the Packers and Murdochs. The splendidly anarchic nature of the Internet 1.0 may be seen to have been a passing phase as Governments and big service providers impose their standards and lock out unacceptable (to them) sites and activities. Surveillance and auditing of communications, computer and Internet use are likely to increase as governments catch up with technology.

What will it all be used for? Entertainment is likely to be a big winner. The separation between TV programs, movies, computer games and communications will blur completely and a startling range of entertainment material will be available – at a price of course. Dumbing down and stretching the boundaries of acceptable content seem inevitable.

Education will be another big growth area. Most tertiary education will be Internet 2.0based. The University of Phoenix, Arizona is already offering Internet-based tuition at a fraction of the cost charged by the physical university. The future of Australia's tertiary institutions will depend on their ability to harness Internet 2.0. Some will fail the test and face closure or amalgamation. It could offer a new golden age of education to those with the time, the access and the money. Nevertheless, the divide between the information rich and poor will grow. In Australia the family with the new generation PUDs and the one with the old VCR and TV will typify the divide. We will see the first effective Internetbased political movement – the E-party. Based among the new poor of the Outback in inland Queensland, NSW and Victoria and the ACT, it will empower people who were previously impoverished, isolated and disillusioned with the "old politics" and it may well give the established parties of K2_9 quite a fright.

We can expect to see the first steps toward a biological computer – using biological materials and design principles instead of today's metals and silicones. Someone will attempt the first brain implanted PUD (BIPUD), directly linking the human brain's processing power to the memory power of a computer. The first attempt may fail but so did the first heart transplant. When one succeeds, the speed of technological development will astonish us.

So Hogmanay K2_9 will see us sitting with our solar-powered PUDs, exchanging New Year greetings by video link with our E-party colleagues, discussing the progress of BIPUD 4.2, and plotting the downfall of the Sydneybased Packer/Murdoch Federal Coalition Government.

Volunteer Comms Expert wanted:

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.

An Introduction to Delphi ...by Pe

... by Peter E Williams

In this article I will be introducing you toa few basics of the Windows programming language, *Delphi*. Delphi is a Rapid Application Development (RAD) language, which is based on the principle of visually designing your application (not unlike Visual BASIC, or Visual C++); by placing "components" onto the form, and setting their properties and events. The events can call "code" which typically the programmer writes, and the language used for this is Object Oriented Pascal (although much of the code can be in Standard Pascal, instead of OOP, if you prefer).

The reason why you would want to use Delphi, is to create your own Windows applications (that is ".exe" files) - that behave like, and do, exactly what you design (and program) them to do.

OK, but why would *I* write programs? I like to use the analogy of a carpenter who makes his own furniture; sure he *could* buy similar furniture from shops, but he would probably tell you that he does it for reasons like: the joy of crafting it himself, experience, fun, something hands-on to do, he can customize the design to suit his own requirements & needs, satisfaction & quality control. And we write programs for basically the same reasons. Also, he can make beautiful dovetail joins (e.g. we can design clever object oriented code) or he can use a "quick & dirty" method (e.g. hammer & nails).

(Quoting from Delphi's help file) Using Delphi's visual design tools, you can create the visual elements of an application quickly, in a manner that promotes reuse of design elements, rather than repeated reinvention. And as you work with the design tools, Delphi writes the corresponding Pascal code for you.

At the simplest level, designing a user interface in Delphi consists of four steps:

- 1 Creating forms
- 2 Placing components on forms
- 3 Setting component properties
- 4 Attaching code to component events

So what exactly is a 'component'? Each component you put on a form becomes a user-

interface object, a database object, or a system function, such as a system timer. By placing components on forms, you build the interface of your application.

Your first Delphi program - Hello, World

I will begin with a few assumptions:

- you are generally familiar with how to use Windows programs
- you want to learn Delphi, from scratch
- you have access to Delphi this is not essential

NB - I'm using Delphi 3.0 Standard, but any version should do. The latest version available is 5.0, and this comes in 3 flavours: Standard, Professional, and Enterprise. (It is beyond the scope of this article to discuss the differences between these versions, but you can find out more info by visiting the Borland Inprise web site: http://www.borland.com/ delphi).

I won't be going over a lot of the fundamentals of programming, so if you've written BASIC, or better still Pascal, then you will have an advantage.

Kernighan & Richie state (in their book, *The C Programming Language*) that anyone's first program should be a program which displays "Hello, world" on the screen, so this will be our first program. Now we could cheat and just make a form with some text on it saying "Hello, world", but we want to do it programmatically. This example is a little quick and dirty, but it will show you some of the basics of Delphi.

So let's start Delphi. You should now have a screen with the Delphi menu and component bar along the top; the "Object Inspector" on the left side; and an open blank form called "form1". See figure 1. The "Object Inspector" is your main tool in Delphi, which allows you to change the various "properties" and "events" of components. It consists of a small window with two tabs; for "properties" and "events" of which-ever component you currently have selected in your application. The actual properties and events which you have available to change varies with each different component you select. Note also, that it *is* possible to create your own components in Delphi, each with their own customized properties and events.



Figure 1 - The Delphi 3.0 Standard opening screen (with the "Memo" component selected)

Select the form (form1) and, in the "Object Inspector", change the form's "name" property (scroll down inside the "Object Inspector") from "form1" to "hello_form" (without the quotes, and also *without* spaces). Then change the "caption" property of the form to "Hello world test program" (again without the quotes) - note that this will have defaulted to "hello_form" which is value of the form's name. Note that the title of "hello_form" changes to the new value of the "caption" property, as you type it in.

Next let's save the project to a new folder, so from the menu select "File / Save Project As...". (See figure 2) Then click on the "Create New Folder" button (the folder with the asterisk in the corner). Now change the name of the new folder from "New Folder" to "Hello" (without quotes). You will be prompted for a "Unit name" - change this from the default value of "Unit1.pas" to "hello1.pas", and you will then prompted for a "Project name" - change it from the default value of "Project1.dpr" to "Hello_world.dpr". (Note that this is what the ".exe" file will be called after we compile it, e.g. "Hello_world.exe")

You can compile and run this if you like (just press F9 in Delphi 3), but nothing exciting

| Save Unit1 | As | | ? × |
|--|--|---|-------------------|
| Save jn: | 🔁 Delphi 3 | - | <u> * :::</u> |
| Bin Demos Doc Help Images Imports | Lib Dbjrepos Dox Quickrpt SLib Source | 🚮 sbtest1.pas Munit1.pas Munit1test.pas | Create New Folder |
| File <u>n</u> ame: | Unit1.pas | | <u>S</u> ave |
| Save as type | E Delphi unit (*.pas) | - | Cancel |
| | | | <u>H</u> elp |

Figure 2 - The Delphi "Save Project As... dialog box. (showing the "Create New *Folder*" *button highlighted*)

will happen. You will just get a blank form, which you can close down with the close button



Now click on the "memo" component on the component bar, and click once on your form to place it. You will see a rectangular component called "Memo1" placed on your form. Next resize it to be about the same width as the form (by clicking on the

bottom right corner of the memo and dragging and resizing it), but leave a bit of space below the memo.

Now click on the text tool and click on somewhere below the memo OK component on your form. This will place text on your form saying "Label1" which is a component called "label1".

Next compile and run this application (press F9). You will see this form (without the grid dots) and a memo saying "Memo1" and a label below it saying "label1".

Now close the form and we will add our hello greetings. We want to add our greeting at the start of our program, so in the form view select the form (by clicking on it), then go to the "events" tab of the "Object Inspector" and double-click on the value box to the right of "OnCreate". Delphi will now place you in the code editor window, in the middle of a new procedure called "Procedure TForm1.FormCreate (Sender : TObject);" with your cursor in between "begin" and "end" statements. This is Delphi's code completion in action. It knows that you want to write a procedure, and has supplied you with the basic outline of it. Also, if you look higher in the same editor file, you will see the declaration statements for your memo, label components and the "FormCreate" procedure.

Now we need to tell Delphi what to do, in code, when the form is created. Firstly, we don't want the memo to say "memo1", so let's start by clearing the memo with:

memo1.lines.clear;

You will also notice that as you typed in the above line, when you got to the "memo1." part, a small window poped open with a list of options to choose from (e.g. properties and functions etc relating to the memo), this is Delphi's code completion again, showing you a list of valid choices. You could have either scrolled through this list and picked out "lines" or simply kept on typing. It doesn't matter which you do, as long as it ends up saying the same thing.

Note also that for keywords and identifiers (variables and function and procedure names) Delphi is not case sensitive. The only time when Delphi is case sensitive is when we are comparing the values of strings.

Next, we'll add our "hello" greeting:

memo1.lines.add('Hello, world!');

And finally we'll change what the label says:

label1.caption := 'This is my customised label greeting.';

Now compile and run the application.

Quit the form. Try selecting the memo1 component, then go to the "properties" tab of the "Object Inspector", and change the "Scroll Bars" property from it's default value of "ssnone" to "ssboth" or "ssvertical" or "sshorizontal" and see how the memo changes - you will see scroll bars appear on the memo.

Note that this is not the only way that we could have displayed text messages. We could have used a rich text edit memo ("editmemo") instead of a memo. It is used when we want to display a number of different fonts and effects such as: underlining, italics, bolding and bullets. Note also that the memo can be displayed using any one combination of a font and bolding or italics - whereas these can be mixed in a rich text memo, with the memo only one setting of these properties applies at any given time. These are changed and set by changing the "font" property of the memo, either with the "Object Inspector" or programmatically during the running of the program.

Press F12 (for form design view). Click on the button icon ({insert graphics file here: button_tool.gif}) on the button bar, then click far to the right of label1 - this will place a button labelled "button1" on your form. If you don't see the "Object Inspector" on the screen then select View/Object Inspector (menu option). Next, under the "Events" tab of the "Object Inspector", double-click in the box to the right of "OnClick" and the editor window will open with a new procedure. Between the "begin" and "end" type:

showmessage('Hello again!!!');

Now press F9 (to compile and run) then click on the "button1" button. You should get a small window labelled "Hello_world" (this is the current name of your project & the .exe file) which says "Hello again !!!", with an "OK" button, which will close the small window.

Now close the application. Next change the "caption" property of the button to "&Say hello" (without the quotes).

Now press F9 to compile and run it, and this time press "alt S", and the "Hello again !!!" window opens. Notes that the ampersand ("&") in front of the "S" in the caption property of button1 makes the letter following the ampersand (the "S") an alt hot key. Hence "alt S" is the hot key for button1.



Figure 3 - The finished "Hello world test program" running (after the "Say Hello" button has been clicked).

One quick passing note; here is what the basic ANSI Standard Pascal hello world program looks like (from memory):

{ *** ANSI Standard Pascal hello world program *** } program hello (output);

{ *** main procedure *** } begin

writeIn(output, 'Hello, world!'); end.

Note that all we have done in our program is replace the "main" procedure with the "FormCreate" procedure, and changed the writeln to a memo's "add" procedure to add a line (e.g. a string) to the memo's display.

Also, if you are interested in Delphi, then you may like to come along to the Delphi SIG (Special Interest Group) which meets at the PCUG Centre, 11 months of the year (not in December), 3rd Tuesday of the month @ 7:30pm (see the SIG page for more details).



Umberto Eco's Analogy: "Macintoshs are Catholic, PCs are Protestant"

Bits and By

The following excerpts are from an English translation of Umberto Eco's back-page column, "La bustina di Minerva," in the Italian news weekly Espresso, September 30, 1994.

....'Insufficient consideration has been given to the new underground religious war which is modifying the modern world. It's an old idea of mine, but I find that whenever I tell people about it they immediately agree with me.

"The fact is that the world is divided between users of the Macintosh computer and users of MS-DOS compatible computers. I am firmly of the opinion that the Macintosh is Catholic and that DOS is Protestant. Indeed, the Macintosh is counter-reformist and has been influenced by the 'ratio studiorum' of the Jesuits. It is cheerful. friendly. conciliatory, it tells the faithful how they must proceed step by step to reach-if not the Kingdom of Heaven-the moment in which their document is printed. It is catechistic: the essence of revelation is dealt with via simple formulae and sumptuous icons. Everyone has a right to salvation.

"DOS is Protestant, or even

calvinistic. It allows free interpretation of scripture, demands difficult personal decisions, imposes a subtle hermeneutics upon the user, and takes for granted the idea that not all can reach salvation. To make the system work you need to interpret the program yourself: a long way from the baroque community of revellers, the user is closed within the loneliness of his own inner torment.

"You may object that, with the passage to Windows, the DOS universe has come to resemble more closely the counterreformist tolerance of the Macintosh. It's true: Windows represents an Anglican-style schism, big ceremonies in the cathedral, but there is always the possibility of a return to DOS to change things in accordance with bizarre decisions; when it comes down to it, you can decide to allow women and gays to be priests or ministers if you want to.....

"And machine code, which lies beneath both systems (or environments, if you prefer)? Ah, that is to do with the Old Testament, and is talmudic and cabalistic..."

> Happy 2000







1. October 4, 1582 was the last day of the Julian calendar in the Papal states, Portugal and Spain. On the following day the Gregorian calendar took effect and was declared to be October 15, to eliminate the 10 day error that had accumulated during the Julian period. Nearly as many years ago I read, on page 463 of Advanced Algebra, Vol 3, by C.V. Durell and A Robson

"chance is reckoned *relative to some body* of knowledge stated or implied. For example, consider the statement: 'January 1st, 2501 will be a Sunday unless the Gregorian calendar is abandoned.""

And

"to one who happens to know a century never begins on a Sunday there is no chance that the statement is correct."

(Otherwise of course you would be inclined to say the chance would equal 1/7.) Can you explain? Are there any other *verboten* days?

Corollary: In the Gregorian calendar, the "new millenium" (groan) begins on January 1st, 2001?

2. "Its just that I like to be sure," said Euclid as he used his ruler to measure vertically how much wine was left in the decanter. It was a conical flask with the cork reaching down to just where the cone branched out, as shown in the figure. "Two inches" he announced. "Just enough for this evening's dinner. And the height from the base to the cork is 11 inches, while the base itself is – oh it doesn't come out very neatly in inches but it has a diameter of ..." He turned the ruler over. "Of exactly 24 cm., while the base of the cork is 2cm." "What on earth



do you want to know that for?" I asked. "In case they try to swap decanters on us of course," replied Euclid. "You will want to be measuring it upside down next." "No need," said Euclid airily. "The depth of wine in the decanter would then be ..." How many inches? (1cm = 0.3937... inches). Note: Cones of equal slopes have volumes proportional to the cubes of their heights.

3. Most pencil and paper mazes are child's play, but this one should take quite a bit of solving. It shows a maze consisting of circles linked by paths. The idea is to start from one of the large, open, outer circles, and move along the paths to the Home circle in the centre. The number on each circle tells how many steps you must take on your next move. For instance, if you were to start from the outer circle marked 2, your first move must then cover two steps, which will land you either on another 2 or on a 6. According to which it is, you must



then take two or six steps respectively for your next move. Backtracking is permitted, but your last move must land you exactly in the Home circle. Through it and out again is not good enough. There is only one way into the maze. It may be difficult to find but once found it is very easy to remember. Can you discover it?

4. The twenty-five circles in the figure below carry, as you can see, five diamondshaped counters lettered A, B, C, D, E. The problem is to rearrange the counters by sliding them along the lines so that you finish up with no line (either horizontal, vertical, or diagonal) having on it more than one counter. Provided you don't care how many moves you make the task is not very difficult, but it is quite a challenging problem to discover the smallest number of moves in which the desired result can be achieved. You cannot hop one counter



over another when sliding it along the lines. For instance, if you want to move counter D to Circle 2, you will first need to move C somewhere else.



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

You might also like to share any particularly fiendish puzzles with him.



Book review: "SAMS Teach yourself C++ in 21 days" (Third edition)

Reviewed by: Glenn Pure (Glenn.Pure@pcug.org.au)

SAMS Teach yourself C++ in 21 days is a comprehensive and substantial package which aims to teach the C++ language to people who are new to programming. It consists of a book of almost 900 pages and two CDs that contain a range of goodies that includes two C++ compilers.

The book claims to suit both starting programmers and people who have already done some code cutting. I would generally agree with this assessment although a person new to programming would probably be better off reading an introductory book first. For example, one area that is not well covered is the basics of programming and how to use compilers — but this is appears to be deliberate. The book focuses on teaching an understanding of the C++ language and how to write good, tight code.

So how can the book claim to teach C++ in 21 days? It is split into three sections, each with seven chapters. The idea is that a reader can cover a chapter in a day (or less). The author encourages readers to work through the source code listings included in each chapter (which are also provided on one of the CDs), and to compile the sample programs and write code as they go. I'd have to agree that SAMS learning by doing is the best method when it comes to programming but it means that making

a serious go of this book really should involve sitting at your computer as you go through each chapter.

Let me make a disclaimer at this point. I did not follow this advice. I read the book when

and without a computer in sight. There is no doubt I would have gained a lot more from the book if I had followed the author's advice.

At the end of each chapter, the book contains tests and questions that enable readers to assess their progress. In addition one of the CDs contains a more detailed "assessment test system" with both pre- and post-chapter tests.

Week 1 in the book covers some familiar ground for those who have already programmed in C. All but one of the seven chapters cover subjects common to both C and C++ — such as structure of a program, variables, statements, functions and program flow. The remaining chapter in



by covering classes. Unlike C, C++ is an object-oriented language. Classes are a key part of managing objects. While some of the basic structure, syntax and statements

are common between C and C++, there is also a lot that will be new to C programmers. Readers will find a lot of new keywords, as well as a syntax and structure in C++ code that can be quite challenging to grasp at first.

2

The C++ language starts with the fundamental premise that programming should deal with objects not procedures. The data that is specific to an object should usually be internal and private to that object. Any manipulation of data and variables should be protected inside the objects that 'own' them. The logic behind this is that many hard-to-find bugs in programs are introduced when a piece of data is changed by a program in an unexpected way. The risk of this happening is a lot higher if there is little or no control over

who or what can change the data. From a programming perspective, objectoriented places deliberate constraints on how code is constructed and works. This can appear frustrating and counter-productive at first but the pay-off is that the code that or be easier to fix or modify if it doesn't. Code is also a lot easier to reuse. Object-oriented is especially suited to big, complex projects - in fact, the growth in complexity of software engineering is what spawned the development of C++ and other object-oriented languages.

That's enough of a diversion into the background of object-oriented programming. The remaining two weeks (Chapters 8 - 21) of the book focus on the details of C++ as a language. Week 2 delves into the tricky area of pointers and references. It also covers function overloading and other aspects of classes and inheritance that binds classes together. There is plenty of example code and, by and large, the material is presented well.

Week 3 builds further on Week 2 - as well as introducing new material on streams, namespaces, templates and exceptions. If you want to know what these are, you'll have to read the book! Software design and analysis is also covered, plus a final chapter ('What's next') of useful things such as the compiler's pre-processor and performing bit operations in C++.

All in all, the coverage is thorough and detailed. Being new to C++ myself, I found the book heavy-going in places... but note my disclaimer above that I simply read the book; I didn't try and work through the CDs on my computer at the same time.

On the negative side, the book is a third edition yet surprisingly, the line numbering in some source code listings did not align with the numbering in the text. This occurred throughout the book and for more frequently than it should. All the same, it rarely caused a problem, and in most cases I could work out the correct line references.

A bigger frustration for me was a lack of explanation of some concepts. One topic where I found this was operator overloading which is a subset of a more general concept of function overloading. Function overloading occurs where many members in a class all have a function with the same name but the function is implemented slightly different for each member. As I worked through the book, it became apparent that function and operator overloading are simply logical outcomes of the object-oriented approach. They are processes that provide greater clarity and ease in manipulating objects. But more explanation up-front would have been helpful.

The coverage of C++ in the book is not specific to any operating system. All of the code and examples are written for 'console' operations — that is, simple text output to a screen. Those who want to learn how to use C++ to program in specific environments such as Windows or Unix will need to read further on the specific application program interfaces (APIs) and foibles for these environments.

As I noted at the start, the CDs with the book include two C++ compilers. One of these is a fully functioning copy of Microsoft Visual C++ 6.0 (Introductory edition). The only catch with the Microsoft compiler is that you can't redistribute any applications you develop with the package, but a minor limitation I think. The other compiler is an open source, cross-platform compiler called DJGPP. DJGPP if freeware can be used under a variety of operating systems including Linux. [But a tip for budding C++ programmers is to get the October edition of *Australian Personal*

Computer which contains a full copy of Borland's C++ builder version 3 - Standard edition. This is a great giveaway.]

The credentials of the author are impressive. Jesse Liberty has written quite a number of other books on C++ and has a regular monthly column in C++ Report. Prior to starting his own business, he was a 'Distinguished Software Engineer' at AT&T and Vice President of Citibank's Development Division.

All in all, the book is an effective tool for learning C++. Don't be fooled into thinking you will be able to pick it up easily though. The language is rich and complex. To becoming effective at programming in C++ will take more than a pinch of patience and quite a lot of practice.

The review copy of the book was provided without charge by Pearson Education Australia.

| Title: | SAMS Teach |
|----------------------------|----------------|
| yourself C++ in 21 days (t | third edition) |
| Author: | Jesse Liberty |
| Publisher: | SAMS |
| Publication year: | 1999 |
| Price: | A\$99.95 |

Anyone who has books stolen or not returned will probably appreciate this (translated) inscription in the library of the monastery of San Pedro in Barcelona...

For him that steals, or borrows and returns not, a book from its owner, let it change into a serpent in his hand and rend him. Let him be struck with palsy, and all his members blasted. Let him languish in pain crying aloud for mercy, and let there be no surcease to his agony till he sing in dissolution. Let bookworms gnaw at his entrails in token of the Worm that dieth not. And when at last he goes to his final punishment. let the flames of Hell consume him for ever.

Oz User Groups

Adelaide PC Users Group PO Box 2231 Port Adelaide SA 5015 (08) 8331 0766 Meet: 7.45pm, 3rd Wednesday of the month at Enterprise House, 136 Greenhill Road, Unley. Visitors \$5.

Brisbane PC Users Group (Brisbug) PO Box 985 Toowong QLD 4066 (07) 3299 3943 Info Line (07) 3209 4980 (fax) Pam Kirk (Pres) Home page http://www.brisbug.asn.au Meet: Kelvin Grove High School, Kelvin

Meet: Kelvin Grove High School, Kelvin Grove, Brisbane. 9am-5pm approx, 3rd Sunday of the month.

Darwin Computer Users Club

Gary Drake (Vice President) (08) 8932 4107 h (08) 8945 0091 w Email acsnt@acslink.net.au

Melbourne PC User Group 2nd Floor, 66 Albert Road South Melbourne VIC 3205

(03) 9699 6222 10am - 3.30pm (03) 9699 6499 Fax Email office@melbpc.org.au Home Pagehttp://www.melbpc.org.au Meet: 6pm, 1st Wednesday of the month (except Jan) at Pharmacy College, 381 Royal Parade, Parkville.

Perth PC Users Group

PO Box 997 West Perth WA 6872 (08) 9399 7264 Terry Vernon (Pres) Meet 6.00pm, 1st Wednesday of the month at Ross Lecture Theatre, Physics Building, University of WA, Nedlands.

Sydney PC Users Group PO Box A2162

Sydney South NSW 2000 (02) 9972 2133 Meet 6pm, 1st Tuesday of the month at main auditorium, Teachers Federation, 300 Sussex Street, Sydney.





The walkman-like wearable PC is one of a number of initiatives intended to move IBM beyond the traditional



designed for the Internet. The wearable computer, now being tested at customer sites in Japan, was codeveloped with Olympus, which took part in the development of the

personal computer to

devices that are

arable computer

face-mounted display, according to the two companies.

The Lilliputian computer comes with features similar to those found on lightweight notebook computers including a Pentium MMX processor, a keyboard connector, 64MB of memory, audio, a Universal Serial Bus connection and a graphics chip from NeoMagic. It runs the Windows 95 or 98 operating systems.

It's the device's tiny components which set it apart, though. IBM will employ its matchbook-size 340MB micro-drive and a tiny screen which can generate standard PC display resolutions. The effect of the screen, which sits in front of one eye, is similar to viewing a 10-inch screen from about a foot away, IBM said.

Dell goes two way

The wireless revolution got a boost recently when Dell Computer announced it would



begin to sell two-way "Blackberry" pagers and incorporate wireless technology into its corporate desktops. The announcements

from Dell underscore both the growing demand for wireless communication as well as the unlikely emergence of the pager as a

chic, "must have" item for corporate executives. The Blackberry pager, made by Canada's Research In Motion, allows users to receive and send emails, text documents and numerical messages. The pagers, which are powered by a version of the Intel 386 processors that were used in PCs earlier this decade, also can maintain personal calendars or phone lists and can synchronize with the desktop PC. Put another way, the pagers perform many of the functions of a Palm Pilot handheld but come with built-in mobile communications.

The pager, which sells for around US\$399 not including monthly service fees, is about the size of a deck of playing cards and comes with a small screen for messages. Other companies offer pagers with similar capabilities. Most users wear it on their belts.

Apple's iBook

Despite earlier shortages, the iBook laptop is turning into a winner for Apple Computer and helping the company expand its retail presence.



For the month of October, the iBook was the single best-selling notebook at the retail, online and mail-order sales outlets in the US, according to PC Data, besting offerings from the likes of notebook stalwarts Compaq Computer, Toshiba and IBM. The figures do not count sales from "direct" PC makers such as Dell Computer.

Apple has nearly doubled its overall market share to 11 percent, up from 6.5 percent in the earlier month. The total includes sales of its PowerBook line of computers. Apple's growth surmounted severe product shortages resulting from a lack of screens and a disruption in production due to the Taiwan earthquake in September.

Microsoft Web Companion

by Malcolm Morrison

At his keynote address to open the annual Comdex trade show, Bill Gates showcased the MSN Web Companion, a design for a scaled-down Internet computer. The device was announced in September, but few details about it had been made public.



The Web Companion is a book-sized device that runs Microsoft's Windows CE operating system and connects to the Net using the company's MSN Internet service. Other companies will manufacture the box, including Acer, Philips Electronics, Thomson Consumer Electronics, and Turkish electronics company Vestel.

The machine, which is expected to cost less than US\$200 and be available in the second half of 2000, is Microsoft's spin on the network computer concept of years past. In addition to showing the MSN Web Companion, Gates discussed the company's other Internet efforts. One that he mentioned is Office Online, a new service that allows users to access Microsoft's productivity software via the Internet without storing the applications locally on their computers.

Call Ericsson for MP3



New Ericsson cell phones will offer some of the hottest new consumer trends by means of add-on cartridges with MP3 and Bluetooth technology, although there are still some issues to iron out.

The Swedish phone company used the Comdex computer trade show to show off sleek new phones that offer wireless Internet access and limited Web surfing, as are rival digital handset makers including Nokia and Sony. But while others are loading phones with bells and whistles, Ericsson is offering a range of add-on cartridges including a digital

music player, FM radio and a keyboard for messaging.

Set to be available in mid-2000, Ericsson's MP3 player offers 32MB of memory and uses the phone keypad as function keys. The music player is designed to turn off automatically when the phone rings, and it connects to a PC via a docking station.

DVD cracking tool

The Motion Picture Association of America is hunting down and eliminating from the Net a program that cracks the security on DVDs. The motion picture industry was rocked earlier this month when programmers discovered a way to remove anti-copying features from DVD versions of hundreds of copyrighted works. But the Motion Picture Association of America (MPAA), which lobbies for the major U.S. studios' political and financial interests, appears to be having success in convincing Web sites to remove the utility. Called DeCSS, the program can crack the encryption code in the DVD Content Scrambling System, allowing people to make unauthorized copies of digital movies to play on their computers or television sets.

Get Even?

Let's face it. You're not happy. You want to get even. What's the best way? What is the most satisfying? Send them a poison pen e-



mail, of course! For only US\$8 you can send an anonymous e-mail to your tormentor, letting them know quite what other people think of them. Noone will know it came from you,

and it will be sent straight away! Just click on the appropriate link to order, and they'll do the rest! Is it ethical? We're not sure but see *www.poisonpen.net* for more information.

More storage from lomega

Iomega has announced plans to offer its removable storage products for new markets, including MP3 music storage and digital imaging.

Iomega in August introduced ZipCD, a CD rewritable drive that marked its first move away from proprietary storage technologies. Now, Iomega has added Zip support for IEEE1394, or FireWire, the high-speed connection standard developed by Apple. FireWire transfers data up to 400 mbps compared to about 12 mbps for USB. Iomega will sell an add-on connector that will allow 250-MB USB Zip drives to connect to a



FireWire port. The technology supports PCs running Windows 98 Second Edition or Windows 2000 and Macs running MacOS 8.51 or later. Iomega to date has sold 30 million Zip drives and as many as 180 million Zip disks.

Corel® LINUX® OS



Corel has announced that the muchanticipated Corel® LINUX® OS is available as a not-for-charge download. There are three versions of Corel LINUX OS. The no-charge download version is available at the time of writing from Corel's Web site at www.corel.com. The Standard version will sell for a suggested retail price of US \$59.95. The Deluxe version will sell for a suggested retail price of US \$89.95.



Corel is also currently developing Linux versions of the entire suites of its flagship products, WordPerfect® and CorelDRAW®. The office suite for Linux is expected to be available in the second quarter of 2000 and Corel is also developing the CorelDRAW graphics suite for Linux.

More on StarOffice

Sun Microsystems has announced that more than 1,000,000 copies of StarOfficeTM 5.1 software have been downloaded in the nine weeks since Sun introduced this product line to the market and announced the purchase of the privately-held Star Division Corporation of Fremont, California.

In addition, over 500,000 copies of this fullfeatured, interoperable, multi-platform office productivity suite have been bundled with a variety of PC, Linux, and other manufacturers/distributors and over 500,000 promotional copies of StarOffice software have been circulated worldwide.

StarPortal Software



StarPortal software is poised to change the way people compute, delivering office productivity applications in a web-based model. StarPortal software is a complete office productivity suite that is network centric. It is the ultimate dot com application, delivering browser based access via the network to applications such as word processing, spreadsheet and presentation software.With the applications and data stored on the server, end users need a mechanism for accessing this repository. The portal computing model makes this simple by requiring only a web browser and an Internet connection to log on. Any PC or device anywhere in the world will do. This means users are no longer tied to a specific piece of hardware to gain secure access to their personal information.

Adobe!

Adobe ActiveShare -

Cool new software from Adobe, featuring Iomega® drive integration, is an easy and fun way to bring photos into your computer, organize and enhance them, and then share them with family and friends. Adobe® ActiveShareTM lets you quickly import photos from your digital camera, scanner, or KODAK® Picture CD. With one-click, ActiveShareTM allows for easy photo-editing such as removing red-eye and instantly adjusting brightness and contrast. You can also create customized albums for storing and accessing your photos on Zip®, Jaz®, or Clik!TM disks or on your hard drive.

The Internet

| Applicant Details (mandatory) |
|---|
| First Name |
| Last Name |
| Principal Organisation |
| AUUG D PCUG |
| Membership Number I, the applicant, declare that I have read the terms of |
| this application, and affirm that the details that I have |
| provided are correct. |
| 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 (optional) |
| 1 |
| 2 |
| 3 |
| Your login name must be 2 to 8 characters long. It may contain only letters and numbers, and MUST be |
| |
| clearly based on your real name |
| Payment (Full Access only) |
| |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. |
| Payment (Full Access only) Please make cheques payable to: |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 6 months: |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |
| Payment (Full Access only) Please make cheques payable to: PC Users Group (ACT) Inc. Payment: 12 months: \$132.00 |

Project

Important Notes - please read

- 1. 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.
- 2. 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.
- 5. 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.
 - b) 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.
- 9. All users joining The Internet Project receive a one-off, free five hour allocation of Full Access.

Collecting Your Login Details

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

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

Hardware & Video Library

The hardware and video library is located at the PC Users Group Centre. Items may be collected and returned on Saturdays and Sundays between 9am and 5pm (loans are for one week). Please bring your membership card with you. The library provides access to equipment which members would not normally have readily available. Most items have instructions manuals and software where appropriate. Modems do not include software; check the Shareware Library for suitable packages. Items may be borrowed for one week. There is no charge, but you must collect and return the items yourself.

Equipment available includes:

- modems (33.6k and 14.4k)
- zip drives.

Videos include:

- Developing Applications with Microsoft Office
- Using Windows 95

Stuffed Again

NOVEMBER 1999 STUFFING ATTENDEES

We would like to thank the following members and friends for assisting with the mailing out of our Journal and a particular thanks to those of you who stayed until the very end!

Bruce Black Owen Cook Eddie & Raymond de Bear Jim & Chris Fogg Rufus Garcia Anne Greiner John Hempenstall Vernon & Naomi Kronenberg Anne Meade Allan Mikkelson Bill Parish Eleanor Rayment Fred Schaeffer Ruth & Roy Smalley Rod Smith Ross Stephens Gordon Urquhart Marion Van Wely Lew & Sylvia 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 21 February** 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 10.00am 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.



BytesBytes

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

This is for those of you who can't make the daytime SIG. Come along to the evening SIG and share your wide world of wisdom and your favorite sites. Marion van Wely 6258 8750



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 625215036.

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 fourth 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 [your email address]' to Majordomo@auug.org.au.

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 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"

AutoCAD

bruary SIXTEEN BITS

Training News

nne and I are looking at members' requests for training courses and matching those with the skills of our trainers. It is not too late to send your requests to us.

The previously mentioned newsgroup tip.training should be available by the time you read this. Add it to your subscribed groups and check it out for notification of courses, last minute vacancies, course pre-requisites and special offers which may appear from time to time. You may also use this forum to ask questions about a particular aspect of a program you have difficulty with. We encourage our trainers as well as members to offer solutions.

The use of evaluation forms has been introduced for both trainer and students. We ask your co-operation in completing these for each course you attend. This is the only method we have of ensuring we offer what our members want. Trainers will also be able to tailor courses to meet specific need, but this only happens with your cooperation.

Some training courses will have prerequisites such as having attended an *Introduction to Word 97* prior to attending an *Advanced Word* 97 course. Please ensure you meet any pre-requisites as failure to do so will disrupt the whole course and is unfair on the trainer and other students.

Introduction to Word 97: includes basics such as creating folders; creating and saving files; how to cut, copy and paste text; formatting text; moving files from one folder to another; using headers and footers; creating tables; previewing and printing documents.

Introduction to WIN 95/98 : includes using the Windows Desktop: customising Windows; working within Windows; using the Help feature; managing files (moving, renaming); creating, moving and renaming folders; using the Control Panel.

Introduction to the Internet : includes how to access to the World Wide Web; download files; use search engines; send and receive e-mail, including how to send and receive attachments; participate in newsgroups. To participate in this course you will need Full Access to The Internet Project (TIP).



Contacts:

For course bookings contact Petra at the Centre on 6253 4911 For general course enquiries contact Marion on 6258 8750 (7-9pm) or wely@pcug.org.au or Anne at ameade@pcug.org.au

All courses are held at the PCUG Centre, Northpoint Plaza, Belconnen.

Maximum 8 people. Cost \$40 unless otherwise stated.

Full day courses - 9.30 am to 3.00 pm AM courses - 9.30 am to 12.30 pm

| Month | Date | Day | Course | Length |
|----------|------|----------|------------------------------|----------|
| February | 6 | Sunday | Introduction to WIN 95/98 | Full Day |
| | 12 | Saturday | Introduction to PC's | Full Day |
| | 13 | Sunday | Introduction to the Internet | Full Day |
| | 19 | Saturday | Designing Your Own Web Page | Full Day |
| | 20 | Sunday | Desktop Publishing | Full Day |
| | 26 | Saturday | Introduction to MYOB | Full Day |
| | 27 | Sunday | Introduction to Word 97 | Full Day |

Heien, Sweetheart of the Internet



🗘 965 Felsa E. Cara

by Faler E, Zala

Vendor Discount Scheme

The following local vendors offer discounts to PCUG members

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

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

| 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 Mob: 0419 625 801 <i>leep@pcug.org.au</i> | 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 2611 | 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 daltons@daltons.com.au | 54 Marcus Clarke St Canberra City 2600 | 10% off RRP of computer books |
| Computer related The Software Shop | Suppliers of all business, educational and personal software, plus selected hardware. | Ph: 6285 4622 Fax: 6285 4614 info@softwareshop.com.au | 42 Townsend St Phillip ACT 2606 | 5% discount off our already low prices |
| ACT Valley Computer Repairs | Repairs, upgrades, new systems, software installation. Low rates Open 7 days | Ph: 6294 2592 Mob: 0419 990 669 actval@dynamite.com.au | | 10% discount on upgrades and repairs |
| Amalgamated Business Machines | Computer, printer, monitor repairs and upgrades, networking and cabling | Ph: 6280 4887 Fax: 6280 7729 service@abmelec.com.au | 65 Kembla St Fyshwick ACT 2609 | 10% discount on repairs |
| The Cartridge Factory | Premier re-manufacturer of inkjet, laser, copier and fax cartridges | Ph.: 6260 4571 Fax: 62604572 info@tcf.com.au www.tcf.com.au | 65-B Dundas Court Phillip ACT | 10% discount on all remanufactured inkjet and toner cartridges No discount on new ink or toner cartridges |
| Hi-Micro Computers | Computer upgrades, trade-ins, service, parts, new systems | Ph: 6280 7520 Fax: 6280 7540 himicro@atrax.net.au | 6/18 Whyalla St Fyshwick ACT 2609 | 5% discount on accessories and upgrade installation |
| Bettowynd | Prompt, guaranteed, fixed price repairs to monitors and terminals | Ph: 6239 1043 Fax: 6239 1043 grahill@ozemail.com.au | Unit 5, Centrecourt 1 Pirie St, Fyshwick ACT 2609 | 5% discount |

- 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) | | | | |
| Hi-Micro Computers | Computer upgrades, trade-ins, service, parts, new systems | Ph: 6280 7520 Fax: 6280 7540 <i>himicro@atrax.net.au</i> | 6/18 Whyalla St Fyshwick ACT 2609 | 5% discount on accessories and upgrade installation |
| L & S Associates | | Ph: 6257 7555 | 69 Paterson St Ainslie ACT 2602 | Special price on any Microsoft product: dealer price plus 5% |
| NCH-Swift Sound | Multi-media audio Professional voice overs, music and SFX for multimedia, telephone, games, software | Ph: 6257 7221 Fax: 6257 7889 | GPO Box 1169 Canberra ACT 2601 | 25% discount to non- corporate members |
| PE Computers & Software Solutions | New systems, upgrades, Hardware and software installation, setup & home PC support. Software tuition including Win95 & Internet s'ware | Ph/fax: 6258 9806 Mobile: 015 484 711 <i>pelliott@pcug.org.au</i> | | 5% discount on all new systems and upgrades 10% discount on installation, tuition & home PC support |
| Rob's Computer Help Desk | Telephone & on-site help for <i>all</i> your computer and support needs | Ph: 6292 3211 (24 hours/7 days) | | 5% discount on consulting services |
| Sproatley Computer Services Pty Ltd | Upgrades New and used PCs MYOB specialists Software installation, onsite/home service 24 hour help desk | Ph: 6231 5397 Fax: 6231 3605 | | 10% discount on all services |
| Kelehe Bisnis Sevis | ACT written software for home & small business from Lanyon Management solutions. New release of Automobile Workshop Business System | Ph: 6231 1813 Mob: 0418 607 748 jardee@effect.net.au | P.O. Box 1187 Tuggeranong ACT 2901 | 5% for single copies, higher discounts for resellers |
| World Wide Website Creation & Consulting (W3C2) Canberra | Your key to the Internet. Training, consulting and web site services. | Ph: 02 6292 3211 Fax: 02 6292 3914 Mobile: 019 440 608 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 |
| Steve's Mower Service | Lawn mower service, spares and repairs | Ph: 6291 1458 | 8 Hutcheson St Monash ACT 2904 | 10% discount on all repairs |
| Aspect Computing Education Services | | Ph: 6247 7608 | 86 Northbourne Ave Braddon ACT 2612 | 10% discount |
| Australian Management Control | | Ph: 6285 4888 | Suite 4, 32–36 Colbee Court, Phillip ACT 2606 | 5% discount on recordkeeping and payroll courses |
| Canberra Lawyers | Litigation specialists - | Ph: 6287 1223 canberralawyers@ homeorder.com | Unit 7 13 Napier Close, Deakin ACT 2600 | 1 st interview free and 10% discount to PCUG members |

Members' Ads

FOR SALE

I have a Thinkpad with a nonoperational screen. If there's anyone out there, either with a working screen at a sensible price (an IBM replacement part costs over \$1000!), we can come to an agreement - either I buy their screen and my daughter has a good laptop for Uni, or they buy my computer to add to their screen. (They're very easy to remove and replace.) Or, someone might want to buy it to connect to a monitor and use as a desktop.

The details: Thinkpad 360 CSE, 8Mb ram (extendable to 16). Original 540Mb HDD, now compressed, giving 840Mb. SL Enhanced Intel 486 DX2 running Win95. The 9.5" screen does not



work, but video is perfect when linked to a monitor. I have all manuals. Phone/fax/emails all as below.

—John Walker born1820@ozemail.com.au http://www.ozemail.com.au/ ~born1820/index.html

John Walker Crime Trends Analysis 6 Severne St Queanbeyan NSW 2620 Phone/ Fax +61 2 6297 9764

FOR SALE

Wanted to sell: Osborne 486 -25 2 HD 1 x 80 mb; 1 850 mb; 1 x 1.44 FDD; 1 Phillips 14" monitor; speakers; CD Rom drive. Windows 3.1 and works for windows; Canon BJ20 printer. \$750 ono

Amirah Inglis PO Box 5 O'Connor ACT 2602 Australia

Phone: 02-62488-580

COLLECTOR'S ITEM

Kaypro 2 portable computer with much software and printer. Free to a good home.

Ruth Landau

tel 6288 7954 or e-mail rulan@pcug.org.au

PC Users Group Membership Application / Renewal

| Annual Fees Applicable (🗹 one) | | | I would like to (🗹 one or more) | | | |
|---|---|---|--|-------------|-----------|--|
| \Box General ¹ | \$ 55 | | \square Become a new member for year(s) | | | |
| \Box Concessional ² | \$ 35 (requires concession type and card no.) | | □ Renew for year(s) | | | |
| Associate Family ³ \$ 25 (requires memb. no. of primary member) | | | □ Change my address details | | | |
| \Box Corporate ⁴ | \$145 | GST APPLIES ON ALL | Change Corporate nominees | | | |
| □ Additional Corporate ⁵ | \$ 55 | FEES FOR PERIODS AFTER 1 JULY 2000 | | | | |
| □ International (Air Mail) | \$130 | \square Access the Bulletin Board (BBS) | | | | |
| See p. 6 for schedule | | | Reasons for Joining 🗹 (one or more) | | | |
| 1 General membership covers all members of a household except for BBS and Internet access. | | | Sixteen Bits Magazine | Training Co | ourses | |
| 2 Concessions apply to full time students and Social Security pensioners. Proof of eligibility must be sighted upon joining, (and upon renewal by other than Age Social | | | The Internet Project | Advice and | | |
| Security concessions). | | | Other | | | |
| 3 Associate Family Membership covers family current financial member, and endows all a | | | | | | |
| magazine. 4 Corporate Membership covers up to three nominees. | | | TOTAL PAYMENT DUE \$ | | | |
| 5 Additional Corporate nominees may be added at \$55 each. | | | Please Post your application with payment to: | | | |
| I am paying by (Z one) | | | PC Users Group (ACT) Inc | | | |
| Cash (if paying by person) Cheque to PC Users Group (ACT) Inc | | | PO Box 42 Belconnen ACT 2616 | | | |
| Tickedit card — Barne Mathematic and or Visuname | | | Additional Corporate or Associate Family Membership Nominees | | | |
| | | | | | | |
| Organisation (if applicable) PCUG Membership Number (if applicable) | | Title Given Name | Surname | | | |
| Postal Address | | | Position (if applicable) | Phone (h) | Phone (w) | |
| i ostai Address | | | | | | |
| Phone (h) Phone (w) | Concession | n Type and card number | Title Given Name | Surna | ime | |
| | | | Position (if applicable) | Phone (h) | Phone (w) | |
| Credit Card Type / Number Expiry | Date Si | gnature | | | | |
| | | | | | | |

The Help Directory

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

| Subject | Name / Email | Phone | Days | Times |
|------------------------------------|---------------------------------------|--------------|------------------------|------------------|
| Access for Windows | Graham Fry gfry@ozemail.com.au | 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 tmccoy@pcug.org.au | 6294 2226 | Mon - Fri | 8.00pm - 10.00pm |
| 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 |
| Chinese Star for Windows | Peng Lee | 6258 0156 | All days | 1.00pm - 9.00pm |
| Cold Fusion | Peter Tilbrook pete@safetyweb.com.au | 6273 9901 | Weekdays | 9.00am - 6.00pm |
| 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 except Wed | 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 pete@safetyweb.com.au | 6273 9901 | Weekdays | 9.00am - 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 |
| 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 |
| 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 |
| 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 |
| | | | | |

