This month in

SIXTEEN BITS

Features

Profile

PCUG News & Services

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Anonymous contributions will not be published, though name and address can be withheld from publication on request.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.

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**Deadlines For
July 1998 Issue**

Articles and Member Ads
Friday 29 May 1998
Commercial Ads
Friday 5 June 1998

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

New Members' Information Night

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

How To Make Contact

✉ **Postal address**
PO Box 42
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(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 4911for bookings.

☎ **PCUG Main Phone number**
(02) 6253 4911
(Answering machine when Centre unattended)

▤ **Fax number**
(02) 6253 4922

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

📧 **The INTERNET Project**
(02) 6206 6200 *help@pcug.org.au*

🌐 **World Wide Web page**
http://www.pcug.org.au/pcug/
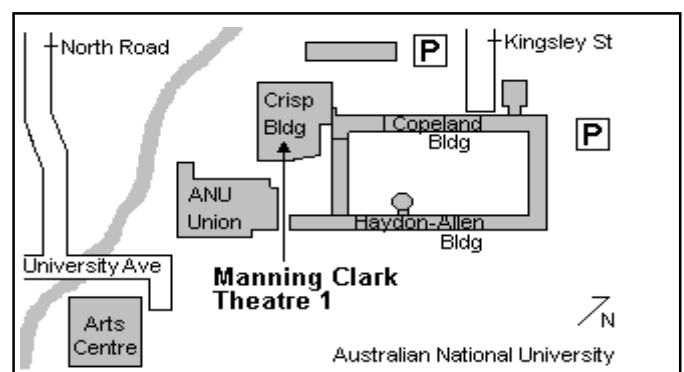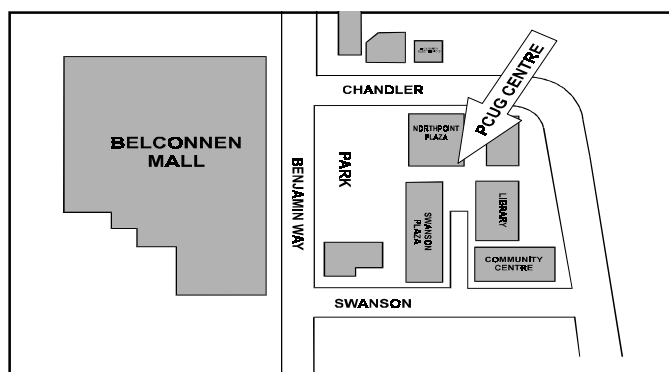
💻 **Bulletin Board Service (BBS)**
(02) 6253 4933 (5 lines 33.6k bps)
Fidonet address 3:620/243

☎ **BBS Sysop voice number**
(02) 6253 4966   (6.00pm - 9.00pm)

Main Meeting

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

Editor's Desk Top

Anne Greiner, Managing Editor

Well, it's the end of the month again, and time to get this show on the road again. The last main meeting was a presentation on Adobe products – PageMaker, PhotoShop, Illustrator, Acrobat and such like wonderful bits of software, and it made me most dreadfully aware of the deficiencies and gaps in my knowledge of these products. Craig Tegel, after a few rather bad moments at the beginning of the meeting when we had no keys and no way to utilise the electronic presentation that Craig had brought with him, launched into a glorious display of anything a desktop publisher could possibly want or need.

As he said, the only barriers are the imagination, but I think I may have found a few barriers that Adobe hadn't thought of though. PageMaker may be almost magic, but can be remarkably persnickety when it

chooses, particularly when it comes to fonts. It just sits there, ticking away in the background, waiting for a largish document to be laid out, then (I suspect with malice aforethought), marginally changes the size of Times New Roman so that all the last 3 pages that have been so painstakingly laid and juggled into position no longer fit, and there is an embarrassingly large amount of white space left, or worse still, large chunks of text left over at the bottom of a column. Another favourite trick, usually at about 2am when the adrenaline and caffeine levels are both depleted, is to drop the resolution on all the graphics to a level that makes them unintelligible, even with a magnifying glass. I firmly believe that there is something like Office Assistant, or rather the malicious equivalent, lurking in the background, saying, 'so she wants a drop cap, does she? I'll give her dropped caps, I'll drop the lot!', or 'You've got to be joking – do you *really*

want to a 36 point bold title *there* ??? Uh huh, not a chance!' or 'You only *think* this looks good. Just wait till you shut it down, and then I'll rearrange it properly, the way *I* like it.'

I suspect that most software has these little beasties that are closely related to gremlins lurking in between the pixels, and it is just the power and complexity of PageMaker that allows them such varied and idiosyncratic expression. They can of course be beaten into submission with a good authoritarian attitude and a few tricks, some of which I learnt at the meeting, and a few I've picked up along the way, such as the coffee offensive. I've discovered that the aroma from *very* strong plunger, or better still, expresso coffee brewed in one of those vicious little mini pressure cooker thingies on top of the stove, has a very salutary effect. They take cover behind the drop caps and pull quotes at the first sniff, and if

President's Letter

Ken Livingston, President

This is hello from the Hon Vice Prez instead of the Hon Prez this month, so forgive the training wheels and the P plates. You'll get the real thing back next month

This month has been a busy one for the committee, with lots of ground covered. Insurance policies for the group have been reviewed, and in some cases renewed, reassessed or reconsidered. A stocktake of all hardware is underway, with both current and replacement values being assessed, similarly the software, furnishings and fittings etc., so that in the event of an unfortunate occurrence, the group will be able to continue functioning. Most visitors would probably not notice, but the security system has also been updated to prevent some of the aforementioned unfortunate occurrences, and to allow the partitioning of the centre into secure zones when we hire out the training room, which we are doing with a satisfying regularity now, thanks to the hard work of David Voss who is, in the words of one of our younger members, 'the boss of the training room'. David is preparing an insert for next month's Sixteen Bits detailing

the setup, the hardware, software and other facilities that the training room has to offer, and asks that everyone think about where such a notice could be sent or displayed, such as the notice board at work, or the training officer, or the professional development section, etc., etc.

Speaking of facilities, we now have a benchtop dishwasher in the kitchen area so that the risk of Hepatitis A or galloping fungal cup colitis has been virtually eliminated. The machine has been interfaced with both the power supply and the water supply, but manual input is still required for the level tablespoon of detergent required for the hardware to operate efficiently. I am worried about the lack of a scuzzi drive, but being only a female, am completely unable to operate such a complicated piece of equipment, and will have to leave it to those of the male persuasion to manage. (I find that this attitude works very well in the home environment with dishwashers, lawnmowers, garbage bins, vacuum cleaners, ironing boards and barbecues.)

And as for improvements, the software in the CD burner has been changed and simplified, and some totally incomprehensible modifications made to its innards. I am told that this will reduce or eliminate the number of coffee coasters being made, so I apologise if any one hasn't got a complete set yet. The system in the training room has been set up with a number of removable hard drives for separate specific groups to use. Editorial has one with lots of dedicated settings and fonts, the Flight SIG has one full of various aeroplanes, Training has one, and there are now two identical ones formatted for commercial groups hiring out the training room that they can totally trash without it affecting the integrity of our system.

Lastly, but certainly not least, the TIP accounts have been very carefully scrutinized, and a detailed reconstruction made following the guidelines set out in the original TIP Agreement. This task is virtually complete, and we now have a detailed understanding of the financial status of PCUG and TIP, and of the

one works very quickly, quite a lot can be achieved before they recover enough to sabotage the spell checker, or move the column guides when no one's watching. It's got to be a rather good dark roast arabica coffee though, Instant coffee has only a minimal effect, and red wine only encourages them to further mayhem. We will be running a beginner's course in desktop publishing soon (see training notes) to share more of these tips.

Well, off to brew enough nice strong coffee to get this finished.

By the by, the person who had my sliding knife paper cutter has returned it. He found it on the give away table and thought he had a wonderful find (he did!), but emailed me with its whereabouts as soon as he read my heartfelt plea. *Big* number of redeemable Brownie points here!
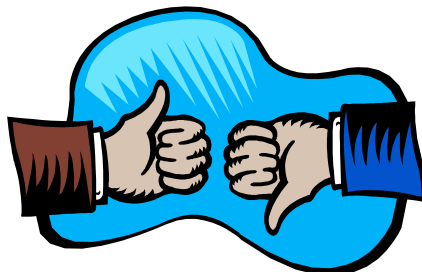
overall financial standing (which is healthy). Much work is being done now to scrutinize the old Agreement, which was an excellent set-up framework, and to formulate a new ongoing TIP Working Agreement to manage ongoing operations. The presaged financial management practices will go into operation with the advent of the new financial year, but the formal agreement will take longer, as PCUG, TIP, and AUUG must all agree firstly to the terms, and then both the accountants and solicitors must ensure that all the i's are dotted and the t's are crossed.

Remember, this is your group - if you want anything done for or by the group, let us know, or if you are unhappy about anything, let us know and we will consider it. We can't fix what we don't know about.

Regards to you all

Letters

Dear Editor

It has always been extremely difficult to log on to TIP at night, however since the introducing the new fee structure of the first and second hour of usage equalling an actual hoour each, it has become impossible! I have all but given up using TIP. It's not that I want to give up, but it's through extreme frustration.If I start trying to log on about 8.30pm after tea, washing up and the jobs are done, for an hour or so of surfing and relaxation, I might be lucky (in general) if I get on about 10.30pm. If I am tryint to help my daughter find some information for a school project, she can hardly stay up until after 10.30pm to look for her information! It used to be better logging on at weekend nights when all sensible people were out having fun, however even this is not so easy any more. I have been forced to add another service provider to ensure I will be able to do any necessary internet work, without having to rely on TIP. I know TIP is extremely cheap, and thankyou for that, but PLEASE, PLEASE, can't ssomething be done to give more of us a better chance of logging on!
Sincerely,
Marisa Vearing

Hi Anne

I hadn't forgotten and will be sending soon both the article and the other stuff - I just want to add a few points but about mid arvo will send. I have to go now to Belconnen to pick up a car window winder for the Renault (all this rain has made it essential) – its an out of stock item but a backyard dealer has one - Yippee!.

What happened the other day, the virus - real panic! After getting a new toner cartridge for the Laser I was going to print out the article and the other stuff as we agreed so they could be scanned in for you - by the way I am virus free (at least as far as the very latest ThunderByte and Norton's tells me) and according to work's checking of my files. So that's something.

But when I went to log on in NT (NT has a security feature that prevents others pinching your password by first having to give the old 3 finger salute — Ctrl Alt Del) the keyboard wouldn't respond.

AAAAAAAAARGGGGGG - sod it !!!!! Anyway took it down to PC Connections with a quick request but they coudn't fix it so picked it up again yesterday arvo. It worked for them with another NT disk so it meant I had to reload NT. We had Win 95 installed but that for some reason wouldn't recognise a file (it was there) so it was also out of action.

So to get to NT we reloaded Win 95 so we had a system to recognise the CDROM drive, and then Partition Magic so we could get at the NT partition and then reloaded Win NT and the service packs.

In the meantime daughter had told us that she had "mucked about" with the Accessibilty Options in the Control Panel and had selected all the options. She couln't remember what these options were so we had to look at same in Win 95 to see what they did. One of these is the Sticky Key option for those with arthritis and such where you can, instead of pressing the 3 keys together and quickly, you press Ctrl first and release wait for 5 clicks and a little animation to tell you to press the next key Alt and so on. We had to use the same Sticky Key trick to log into NT (press each key in the password very slowly and very carefully) and when it all worked, I tell you I know how old Archimedes felt with his Eureka!

So alls well that ends well and daughter (I didn't rouse <spell>) now understands how a little knowledge can be dangerous. We were out of action for a good two (critical) days.

PS I'm getting another 486 to set up in son's room and we intend over these school hols to start from scratch again, redo all on my machine with some changes (suggested by this last brouhaha <spell?>), remove the old drive out of this machine and add it to the 486, install the previous Office version on his, and,because we are both gluttons for punishment, put Linux on both and use this to network both computers. It will be mainly his project and he wants to submit an article later for the mag

I'll keep you posted --

Regards (apologies for the saga)
Frustrated Author

Now, this is one article I'm _really_ going to appreciate, when I consider the angst that has gone into its genesis.
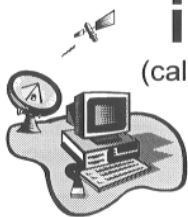*Ed.*

Membership Notes

by Mike Burke
Membership Secretary

Welcome 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 June 1998
RENEW NOW
to avoid losing access to
The Internet Project.

Your Membership Card

Your membership card will be mailed to you as soon as possible after your application for membership, or renewal, has been processed. This will normally occur within one week of your receipt of your first issue of *Sixteen Bits*. Please be patient, however. There is only one print run of mailing and membership labels every month, and this normally occurs over the weekend immediately before the *Sixteen Bits* stuffing day (normally the third Monday in the month). Normally, membership cards and disks will be dispatched on the third Monday. If you lose your card, please leave a message with the Executive Secretary on 6253 4911, or contact me directly via TIP at *pcug.membership@pcug.org.au*.

Information Disk

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

New Members' Information Night

New members are especially urged to attend a New Members' Information Night which is normally held at 7.30pm on the first Monday of the month (except January) at the PC Users Group Centre (see map page 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.

The 'Rules' and Other Good Stuff

For those who haven't yet learnt through bitter personal experience, please remember that TIP access is dependent on your continuing PCUG membership, and that it takes time to process your membership renewal - currently up to two weeks. We are looking at ways to reduce this time, but the best solution is for you to remember to renew early. Members, particularly TIP users, whose PCUG membership expires at the end of the month stated in the above box should renew their PCUG membership immediately. Do not delay because your TIP access will automatically be cut off at midnight on the last day of the month unless your renewal has been processed.

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

For those of you who would like to try it, John Carroll has produced a natty little Windows program that can be configured to automatically provide you with up to 90 days' prior warning of your PCUG membership expiry. The program is now included on the New Members' Disk, and is currently available from the BBS.

Next New Members' Night
1 June 1998
7.30pm
PCUG Centre
Northpoint Plaza, Belconnen

Soft Options

1 - Making do with what you've got

...by Robert Dakin

Fantastic clay

Automatic electronic computing has a short history, and many of us are old enough to have lived through most of it. Quite a lot has been written about the joys of early computing - paper tape, punched cards, teleprinters, Williams tubes, delay lines, rooms full of vacuum tubes - you name it.

My focus here is rather different. Software has been my main focus for much of the past 40 years and is still an enduring passion. I well remember my early excitement. It seemed that you could craft anything you could imagine using a medium only slightly removed from pure thought - and there was Turing machine theory to give some respectability to such a picture. Software development is, surely, the greatest of all computer games.

Of course practice falls some way short of the ideal. Computers are limited by finite memory, speed and reliability. And we mortals are limited by our 'inability to do much' as Dijkstra put it - we can cope with only so much complexity. To address these issues many software innovations have been conceived, over-sold, implemented, debunked and often forgotten. It has been a lot of fun to be part of it.

In this series of articles I will be looking at some of the themes and issues that I have encountered.

Giant electronic brains

I cut my teeth on SILLIAC[1] at Sydney University. SILLIAC was Sydney's first computer; I remember the press enthusing about 'giant electronic brains' when it was installed. It was indeed an impressive sight - a huge cabinet filled with vacuum tubes in an air conditioned room next to another room full of power supplies to drive it - tended by a team of engineers to keep it going. Commercial organisations were happy to pay £60 an hour to use it - goodness knows what that would be in today's money. Yet it had only 1024 40 bit words of memory and, at that time, a single tape drive. Each word could hold one number or two machine instructions.

Programming was, for that time, reasonably straightforward, but there were some quirks. SILLIAC's William Tube memory, comprised of 1024 charged dots on each of 40 CRT's, was subject to 'read around' error; a storage location could be contaminated by electron splash from nearby locations - nearby on the CRT, that is, not necessarily an adjacent address. This placed some very odd constraints on the way you wrote code. Reliability was not great, with an MTBF of a few hours.

By any measure except physical size SILLIAC is utterly outclassed by today's computers - even tiny gadgets like the Palm Pilot. The main programming problems came from dealing with its limitations rather than coping with complexity; the memory size gave quite a lot of protection against that!

To see what this meant in practice we will look at one example in some detail.

Example - a program for large matrices

The problem

My second computing project[2] was concerned with optimising a network of electricity generating stations. If you know how operating cost varies with load for each generator that is currently operating in a power network then it is relatively easy to work out how to share load between them to minimise cost. What I wanted to do was to include the scheduling of generator start-up and shutdown in the cost model. The resultant mathematical model was a linear programming problem in which some of the variables were required to take integer values.

The algorithms

In a linear programme you seek to minimise a linear function of a set of variables subject to a set of linear inequality constraints - naturally expressed as a matrix where rows correspond to constraints and columns correspond to variables. The function you want to minimise (the 'objective') forms an extra row. Dantzig's Simplex method provided a tried and true solution. The computational steps you go through are very similar to what you do when solving a set of linear equations; that is you perform a series of iterations, in each of which you subtract multiples of one row (the 'pivot' row) from each of the others.

At that time I had preliminary information on some work by Ralph Gomory of IBM on algorithms for handling the integer constraints. First you solve the linear programme as if the variables were continuous. You then add a new linear constraint that is satisfied by *any* integer solution but is *not* satisfied by the current solution. You keep on doing this until a valid solution emerges. You can prove that this will not take forever, though it can take an awfully long time!

I needed to solve problems with at least 100 variables, with a similar number of constraints, on a machine with just 5 KB of memory whose MTBF was comparable to expected solution times.

There were several issues that had to be addressed to make it work.

Fitting a quart into a pint pot

You obviously cannot fit a very large matrix into 5KB of memory, so the constraint matrix clearly had to live on tape. It was held in blocks each holding a single row.

With a relatively slow linear medium efficient access is obviously an issue. Now an iteration of the Simplex algorithm comprises two steps - scanning the constraint matrix to select a 'pivot' element and updating the constraints using this pivot. Each step requires a complete traverse of the tape. These steps can, however, be rolled into a single traverse: after updating a row in one iteration you can examine it to select a pivot for the next - cutting tape accesses by half.

Using this scheme just three rows had to be held in memory simultaneously - the row being updated, the current iteration 'pivot' row and the current choice of pivot row for the next iteration.

This was not a complete solution to the memory problem, however. The space left after allowing for program code was not big enough for the size of problem I wanted to solve. So I set about partitioning the code and devised an overlay scheme. There were two partitions - one performed an iteration while the other carried out pivot column selection and Gomory constraint generation. These partitions were of approximately equal size, so it was an effective memory saver.

In this way it was possible to handle problems with over 150 variables; the number of constraints was limited only by the capacity of a magnetic tape.

Fault tolerance

Two issues were involved here - fault detection and fault recovery.

- The SILLIAC CPU had no internal parity or other error detection or correction features. While a lot of faults would simply make it come to some sort of stop, it was not uncommon to encounter faults where it appeared to function normally but produced wrong answers - not unlike the Pentium FP divide bug. What the program did was to maintain a check sum for each row and compute what the new sum should be after each iteration. This was then checked against the actual row sum, causing an error halt if the discrepancy was larger than you would expect from rounding errors.
- Two versions of each row were held on tape corresponding to the current and previous iterations. On restarting the program after a fault - or if you needed to split a run into multiple sessions - it was able to restart from the last successful iteration.
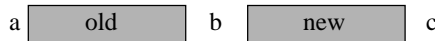
Performance

Tape access time was obviously a key performance issue, subject to the virtues and vices of the SILLIAC tape unit. Read and write operations required each word to be transferred under software control, so there was no question of any overlapping of tape access with processing. Seeks, however, were autonomous. Reliability was such that you needed to do a check read after each write. On the positive side, you could read, write and seek in both the forward and reverse directions.

The tape access pattern that I settled on was the following:

- To avoid the need for tape rewinds alternate iterations were performed in the forward and reverse directions. Since the program overlays had to be accessible between iterations they had to be stored *twice* - at either end of the constraint matrix. For the same reason, the objective row also had to be duplicated.

The rectangles below show successive tape blocks holding a particular row before (old)

and after the iteration(new). The following steps were involved in updating a row when performing a forward iteration:

a [old] b [new] c

- Read old row forwards a->b
- Seek b->c and, at the same time, update the row.
- Write the updated row backwards c->b
- Check read forwards b->c
- This leaves the tape positioned ready to process the next row in the same way.

Reverse iteration processing is a mirror image - read c->b, then seek b->a while processing, write a->b and read b->a.

The resulting processing time per row per iteration is the raw computation time plus three tape transit times - a bit under 5 milliseconds per array element. The longest computations I did took around 12 hours. I could only get the machine for this sort of time overnight; I remember bringing in a camp stretcher! It was not lightning fast, but at least large problems (large for that time) *could* be solved.

Afterthoughts

I like my P166+ desktop with 32 MB memory and I have no desire to return to unreliable, slow old SILLIAC with 5KB. All the same, working within such constraints was a useful discipline. It made you treasure your computing resources and think hard about how you did things. I believe that the quality of present day software would have been better if the pace of hardware development had been slower. It is much too easy to rely on improving hardware to ameliorate the effects of deteriorating software.

Acknowledgements

I am indebted to John Bennett and David Wong of Sydney University who were my mentors at this time.

[1] The **S**ydney version of the University of **Illi**nios **A**utomatic **C**omputer (of course!). It was an age of acronyms and block capitals. The original ILLIAC later became known as ILLIAC I in deference to successors such as ILLIAC IV.

[2] My *first* computing project will get a mention in a later article.

🖳

PERL

An enthused overview

…by Andrew Clayton.

Recently, I engaged in a project to determine duplicate files on very large disk arrays (40Gigabytes or so). The main requirement was that I get a solution up and running as quickly as possible. I could have chosen C or C++, but instead I wrote a solution in Perl, and learnt a great deal along the way. My Perl solution was able to scan about ten thousand directory entries a minute, it produced the output I wanted, and has helped the organisation to determine how it is using its computing resources.

Writing the script was, for me, a fun experience. Before this, I had used Perl for one-off tasks, or small scripts for system administrators. What I hope to achieve with this article is to 'spread the word' about this product, and maybe others will find this language as useful and creatively enjoyable as I do.

What is Perl? I don't know how to answer this question simply. One wag describes Perl as 'a horse designed by a committee', which is most probably why the main reference book "The Perl Language" from O'Reilly Associates, has a picture of a Camel on the front of it (and is thus referred to as 'The Camel Book'). A technical explanation from the author, Larry Wall, describes Perl this way:

"Perl is an interpreted language optimized for scanning arbitrary text files, extracting information from those text files, and printing reports based on that information. It's also a good language for many system management tasks. The language is intended to be practical (easy to use, efficient, complete) rather than beautiful (tiny, elegant, minimal). It combines (in the author's opinion, anyway) some of the best features of C, sed, awk, and sh, so people familiar with those languages should have little difficulty with it. (Language historians will also note some vestiges of csh, Pascal, and even BASIC-PLUS.) Expression syntax corresponds quite closely to C expression syntax. Unlike most Unix utilities, Perl does not arbitrarily limit the size of your data—if you've got the memory, Perl can slurp in your whole file as a single string. Recursion is of unlimited depth. And the hash tables used by associative arrays grow as necessary to prevent degraded performance. Perl uses sophisticated pattern matching techniques to scan large amounts of data very quickly. Although optimized for scanning text, Perl can also deal with binary data, and can make dbm files look like associative arrays (where dbm is available). Setuid Perl scripts are safer than C programs through a dataflow tracing mechanism which prevents many stupid security holes. If you have a problem that would ordinarily use sed or awk or sh, but it exceeds their capabilities or must run a little faster, and you don't want to write the silly thing in C, then Perl may be for you. There are also translators to turn your sed and awk scripts into Perl scripts."

Quite a mouthful, but Larry should know, he wrote it.

So, Perl is a computer language, PERL itself is an acronym which expands out to 'Practical Extraction and Report Language' (among other things). The language has some very simple syntax, and some very confusing syntax. It can be used to write one line, throwaway solutions, or entire applications. Perl is a 'glue' language, which can be used to interface between various other applications, the most classic example being the World Wide Web, where the CGI (Common Gateway Interface) scripts that enable Web sites to 'do things' with user input, are largely written via Perl scripts.

Perl started off about 10 years ago, in the Unix world, but it has grown in leaps and bounds, and there are now Perl implementations on a wide variety of platforms, including MSDOS and Windows variants.

The biggest surprise is that Perl is free.

Yep, the Perl distribution, much like Linux, is a freeware product, which you can pick up via the net for virtually nothing. There is a huge Perl distribution network called CPAN, with mirror sites all around the world. http://www.perl.org is a good place to go to start a web search, and http://www.perl.com is another interesting place to visit. There are innumerable other net resources for Perl, which I urge people to visit after they have read this article.

I have the Gurusamy Sarathy Win32 Perl implementation on my machine at home, which implements the latest version of Perl (perl 5.004) for Win95 and WinNT machines. It is very simple to install, and it takes up about 16Mbytes of disk space. The fact that it is free is worth repeating and highlighting. The following is a link to the Win32 implementation, it is about six megabytes of zip file.

ftp://ftp.netinfo.com.au/pub/perl/CPAN/ports/win32/Standard/x86/perl5.00402-bindist04-bc.zip

Perl is an interpreted language. That is, you don't need to 'compile' it first (as you do with C programs). The Perl interpreter runs your program, doing a syntax check before it starts to execute your code. Development of a script can be very quick. Here is a complete perl program

perl –e "print 'Hello World.'"

That calls the Perl interpreter, the –e flag indicates that your script is on the command line and the script is between the quotes.

There are many ways to do the same thing in Perl. Each of the following lines will print Hello World:

```
print "Hello World.\n";
printf("%s\n","Hello World.");
$myvar = "Hello World.\n";  print $myvar;
$cnt = 23; $fred="Hello World"; for (1..$cnt){print "This is $fred number $_\n"};
```

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This mystical "\n" thing is a new line character (a carriage return)

The concept of "There Is More Than One Way To Do It" (TIMTOWTDI) is central to Perl's philosophy of being all things to most people. The ability to create extremely convoluted code makes Perl a haven for Obfuscated solutions. Some people claim that Perl can be one of those Write Only languages, where you can write the most complex script one day, and the next day not understand how it works, and not be able to work it out without taking it apart character by character.

People who write Obfuscated Perl scripts are called JAPHs (Just Another Perl Hacker), and they are revered or reviled as required. For some examples of truly perverse Perl coding, check out The Perl Journal, which has had at least three Obfuscated Perl competitions. *(http://www.tpj.com/)*

Perl's author, Larry Wall, stresses the link between Perl and natural languages, such as English. Perl's variables all start with a special character. $variables are like nouns, and contain a scalar value (a number or a string). @variables are like verbs, and are an array of scalar values. %variables are associative arrays, and are one of the fundamental facets of the Perl language. An associative array, or hash, is a keyword/value pair.

In the following script, %city refers to an associative array. The keys to the associative array are syd, mel, bri, etc. And the values associated with the keys are the fully expanded names of the cities.

#Dac's associative array example script

```
$city{syd} = "Sydney";
$city{mel} = "Melbourne";
$city{bri} = "Brisbane";
$city{la} = "Los Angeles";
$city{kar} = "Karachi";

print "Please enter a mnemonic for a city,";
foreach $name (keys %city)
{
   print "$name ";
}
$answer = <STDIN>;
chomp $answer;
print "The full name of $answer is $city{$answer}\n";
```

Where Perl really comes into it's own is in pattern matching using Regular Expressions (Regexes).

Patterns can be simple strings, or vastly complex rules-based collections of symbols

```
$var =~ m/fred/;
```

This statement will evaluate to true if $var contains 'fred' and false otherwise. The following program will print out all the comments of a file, where a comment starts with a # in the first column of a file.

```
while ($var = <>)
{
   print "comment is $1" if ($var =~ m/^#(.*)/);
}
```

Running this script using city script as the input file would print out the comment in the city.pl file.

```
C:> perl while.pl < city.pl
```

comment is Dac's associative array example script.
C:>

Regular expressions are an artform unto themselves. There is at least one book on regular expressions. There are prime number generators written in regular expressions!

People familiar with Unix and Linux will probably be well aware of the Perl language. For those people who are looking for a clever, interesting and useful scripting language for their Windows machines, I can heartily recommend this product.

There are a number of books on Perl, the best one is probably 'Learning Perl' by Randal Schwartz, published by O'Reilly Associates ($59.95 from Collins Booksellers). This is also referred to as the Llama book, because, like all O'Reilly books, it has a picture on the front of it. The Camel Book is The Perl Language, by Larry Wall, Tom Christiansen and Randal Schwartz. ($79.95, O'Reilly Associates, Collins Booksellers). There is a book called Learning Perl in 21 days, but I would strongly advise you NOT to get this book, since in my opinion it is a very poor tutorial.

I have only touched upon what Perl is, and hardly even scratched the surface of what Perl can do. I spent Friday writing a Perl script to automatically send data to Excel via OLE (Object Linked Embedding), and then instruct Excel to create charts for various bits of the data. Much like you could do in Visual Basic, but with a neat little text script. I've written word analysers, log parsers, text searchers, .INI file modifiers and innumerable other scripts with Perl, and I'm always finding new and interesting facets of the language, leading to more efficient scripting and less verbose scripts.

Perl is keen. Check it out.

POWER TOYS
FOR THE BOYS (AND GIRLS)

by Terry Bibo

Microsoft have made available on their web site a folder containing a series of 'PowerToys – UI' (user interface, I presume) enhancements for advanced Windows 95 users that can easily be installed. I don't consider myself an advanced user by any measure, and even I can install and use these tools. But they do require an understanding of basic Win95 structure and procedures to get the best out of them

Quote: 'These enhancements were developed by members of the Microsoft Win95 team, and are now being made available to Win95 users at no cost. NOTE: these are not part of any shipping retail product at this point in time, and therefore are not supported through any official support channels. Use "at your own risk". (See official disclaimer below.)'. I don't include the disclaimer here as it is in the readme.txt file accompanying the series. If you download PowerToys you will want to read all about them before proceeding.

I put them into a Power Toy directory where the file list begins to give some indication of what is promised. (Fig 1.)

Contents of 'PowerToy'

Aplayext.dll	Quickres.inf
Aplayext.inf	Readme.txt
Cabview.dll	Sendtox.dll
Cabview.inf	Sendtox.inf
Clock.exe	Shellfix.dll
Content.dll	Shellfix.inf
Content.inf	Target.dll
Deskmenu.exe	Target.inf
Deskmenu.inf	Tweakui.cnt
Doshere.inf	Tweakui.cpl
Explore.inf	Tweakui.gid
Findx.dll	Tweakui.hlp
Findx.inf	Tweakui.inf
Flexicd.exe	Xmouse.exe
Flexicd.inf	
Install.inf	
Quickres.exe	

We won't look at all the entries because that would take some of the fun out of exploring for you, but I'll pick a few for explanation.

CABVIEW

This lets you look into the cabinet files on the Win95 CD such as Mini.cab that resides in my windows\system directory. These files contain one or more compressed files. The cabfile viewer enables browsing right into a CAB file, seeing all of its contents, and performing normal shell operations on the files.

DESKMENU

The icon for this sits in the system tray on the right end of the taskbar (Fig. 2 Item 5). Clicking it produces a panel that lists my entire desktop contents, permitting easy access without having to close or minimise active windows. It also allows minimising and unminimising all windows. Figure 2.

EXPLORE FROM HERE

A right-click on any folder now offers an Explorer window that has the target folder as its root.

FLEXICD

FlexiCD sits as an icon in the system tray (Fig. 2 Item 6). When an audio CD is inserted, FlexiCD gives single-click play/pause control, a tooltip that tells which track and time you're on, and a right-click menu that provides commands for starting, stopping, ejecting and moving around the tracks on your CD.

QUICKRES

This provides the means to change screen resolution and colour depth without rebooting. QuickRes lives in the system tray (Fig. 2 Item 2) – just single-click (right OR left) on it to select your new display settings.

SEND TO X

Adds the following new commands to your Send To menu:
- Send To Any Folder
- Send To Clipboard as Contents
- Send To Clipboard as Name
- Send To Command Line

TweakUI

This is undoubtedly the prime item in the series and I can do no better than quote the full paragraph from the readme file:

'TweakUI is the handy Control Panel for "Type A" personalities. With TweakUI, you can change:
- menu speed
- mouse sensitivity
- window animation and sound
- shortcut appearance and default names
- which icons appear on your desktop
- create new templates
- boot parameters including whether or not to start the graphic user interface
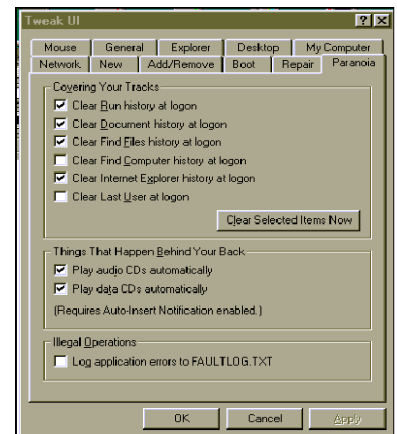- and there's more!!!!!'

Figure 3 shows the Tweak UI option tabs.

Many of these are straight forward preferences – like mouse speed – found in other setup areas, but some of the better ones would require editing the registry. This is fraught with danger for the uninitiated and Tweak UI removes that danger.

One of the Explorer options removes those annoying little arrows from shortcut icons.

Desktop permits removal of icons that have no delete facility, and lets you determine what shows on your default desktop.

Figure 4 shows the options on the Repair tab. I am sure there are very few of us who would be willing or daring enough to attempt repairing any of these elements without a tool like this.
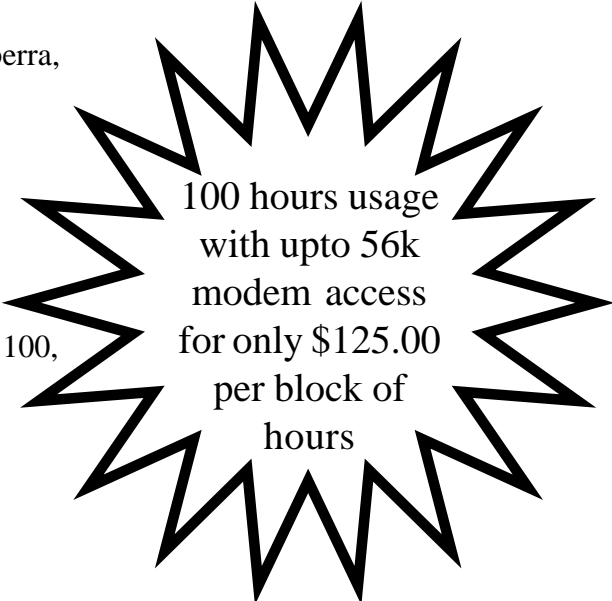
Tweak UI alone makes Power Toys worth owning. And it costs nothing.

Coffee & Chat

...by Emil Joseph

This is the first of occasional columns on the Coffee & Chat group and its doings within the framework of the larger PCUG community.

First let me tell you something about the Coffee & Chat group.

It is first and foremost a social group of members of PCUG. It meets once a fortnight at the PCUG Centre on Tuesdays from 10am to noon.

The formal business of the meeting ranges from problem solving of matters raised by attendees on getting this to work with that to discussion on new products, upgrades and so on.

However, the main attraction for many attendees is the opportunity of talking to others before and after the formal business who may have experienced similar problems or used new products or versions. The availability of several computers at the back of the room or at the Training Room (when not in use) permit demonstrations of how to do this or that or to locate products or drivers for printers or scanners.

In fact, some members of the Coffee & Chat sub-group have been known to visit others at their homes to diagnose problems and where possible solve them. Many of the members have skills or experience in using computers for various applications and they form a informal help resource. For that purpose, the group provides attendees with list of its members, their particular interests and their phone numbers.

Another dimension of the activities of the group are the occasional lunches which have proved quite popular with attendees.

Attendees of the Tuesday meetings donate $2 at each meeting to a fund from which occasional donations are made to PCUG itself (like paying for the hot water system), subsidies to social functions and the purchase of occasional hardware and software for the use of attendees in addition to defray the cost of coffee and biscuits provided at the meetings.

The social dimension of the Coffee & Chat spills over to attendees getting together outside the activities of the Coffee & Chat sub-group itself. A few members adjourn after the meetings on Tuesdays to lunch at one of the social clubs in the Belconnen area. On the Tuesdays that the sub-group does not meet, you will find a few of the members at lunch at one of the social clubs in the Woden area.

Summaries of the various matters raised on the Tuesday meetings are posted at tip.coffee-chat newsgroup. Various notices relating to the activities of the group are also posted in that newsgroup.

Owen Cook has a Coffee & Chat web page, Which includes searchable archives of past meetings: *http://www.pcug.org.au/~rcook/c&c.htm*

HOT TOPICS

In these occasional columns I will mention some of the matters mentioned in recent meetings but I will not feel confined to stay within the four corners of the discussion of the meetings.

DNS Enablement

The PCUG's current instructions for Windows 95 connection to TIP includes an instruction to enable the DNS tab at the protocol level rather than at dial-up connection level. By the protocol level, I mean, the properties of the TCP/IP -> Dial-Up Adaptor, found in My Computer | Control Panel | Networks icon. A connection can be established as per the instructions, if the user has only one internet service provider, for example TIP. Where the user accesses the Net via two or more ISPs, DNS should be enabled at the dial-up level, and not at the protocol level. Significantly, Windows 98 explicitly cautions against making any changes in the defaults at the protocol level and advises to make them for each dial-up connection.

Under TIP's new scheme to assist new users of TIP, experienced volunteers can connect new TIP users for a fee payable to PCUG. Volunteers are encouraged to assist with this worthwhile initiative of the Group.

Viewing Image Files

Images such as photos downloaded from the Internet can be read with any browser if they are in the GIF, JPG or PNG formats. To save an image appearing on a web page, put the cursor on the picture, right-hand click, then save the image from the menu that will appear. To view images in the cache of your computer, you can use image viewers programs such as Polyview, then copy the picture required to another folder on your hard disk or to a floppy disk. Such image viewers are readily available in the TUCOWS sites. Check out: *http://tucows.interact.net.au*

Reinstalled Software Problems

Using a new hard drive with reinstalled software, a member's computer fails to turn off properly. Suggestions included: using Microsoft free software called Regclean; trying alt/control/delete to see if anything remains active; back up and do a complete re-install. However, it was suggested that Norton Utilities 4 will solve the problem.

Disappearing Drive

Another user's D drive disappears at times. It is recognised by DOS but not by Windows 95. He was advised to look at device manager (control panel, system, device manager) and if D drive is not shown, to get Windows to install it. Else to wait for a good day, when he can back up and reinstall the unpredictable drive.

On/Off v On/On

Is it true (as stated in some computer guides) that every time you turn the computer's power off and on, you take a day off the life of your hard disk? What should crash-conscious users consider? Answers included: failure is most likely at start-up and shut-down; first check all your connections; heat is most dangerous to electronic equipment; buy a computer with at least three years' warranty. The worst usage pattern is to turn your computer on and off often. Depending on pattern of usage, it is best is to turn on in the morning, off in the evening.

Disk Catalogues

Two useful programs to catalogue disks are WhereIsIt? from Slovenia, for US$30, and Advanced Disk Catalog, from Russia, US$20. Both create databases of the file contents of CD-ROMs, floppies, zip cartridges of a data nature which are searchable.

WhereIsIt seems to work best. It has the added advantage of a free companion program to read the databases created by WhereIsIt. So, the catalogues can be given to others who do not run WhereIsIt.

Printer Prices - Sydney v Canberra

A member investigated quality and prices of colour printers in Sydney and Canberra, and found that the Canon VC7000, which produces a non-smear print of remarkable quality, was $100 cheaper in two Canberra outlets than in the most competitive Sydney outlet.

Windows 98/Outlook 98

Microsoft was kind enough to provide a copy their pre-release of Windows 98 and Outlook 98 for members of PCUG to try out.

Early impression is that Windows 98 is good.

On the other hand, an experienced user was not impressed with this software, recommending Agent for e-mail and newsgroups instead. It is understood that Outlook 98 is being given away free or for nominal price by Microsoft. Agent on the other hand costs US$29.95 (US$25 through PCUG).

The design of Outlook 98 goes counter to Internet culture, for example, while Outlook 98 permits text format for messages, the default format is HTML. Inexperienced users are given a wrong impression that the mail transport of the Net supports multiple fonts, different colours etc, when in fact it does not. The Net mail system supports text only. Hence, HTML formatted mail adds unnecessary burden on the mail system and is extremely annoying to the majority of users whose mail readers (rightly) do no support such mail and who are then forced to use their browser to read the occasional 'offending' mail.

Cover CD-ROMs

The cover CD-ROMs on various computer magazines carry a wide range of useful software. For example, a member referred to the April 1998 issue of Australian PC Magazine which included 2 CD-ROMs containing most of the software and utilities one ever wants or cares to try.
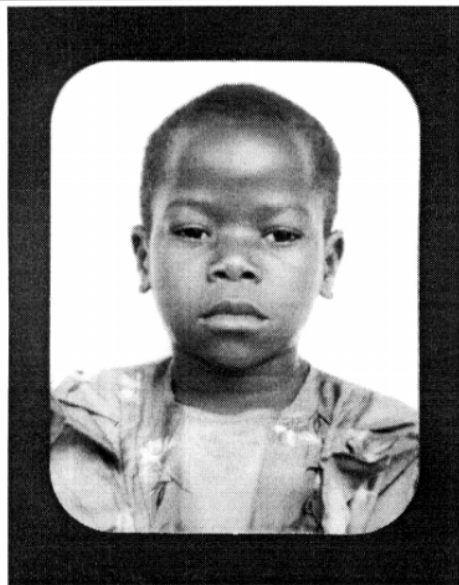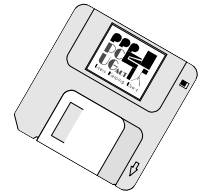
Beware the 'Freebie'

A member said that in the US, free offers from internet service providers come with a hidden and hard-to-remove instructions into the computer's registry, so to make it very, very hard to move on to another provider after the end of the free offer. This marketing approach is coming to Australia. Indeed, one hears of some experiences with freebies from some local providers that tended to suggest that this practice has reached Canberra. Another member mentioned that he saw a reference to magazine article on how to remove the instructions from the registry. But subsequent to the meeting, that member said that he was mistaken; the article discussed moving from one provider to another. Nonetheless, this issue will be with us and anybody who sees instructions on how to cure a nobbled computer is encouraged to post a message in the tip.coffee-chat newsgroup.

Eudora Problems

A member has been helping a PCUG member whose Eudora software cannot read e-mail addresses (even when typed in), defaulting instead to the address of another PCUG member with the same first name as the addressee. An experienced user suggested that the particular member could have his nicknames (as the address book is called in Eudora) back to front, so that the computer takes the name to be the address and vice versa. If that is not the case, the configuration of that user's Eudora need to be carefully checked.

VISE

Volunteers for Isolated Students Education

…by Keith Kloosterman

N o, it's not misspelt and does not mean 'immoral conduct' – far from it. VISE stands for Volunteers for Isolated Students Education, an organisation that was established eight years ago by a small group of retired teachers to support isolated outback families involved with distance education.

Now you might think: What has this got to do with computers and the PCUG?

At the Coffee & Chat on 24 March at the Centre we had as guest speaker Mike Stock from VISE. Although I was not involved in organising Mike's attendance at C&C, what Mike was talking about was no news to me or to Gloria Robbins. My wife, Maryke, is a retired teacher. Together we have volunteered for VISE for four years and soon we will be leaving again for an eleven weeks' stint in Northern Queensland.

This article consists of two parts: the first deals with Distance Education and being an Angel (how about that!); the second part covers a related scheme where volunteers are trained at a university t be sent out later to the outback to show families how to use the internet as a medium

Thomas, trying to get a prompt from the VISE Tutor (without sucess) before he answers the history questions in today's lesson.

the Internet as a medium in education and as a source of information.

Part 1

VISE recruits retired teachers, and others with relevant experience, who would like to spend six weeks with a student or students.

You may well ask: Why are these teachers recruited?

We are talking here of families living in remote areas of NSW, the Northern Territory and Queensland where the children receive distance education, that is, education by means of correspondence and radio lessons.

A room has been set aside for this purpose by the parents and in most cases mum is the supervisor. School starts at about 8.00am and may finish at 3.30pm, and it is not difficult to imagine the hardship encountered by especially the mothers who, apart from supervising the schoolwork, do the washing, cooking as well as helping hubby with the

occasional mustering and looking after the bores and power generator.

VISE receives requests for assistance from families in the outback who are under enormous strain to keep properties running as well as supervising the education of their children. VISE Coordinators try to match the family demands with appropriate tutors, who are all very different – from infant to primary and secondary teachers, both male and female, without an age limit.

Sometimes a family needs the help of a non-teacher, called an Angel. The Angel responds to a definite need and will prepare meals, get the washing done, answer the phone and watch younger children so that the parent can concentrate on the schoolroom. Angels can be requested if there is a new baby, or a medical emergency or some kind of real stress. On other occasions, husband and wife may be volunteering where the wife may be the teacher and the husband the angel (that's me), making himself useful with odd jobs, home maintenance, painting, carpentry etc.

Tutors are carried free to their destinations by Greyhound Pioneer or get compensated for the use of their own vehicle. Full board is provided.

The unique scheme has no paid personnel. According to Mike Stock, who administers the VISE scheme from Canberra, the experience is often as enriching for the volunteer as it is for the host family, and I second that.

Part 2

Trainers of the Internet is a joint project between VISE and the University of Ballarat.

This project seeks to encourage and support the use of computer-based information and communications systems in distance

Tammy, talking to her teacher

federal government's 'Networking the Nation' program – a $250 million initiative designed to give everyone, living anywhere in Australia, access to the Internet at the end of a five year period. Substantial contribution has also come from the Hyundai National Country Music Muster, held annually at Gympie. The Gympie Muster is the principal sponsor of the mainstream VISE program. The University of Ballarat is supporting the 'Internet to the Outback' program through the provision of training for the volunteers and technical support and advice, including visits to Schools of Distance Education in four states by a senior university technician.
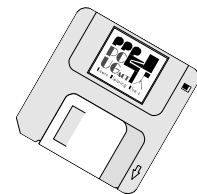
OK, you have been trained at the University of Ballarat. What happens next?

VISE covers the volunteer's costs to and from a geographic cluster of outback families while the families themselves are expected to provide full board and meet the volunteer's travel costs to the next family within the cluster. To make the visits economically viable, clusters of six families need to be organised and believe me, the next-door neighbour may be 100km or more away!

If you are interested in offering your services for either or both schemes, further information may be obtained from:
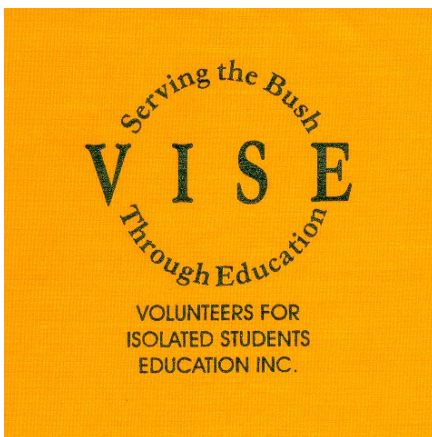
Mike Stock
25 Gollan Street
Evatt 2617
Fax or answering machine: (02) 625 93030
Email: *michaelstock@hotmail.com*

education, particularly through existing Schools of Distance Education. Parents living in remote places worry that they are not providing the right kind of help and guidance in supporting their children's education. There is no one around to give them any feedback or advice on how they are filling their role.

Who does the training and who pays for it?

The training is conducted at the University of Ballarat and is part-funded through the

Serving the Bush
V I S E
Through Education

VOLUNTEERS FOR ISOLATED STUDENTS EDUCATION INC.

IMPORTANT NOTICE FOR TIP USERS

The Internet Project proxy server has recently been upgraded and installed on a new system. The existing proxy server on "supreme" will be shut down on Friday 3rd April during the normal TIP system maintenance period.

PLEASE ensure that you are using the correct proxy settings.
Manual proxies must be set to:

(Domain name)	(Port)
proxy.tip.net.au	8080

Netscape and Internet Explorer users who have configured their browsers to use Automatic proxy configuration do not need to make any changes. TIP users who wish to use Automatic configuration should use this URL: **http://www.tip.net.au/proxy.pac**

If you are using ANY of the following domain names or IP address for your proxy settings, you will be unable to access WWW sites other than TIP/PCUG/AUUG pages after April 3rd:

www.pcug.org.au	supreme.pcug.org.au	pcug.org.au
www.tip.net.au	supreme.tip.net.au	tip.net.au
www.auug.org.au	supreme.auug.org.au	auug.org.au
www.canb.auug.org.au	supreme.canb.auug.org.au	canb.auug.org.au
203.10.76.34		

Questions regarding these changes and browser configuration problems should either be posted to the TIP newsgroups tip.general or tip.help, or by email to the TIP Help Team, 'help@tip.net.au'.

The Bleeding Edge

- towards '98

… by John Saxon

I have to admit it - there had been one (or several) downloads and installs too many. My Windows 95 OSR2 system was a mess - the hardware was fine, but the software was a disaster area. I had tried several Windows 95 re-installations, but the seemingly insolvable problems (and there were a few) lay deep in bowels of the registry.

The worst problem was an error message during Windows 95 start up - 'Whilst initialising device IOS: Windows protection error - you need to restart your computer'. Not funny, especially as it hadn't completed a start up! The next start up attempt would then bring up Windows 95 in safe mode (a mode supposedly meant for trouble shooting) but which only loads a minimal set of drivers. None of the help or Windows 95 books that I tried covered this error message. Eventually I got various hints (from the MS knowledge base) that the message concerned 32 bit device driver conflicts. The problem was that most device drivers are not loaded in safe mode so it wasn't possible to establish which drivers were conflicting - a real Windows 95 catch 22!

Finally almost by trial and error using device manager and removing the driver for my fabulous Ensoniq (pre-Windows 95, pre-PlugnPray) soundcard, I found that Windows 95 would run - so obviously there was a sound card driver conflict, but with what? I love that card, so removing the driver was not an option. Despite slavishly following the Ensoniq 'removing previous driver versions' instructions from their web site, and installing the latest drivers, re-installs of Windows 95, plus trying every registry editing trick I could think of, the boot-up error returned.

Another problem was that Eudora-Pro MAPI could not be enabled - somewhere along the way I had given MS Outlook a try and I was sure that was the culprit, but how to fix it? There were also sundry other funnies - long Windows 95 load times, the occasional strange shutdown, etc. The time had come to teach the system who is boss, to bite the bullet. No - not to Format C:! But to start with a fresh Windows 95 install. Not a namby-pamby quickie 'over the top of the previous version', but a genuine start from scratch. I knew that all my applications and tweaks would have to be re-installed, but that was to be the price of a new 'clean' system. Luckily my previous Windows 95 installation was on the second (D:) hard drive - it is the biggest and fastest of my two drives, but also the noisiest. Both drives (C: 850Mb and D: 1.6Gb) were already FAT32'd with no partitions, so it would be comparatively simple to go to a more standard config-uration of Windows 95 on the C: drive. An added benefit would be to retain the old Windows 95 installation on the D: drive in case of real problems with the install-ation on C:.

So the bullet was bit, and 30-40 minutes later I was doing the final re-boot from the fresh installation. A couple of hours later, the video and soundcards had been successfully installed with the latest drivers. Dial-up networking and the Internet were back in business (thank goodness), and a core set of most used applications had been forced to realise that Windows 95 no longer lived where they had been previously told.

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it was obviously time to think up new ways to live on the edge again.

A few applications did not have to be re-installed (I presume that they do not use the registry, or write DLL files all over the old Windows 95 and Windows 95/system directories). Most applications had to be set-up again, quite a fast process. But many (especially MS applic-ations) had to be re-installed from scratch. All that was left to do was a month or so of re-installing and tweaking of the less used applications to get back to where the system had been. Hopefully without the previous problems, and a much cleaner and leaner system.

In fact, the system was now running like clockwork (almost like the Microsoft advertisements), and it was obviously time to think up new ways to live on the edge again. So just when life was starting to get easy, a Microsoft representative kindly presented the group with a MS Windows 98 'Candidate release 0' CD-ROM. What better way to guarantee some more fun?

A fellow member said (via ICQ) that he was off to the Centre to try to burn a copy of the CD-ROM (we presumed that as MS had presented the group with the CD-ROM, they had indirectly given permission for it to be copied). So I innocently asked my friend if he was up to a bit of volume production? 'No problem', he replied, and the next day presented me with a cloned copy, complete with an elegantly printed circular label - once again living up to our motto. It turned out that he had given up trying to use the CD-ROM writer at the Centre after it halted in the middle of the first copy and wasted a disk (good thing they are much cheaper these days). Also the copying software was deemed 'too complicated', so he made several clones on his own Sony machine. Either way, my copy is perfect, and I had no problems reading it on my Samsung X20 drive.

There seem to be a couple of anomalies in the on CD-ROM documentation - presumably these will be sorted out in the 'shrink wrap' version. The root directory readme.txt file referred to a number of other beaut looking text files such as 'display.txt, Faq.txt, hardware.txt' to name a few, and these would apparently be found in a sub-directory called readme. This directory was nowhere to be found (or the various text files), or perhaps they are in one of the cab files. I'll keep looking.

Several of the release notes files that I did find mentioned in numerous places that the software has an expiry date of 1 April 2001, with a 'warning date of Nov 15 1998'. No problem there, I thought. Windows 2000/NT6.0 (or whatever) will be out by that appropriate date, and I went ahead with the installation. But there were several dire warnings about what would happen if you set your system date too far ahead when checking for Y2K prob-lems. Apparently in some cases the system is recoverable; in others it is not. I was a little disappointed to hear from one of

my legally minded friends that the Software agreement states that the software expiration date is actually 24 August 1998. Who reads software agreements? If you don't accept you can't install. I checked with MS regarding the dates conflict, and leave it as an exercise to the reader to establish which is the correct one!

First to backup critical data! Did that, but did not bother to try to make any fancy mirrors of the old system. I think that most reasonably knowledgeable people know that full backups and restores are not feasible for average Windows 95 users. The official reason is that in cases of real problems, a full re-install of the system (from the original media) and all applic-ations is the only 'safe' starting point. I guess I have to admit that it did my system a power of good (see above). But un-officially it's my guess that it would become too easy to copy Windows 95 from one system to another, so making it difficult is one form of copy protection. But you can use software such as 'Ghost' reviewed by Peter Elliott last month to mirror your system disk.

So then to work. I used Windows 95 Explorer to double click the CD-ROM setup.exe file, only to be greeted by the error message: 'E:\setup.exe is not a valid W32 application'. OK in response and no further action! <sigh>.

After a bit of poking around, I ran the setup.exe from the Windows 98 sub-directory on the ROM and away it went. After a few system checks the setup program gave me the option to save existing MS-DOS and Windows 95 files in compressed form for recovery back to Windows 95 if required, 'about 50 Mb of disk space needed'. If there had been a big YES PLEASE! Button I would have used it - instead yes and OK were selected.

There appeared to be no option to make a fresh install in another directory, but perhaps there is if you elect not to save the old system.

Then the request to 'enter the multi-digit product code'. HUH? This is an evaluation disk. Luckily I had been warned about this, any set of digits will do. Presumably this is because it is a non-commercial release. But I made a mistake in not taking a note of what numbers I entered, and that could come back to bite me.

Next, to creating the Emergency start-up floppy disk. Again, Yes please! This is very necessary because a Windows 95 one will not work with Windows 98. The good news is that the Windows 98 disk includes a generic CD-ROM driver, that avoids extra fiddling with the floppy, adding all the files for your particular CD-ROM. It works OK with mine, but no guarantees for some of the more exotic types.

Then to spending some time with the Microsoft advertisements while what seemed like a million files were copied. There is even a reasonably accurate (with my system) 'estimated setup time remain-ing' indication, and the usual file copy % thermometer. All rather painless actually.

Amusingly, the only update I needed was to the update wizard!

After a rather lengthy system restart, there followed 'setting up hardware and PnP devices' and then on to 'non PnP devices! Actually, apart from the sound-card my system is reasonable standard. Some more 'setting up hardware' mess-ages followed (thought it was in a loop - even the estimated time remaining started increasing for a while).

On to updating system settings - control panel and stuff. When the estim-ated time remaining got to less than one minute there was a final re-start, and voilà! A Windows 98 desktop looking suspic-iously like my old Windows 95 one thank goodness, plus a few extra icons.

I'm happy to say that it doesn't default to the new Web-style interface - let's you get into that gradually. After some setting up of personalised data from various applications (like translating Netscape bookmarks to IE 4.x), it was into the multimedia Windows 98 tour. This is O.K but for some reason the sound is broken up on my system. Other video clips on the CD-ROM were O.K. About 35 minutes from start to finish on my system and almost totally painless!

After refusing the offer to run the Internet wizard, I was able to start using the system which can appear to be deceptively similar to Windows 95 (if you use the 'traditional desktop' option), but there's a lot of new and interesting stuff just below the surface. Importantly everything appears to work as usual including my TIP connection and script-ing! I even registered with Microsoft so that I could use the automatic system update features - the registration worked perfectly with a single

mouse click (after filling out the required info forms).

Later I ran the Windows Update feature which compares your system files to those at the MS web site, and then gives you the option to download and automatically install replacements for anything out-dated. Amusingly, the only update I needed was to the update wizard! But the update for that installed painlessly with two mouse clicks.

I will not try to give my impressions of Windows 98 in this article - it's gone on for long enough already, and all the magazines have articles about it's features anyhow. I will say, however, that it appears to perform at least as well as Windows 95 (at least with the traditional desktop) and appears to be very stable so far.

Actually I can't resist mentioning that one of the new features is that Windows 98 includes an optional automatic process to make apparent speed increases by moving your most used (de-fragmented) applications to the fastest part of your hard drive to improve load speed. I have to admit that my wife and I are Freecell solitaire addicts. After a few days use, I had to slow down my mouse double-click speed to avoid having two copies load before I could release the mouse key. Now that's fast!

As usual I am sure that the experts will be able to correct some of my mis-statements and misunderstandings - I'm sure the editor would love to hear from you!

Per previous articles, I expect you thought that all of this was going to fall apart on me. So did I! Happy PCing.

Postscript: At time of writing (late April), I'm told that 'Windows 98 Can-didate release 2' has already hit the streets!
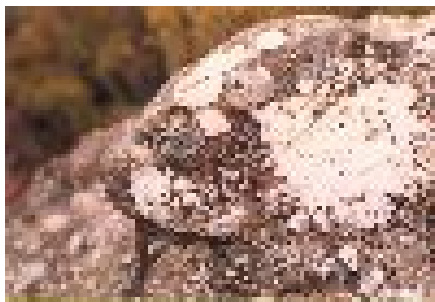
QOOL QURLs

Compiled by Anne Greiner

THE BAYEUX TAPESTRY

The Bayeux tapestry was commissioned to celebrate the victory of William the Conqueror at the Battle of Hastings in 1066, and so is more than a thousand years old, and it's amazing that it has survived at all, let alone in the condition that it's in. Just looking at evokes a feeling of awe, and the next best thing to actually standing in front of the tapestry in person is this site. The graphics are a tad slow to load, but worth it, and the colours glow from the screen. The story is told in the main, centre part of the work, but the top and bottom borders add a lovely little commentary of the day to day living (check out the expressions on some of the faces). Worth bookmarking and going back.

http://blah.bsuvc.bsu.edu/bt

NHAN TRAN

"The 'net lizard, in it's brief rest on my doorstep, told me stories about these places..."

This site has been mentioned on this page before, but even if so, it can be considered part of the required reading list of all surfers. Nhan has built one of the most inviting sites on the 'net. He has included a comprehensive list of all the tools a newcomer to the 'net may need, including search engines, download software and tools, interesting and useful sites grouped together. He has joined all these widely varying areas (Tori Amos through the Official AFL Homepage to the Museum of Modern Art) together with a whimsical thread of dialogue that leads us on to 'just one more, Mum, pleeeease' and when I have a negative TIP account, Nhan will be at least partially responsible. *"Surf, 'net lizard, surf"*.
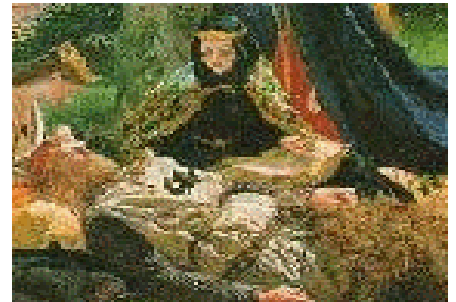
http://www.pcug.org.au/~ntran/nhanlink.htm

GASLIGHT BOOKS

Gaslight Books is a speciality book shop in Canberra for readers of crime, mystery and detective fiction, and science fiction, fantasy and horror. Want to know if there was a sequel to that favourite book, or if that favourite author has published another book ? Are you anxious to find out of print books? Gaslight will email list of new releases in these fields each month, as well as a list of secondhand books in stock. The site is as friendly as the staff, and Gayle and the others on the team are only to happy to discuss authors or styles when you come in. She has now (nice for me) sussed out just the type of book I like, and, unfortunately for my pocket, usually has a 'You'd like this one, Anne.'. I should have shares in the shop by now.

http://www.ozemail.com.au/~gasbooks

THE CAMELOT PROJECT

Here is a database of Arthurian legend to please the most romantic heart. The University of Rochester has set up this site, and maintains it, or rather is still building it. The content is very varied, and ranges from educated guesses of the history of the time from serious scholars, to the more lyrical accounts of knights and fair ladies. The text of medieval authors, mostly listed as 'Anonymous', and modern scholarly treatises on things ancient, glorious images of contemporary artwork with notes on both the work and the artist, and a detailed bibliography of contributors, ancient and modern cater to most tastes. Come to think of it, I really don't want to have too much light cast upon this scene. I would be devastated if I ever found out that Arthur wasn't real. It would be a worse discovery than the inevitable Santa debacle that occurs during the younger years of most of us.

http://rodent.lib.rochester.edu/camelot/cphome.htm

AUSTRALIAN ONLINE BOOKSHOP

This concept has destroyed my family's method of controlling my addiction to bookshops (holding my hand tightly when

I walked past so I couldn't go in) in one fell swoop. Now I can indulge my addiction without even leaving the study! I can browse the lists of latest releases, search for obscure titles, order books, and what's more, with the introduction of electronic books, I don't have to wait more than the download time for delivery. The book is downloaded as a password protected PDF file, and upon receipt of a credit card number, a "key" is dispatched to "unlock" the file. My only problem with this system is my chronic lack of hard disk space. One to be bookmarked.
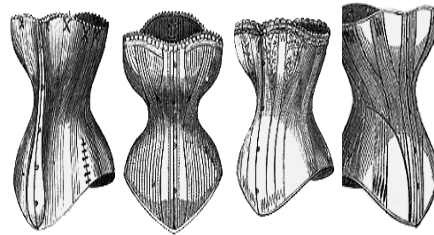
http://www.bookworm.com.au/

SEUSSVILLE

This is for the junior modem girls and boys, and has literally hours of absorbing fun, both online and offline, for the small fry (perhaps they should have their own TIP account?). The site was created by Random House, and the site reads just like one of the Seuss books. Go to the Cat's 40th birthday party, take a card, and have some virtual birthday cake, and play some virtual party games. Send in for your free sew-on Seuss patch, or download a few new connect the dot games and the Cat's Hat Maze. Even though the cat is 40 (sigh), the site is in no way dated, (in fact the Lorax has a Save the Trees game, very topical), and the authors have used Shockwave to enliven the online fun of Green Eggs and Ham Scramble, and the Cat's Concentration Game. For parents, there is a new book and software catalogue as well as lists of the old favourites. Happy Birthday, Cat!

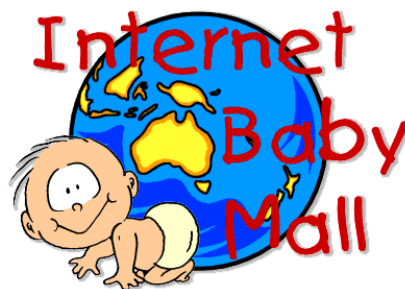http://www.randomhouse.com/seussville/

All these URLs work at the time of writing, but if there is any problem with them, please email me. If you have any favourites that you would like to share with the rest of us, send me the URL and I will review it for a future column. Happy surfing - A.G.

agreiner@pcug.org.au

LUANA'S GUIDE TO FASHION AND SEWING RELATED SITES

This, as well as being a site in its own right has the most amazing number and variety of links to any and all sites connected with sewing. There are commercial pattern companies such as Vogue and McCalls, pattern drafting instructions and software, Couture collections (see the Gianni Versace Fall Collection put up as a commemoration of his life). There are sewing machine sites such as Bernina and Singer, a whole range of fabric information and supply sites, craft ideas, clubs, and suppliers, haberdashery outlets, theatrical costumes and patterns, and many more. My absolute favourite, Historical Corset Sites, of which there are a surprising number, tells us How to make a Victorian Corset, and it's a bit like Mrs Beaton - first select your material, and then continues right through to instruction for wearing your corset. Just think, if I get out the sewing machine, I could completely change my outlook on life and my silhouette at the same time.

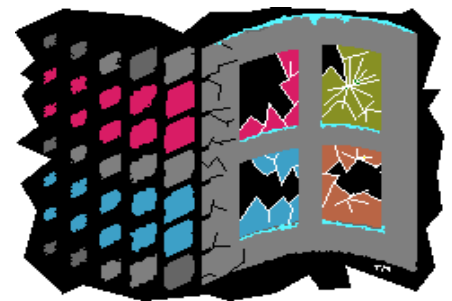http://www.student.uwa.edu.au/student/luana/sewing.html

INTERNET BABY MALL

Absolutely everything the discerning bub could possibly expect its middle class, upwardly mobile, double income parents to provide for its delight and delectation. This is an Australian site, and it calls itself a resource centre as well as a shopping mall, and has a baby FAQ (seriously, their terminology not mine, and no joking) section, and an area where one can look

up tips and other cute things, and contribute some of one's own, or look up Baby's horoscope, or order a Pacifeeder Hands Free Bottle. Seriously, though, there is some excellent info here, and well worth a look before contemplating any baby related purchases or productions, and there are links to numerous other international sites, and of course, what shopping site would be without an international foreign exchange calculator. If any of my offspring threaten to reproduce, I'm going to Iceland, and will send them this URL.

http://www.mako.com.au/babymall

GREG'S MICRO$OFT HUMOUR PAGE

This site is worth it just for the graphic on the opening page (see above), and this man just hates Microsoft. In the opening paragraph he promises to tell us more about the "evil nature of Micro$oft, and gives us a link to the "Why I hate Bill Gates" page. The jokes are arranged by category, e.g. Bill Gates jokes, Microsoft jokes, MS-Dos, Win 3.1 (Windows for Warehouses), and so on. The jokes seem to be a compilation, and the standard (and the taste) varies considerably from one to another. Reminds me rather of the vitriolic and often not very well informed debate about he relative merits of PCs and Macs, except that these have the saving grace of being funny (mostly). There is an email address to send in our contributions for the delight and delectation of the surfing community, that is, if you can ever get the URL entered correctly!

http://www.cs.bgu.ac.il/%7Epribushg/jokes.html
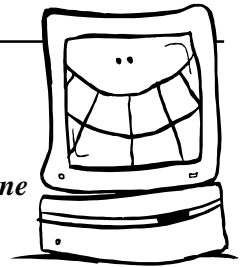
The
STUFFING
of Sixteen Bits

Photography: Brad van Wely
Design: Ivan Kramer

Bits & Bytes

Contributed by Ann Byrne

Microsoft saves space??? Found on the Net…

Microsoft today announced that it will be changing its name to "Moft", which will clear up space on users' hard disks. It is estimated that a typical Windows 95 installation contains about 2,842,597 iterations of the word "Microsoft", in copyright notices, end-user licence agreements, 'About' screens, as well as several multi-megabyte files containing nothing else (the so-called ego.dll series), etc. So, after the change, a user will have about 14 MBytes more disk space. Stock prices of hard-disk manufacturers dipped slightly after the announcement.

"Well, the programs will take up less space on the user's disk," said Bill Gates, CEO of Moft. "But we have never cared about that. The change will allow us to ship Windows 95 on 13 disks instead of 14, thus saving about $50 million a year in media costs. We are also looking at shortening the names of some of our software products; for instance 'The Microsoft Exchange' may be changed to 'The Moft Pit'. Gates denied that the move was because of problems with the alleged long filename support in Win95 which still uses 8.3 filenames underneath. He did admit, however, that "MICROSO~1" did look a little ugly.

Gates added that the junior programmer who discovered the potential savings has been rewarded with a free copy of 'Moft Off for Moft Win 95'.

Believe it or Not - Positive publicity for Microsoft?

The essence of a free market is not perfect competition, but freedom of competition. True competition also includes market strategies, such as conditions of sale, designed to expand market share. If Microsoft can integrate products into one operating system, and offer them cheap, Microsoft and consumers benefit.

Microsoft Accusations Make Us All Criminals

Glenn Woiceshyn

Vancouver Sun, April 21, 1998

Ottawa Citizen, March 7, 1998

"There is no antitrust case against Microsoft. What is happening is that Sun Microsystems, Netscape Communications, and Novell are trying to achieve through antitrust politics what they could not achieve in the marketplace. Economists have known for decades that antitrust is what losers do to winners."

Computer Humour

Be nice to your kids. They'll choose your nursing home.

There are 3 kinds of people: those who can count & those who can't.

Why is "abbreviation" such a long word?

Don't use a big word where a diminutive one will suffice.

Every morning is the dawn of a new error...

For people who like peace and quiet: a phoneless cord.

I can see clearly now, the brain is gone...

The beatings will continue until morale improves.

I used up all my sick days, so I'm calling in dead.

Mental Floss prevents Moral Decay.

Madness takes its toll. Please have exact change.

Proofread carefully to see if you any words out.

There cannot be a crisis today; my schedule is already full.

I'd explain it to you, but your brain would explode.

Ever stop to think, and forget to start again?

A conclusion is simply the place where you got tired of thinking.

I don't have a solution but I admire the problem.

Don't be so open-minded your brains fall out.

If at first you DO succeed, try not to look astonished!

Diplomacy is the art of saying 'Nice doggie!'... till you can find a rock.

Diplomacy - the art of letting someone have your way.

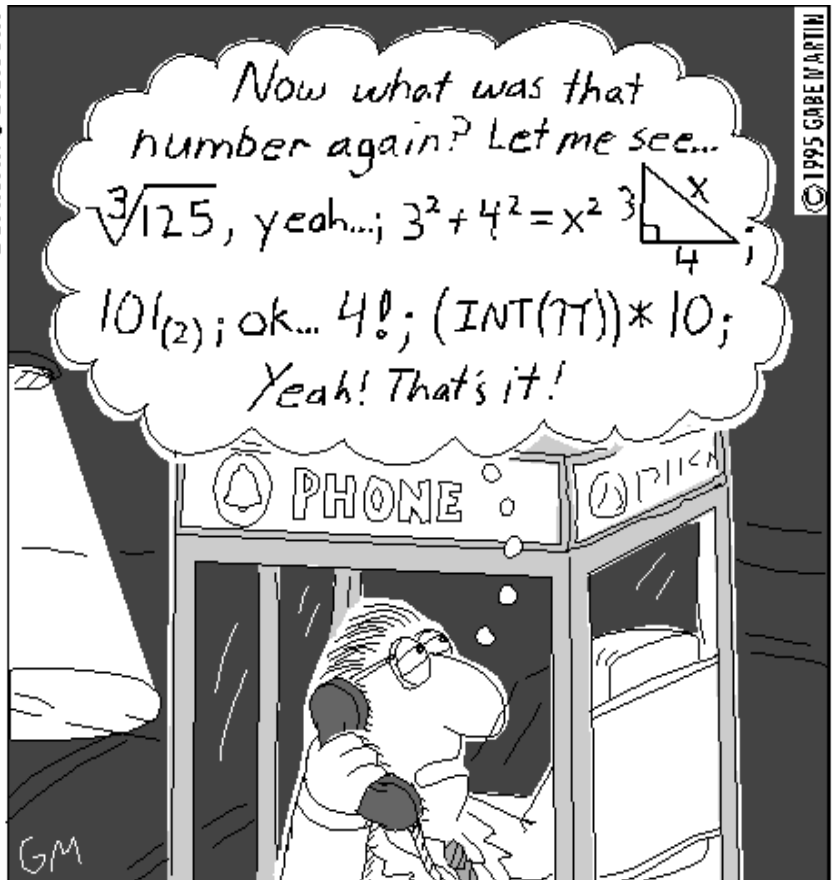If one synchronized swimmer drowns, do the rest have to drown too?

If things get any worse, I'll have to ask you to stop helping me.

If I want your opinion, I'll ask you to fill out the necessary forms.

Don't look back, they might be gaining on you.

It's not hard to meet expenses, they're everywhere.

Mathematician Memory Devices

puzzle corner

compiled by Victor Bushell

Last month's puzzle ---

Last month's puzzle drew quite a good response, and, what was interesting, all those who submitted solutions approached the problem in somewhat different ways.

If the escalator takes 30 seconds to cover the distance, it will cover 1/30th of the journey every second. If, on top of this I walk, then I cover 1/12th of the journey every second. My walking therefore accounts for 1/12 - 1/30 of the journey every second. So by myself I will complete the whole journey in 20 seconds.

And the answer is ---

The correct solution is 20 seconds

And the winner is ----

Thanks and well done to Barrie Shepherd, Patrick Harrison, Barbara Duus, Shane Rees, Martin D'Souza, Peter Foster and David Schwabe.

This month---

This month's puzzle is another narrative exercise in logic, a type that involves whole number solutions. The problem originated with L.R. Ford of Illinois Institute of Technology. It is tricky.

Children At Play

"Are those your children I hear playing in the garden?" asked the visitor.

"There are really four families of children," replied the host. "Mine is the largest, my brother's family is smaller, my sister's is smaller still, and my cousin's is the smallest of all. They would prefer to play baseball, but there are not enough children to make two teams. Curiously enough," he mused, "the product of the numbers in the four groups is my house number, which you saw when you came in."

"I am something of a mathematician," said the visitor, "let me see whether I can find the number of children in the various families." After figuring for a time he said "I need more information. Does your cousin's family consist of a single child?" The host answered the question, whereupon the visitor said, "Knowing your house number and knowing the answer to my question I can now deduce the exact number of children in each family."

How many children were in each of the four families?

Hint: A baseball team has 9 players.

Good luck and please submit your solutions to vicbus@pcug.org.au

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Ten Years ago in Sixteen Bits …

Compiled by Ann Byrne from the May/June 1988 Sixteen Bits (Vol 5, No 5/6)

Peggy Daroesman was our first paid employee back in 1998, her first duties were to assist the Editor with the production of Sixteen Bits and would later become involved with the day to day running of group.
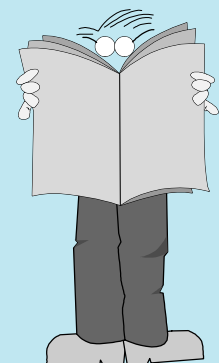
Membership of the group is approaching 1800

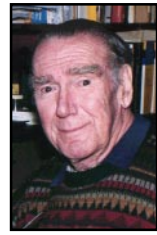The main meeting for May was Unix with Michael Kearney from NEC doing the presentation.

The President Chess Krawczky made the point in his message that the group was growing and could we continue to run as a volunteer organisation? It seems in 10 years not much has changed.

The issuing of New Members disks began in this month.

Intel have demonstrated a new 286/386 processor chip with 80386 32 bit internal and 16 bit 80286 external architecture.

software library

Phil Trudinger

NEW AND UPDATED WINDOWS FILES

(32-bit files that require Windows 95 are marked with an asterisk)

CALENDARS

CB16 (538353)
CB32* (536712)
Calendar Builder allows you to make your own custom calendars quickly and easily. This includes 13 calendar formats to meet a variety of needs. You can use any font, col-our, and header style you desire and create an unlimited number of style sheets. A selection of icon-like graphics (hearts, exclamation points, etc.) are included, and can be dragged onto any day of the calendar. Reg Fee $20

CC9512* (854123)
Calendar Commander 1.2 prints calendars in any style. It includes over 20 ready made daily, weekly, monthly, and yearly calendars. Use scripts to create your own custom calendars with automatic support for English, French, German, Italian, and Spanish languages.

The files described in this article are on the April 1998 CD-ROM (PsL Vol 6, #4) which is currently on the Bulletin Board: all are ZIP files. Please quote the month or Vol/# when ordering files on disk.

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

Reminder

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

Features include multi-level preview mode, JPG/GIF/PNG/PCX/TIF/BMP image support, holidays and personal events. Requires Win95/NT. Reg Fee $29

DTDSETUP* (337441)
DayToday 1.0 displays a day-to-day calendar in your system tray, next to the time. The colours of the icon can be customised to your liking. Reg Fee $7

EC103C32* (549808)
Easy Calendar 1.03c is a desktop calendar that allows you to type information into any day of the week. When you click on a specific day, it expands to display any previously entered text. A built-in reminder system will warn you of upcoming events. Reg Fee $20

TC32* (329885)
Tray Calendar 2.1d is a calendar package that minimises to the Win95 system tray. When maximised, you can enter free-form notes on any particular day. Its icon shows the current day of the month. Reg Fee $13

FONTS

ARAXFONT (11488)
Arax TrueType Font 1.0 is an Armenian font, with a decorative typeface. Capitals are thin, while lower case characters are thick. This uses the Papazian layout. Reg Fee $0

ARTDEC22 (385313)
ESF's Art Deco Fonts 2.2 contains ten Art Deco-style scalable fonts for Windows or WordPerfect 6.0/DOS. This includes Broad Ave, Dalith, Halfnium, Haman Bold, Narcosis, Neaten, Orange, Ramose, Totem, and Zyme. An easy-to-use installation program is provided. Reg Fee $25

BORDERPC (11874)
BorderPics 1.0 is a "dingbat" TrueType font with symbols that create interesting borders. This includes footprints, chains, zigzags, and much more. Reg Fee $0

HEADLN10 (383901)
ESF's Headline Fonts 1.00 contains ten TrueType scalable fonts for Windows that are perfect for any attention getting headline. Includes: Advertiser, Agency, Danley, Dom Casual, Hobo, Greece Black, Handsome, Mossy, Umbles, and Vantrel. Reg Fee $25

REFNT4 (36951)
Refont 1.4 is a Postscript type 1 font utility that allows you to use MAC type 1 fonts on IBM PC machines with Windows and ATM. It can convert MAC format type 1 outlines to IBM format type 1 outlines, convert MAC format type 1 outlines to ASCII hex format type 1 outlines, and convert Postscript AFM files to Windows compatible PFM files. Other features include generation of INF files, conversion of

Mac TrueType to PC True-Type, extra character support for ATM 2.0, automatic file type sensing, and wild card support. Reg Fee $24

SCRIPT14 (451924)

ESF's Script Fonts 1.4 is a collection of kerned TrueType script-style scalable fonts for Windows. This includes Aristocrat, Brush, ESF Elite, Grandam, Hotpress, Jessica, Old English, Saffron, Tech Bold, and Zap Chance. Reg Fee $25

SYMSEL (246098)

Symbol Selector 1.5 allows you to easily select and copy symbols from TrueType fonts that are of the "symbol" variety (such as Wingdings and Symbols) to the Windows Clipboard. Reg Fee $0

GAMES

3D_JONGG* (2309868)

Moraff's 3D-Jongg 1.00 is a Win95 version of the classic oriental board game with tiles that resemble wood and marble sculptures. In the triple MahJongg option, tiles are removed in triplets instead of pairs in this game, adding an exciting new challenge to the solitaire concept. Includes an hour of classical music. Reg Fee $?

BKRSDZN* (1581366)

Baker's Dozen (TS) 1.1 is a collection of 13 solitaire card games for Win95. This includes Auld Lang Syne, Black Hole, Double or Quits, Five Piles, Fourteen Out, Golf, Nestor, Quadrille, Robert, Thirteens, Treasure Trove, Triangle and Vertical. Reg Fee $10

FIRE95* (212183)

Fire95 1.31 is a fun arcade game for Win95 where control two firemen. As people jump out of a burning building, you have to "bounce" them into an ambulance with your portable trampoline. Requires the VB5 runtimes. Reg Fee $0

GGV171* (3036685)

GamesGrid Backgammon 1.7.1 lets you play Backgammon against other players of your particular skill over the Internet. The opening screen of each game service offers a "match board" that lists all players who are currently ready to play, their ratings and experience. You can send messages to any user, or broadcast messages to all players who are ready to play. Non-members are limited to 60 minutes of play. Reg Fee $?

ICECHESS* (249048)

IceChess 1.02 is a powerful integrated email chess program for Win95/NT. It works with MAPI, VIM, and SMTP to automatically generate email messages with the complete move history included. It generates all move notation (including PGN) automatically, and embeds the information into the email message. You can make moves into the future as well as do extensive undo to completely explore the possibilities before you send your move. Reg Fee $20

MYSTE100 (1118300)

Mystic Marbles 1.00 is a challenging game where you must navigate your marble through a twisting maze filled with obstacles. You will have to collect all the multi-coloured marbles, while avoiding stop lights, and dead ends. Features include keyboard/joystick support, a high score listing, and beautiful 256-colour graphics. Reg Fee $15

GRAPHICS

AOMD11* (6596479)

Art-O-Matic 1.1 automatically draws cartoons, line drawings, paintings, and renderings from 3D models. Its beautiful artistic rendering and real-time WYSIWYG interface set it apart from most 3D software packages. Requires Win95/NT Reg Fee $10

CPLIB* (3998504)

CompuPhoto Library 1.32 is an imaging data-base used to arranged photos in a tree (albums) or viewed in a spreadsheet. Images may be viewed in a slide show using voice, music, backgrounds, and text. Other features include the ability to customise the data fields, support for up to 32,000 photos per library, and much more. Requires Win95/NT. Reg Fee $69

EXPLORER* (3308766)

Mascle FotoExplorer 2.0 is graphic file management package for Win95. Features include quick and instant previewing of your graphic files when you click on them, powerful image conversion facilities, the ability to easily resize trim, rotate, and invert image files, and much more. Reg Fee $40

ICOSET32* (3849489)

IconBook 2.0 is a collection of 8,000 32-by-32-pixel icons. Each icon has three keywords that facilitate locating specific images. Requires Win95. Reg Fee $0

PHOTOLIN* (1942549)

Photo Line 32 3.09 is a powerful image manipulation package for Win95. Features include support for most popular image formats, a variety of drawing tools, multiple undo/redo, a full compliment of interesting filters, and much more. Reg Fee $69

THUMB (256674)

ThumbNailer 3.7.1 reads a directory of JPG, PNG or BMP files and generates thumbnail images. You simply specify the source and destination directory, the dimensions of the thumbnails to generate, and the file type to create. A variety of image enhancements can be applied, including sharpening, contrast and shadow corrections, image overlay and more. Reg Fee $15

INTERNET

CBM33M (682592)

Columbine Bookmark Merge 3.3 is a Net-scape and Microsoft Internet Explorer

Press and drag mouse to rotate camera around the center of the selected object

accessory for merging, editing, sorting and converting bookmark, favorites, and HTML files. Reg Fee $various

COMPS211 (252641)

Compass 2.1 is a powerful Netscape/MSIE bookmark file editor. Features include colour-coding, a variety of sorting options, the ability to import/export a hotlist, easy description editing, and much more Reg Fee $25

EVPI60 (1899809)

NetZIP Plug-In 6.0 lets you view, extract, and install ZIP files without leaving your browser. It integrates right into your Web browser's window. You can click on a ZIP file when you're on-line and instantly open it in your browser window. You can then select the files you need to unzip or just double click on a file to view. Reg Fee $20

FWOLF200* (936239)

FtpWolf 2.0 can search most of the FTP search engines on the Internet for a given file, or a list of files. It filters out duplicate entries and presents the output to a Web browser for direct download. Requires Win95/NT. Reg Fee $25

HSCISSOR (337994)

HTML-Scissor 1.30 is a tool for breaking up long HTML documents into pages that can be printed or displayed a page at a time. You can select any HTML tag or markup symbol to act as a page break. You can then view and print the document one page at a time. Reg Fee $20

JNKDRW10* (2158230)

Junkdrawer Information Manager 1.00 provides a great way to store and retrieve any in-formation that can be placed into a text file. Long filenames and long labels are supported. The program changes labels and folders dynamically at runtime, and saves changes to a configuration file. This is great for storing Internet information. Requires Win95/NT. Reg Fee $23

SMASTR50* (3410964)

Internet Site Master 5.0 is a powerful Internet information management tool for Win95/NT. Features include the ability to open multiple Web sites at one time, search eight different Internet Search Engines at once for anything you specify, and much more. Reg Fee $30

SPEEDY* (1554460)

Speedy Power Notes 1.0 lets you store bookmarks for sites, FTP sites, and any information about anything online. You can take notes online about the people you meet, bright new ideas you have about a new project, or just about any kind of notes you find upon surfing the Web. Requires Win95/NT. Reg Fee $6

MISCELLANEOUS

ABVBEY98* (1250938)

Above & Beyond 98 96.06 is an advanced time management package for Win95/NT. Reg Fee $50

ASEASY32* (1311847)

As-Easy-As 1.6 is a powerful spreadsheet package for Win95/NT with over 130 math, financial, scientific, statistical, string, date and time functions. Features include superb graphics, a new macro programming language implementation, min/max linear programming, linear and non-linear multi-variate regression, internal and external user-definable functions and much more. Reg Fee $59

AUTOBOOK* (6697742)

AutoBooks 1.1.4 allows you to track vehicle maintenance, maintenance costs, and fuel consumption. It will report maintenance history, upcoming and past due maintenance. It also provides various graphs showing such things as mileage history, maintenance costs per mile, and fuel consumption. Sample data is included to help get you started. Requires Win95/NT. Reg Fee $30

EQFIT2 (238162)

EqFit 2.0 has a Regression Workbench to fit equations to your data. You can view the results using graphic plots and any of five statistical output reports. You can also graph residuals, calculated Y, probability, and more. Reg Fee $45

GSBASE* (598459)

GS-Base 3.5 is a powerful database package for Win95/NT. Features include support for up to 512 text/number/date/time fields, mathematical, statistical and financial calculation functions, multilevel undo/redo, links to pictures, a variety of printing options, and more. Reg Fee $20

INSTAB1* (3215321)

INSTAbase 3.0.1 is a powerful PIM/Database builder for Win95/NT. In addition to being able to store and track an endless variety of information, it can also handle Internet and email activities. Databases can store graphics as well as data. A toolbox is provided with links to a calculator, phone dialer, paint program, and a mortgage/loan calculator. Reg Fee $30

KYPB1* (4474339)

KyPlot 1.0 is a data-analysis, graphing and drawing program for scientists and engineers. Requires Win95/NT. Reg Fee $0

MORTGAGE* (411598)

Mortgage and Finance Pro 2.0 provides a variety of financial calculations. This can be used to plan and evaluate options when buying a home or car, check breakeven points on re-financing a home, and plan for college or retirement. Requires Win95/NT. Reg Fee $29-$39

PBPRO97 (1428026)

Idyle Phone Book PRO 97 2.87 is a complete contact and personal information manager for your home. Features include a variety of useful fields, the ability to send email or connect

directly to the Internet, phone dialing over a modem and more. Printing options include several different sizes of printouts, the ability to print envelopes, and a print preview function. Reg Fee $25

VISBGT35* (961612)

WizShop VISUAL Budget MASTER 3.5 is a powerful personal budget package for Win95 that assists in bill paying. Features include support for unlimited incomes, unlimited expenses, hold/paid/unpaid tags, and much more. Reg Fee $35

REMINDERS

BETTERM* (1676979)

Better Memory 3.0 reminds you of upcoming birthdays, anniversaries, and other special occasions and gives you enough advance notice that you have time to mail a card or shop for a gift. It runs automatically every time you start your computer and displays only the occasions coming up in a certain number of days (which you specify). Requires Win95. Reg Fee $10

CAL3107B (594351)
CAL9107B* (1511553)

Calendar+ 1.07.00 is a powerful ToDo list and appointment manager for Windows. Features include support for up to 65,000 items, a daily journal, automatic backup of databases, the ability to instantly stamp items with the current date and time, and much more. Reg Fee $25

CLOCKWRK* (159046)

ClockWork (SR) is an intelligent alarm and process scheduler. It allows you to execute a command or a series of commands at precise times or dates, as well as automatically execute commands at specified time intervals. Reg Fee $15

DTHELPER* (1878071)

Desktop_Helper 1.05 provides an address book, two to-do lists, an alarm clock, and a date/time view with shortcuts to common Windows applications. You can print out your address book, or just a single listing, and print out your to-do lists. You can check off items from your to-do lists, and print them as well. Requires Win95/NT. Reg Fee $0

IT21H32* (459297)

ItsTime! 2.1h is an easy to use alarm list manager for Win95. Features include support for an unlimited number of alarms, repeating alarms, the ability to set alarms to ring on selected days of the week as well as at specific times, WAV sound support, and more. Reg Fee $20

JOGGLER* (3020137)

Joggler 1.03 is a versatile timer utility for Win95. Features include one-time or repeating alarms, count-down or count-up timers, audible alarms, text messages, and more. Reg Fee $9

NOTES* (24186)

Mr. Notes 1.0 resides in the Win95 System Tray and allows you to have freeform reminder notes pop up when you start a session. You can use any font for the text and use any colour combination you desire. Reg Fee $0

RMIND_32 (426032)

Reminder (ACS) 3.2 helps remind you of birthdays, appointments, and other special occasions. It will pop up a list of all the things you have to do or be reminded of, and you can easily add items to appear once or repeat them daily, weekly, monthly, or yearly. You can pick the range of days you want to be reminded in advance for each item. Overdue items can be kept on screen until you've taken care of them. You can print a list of your events as well as back up and restore your events data using a built-in backup function. Reg Fee $20

TD16 (599638)
TD32* (652083)

Things To Do 2.2e is a powerful, yet extremely easy-to-use task manager for Windows. You can keep track of an unlimited number of tasks, filter tasks by key word and date range, and print task lists with several options. Reg Fee $20

SCREEN SAVERS

AIRSCAPE (508666)

Airscape Screen Saver displays an aerial view of fantastic planes flying in the sky. An optional MIDI soundtrack plays as the fanci-ful machines dance in the wind. Reg Fee $?

AISS250* (325123)

Amazing Images Screen Saver 2.50 displays floating JPEG, GIF, PNG, and BMP images. Requires Win95/NT. Reg Fee $17

AQUA97 (1827829)

AquaScape 0.97 is an animated aquarium screensaver package. Features include over 30 creatures and fish plus several choices of gravel, water, plants, and decor, all complete with panning and zoom-in views. Reg Fee $20
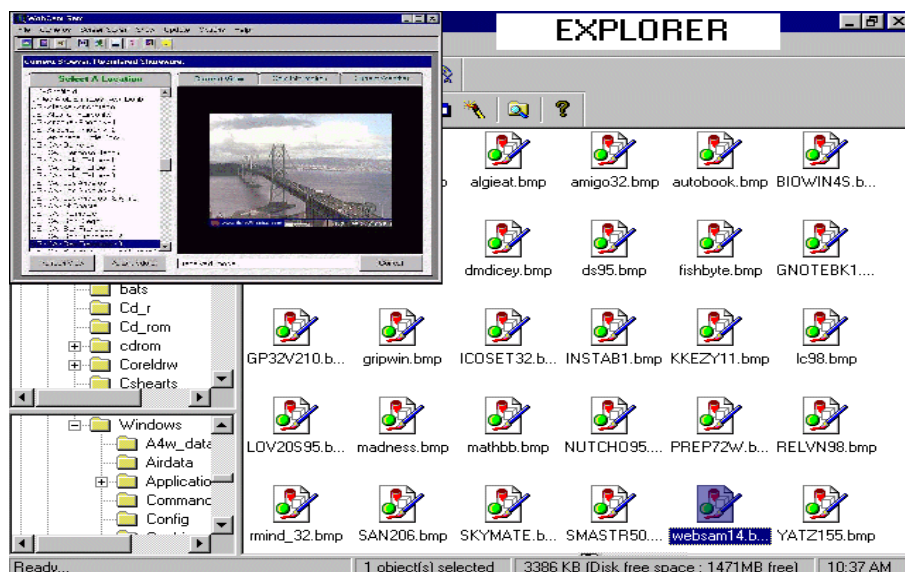
BIZZARE* (1397620)

Bizarre Creatures Screensaver displays creatures floating through space on your Win95 desktop. Reg Fee $15

BLOSSOM* (832782)

Blossom Screensaver 1.0 is a Win95 screen saver that displays various flowers on your screen. Options let you choose which flowers to display, which sizes of flowers to display, and the speed to change the images. A utility that resides in your System Tray is included that lets you easily run, change, and configure your screen savers. Reg Fee $23

FLOAT1* (921875)

Floating Cities 1.0 is a Win95 screen saver that displays surreal images of floating cities covered with glass bubbles over a fantastic ocean and sunset background. Reg Fee $6

MYMMSS32* (4320680)

My Own MultiMedia Screen Saver - 32 5.2 allows you create a customised slide-show screen saver in Win95. Features include support for 12 different graphic formats and over 30 transition effects. Reg Fee $25

SECURITY

AUTOSAVR* (1512414)

AutoSaverPlus 2.0 automatically saves your work at specific intervals. It does this by simulating "ShortCut" key-presses. This works with the topmost window and/or the window with focus. Requires Win95/NT. Reg Fee $8

IWBIN* (682931)

IronWare - Bin allows you to securely delete data in Win95/NT by performing multiple wipe operations, with each wiping operation replacing your data patterns with either randomly generated or standard ones. A maximum number of 10 wipes will ensure that any attempt to restore your data using standard data recovery techniques will be unsuccessful. Reg Fee $?

PC400_P* (415292)

Password Creator 4.00 generates very secure passwords in Win95. Features include the ability to use any combination of upper/lower case letters, numbers, and special characters,

the ability to generate up to 50 passwords at a time, support for passwords up to 20 characters in length, the ability to print password lists, and more. Requires the 32-bit VB4 runtimes and an 800x600 display. Reg Fee $50+

PROTV11* (1340403)

Protect (LS) 1.1 allows you to easily encrypt your text message files from others. It uses random methods of encryption to thwart hackers, and comes with a built-in text editor. Requires Win95/NT. Reg Fee $25
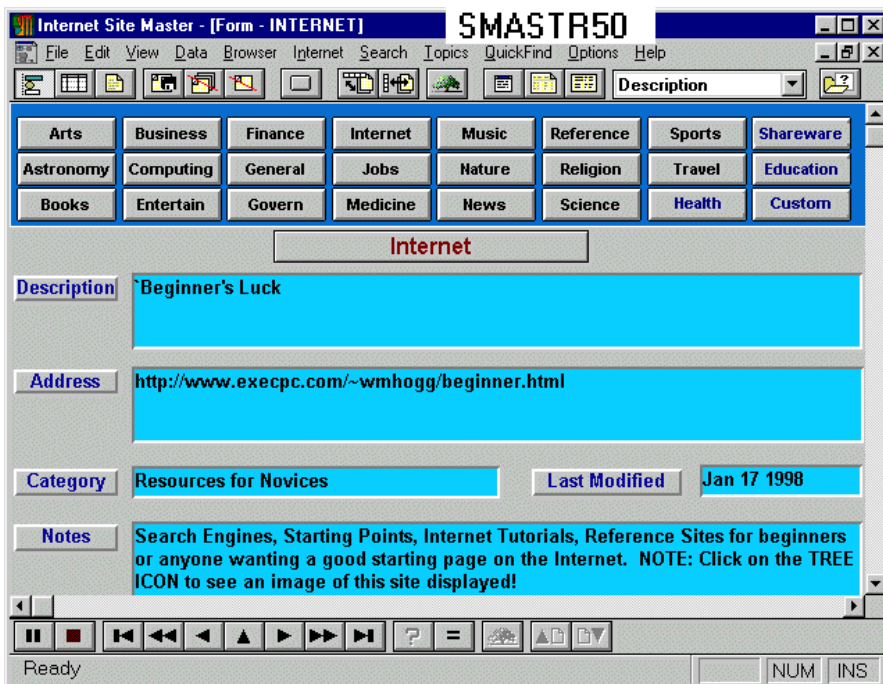
SETUP97* (614306)

Second Copy 97 5.21 backs up files in the background in Win95. It periodically monitors your disk directories for your important files and makes a second copy of those files to another disk or network drive. It automatic-ally updates these second copies when you make changes or additions to your files. The program is easy to setup and use. Reg Fee $25

UTILITIES

CAPPRO (597350)

Capture Professional Demo 3.17b allows you to capture, touch-up, and save screens in Windows. Files can be saved in a variety of formats including BMP, EPS, GIF, ICO, JPEG, PCX, TIF ,and TGA. This demo version appends a banner at the end of saved images. Reg Fee $38

DICON* (145661)

D'Icon '98 10.39 hides all the desktop icons in Win95 and remembers the state of your desktop. This also includes shutdown and reboot commands. Reg Fee $0

DLTYPES* (734766)

DLTypes 1.1.0 retrieves all registered file types from the Win95 Registry and presents them in an easily accessed window for selection either by file extension or file type. The number of files and file size for each extension and file type on the hard drive is also shown. Other features include automatic backup/restore of the Registry entries when deleting extensions or changing values, auto-matic edit backup/restore, and the ability to print all your file types and their associations. Reg Fee $15

KLICKBD (228306)

KlickBoard captures clipboard text and pictures while you work, stores the data on disk and allows for retrieval at a later date. Features include complete control over the number of clipboard items stored, the ability to paste multiple clipboard items consecut-ively, and more. Reg Fee $14-$50

REGIST32* (386404)

Registoy backs up the Registry files and allows you to restore them at will. It also will let you restore your Win95 system to its original condition without reinstalling the complete Win95 software. Reg Fee $10

TM31_16 (277229)
TM31_32* (319627)

TransMac 3.1 allows you to access Macin-tosh HFS format disks in Windows. This includes HD diskettes, CD-ROM's and SCSI devices. This version gives full access to diskettes, but limits other drives to reading and a limit of 1.4 MB file size. Reg Fee $64

TMOUSE95* (486805)

ToggleMOUSE 4.0 provides a wide variety of interesting and useful cursors for Win95. Reg Fee $20

WASTEW20* (496294)

Waste Whacker 2.0 helps get rid of temporary installation files, broken shortcuts, and zero byte files. It removes files based on the specifications you choose, including path, file spec, file size, and file age. Files can be moved to the Recycle Bin or completely deleted with a confirmation option. Reg Fee $15

WINBOOT1* (141735)

W'boot '98 1.0 places an icon on the System Tray that when double clicked immediately

menu commands via succ-essive keystroke output. Reg Fee $12-$50

TXP16320 (1133140)
TPE32320* (1475031)
TextPad 3.20 is a powerful text editor for Windows. It can handle files with up to 32,000 lines of 4095 characters, with multiple simultaneous edits and up to two views on each document. Other features include full undo/redo facilities, print previewing, a toolbar for frequently-used command, a built-in file manger, support for Unix and Mac-intosh text file formats, drag and drop support, and much more. Reg Fee $27-$35

NEW AND UPDATED DOS FILES

I_M401A (453960)
Integrity Master 4.01 is an anti-virus and data integrity system. The author says it detects all known viruses. It can detect any form of file corruption, including disk errors or as-yet unknown viruses. Stacker, DoubleSpace, SuperStore and Bernoulli system files are supported. Identifies the new MS Word Macro

exits Win95 and when right clicked reboots the computer. Reg Fee $0

Y2K (98894)
Y2K Count Down 1.0 counts down the number of days until January 1, 2000. It also flashes various others countdown stats and is configurable to allow you to show the number of working man-hours remaining until the rollover. Reg Fee $0

WORDS AND DOCUMENTS

IP16 (866714)
IP32* (933208)
Its Personal 2.1e is a personal diary with an intuitive WYSIWYG interface, optional password protection, search and replace functions, spell checking, printing capabilities, and more. Reg Fee $20

NOT3112B (525728)
NOT9117B* (1292353)
NotePads+ is a powerful notepad replacement for Windows. Features include support for large files, drag and drop editing, a handy list of the last eight files accessed, an automatic backup option, and more. Reg Fee $25

NOTETHAT* (3617365)
NoteThat! is a 32-bit text editor that can handle up to 10MB text files. Other features include a 100,000+ word spell checker, and a tool bar. Reg Fee $15

PENPAD32* (1174584)
Penpad 1.3 is a Win95/NT word processor that can read and write rich-text files, HTML files, and standard ASCII text files. It has a spelling check and various toolbars for differ-ent types of documents. Reg Fee 20 Pnds.

PFOCUS41 (2090846)
PF32501* (2799976)
PageFocus lets you create forms, draw pictures, create documents, catalogs, electron-ic books, and much more. It is feature-packed, easy-to-use and versatile. Reg Fee $29

PICK_LST (163584)
PickList (SR) allows you to assign text items for fast insertion into any Windows applic-ation. It is especially useful for inserting re-petitive phrases, words, or sentences into any word-processing package. In addition, it has a host of commands that allow it to run files, macros and access

The Internet Clinic

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

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

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

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

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

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

David Schwabe   *dschwabe@pcug.org.au*

viruses as well as over 640 additional viruses. It has an option to quickly disinfect diskettes. Reg Fee $50

MAPIT20 (5132320)

MapIt 2.0 is a world map program with interesting features. Like other globe programs, you can zoom in on parts of the world for more detail, such as state and country boundaries and rivers. You can add lines and hypertext-type points to click on for a text box to pop up. Text can be scaled in size and displayed in any of seven type styles, including italic and Old English. Reg Fee $59

MRBOOT24 (55746)

MasterBooter 2.4 enables your computer to use multiple operating systems without changing hard disks or messing with boot floppies. Features include support for command line options, password support, FAT partition hiding, and more. This version allows you to choose from up to three operating systems at boot time. Reg Fee $20
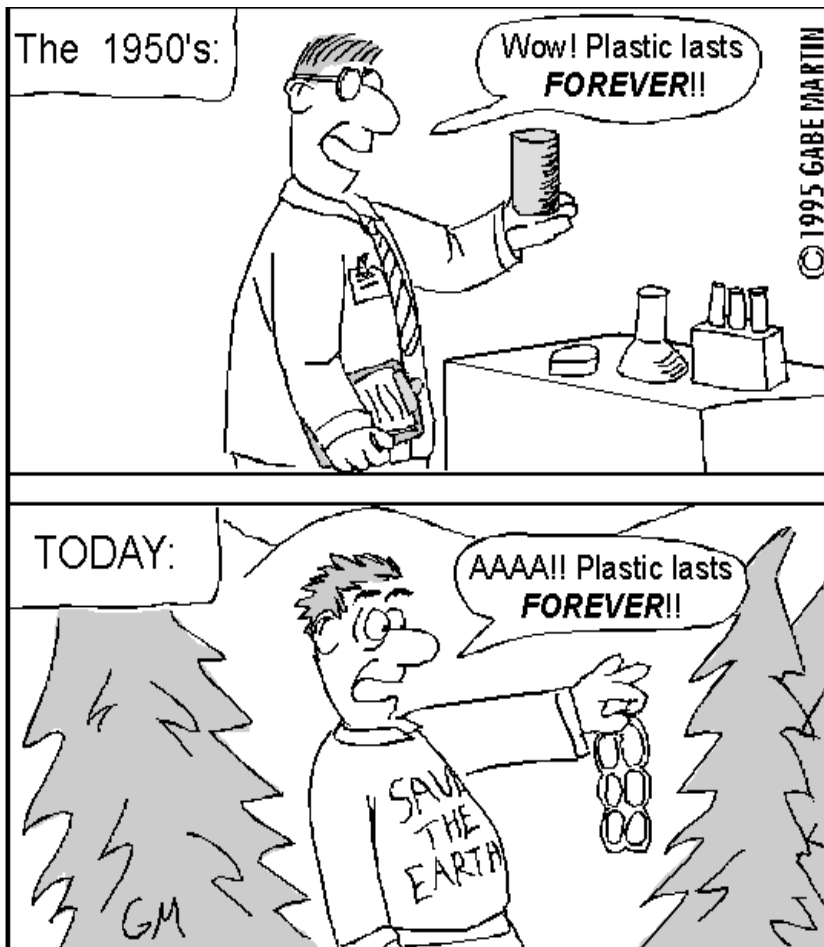
SBABR311 (510173)

SBABR 3.11 will intercept and remove all the boot viruses that might infect your system. It makes the backups of all your computer system areas and performs several integrity tests in order to protect your machine. It also provides an anti-crash utility that will save hours of work in case of a system failure. Reg Fee $30

SCNI315E (965989)

VirusScan 3.1.5 scans diskettes or entire systems and identifies any pre-existing PC virus infection. Reg Fee $65

The BORDERLINE™ By Gabe Martin

The 1950's: Wow! Plastic lasts FOREVER!!

TODAY: AAAA!! Plastic lasts FOREVER!!

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http://www.cts.com/~borderln/

Journal of the PC Users Group (ACT) Inc

SIXTEEN BITS @nline

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

Now in Adobe Acrobat format!

WhAT'S NEWS?

Compiled by Malcolm Morrison

Seiko Instruments announced that it would begin selling Ruputer wristwatch personal computers in Japan on June 10th. No announcement was made about distribution outside Japan.

The following memo from Mr. Hirotomi requests a little patience while he rolls out the Ruputer in Japan.

Dear Ladies and Gentlemen:

My name is Jun Hirotomi. I am the Project manager of Ruputer. Honestly, I am surprised by the enthusiastic response about Ruputer from customers outside the current target market. Our news release was intended only for the Japanese domestic market. Therefore, I did not anticipate the need for information in other languages.
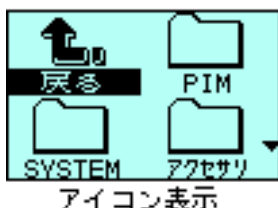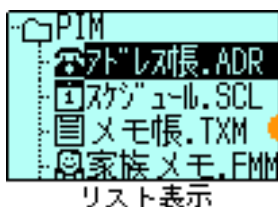
I immediately asked our marketing staff to prepare a new Homepage in English. It is scheduled to be available on April 22, (News Release only) and on April 27 we plan to have additional product information. I am extremely busy right now and I must focus my attention on the Japanese media and proceed with development at the same time. As with any soon-to-be-released product there are many details to attend to. I apologize that my response is so late. Presently, my staff and I cannot respond to proposals from foreign companies however I created an interim explanation (follows) of Ruputer in English. Please understand that English is not my native language.

Formally, wait until April 22nd. Best Regards; Jun Hirotomi

About of Real Wearable PC

"Ruputer/Ruputer Pro" Ruputer is wristwatch computer. The user can access stored information very quickly. RuputerÕs architecture is very similar to most PCs. Also, Ruputer can link to Windows95 PC very easily and powerfully. You can download any data from your PC, and can carry the data with you. Also, you can add/delete applications to Ruputer via PC. Software for Win95 is bundled with the Ruputer in order to use the PC link/Customize/PIM (Personal Information Manager) data. Also, a PC docking station will be bundled.

Product Specification

•Name : Ruputer •Model : MP110 (Flash memory 512 Kbytes) •Name : Ruputer Pro •Model : MP120 (Flash memory 2 Mbytes)

Hardware specification

•CPU : 16 bit CPU •OS : W-PS-DOS version 1.16 •Main memory : 128 Kbytes •Flash memory (Used for rewriteable storage, similar to a hard disk): •512 Kbytes Ruputer •2 Mbytes Ruputer Pro •Kanji ROM : Kanji ROM (JIS 1st, 2nd levels supported) •Display : 102 x 64 dot-matrix STN LCD, Electroluminescent backlighting included •I/O : •Infrared port: This IR port can communicate with another Ruputer or PC which has IR port. •Serial port: This Serial port is for PC link with using the PC Docking Station (DS-10). •User Interface : •Cursor Pointer (joystick) •FILER/TIME button •ENTER button •MENU button •EL BACKLIGHT button •Battery : 2 Lithium coin batteries (type:CR2025) •Battery life : approx. 4 months at one hour display per day •Water proof : Splash resistance •Temperature range : Zero (0) to forty (40) degrees C. •Weight : Approx. 67 grams

Software for Ruputer

•File management OS : Filer (File selection/Application execution/File delete/Rename/File transfer) •Setting : Control panel (Battery level meter/Sound setting/Power management setting Display setting/et.) •Software keyboard : 9 different software keyboards are built in. Kanji is supported

Pre-installed Applications

•PIM : Scheduler/Address (graphic data can be attached for each data) •To Do list/Memo/Important memo/Family memo (graphic data can be attached for each data) Individual PIM data records can be transferred between Ruputers via Infrared Interface. •Watch : Digital time (4 channel weekly alarm) and World time •Accessories : •Calculator •Timer •Chronograph (LAP data can be stored) •Game •File Viewer : •TAT viewer •Graphic viewer •Sound viewer

Ruputer PC Software for Windows95

•Ruputer PC Filer •This software is for file management of Ruputer via PC. •You can operate files of Ruputer on PC as well as Windows95 Explorer. •Applications can be installed/deleted into/from Ruputer •Any file in Windows95 can be uploaded/downloaded into/from Ruputer using the ÒRuputer PC FilerÓ. •Ruputer PC Tool This software is tool utility soft. There are 6 tools as follows; •Setting tool: This is the same as Setting function of Ruputer. •Sound file maker: User can make alarm sound (music) as he likes on PC, and its sound can be work on Ruputer as alarm sound. •Graphic file maker: File format converter of BM file to MM. file(Ruputer original graphic data format). •Task list maker: User can send his custom task list to Ruputer for easier data input on Ruputer. •World time cities setting: User can set cities to ÒWorld timeÓ. He can adjust the time to his own world time zone. •Chronograph Viewer: This is

not tool. This is just data viewer. •Ruputer PC PIM •This is PIM software for Windows95. •This PIM software is used for editing of Ruputer PIM data. •You can use this software as a PC PIM software or your own software such as MS Outlook, Lotus Organizer, et. •The PIM software can synchronize your desktop or portable PIM data with Ruputer. •The PIM software has Scheduler/Address/To Do list/ Memo/Important Memo/Family Memo.

Operating Environment

•OS: Microsoft(r) Windows(r)95 •CPU: More than DX4-75 MHz, recommendation more than Pentium133 MHz •Memory: More than 16 Mbytes, Recommendation more than 32 Mbytes. •Hard Disk Space: More than 20 Mbytes.

Additional (Included Parts)

•PC docking station (Type: DS-10) (for PC link) •CD-ROM •ÓRuputer PC FilerÓ •ÓRuputer PC ToolÓ •ÓRuputer PC PIMÓ •Battery holder (2 batteries inside) •Manuals •Ruputer pocket guide •Ruputer quick start guide •Ruputer userÕs guide •Ruputer PC software manual

Optional products

•Ruputer PIM Link for Microsoft (r) Outlook (TM) 97 •Microsoft (r) Schedule+ Ver.7.0 •Lotus (r) Organizer97

PRICE

•Ruputer (Ruputer/MAP110): 38,000 yen (about $330 US) •Ruputer Pro (Ruputer Pro/ MP120): 48,000 yen.(about $410 US)

Sales begin: June 10th, 1998

Homepage: *http://ruputer.com/*

It's a Personal Messaging Tool

•Called from anywhere in the world, the MessageWatch can display phone numbers up to 16 digits, so there's room for area codes, extensions and international codes.

•Callers also can send standardized messages like "Call Home" and "Call Office," or custom messages using the web or e-mail.
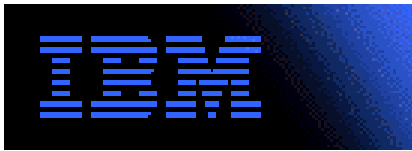
•Special numeric codes (0-9) are defined in advance and offer another individual message option. (Code 4 might mean your daughter's home from schadvance and offer another individual message option. (Code 4 might mean your daughter's home from school.)

•Any message can be marked with a flashing "U" to designate it's "urgent."

•The MessageWatch contains 8 message slots, 4 of which can lock in messages you want to save.

•There's no need to ever miss a message. Messages are transmitted via local FM radio frequencies and receiving conditions can be affected by a variety of physical barriers, from mountaiMessages are transmitted via local FM radio frequencies and receiving conditions can be affected by a variety of physical barriers,

from mountains to subways, just as with any wireless communications device. But MessageWatch users have only to call their private Message Center to pick up messages

•An ever-growing selection of Information Services keeps you up-to-date on weather, sports, financial market closings and more! Subscriber Services enables you to customize these services.

It's a Full-Featured SEIKO Watch!

•The MessageWatch receives time signals much as it receives other messages. At least 36 times each day, the MessageWatch automatically updates to atomic time, as set by the National Bureau of Standards. When we "fall back" and "spring forward" or when you enter a new time zone in a service area, the MessageWatch adjusts itself.

•The MessageWatch has a battery life consistent with a quality SEIKO quartz watch and longer than that of other personal wireless communications devices — up to 18 months! (Conventional pagers, in contrast, go through batteries every 2 to 6 weeks.)

•Additional state-of-the-art wristwatch features include: a backlit face, an alarm, 24-hour mode (military time), and a secondary timekeeping system.

•The MessageWatch is simple to operate. Push one button to scroll through your saved messages. Push another button for time and date.

•It's easy for your callers, too. You have the option of recording your own personalized greeting, and voice prompts explain how to send a message.

www.seiko.com

InfoBank Online Free Information Storage

InfoBank says it is the FREE online service in Australia that allows you to easily store and manage your information via the internet.

When you register with InfoBank you get to choose a free email address from nearly 250 vanity domains plus you get an integrated suite of web-based applications that help you manage and access your information from anywhere at any time.

InfoBank Online says that with the following applications InfoBank will become your online personal organiser:

•email: every person who registers with InfoBank will automatically receive a free

account which you can use to collect mail from up to four other email accounts.

•contacts database: this is an online address book for storing contact details such as fax numbers, phone numbers and email addresses.

•notes: a virtual clipboard for you to make notes and refer to from any internet connected computer.

•reminders: send yourself a todo list at the beginning of the week or program your InfoBank Organiser to remind you a week before your anniversary.

•calendar: a personal online calendar that is fully integrated with your contacts database.

•bookmarks: this feature allows you to store your favourite bookmarks in a remotely accessible place

•files: keep a back up of important files in your InfoBank.

•search engine: this allows you to search across all of your data to quickly find what you need.

However unless your browser is either Netscape 3.0+ or Microsoft IE 4.0+ you are unlikely to be able to access *www.infobank.com.au*

IBM Unveils New Aptiva E-Series

IBM has announced the IBM Aptiva E-Series, introducing three new models to the popular Aptiva family, providing quality and power at an affordable price.

Purchasing a PC for many families often comes down to balancing individual needs with the desire for quality, and the reality of affordability. IBM has announced the IBM Aptiva E-Series, introducing three new models to the popular Aptiva family, providing quality and power at an affordable price. Developed to deliver superior multimedia performance at competitive prices, these new models demonstrate IBM Aptiva's continued commitment to deliver technology leadership across its entire product line.

The Aptiva E-Series consists of three new models, the IBM Aptiva EQ1, 2 and 3, combining outstanding performance, utilising an AMD processor, with the superior expandability consumers expect from IBM Aptiva PCs. The result is the ideal combination of performance and affordability starting at just $2,299 (estimated street price inc. tax).

"This announcement reflects our commitment to deliver leading technology to the successful Aptiva line at a surprisingly affordable price," said Mr Brian Connors, Vice President, IBM Aptiva brand.

"The combination of an affordable price with IBM quality is what we believe makes the IBM Aptiva E-Series stand out from the competition. First time buyers are not willing to sacrifice performance for an affordable PC."

The INTERNET Project

Applicant Details (mandatory)

First Name _____

Last Name _____

Principal Organisation

❑　　AUUG　　　　　❑　　　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)

Please make cheques payable to:
PC Users Group (ACT) Inc.

Payment:　　12 months:　　**$120.00**　　❑

　　　　　　　6 months:　　**$65.00**　　❑

　　　　　　　3 months:　　**$35.00**　　❑

Method of payment: ❑ Cash　　❑ Cheque

❑ Visa　　❑ Bankcard　　❑ Mastercard

Card Number: _____

Expiry Date: _____/_____

Name on Card: _____

Signature: _____

PCUG Office Use Only

Processed by Accounts: _____/_____/_____

Signature: _____

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

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

Carlos Amad
Bruce Black
Eddie & Sharon de Bear
Raymond De Bear
John Hempenstall
Emil Joseph
Keith Kloostermann
Naomi & Vernon Kronenberg
Jenny Laraman
Wolf Lieske
John Loggie
Neville Maddern
Allan Mikkelsen
Don Nicol
Keith Sayers

John Starr
Geoff Steele
Ted Tregillgas
Gordon Urquhart
Marion Van Wely

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 22 June S1998**
at Northpoint Plaza, Belconnen.
(see map page 3)

Special Interest Groups

The Internet SIG

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

Bytes

The Bytes SIG is designed for those who like to talk about computing over a meal. It meets from 6 pm at the Asian Bistro, Australian National University Union, on the PCUG meeting nights. There are no Bytes SIG meetings in November, December, or January. Contact person: Andrew Freeman Phone: 6258 7411 Email: *afreeman@pcug.org.au* or WWW at *http:/ /www.pcug.org.au/~afreeman/cvsig.html*

AutoCAD

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

C/C++

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

GUI Developers

Peter Harris 6287 1484 *pharris@pcug.org.au* Please call for details

The Investment SIG

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

The OS/2 SIG

An enthusiastic forum for those operating or interested in OS/2 Warp. Meetings include wide ranging discussion and interesting hands on demonstrations. Meetings are held on the third Thursday (except January) at 7.00pm for 7.30pm at the IBM Building 8 Brisbane Ave, Barton.
Contact David Thrum Phone 6201 8806 (bh). Full details about the OS/2 SIG can be obtained from *http://www.pcug.org.au/ ~aacton/os2/welcome.htm.*

The Delphi SIG

A lively forum for software developers who are working with or interested in Delphi. Our meetings include wide ranging discussion and interesting hands-on demonstrations. Come and see why Delphi is RAD! Some of our recent meetings have discussed Delphi components, best shareware tools, database applications, and HTML tools. Meeting 3rd Tuesday of each month 7.30pm at PCUG Centre. Convenor David Gray email *graydr@pcug.org.au.* You are welcome to also subscribe to the PCUG Delphi mailing list by sending message 'subscribe act-delphi-l@pcug.org.au [your email address]' to Majordomo@auug.org.au

Linux User Group

Stephen Rothwell 6291 6550 (ah) Stephen Rothwell@canb.auug.org.au 4th Thursday 7.30pm Room N101 Computer Science Dept ANU.
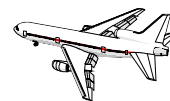
Networks

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

Computers and Vegetarianism

This SIG is designed for those who have an interest in both computers and vegetarianism. It generally meets with the Bytes SIG. No meetings are held in November, December, or January. Contact person: Andrew Freeman Phone: 6258 7411 Email *freeman@pcug.org.au* or WWW at *http:// www.pcug.org.au/~afreeman/cvsig.html*

The Coffee and Chat Group meet at the PCUG Centre in Belconnen on alternate Tuesdays from 10.30am to 11.30am with another 30 minutes to 12.00 for those who want to stay. The dates of these meetings are shown in the Calendar of Events.

Flight Simulator

Meets 1.30 - 3.30 on Tuesday afternoons following Coffee and Chat at the PCUG Centre. Enquiries welcome.
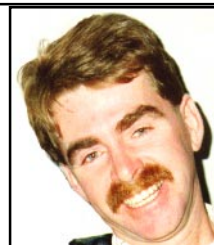Roger Lowery (02) 6258 1583 *lowery@pcug.org.au*

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 in-depth look at a particular topic of interest. There is also time for discussion (and hopefully solving) of members problems with the internet. A home page for the SIG is at *http://www.pcug.org.au/ ~amikkels/intddd.html* Enquiries or suggestions for topics are welcome at *amikkels@pcug.org.au.*

Please email any changes in contacts, venue or information about SIG activities by the first Friday in the month of publication to *pcug.editor@pcug.org.au.*

Training News

by Peter Elliott

The program for 1998 has been adjusted to meet the demand for particular courses especially Windows95 and Internet courses. PCUG Training is able to, and willing, to conduct a variety of courses in other areas of computing. If you have an interest in a particular computer course and it is not scheduled, contact Petra at the Centre at the Centre and let us know

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

Please note: The Centre will be closed on the weekend of 6-7 June 1998 (Queen's Birthday holiday). Subsequently there will no training that weekend. The Internet Clinic for June has been moved to Saturday 13 June 1998.

Courses

The **Full Access intro to the Internet** course is an introduction to the programs used to access the World Wide Web, send and receive e-mail, participate in news groups, and transfer files. If you would like to attend the course, you will need Full Access (Advanced Access) to the Internet.

Microsoft Excel 7 - Intermediate: In June an intermediate course on Microsoft's Excel 7 will be held at the Centre. This powerful spreadsheet program is ideal for those members who would like to learn some of the more advanced features of using spreadsheets. Excel 7 forms part of the Microsoft Office suite and offers the ability to create charts, databases, macro's and linking and embedding (OLE) Excel to other Window's applications. Note: Excel 7 is fully backward compatible with Excel 5.

Designing your own web page - Intermediate: In July there will be a follow on from the June intro course to designing your own web page conducted at the Centre. The course will cover the more advanced features in the design and layout of a web page and a how to use DHTML and CSS etc.

Desktop publishing - Intro: In late July there will a course on Introduction to desktop publishing conducted at the Cnetre. The course will cover how to design and layout pages using desktop software.

MYOB: There will be an Intro to MYOB course conducted at the Centre on the Saturday 8 August 1998. Petra can accept bookings now from members who wish to nominate.

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

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

	Date	Day	Course	Length
Jun	6	Sat	*Sixteen Bits* Layout Day	Closed
	7	Sun	Closed	Closed
	13	Sat	Databases – Intro/**Internet Clinic**	Clinic:Morning
	14	Sun	Designing your own web page - Intro	Full Day
	20	Sat	Excel 7 - Intermediate	Full Day
	21	Sun	Intro to the Internet - Full access	Full Day
	27	Sat	Win95 - Intro	Full Day
	28	Sun	Word 7 – Intermediate	Full Day
July	4	Sat	*Sixteen Bits* Layout Day/**Internet Clinic**	Clinic:Morning
	5	Sun	Intro to the Internet - Full access	Full Day
	11	Sat	Designing your own web page - Intermediate	Full Day
	12	Sun	Win95 - Intro	Full Day
	18	Sat	Excel 7 - Intro	Full Day
	19	Sun	Databases - Intermediate	Full Day
	25	Sat	Intro to the Internet - Full access	Full Day
	26	Sun	Desktop Publishing - Intro	Full Day

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 Mobile: 0419 625 801 Email: leep@pcug.org.au	6 McGuiness Place McKellar ACT 2617	10% discount off the published fee schedule to PCUG members
Lesley Piko Certified practising accountant, registered tax agent	Personal and business taxation services General accounting services	Ph: 6288 8888	Suite 1 17 Trenerry St Weston ACT	15% discount off quoted fee
Books				
Collins Booksellers	A wide selection of computer titles for the novice and also advanced computer user	Ph: 6251 4813 Fax: 6251 3926	Belconnen Mall	10% discount off computer book purchases only
Daltons Books	No. 1 for computer and business books	Ph: 6249 1844 Fax: 6247 5753	54 Marcus Clarke St Canberra City	10% off RRP of computer books
Computer related				
ACT Valley Computer Repairs	Repairs, upgrades, new systems, software installation. Low rates Open 7 days	Ph: 6294 2592 Mobile: 019 323 435		10% discount on upgrades and repairs
Amalgamated Business Machines		Ph: 6280 4887	65 Kembla St Fyshwick	5% discount on repairs
Capital Simulations		Fax/message: 6258 0110	PO Box 329 Belconnen ACT 2616	Free postage and handling (normally $4) and 2 free modem opponents 'wanted' notices (normally $10)
Clarion Database Systems	Computer consulting Business applications, development Software sales	Mobile: 041 108 7754		10% off RRP on Microsoft and other vendor products and consulting services
The Cartridge Factory		Ph.: 6239 5259	Canberra Business Centre 49 Wentworth Ave Kingston	10% discount on remanufactured laser toner cartridges 10% discount on inkjet refill kits No discount available on new ink or toner cartridges

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Computer related (cont)				
Bettowynd & Taltech Solutions	Prompt, gauranteed, fixed price repairs to monitors and terninals	Ph: 6239 1043	Unit 5, Centrecoure 1 Pirie St, Fyshwick	5% discount
Hi-Micro Computers		Ph: 6280 7520 Fax: 6280 7540	6/18 Whyalla St Fyshwick	5% discount on accessories and upgrade installation
L & S Associates		Ph: 6257 7555	69 Paterson St Ainslie	Special price on any Microsoft product: dealer price plus 5%
NCH–Swift Sound	Email to wav Professional voice overs, music and SFX for multimedia, IVR, games, software	Ph: 6281 6124		25% discount to non-corporate members
PE Computers & Software Solutions	New systems Upgrades Hardware and software installation, setup and home PC support Software tuition including Win95 and Internet software	Ph/fax: 6258 9806 Mobile: 015 484 711 Email: pelliott@pcug.org.au		5% discount on all new systems and upgrades 20% discount on installation, tuition and home PC support
Rob's Computer Help Desk	Telephone and on-site help for *all* your computer and support needs	Ph: 6292 3211 (24 hours/7 days)		5% discount on consulting services
The Software Shop		Ph: 6285 4622	42 Townsend St Phillip	5% discount off our already low prices
Sproatley Computer Services Pty Ltd	Upgrades New and used PCs MYOB specialists Software installation 24 hour help desk	Mobile: 0412 231 224 Fax: 6231 3605		10% discount on all services
Michael Vetz/Mobile PC Support	Home PC support available for all PC problems including upgrades and tuition at your place – all hours	Ph: 6251 2184 Fax/Message: 62512184 Mvetz@pcug.org.au	P.O. Box 485 Belconnen ACT 2617	Discount of $25 per hour – maximum charge $50
WinBBS Australia (Doohan OK! BBS (ACT))	Windows-based BBS featuring the latest Web browsers, anti-virus software, games and demos, and electronic versions of PCUG in Adobe Acrobat format plus much more! Operating 24 hours per day, 7 days a week.	Ph: 6242 8696 or 6265 6752 Fax: 6234 0400 Mobile: 0411 508 169 Email: webmaster@dynamite. com.au Dial-up number: 6241 1323	'Belongapedi' 2/13 Murrung Cres Ngunnawal ACT 2913 Canberra, Australia	Free life membership to PCUG members when membership number quoted to the SysOp (usually $10–$20). Call for details.
World Wide Web Consultants Canberra (W3C2)	Your key to the Internet. Training, consulting and web site services.	Ph: 02 6292 3211 Fax: 02 6292 3914 Mobile: 019 440 608 Email: fcmoore@w3c2.com.au	PO Box 5145 Chisholm 2905	5% to a maximum of $100 on web site services.
Other				
ANU Union Asian Bistro			Upstairs, Union Building, Union Court, ANU (next to main meeting venue)	Union member discount on PCUG main meeting nights **ONLY**
Green-Grass Mower Service	Lawn mower service, spares and repairs	Ph: 6291 1458	8 Hutchinson St Monash	10% discount
Aspect Computing Education Services		Ph: 6247 7608	86 Northbourne Ave Braddon	10% discount
Australian Management Control		Ph: 6285 4888	Suite 4, 32–36 Colbee Court, Phillip	5% discount on recordkeeping and payroll courses
Net Maths Tutor	Email-based maths tutoring service provided by experienced teacher (high school to uni level)	Ph: 6258 4791 Email: plavers@canberra. teknet.net.au www.teknet.net.au/ ~plavers/		10% discount

Members' Ads

FOR SALE

Disks: 50% off
4 (and a broken box) boxes of 50x3.5" DSDD
720k disks   **$20 each box**
3 boxes of 10x3.5" DSDD 720k disks
                                              $4 each box

Data Cartridges: 50% off
10 x DC 600A 60Mb   **$10**
4 x DL 2000   **$10**
9 x 2120 EX   **$25**
21 x DC2120 QIC80   **$14**
16 x 2120XL (Double pack)   **$28**
1 x Memorex MRX 6250   **$24**

15 x Disk Storage Boxes   **$5**

1 x 1/4" cleaning kit - don't know if used or
what.
Call PCUG Centre on 6253 4911

FOR SALE
Genuine Intel P133 CPU including fan.
Can be safely overclocked to 166Mhz
(tested).
Price: $100
Chris Scarvell
chriss@pcug.org.au
phone: (bh) 0412 049 195 (ah) 6253 2075

FOR SALE:
IBM Compatible 386 DX40 with VGA
monitor mouse and dotmatrix printer.
4Mb RAM 100 Mb HDD $200
Don Nicol (Phone - 62546584)
dnicol@pcug.org.au

WANTED

WANTED
P24T chip (to upgrade my system without
buying a new motherboard)
James Dash
jardee@effect.net.au
ph 02 6293 3717, fax 02 6293 3767

PC Users Group Membership Application / Renewal

Annual Fees Applicable (☑ one)

☐ General[1] $ 50
☐ Concessional[2] $ 25
☐ Corporate[3] $130
☐ Additional Corporate[4] $ 50
☐ International (Air Mail) $130

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

I am paying by (☑ one)

☐ Cash (if paying by person)   ☐ Cheque to *PC Users Group (ACT) Inc*

☐ Credit card — Bankcard, Mastercard or Visa

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

I would like to (☑ one or more)

☐   Become a new member for ____ year(s)

☐   Renew for ____ year(s)

☐ Change my address details

☐ Change Corporate nominees

☐ Take my address off advertising list

☐ Access the Bulletin Board (BBS)

Reasons for Joining ☑ (one or more)

☐ Sixteen Bits Magazine   ☐ Training Courses

☐ The Internet Project   ☐ Advice and help

Other _____

TOTAL PAYMENT DUE $_____

Please Post your application with payment to:
PC Users Group (ACT) Inc
PO Box 42 Belconnen ACT 2616

Additional Corporate Membership Nominees

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

The Help Directory

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

Subject	Name / Email	Phone	Days	Times
Access for Windows	Graham Fry	6288 3138	All days	7.30pm - 8.30pm
Assembly Language	Thomas McCoy	6294 2226	Mon - Fri	8.00pm - 10.00pm
Audio	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
AutoCad	Geoffrey May *	6295 5942	Mon - Fri	4.00pm - 5.00pm
AutoCAD Rel 12, 13 and LT	Neil Moffat	6292 7108	All days	Noon - 10.00pm
BASIC + Machine Language	George McLintock	6295 6590	All days	8.30pm -10.00pm
Bluewave	Jorge Garcia	6282 2681	All Days	7.00pm - 9.00pm
Batch Files, TSRs, Utilities	Bill Ghysen	6287 1234	Mon - Fri	8.00pm - 10.00pm
Braille transciption (Duxbury and Megadots)	Carolyn Simpson *ryn@effect.net.au*	6230 4795	All days	Anytime
Bulletin Board Service	Michael Phillips *	6253 4966	All days	7.30pm - 8.30pm
C/C++	Nhan Tran *ntran@pcug.org.au*	6254 5293	All except w'end &Tue	7.00pm - 9.00pm
Chinese Star for Windows	Peng Lee	6258 0156	All days	1.00pm - 9.00pm
Eudora	Nhan Tran *ntran@pcug.org.au*	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Excel	Graheme Fry	6288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery *lowery@pcug.org.au*	6258 1583	All days	Anytime
Free Agent / Agent Newsreading	Allan Mikkelsen	6278 3164	All days	Noon - 9.00pm
Front Page	Peter Tilbrook *webmaster@dynamite.com.au*	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm
General Help	Brian Gosling	6259 1116	All days	7.30pm - 8.30pm
GEOS/GeoWorks	Phil Jones	6288 5288	All days	6.00pm - 10.00pm
Hardware	Anthony Glenn	6288 8332	All days	Anytime
HDK	Lis Shelley *lis@nullarbor.com.au*			
HDK	Ivana Leonard	6231 4169	Mon - Thu	7.00pm - 9.00pm
Internet connection	Nhan Tran *ntran@pcug.org.au*	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Internet Explorer (Microsoft)	Peter Tilbrook *webmaster@dynamite.com.au*	6242 8696 0411 508 169	Weekdays	10.00am - 6.00pm
Internet (Netscape, Eudora)	Carolyn Simpson *ryn@effect.net.au*	6230 4795	All days	Anytime
ISR CADDSMAN Modeller (Win)	Neil Moffat	6292 7108	All days	Noon - 10.00pm
Lotus Ami Pro 3 / Word Pro 96 ed	Peter Tilbrook *webmaster@dynamite.com.au*	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm
Microstation Cad	Andrew Novinc	6258 1907	All days	6.00pm - 10.00pm
Midi	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
Modem Communications	Michael Phillips *	6281 1980 or	All days	7.30pm - 8.30pm
Noteworthy Composer	Andrew Purdam *apurdam@pcug.org.au*	6230 2231	All days	Anytime
Online doc using Help Compiler (Win3)	John Carroll *jcarroll@pcug.org.au*	6248 0781	All days	7.30pm – 10.00pm
OS/2	Andrew Acton *aacton@pcug.org.au*	6293 1684	All days	9am-9pm
OS/2	Dave Thrum *davet@ozemail.com.au*	6201 8806	Mon-Fri	8am-6pm
OS/2	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Scream Tracker 3 (3SM) / MOD Music	Chris Collins	6258 8276	Mon - Fri	7.30pm - 9.00pm
Small Business Computing	Nick Thomson	6241 3239	Mon - Thu	7.30pm - 9.30pm
SuperBase	Paul Blair	6288 3584	All days	7.30pm - 9.30pm
Telix	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
SCO Unix & Xenix	Jeremy Bishop	6291 0478	All days	7.00pm - 9.00pm
Unix	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Unix/Linux/*BSD	Jonathon Ross	6288 1428	All days	6.00pm – 10.00pm
Turbo Pascal	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
Visual Basic for Windows	Cedric Bear *cbear@interact.net.au*	6258 3169	All days	7.30pm - 8.30pm
Windows 95	Graeme Challinor *gchallin@pcug.org.au*	6236 8166	All days	10.00am - 4.00pm
Windows 95 (basic help)	Carolyn Simpson *ryn@effect.net.au*	6230 4795	All days	Anytime
Word 6 & 7 (Mac or PC)	Carolyn Simpson *ryn@effect.net.au*	6230 4795	All days	Anytime
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
WordPerfect for Windows	Peter Tilbrook *webmaster@dynamite.com.au*	6242 4000 0411 508 169	Weekdays	10.00am – 6.00pm
WordStar	Dave Hay	6258 7310	All days	7.00pm - 9.00pm

June

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
New Members' Night PCUG Centre *7.30pm* **1**	Flight Simulator PCUG Centre *1.30pm–3.30pm* / Coffee and Chat PCUG Centre *9.30am– 12.00* **2**	**3**	**4**	Sixteen Bits Commercial ad deadline for July **5**	Layout Day for Sixteen Bits *10.00am* **CENTRE CLOSED** **6**	**CENTRE CLOSED** **7**
Internet Daytime Demo and Discussion SIG PCUG Centre *10.00am–2.00pm* **8**	C /C++ SIG PCUG Centre *7.30pm* **9**	Committee Meeting PCUG Centre *7.30pm* **10**	**11**	**12**	TRAINING DAY PCUG Centre *9.30am* Intro to Databases / Internet Clinic PCUG Centre *9.30am–1.00pm* **13**	TRAINING DAY PCUG Centre *9.30am* Intro – Designing your own web page **14**
15	Coffee and Chat PCUG Centre *9.30am–12.00* / Flight Simulator PCUG Centre *1.30pm–3.30pm* / Delphi SIG PCUG Centre *7.30pm* **16**	**17**	OS/2 SIG IBM Building 8 Brisbane Ave Barton *7.00 for 7.30pm* OS/2WARP **18**	**19**	TRAINING DAY PCUG Centre *9.30am* Excel 7 – Intermediate **20**	TRAINING DAY PCUG Centre *9.30am* Intro to the Internet – Full Access **21**
Internet Daytime Demo and Discussion SIG PCUG Centre *10.00am–2.00pm* / 16 Bits Stuffing and Mailing PCUG Centre *5.00pm* **22**	**23**	**24**	Linux Users Group Room N101 Computer Science Dept ANU *7.30pm* **25**	Sixteen Bits Article deadline for August **26**	TRAINING DAY PCUG Centre *9.30am* Intro to Windows 95 **27**	TRAINING DAY PCUG Centre *9.30am* Word 7 – Intermediate **28**
Main Meeting Manning Clark Theatre 1 Crisp Bldg. ANU *7.00 for 7.30* / **Bytes SIG** Asian Bistro ANU *6.00pm (before PCUG meeting)* **29**	Flight Simulator PCUG Centre *1.3* / Coffee and Chat PCUG Centre *9.30am– 12.00* **30**	**1 July**	Networks SIG *(Call 6241 2399 for venue)* **2 July**	Sixteen Bits Commercial ad deadline for August **3 July**	Internet Clinic PCUG Centre *9.30– 1.00pm* / Layout Day for Sixteen Bits *10.00am* **4 July**	TRAINING DAY PCUG Centre *9.30am* Introduction to Windows 95