

# SIXTEEN BITS

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Stop Press:  
WINNER of 'Best Columns' award  
Intergalactic Newsletter Competition.

**SIXTEEN BITS** (ISSN 0817-0991)

is published monthly by the

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

We welcome submissions of articles from members of the Group. If you are interested in writing please contact the Managing Editor and ask for a copy of our '*SIXTEEN BITS - Guidelines for Authors*' (also available on the *Sixteen Bits* Web site at <http://www.pcug.org.au/pcug/16bits/16guide.htm>).

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

- By email to [pcug.editor@pcug.org.au](mailto: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Anonymous contributions will not be published, though name and address can be withheld from publication on request.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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Articles from *SIXTEEN BITS* are also published on the Internet as *Sixteen Bits Online* at <http://www.pcug.org.au/pcug/16bits/> and extracts are read on Radio 1RPH (1125AM) Thursdays 10.45am & 9.45pm.

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**Deadlines For  
August 1998 Issue**

Articles and Member Ads  
Friday 24 June 1998  
Commercial Ads  
Friday 3 July 1998

**Advertising in  
SIXTEEN BITS**

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

Advertising options include

- **Cover ads**
- **Display ads**
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Regular advertisers receive discount vouchers to pay for any future advertising with *SIXTEEN BITS* (subject to account being in order). Every 12th consecutive ad placed is free. Please contact the Advertising Manager, Ken Livingston, on (02) 6285 3747 for further information.

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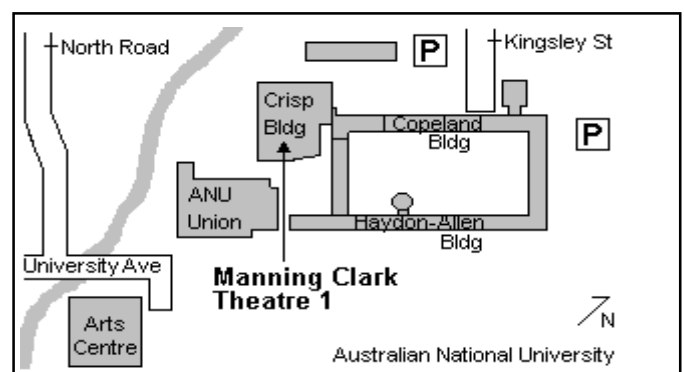
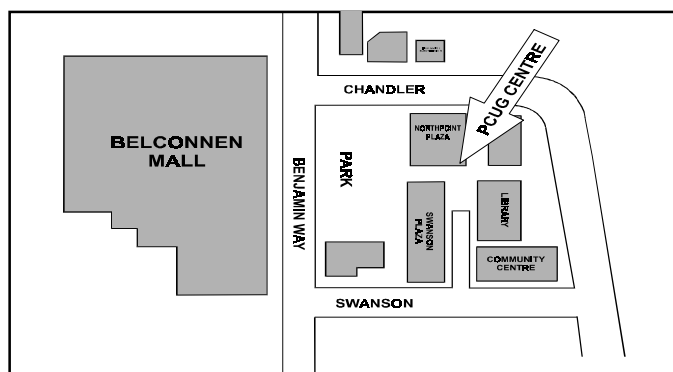
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The phone numbers listed above are home numbers unless otherwise specified. **Please restrict calls to between 7.30pm and 9.00pm.**

## 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  
Belconnen ACT 2616  
(For **ALL** correspondence)

### ☺ PC Users Group Centre

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

The PCUG Centre is the venue for PCUG training, some Special Interest Group meetings and other activities. There is no charge for using the Centre for *PCUG activities*. Contact Petra Dwyer at the PCUG Centre on (02) 6253 4911 for bookings.

### ☎ PCUG Main Phone number

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

### 📠 Fax number

(02) 6253 4922

### ✉ Email

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

### 🌐 The INTERNET Project

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

### 🌐 World Wide Web page

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

### 💻 Bulletin Board Service (BBS)

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

### ☎ BBS Sysop voice number

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

## Main Meeting

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



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# Editor's Desk Top

Anne Greiner, Managing Editor

**T**his month we have good news and better news. The better news is that, yet again, Sixteen Bits has been a winner in the Intergalactic Newsletter Competition that is sponsored by Adobe, Corel, Imprise, Intuit, JASC, Lotus, and Microsoft; and hosted by the New York PCUG. This year we won the prize for Best Columns in a large Newsletter, and it is very gratifying, not only to see 'Australia' up there in the list of credits, but to have PCUG there as well, and realise that we are perhaps not quite as parochial as we thought we might be.

I guess, in the grand scheme of things such awards don't mean a great deal, but to the assortment of volunteers that make up the editorial team, this award is sweet indeed. We have a working breakfast of coffee (very strong to keep away the pixel gremlins) and Danish each month on

layout day to keep the blood glucose high and the work flowing, but I think this deserves dinner at the very least!

Speaking of things editorial, we need to collect together a small group of people to tidy up the PCUG web pages. This task would be under the supervision and guidance of our webmaster, Allan Mikkelsen who is not nearly as fierce as he pretends to be, and would consist of updating the information and tidying up some of the outdated layout. We don't want to get too carried away, though, as we want these pages to be accessible to all our members and friends, and not everyone has the latest and greatest software, so the idea is understated but elegant. Drop me an electron if you are interested, and we may combine it with layout day (and share the breakfast). We may also be able to share some skill as

well - a bit of web editing expertise in return for a few paper editing skills.

You will have noticed in the last few issues that we are publishing photographs of our authors with their articles, and also putting in more photographs of events and doings of the group. Our photographer is, like the rest of us, a volunteer, so if your little corner of the group doing something special, or just meeting, and someone has a camera, please share the piccies with us for the centrefold. See the great Coffee and Chat luncheon in this issue.

Sixteen Bits hopes to bring you book reviews in future issues. At least one major book publisher will be providing copies for review. PCUG member Glenn Pure has initiated this project and will act as the coordination point for those members interested in doing reviews. He can be



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# President's Letter

Ken Livingston, President

**T**his is the Vice President again this month, as Ken is still not feeling the best, and does not yet feel like taking on the slings and arrows of outrageous fortune (or at least the president's hat) just yet, so I've put a little more oil on the training wheels and dusted off the 'P' plates again.

There have been a few or three concerns expressed over the gradually increasing difficulties of logging on to the internet over the last few months, and some of our members have let us know through various channels that they are beginning to find it irksome. Rather than just allow the problem to escalate, which will reduce the number of users as they give up in desperation and so cure the overdemand (this solution was actually suggested by a member!), we have addressed the problem.

The Internet Project Management Committee, made up of three PCUG representatives and three AUUG representatives, and affectionately known

to its friends as the IPMC, is currently implementing and investigating a number of upgrades to TIP.

A new tape back-up system will be installed by the time you read this. It should ensure that there is little or no loss of data, particularly mail and home pages, in the event of system failure.

The peering link to Canberra ISPs is being doubled in size and will result in improved news service and allow us to share proxy cache with our peering partners. Traffic to and from these partners (currently Dynamite, Interact and Spirit) will flow over the the the peering links and thus be faster and not cost TIP band with charges

The number of the dialin lines will be increased. Watch the TIP news groups for details of when and how this upgrade will be available.

As a result we expect to increase our bandwidth to service these additional users without any diminution of current service..

The hardware upgrade involved in providing extra lines *may* allow us to offer 56k modem capability. More on that later.

We are investigating means of providing express lines which will allow a maximum connection of about ten minutes to collect mail or quickly consult a web site.

We will conduct a survey to determine additional user wants from TIP, but if any of you have any immediate additions to the wish list, write or email to the Committee, who will seriously consider any sensible suggestions, or even some of the not so sensible at first glance ones.

Remember, the last Monday of the month is the main meeting night of PCUG, and this month Rob Hartnett from HP in Melbourne will be presenting. I am told that he is an extremely entertaining speaker, so come along, support your group by giving us a good turnout of members, and remember, Donald Darling won his digital camera as a door prize!

# Letters

contacted on 6231 6457, or email Glenn at glennpur@pcug.org.au.

If you are registered in helping, contact Glenn direct. You must be prepared to read any review books in a month or two of receiving them, write up a short article outlining the contents of the book and form your views on its quality and value.



## Main Meeting

Monday 29 June 1998



**Rob Hartnett** is Hewlett-Packard Australia's market development manager for Corporate PCs and Mobile Computing. Rob's product lines include

HP Vectra Corporate PCs, the HP OmniBook notebook PC, and the HP Palmtop PC range.

Rob joined HP in 1995 and brought with him a wealth of experience gathered from previous sales and marketing positions, such as business development manager and senior account management positions with Apple Computer Australia and Business Computers of Australia.

Rob received his Bachelor of Business degree from RMIT, with a major in accountancy, and also has a Grad. Dip. in Applied Finance and Investment from the Securities Institute of Australia. Rob is a former world yachting champion in the J-24 class, and has appeared regularly on radio and television discussing information technology.

Rob will discuss HP's directions in the PC arena and cover the impact of the thin client PC, webTV, mobile computing directions with notebooks and Windows CE devices and the impact of total cost of ownership on PC buying decisions.



Dear Editor,

I don't usually write letters to the editor or make public comment about too many things, but I enjoyed reading the June edition of Sixteen Bits so much that I felt compelled to put pen to paper (or is it fingers to keyboard?) in acclamation of a job well done.

I wanted to send a private e-mail to some of the contributors, but I did not know their addresses - may I suggest that they be included (with the permission of the authors, of course), perhaps at the end of the articles.

I want to publicly congratulate the four major contributors: Rob Dakin, DAC, Emil Joseph and John Saxon. The articles were particularly interesting to me because of some of the things I do for a living, but, I am sure that many people would have enjoyed them for their own sake.

I was a newbie when SILLIAC hit the headlines, but I well remember a grand tour I had, as a public servant, when the Department of Finance introduced computerised salary payments. The huge mainframe cabinets, the punch cards and resultant "ticker-tape", the amount of time required to do tape runs, etc. It was all brought back to me by Roberts article. It really is amazing to see how far the technology has progressed in the time since then.

I agree with Robert's "Afterthoughts" entirely. Back in the old days, when time was of the essence and memory was at a premium, one had to be extremely diligent about the way programs were written and of the result, from the user's point of view, of all the machinations. These days, it would appear that, so long as the "hype" is right, you can get away with anything that does a "reasonable" job in the "majority" of cases. If it was a car, we'd take it back to the manufacturers!

However, we might be able to fix things, if we incorporate some PERL scripts into our autoexec.bat files! I really enjoyed DAC's article and, maybe I can entice him and/or Nhan Tran to run some training courses on the subject (just half joking, fellas). I design web pages as part of my activities and I have needed to use some CGI scripts from time to time. Lately, however, I have had some problems (nothing to do with PERL) and was looking for other alternatives. DAC's article has revived my commitment to PERL. Thanks Andrew.

Emil Joseph's article reminded me of Jan Wikstrom's columns in "Australian PC User" magazine! Thanks Emil. While I know we can read the synopsis of the meetings in tip.coffee-chat, it is certainly easier to read the pertinent points in Sixteen Bits, and easier to keep them for future reference. I hope your "occasions" are not too far apart.

John Saxon's article shows, once again, how mad we are in believing that computers make life easier! The theory is great - the practice makes for the stuff of nightmares. I have just spent the last six weeks, hoping beyond hope, to get Outlook 98 and IE4 to work with the rest of my configurations. I have finally had to succumb to the fact that they won't, at least not the way things are at the moment. They are such really good products (potentially), but they have too many bugs to make them useable to anyone who strays from the "normal" Win95 configurations. Whoever said "don't buy version 1.0 of anything" has my vote, once again! I hope Windows 98 has ironed the bugs out, but I will wait for the "OEM" version (Windows 99?) before I install it on my computer!

Once again my congratulations for an excellent magazine, and for the wonderful contributions from members such as Rob and DAC, Emil and John (not forgetting "sexist" Terry! And the wonderful Phil Trudinger). Worth every bit of the \$50!

**Brian Williamson**

*I have to own up to adding the '(and girls)' to the title of Terry's article, so don't blame him, or not too much!!*

Anne

*continued on page 6 ...*

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**Dear Editor**

Don Nicol has started a Visual Basic SIG to run on the Thursdays following Coffee & Chat Tuesdays, between 10am and 12pm or later as required. This SIG will of course depend on the interest, but will most certainly run on the 4th and 18th of June.

Don has been a member of the PCUG for 10 years and has involved himself in most activities at one time or the other. Eighteen months ago he purchase a VB disk and has now taught himself sufficient VB to be able to lead others astray.

For those that do not know, VB is a fairly simple language, but pretty comprehensive, it is easy to get started, but there are lots of traps along the way. With VB you can create your own data base, address book etc. You are limited only by your imagination and knowledge of how it works.

The PCUG training edition of VB is installed from the server and this is more than enough to do the most common tasks.

Don will be assisting in a fully subscribed VB course on Sunday, (24th May) and those interested in coming along to the SIG can e-mail Don at [dnicol@pcug.org.au](mailto:dnicol@pcug.org.au). Those interested in doing a VB course should keep their eye on Sixteen Bits Training notes or contact Petra during opening hours

All in all it seems interesting, today for example I learnt that there were Twips in the world of VB, but never did find out what they are.

**Owen Cook**

**Dear Editor**

I was a little dismayed to read in Choice Magazine, (May 1998, p20) that it was possible that my "attack dialing" approach to get on to TIP was costing me a lot of money. I was very dismayed when inquiries to Telstra resulted confirmed that I was being billed at 25c a time for unsuccessful attempts.

I am utterly dismayed that I think my next bill will detail just how many times (>100) I had the setup dial one evening when I was unable to connect at all.

As you can tell by the time stamp on this email message, I now do my communications early in the morning.

Given that it is now very difficult to access TIP readily at peak periods, and this billing regime is a bit over the top, is there anything PCUG can do to fix things so that we don't get hit for every unsuccessful dial attempt?

**Paul Fennell**  
[fennellp@pcug.org.au](mailto:fennellp@pcug.org.au) or  
[Paul\\_Fennell@dpa.act.gov.au](mailto:Paul_Fennell@dpa.act.gov.au)

*Paul, I have included an excerpt from a posting to tip.general here:*

*.....when Choice magazine published an article which said that you get charged for engaged calls to an internet service provider. It appears that that report was misleading - it only happens if the ISP uses PABX system to route incoming calls. Few if any of the ISPs use a PABX system to route incoming calls.*

*As far as TIP is concerned, the final word from one of its administrators was in a post in tip.general dated 6 May:*

*'There is however a circumstance in which you may be charged for an unsuccessful call. This is the "dead silence" problem which has occurred from time to time. It is related to software problems with kryten which are still unresolved. To try and prevent this from happening we are currently rebooting kryten twice per week.'*

*So, as I understand it and as far as theory goes, Telstra should not charge for engaged calls to TIP. But whether theory and practice are the same, who knows... Editor*

**Dear Editor**

I have received a message from a Mac user which I have not been able to read. The following is the details of that message.

Content-Type: multipart/appledouble;  
boundary = "-----ad1FC4D64A427DB4BDCAFD41A8"; x-mac-type="5754424E"; x-mac-creator="4D535744"; name="Flyer Word"  
Content-Transfer-Encoding: 7bit  
Content-Description: Microsoft Word Document  
Content-Disposition: inline;  
filename="Flyer Word" Attachment  
Converted: C:\My Documents\Flyer Word

I have also sent a message to a Mac user which he has not been able to read.

The following is the file name of the document I sent.

C:\My Documents\WOOLMER.doc;  
It is a lengthy Microsoft Word Document

Can someone at the PCUG tell me what I should be doing to read MAC documents, and more importantly what I should be doing to enable MAC users to read Word documents

**Berenice Woolmore**  
[berenice@pcug.org.au](mailto:berenice@pcug.org.au)

**Dear Editor**

I am a local veterinarian running a practice in Canberra. I also have an interest in multimedia which I see as having significant potential as an instructional medium.

Over the past 2-3 years I have spent some considerable time developing a multimedia CD which I believe would be of instructional value to students and practitioners in my profession. I would like to market the product but before committing to the substantial investment that would be needed, I am looking for some means of testing independent user reaction to the program as it now stands.

What I would like is for a random number of PC or Macintosh users who might be interested to run the program and comment on its user interface, functionality, ease of use and any other aspects.

I would be grateful if you could let me know whether your organisation and its members might be prepared to undertake an informal review of the program.

If this were a possibility, I could perhaps offer a simple questionnaire which a reviewer could fill in to minimise the effort required.

**Steve Bobis**  
[info@vetmultimedia.com.au](mailto:info@vetmultimedia.com.au)

**Dear Editor**

Had a look at Sixteen Bits when it came out this month and thought it looked ok but just now I had a chance to look at the online version and wow! What a difference colour makes and the hyperlinks were very useful. What a great job. Keep up the good work.

**Darrell Burkey**

# 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 July 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](mailto: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  
**6 July 1998**  
7.30pm  
PCUG Centre  
Northpoint Plaza, Belconnen

# Mother, Oh Mother

## A REVIEW OF NEW COMPUTER MOTHERBOARDS WITH 440LX, BX GX, EX AND KX CHIPSETS



...by **Ted Macarthur**

**W**hat is the most important part of a computer motherboard?. It's the group of chips known as the chipset"

Every major component in the system relies on the capabilities of the chipset.

You cannot upgrade your chipset as it is an integral part of the motherboard. It governs the kind of central processor unit (CPU) used and the motherboard capabilities.

If you have a Pentium and you use Windows 95 or NT, look for the the Device Manager settings for your computer. It

may show a listing such as "Intel 82439HX Pentium(r) Processor to PCI bridge" and "Intel 82437SB PCI to ISA Bridge" This indicates an Intel 430HX PCIset, called the Triton II.

If you are really curious and courageous, first unplug your computer from the power supply and wait for the capacitors to discharge Then remove the case of the computer. Look for the large main system board or mother board. You'll also be able to see the large, flat, square controller chips, since

they are bigger than anything on the motherboard with the exception of the CPU and the AGP flat pack chip if fitted to your motherboard.

If you have the latest type motherboard (Pentium II ) then you may not have a flat black CPU chip. Instead you may have a long CPU socket holding the CPU with fan standing vertically in the CPU socket.

See photo of a motherboard for the location of some of the parts of an 440LX chipset motherboard

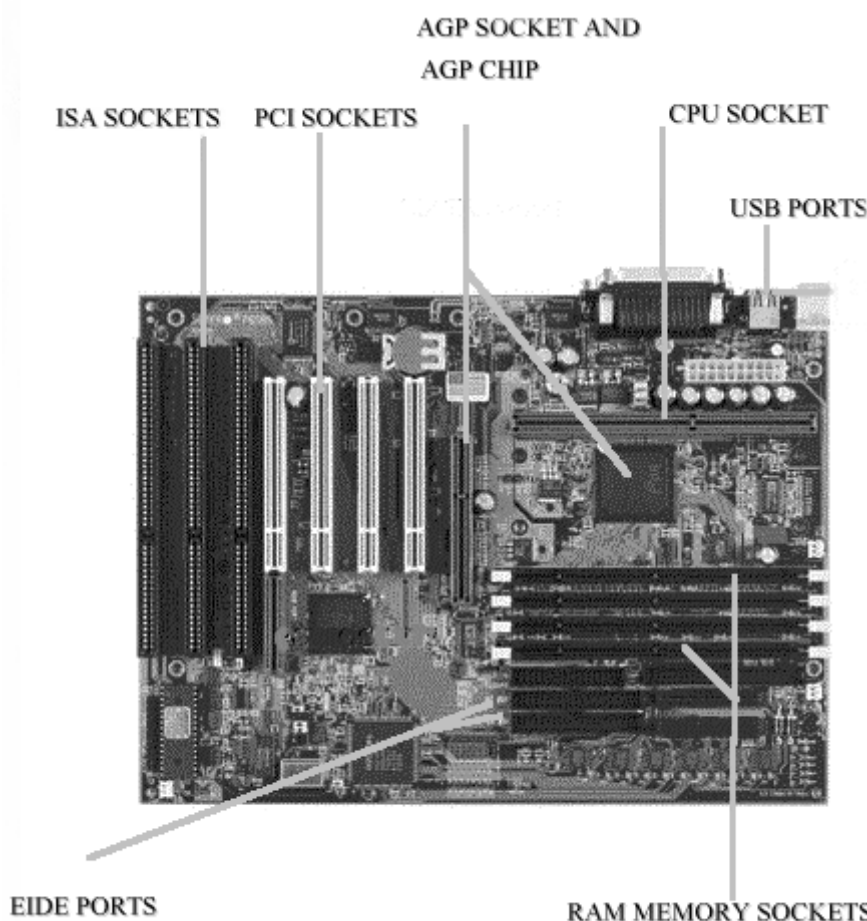
Most modern chipsets have from 1 to 4 discrete chips.

### The chipset governs:

- Memory type: FPM, EDO, BEDO, SDRAM, parity-checking, ECC
- Secondary cache: burst, pipeline burst, synchronous, asynchronous
- CPU type: 486, P-24T, P5, P54C/P55C, Pentium Pro, Pentium II
- Maximum memory bus speed: 33, 40, 50, 60, 66, 75, 83, 100 MHz
- PCI bus synch: synchronous or asynchronous to memory bus speed
- PCI bus type: 32-bit or 64-bit
- SMP capability: single, dual, trio, or quad CPU support
- Support for features like: AGP, IrDA, USB, PS/2 mouse
- Support for built-in PCI EIDE controller and every possible EIDE
- Every feature you can imagine: DMA mode, PIO mode, ATA/33, etc.
- Built-in PS/2 mouse, keyboard controller and BIOS, and real-time clock circuitry

The newer chipsets replace dozens of olderchips. This results in greater reliability and a lower chip count. i.e. less chips can lead to smaller motherboards using less power. This cuts the design and testing phase of a motherboard by perhaps 60% or more. It however it

*continued on page 9 ...*



*The photo is an example of a 440 LX type of motherboard with arrows showing some of the motherboard features. It shows four PCI sockets (white strips) three ISA sockets (black strips). Both sets of sockets hold other smaller boards at right angles. e.g. a video card or sound card.*



increases the delay in the production of a motherboard.

If you want to know the meaning of some of the technical words that you often see in advertisements in the back of computer magazines and newspapers, then the explanations below may help.

### **SDRAM (memory chips)**

Synchronous Dynamic RAM – memory that operates synchronously to the memory bus. SDRAM is normally rated at 8, 10, or 12 ns, while standard DRAM is rated at 60, 70, or 80 ns. In practice, SDRAM is packaged in the relatively new 3.3 volt 168-pin unbuffered DIMM modules. SDRAM is slowly replacing EDO and FPM.

Slot 1 – Intel's patented (proprietary) motherboard connector for the Pentium II's Single Edge Connector (SEC) module. The Pentium II CPU and heatsink fit into the Slot 1 using rails mounted on plastic inserts.

Slot 1 to Socket 8 adapters are made to allow for Pentium Pro processors to fit into a Slot 1.

### **Socket 8 connector**

Intel's patented (proprietary) motherboard connector for the Pentium Pro CPU. The Socket 8 is a zero-insertion force (ZIF) design that makes CPU installation quick and easy, unlike the Slot 1 design which requires a manual and a half-dozen pieces of plastic.

### **Socket 7 connector**

An almost standard design originated by Intel that can be used for any P54C or P55C processor, including the AMD K5 and K6, the Intel Pentium and Pentium MMX, the IDT C6, and the Cyrix/IBM 6x86, 6x86L, and 6x86MX processors. The Socket 7 is a ZIF design like the Socket 8, and it supersedes the older Socket 5/6's that earlier P54C (single-voltage) processors used.

### **Socket 4 connector**

The P5's ZIF socket, used only for the 5 volt Pentium. Sockets prior to the Socket 4 were less well-defined and were used on 486-style motherboards.

### **SMP Symmetric Multi-Processing**

A method that allows more than one microprocessor to share the load of CPU

requests. The Intel Pentium Pro natively supports four CPU's. The Intel Pentium and Pentium II support only two CPU's. With the aid of specialized circuitry, systems can be built with many more than just four CPU's, although this sometimes requires an asymmetric (front-end, back-end) system.

### **AGP**

This stands for accelerated graphics port. It allows graphics, particularly 3D graphics from having to go through the central processor unit. That is it bypasses the CPU and speeds up graphics. The main purpose is to provide fast access to the system memory. This port can transfer data at 533 megabytes per second! That's the equivalent to about 40 paperback novels per second from memory to the screen.

This is especially needed for 3d colour images as are used in games and video image processing. This speed can only be achieved when the 2x data rate is used. This is one of the features of the AGP chip.

It consists of a special slot (see diagram) and a large socketless flat chip nearby. Only an AGP kind of video card can be inserted into the AGP socket

Some video boards come in AGP and non-AGP varieties. It is important to get the right one for your particular motherboard. A graphics standard has only just been agreed upon in the USA. Some manufacturers are waiting for the Windows 98 operating system to come out before releasing their 3D/2D video boards.

The Intel Multi-Processor Standard (MPS)

This is the specification used by chipset makers and software developers for SMP systems. Intel's MPS allows the owner of an Intel SMP system to buy an off-the-shelf software product such as Linux, Microsoft NT, SCO MPX, FreeBSD, Sun Solaris, Novell NetWare, or IBM OS/2 by simply installing the software's multi-processing HAL for Intel microprocessors.

### **ACPI Advanced Configuration and Power Interface**

A power management API that goes beyond what APM's suspend and doze modes would do. It was introduced by the Intel 430TX chipset as part of its PC97 compliance.

### **ACPI/PC 98 Features**

- Microsoft OnNow
- Slow blinking LED for sleep-state indicator
- BIOS boot support for USB KB
- Real time clock wake-up alarm
- Main switch override mechanism
- Remote modem ring-on if system is in SoftOff state

i.e. a phone call can switch your computer from being sleepy and using little power to full power and ready for action. This could be a great feature for remote use of your home computer from overseas. You might have left something behind or simply feel homesick! You could upload your e-mail, or check on the house security. Computers can already remotely monitor the outside world. Some years ago built a front door motion detector. After being hooked up to the computer at two o'clock in the morning the detector went ON in the computer screen. I raced to the front door to greet the silent intruder and I found a neighbourhood cat!. We were both scared.

### **'Health' Monitoring.**

As an example of the specifications of a currently available motherboard is shown below. This includes details of the sophisticated safety features now available

This abstract below was taken from the internet Supermicro site which was last updated on April 1998

The Supermicro motherboard model 'SUPER P6SBS' PC Health Monitoring

Seven on-board voltage monitors for CPU core/s,

CPU I/O, +3.3V, ± 5V, and ± 12V

Three fan status monitors with firmware/software

control on/off

CPU/chassis temperature control

CPU fan auto-off in sleep mode

CPU overheat alarm, LED and control

Chassis intrusion detection

System resource alert

Support SUPER Doctor and Intel LANDesk® Client Manager

Hardware BIOS virus protection

Switching voltage regulator for CPU core, up to 20A current

If you can understand all the abbreviations then please let me know!

*continued on page 10...*

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Just go with the flow and get a feeling for the motherboard. She will understand.

### Pentium Pro/II Chipsets

The **440LX** chipset has been the mainstay of the Pentium II systems since about September 1997 when it was released.

The 440BX should gradually replace the LX set, since it has a 100 MHz memory bus. Its features include:

- Dual processor support
- PCI 2.1 support for 4 PCI slots
- 512 MB of SDRAM or 1 GB of EDO max (512 MB max using unbuffered RAM)
- ECC, parity, EDO, and SDRAM support on a 66 MHz memory bus
- Up to four DIMM's, rarely seen in a 3 DIMM, 2 SIMM configuration
- AGP 1.0
- USB
- ACPI
- Unofficial compatibility with the Pentium Pro using an adapter

The new Intel 440BX chipset available since April 1998 has a few improvements over the 440LX. Keep in mind that mixing EDO and SDRAM is not possible on this chipset.

- Support for 100 MHz memory bus while maintaining the PCI bus at 33 MHz
- Support for 1 GB of EDO and SDRAM
- Support for mobile Pentium II
- Support for SODIMM's
- Power saving modes in addition to ACPI

The new 440EX chipset (April 1998) has a few downgraded specs compared to the 440LX. Unfortunately, the 440EX "basic" chipset might get confused with the 440BX, a "better" chipset.

- Support for only 256 MB of EDO or SDRAM
- No support for ECC or parity RAM
- Support for only two DIMM's or four SIMM's
- Support for only one processor

Just a month before Intel introduced the 440LX AGPset, the Micron company made their first motherboard chipset silicon, which they call the Samurai, available only on Micron's award-winning Powerdigm XSU workstation. This chipset boasts a 64-bit 66 MHz PCI bus, which fully

supports the PCI 2.1 spec. This alone is responsible for the chipset's dominance in pumping data through the controllers. Many high-end video cards and SCSI-3 RAID controllers support 66 MHz, and some support 64-bit operation

The Profusion chipset, made by Corollary, is a good example of a chipset that sets industry trends. Up to eight Pentium Pro CPU's can be run on the same motherboard, allowing motherboard manufacturers a quick-and-easy way to make an Intel SMP-based server. Many of the major players in the server market use Profusion, and with Microsoft's new Windows NT Server 4.0 Enterprise Edition, people are quite excited about this technology. The Profusion chipset is the one of the best and most renowned chipset of its kind.

The Intel 450GX and 450KX. These chipsets, known as the Orion and Mars respectively, are for Pentium Pro dual and quad-CPU systems.

The 450GX is the chipset of choice for quad-CPU implementations. The only mass-produced motherboard using the 450GX is the AMI Goliath, a massive board that retails for over US\$3000. It is remarkable in size and features while having a relatively low cost. This board is what some shops use to make up their own US\$8000 SMP systems, which might cost US\$12,000 from major OEM's. Other implementations of the 450GX are indeed done by large OEM shops like Compaq, HP, Digital, etc..

The motherboards based on Intel chipsets are the "safe" way to go, however you'll be missing out on a lot of the cutting-edge features and high-performance of chipsets made by Intel's competitors, namely AMD, OPTi, SiS, VIA and Gigabyte. They have to add features to compete with Intel! These non-Intel manufacturers often have CPU monitoring, infrared pins and other useful additions.

All four of these manufacturers are producing chipsets that should reduce CPU chips will be 333MHz followed by 350MHz then 400 MHz versions. They of course need the new BX motherboard as well as 100MHz DRAM memory chips to gain the full speed benefit. The CPU will plug into existing Pentium II motherboards but most of the benefit will

only come where all parts of the system run at 100 MHz. There will also be a Deschutes for the upcoming Slot 2, which is supposed to not suffer from the 512MB cacheable RAM area limit anymore, it will be able to run in a multi CPU environment of more than only dual, as valid for the current Pentium II and is hence targeted to the server market, replacing the Pentium Pro.

The Slot 2 will have more connectors which will be arranged in 3 instead of the current 2 lines on top of each other. Both Deschutes versions will reach the 100 MHz bus speed next year, the Slot 1 Deschutes running on the 440BX chipset at 100 MHz, the Slot 2 Deschutes running on the 450NX chipset. Note that both CPUs use the same codename.

Billy Newsom's excellent internet web site about motherboards from which some of the above has been taken can be found at <http://www.motherboards.com>

There are about a dozen manufacturers of motherboards. Many are now located in Taiwan. Previously almost all motherboards were made in the USA.

Some of the better known motherboard manufacturers are listed below with their Web sites and Newsgroups.

- Abit Computer Corp. ([www.abit.com.tw](http://www.abit.com.tw)) is the newest member of the Major Manufacturers list, as they are a newer motherboard manufacturing company. They make P5, P6, and SL-1 motherboards.
- Abit Newsgroup NEWS:alt.comp.periphs.mainboard.abit
- Acer America Corp. ([www.acer.com/](http://www.acer.com/)) makes P5 and P6 OEM motherboards.
- AOpen® or AcerOpen ([www.aopen.com.tw/](http://www.aopen.com.tw/)) makes P5 and P6 motherboards. See also Acer (above).
- American Megatrends or AMI ([www.megatrends.com/](http://www.megatrends.com/)) makes 486, P5, and P6 motherboards.
- ASUS ([www.asus.com/](http://www.asus.com/)) makes 486, P5, and P6 motherboards. You may also want to see the ASUS Taiwan Site ([www.asus.com.tw/](http://www.asus.com.tw/)).
- ASUS Newsgroup NEWS:alt.comp.periphs.mainboard.asus

*continued on page 11 ...*

- FIC or First International Computer, Inc., or FICA Inc. ([www.fica.com/](http://www.fica.com/)) makes 486, P5, and P6 motherboards. They claim to be 3rd largest motherboard manufacturer. Their Taiwan Site is at ([www.fic.com.tw/](http://www.fic.com.tw/))
- Giga-Byte Technology Co., Ltd. (Taiwan) ([www.giga-byte.com/](http://www.giga-byte.com/)) makes P5 and P6 and 440LX and BX motherboards. In the USA they won in Dec 1997 an award for the best 'value for money' motherboard. This was for their 440LX motherboard.
- Intel Corp.(USA) ([www.intel.com/](http://www.intel.com/)) makes Pentium® and Pentium® Pro motherboards. Intel makes most chipsets and CPU's. See their developer site for info on PCISets.
- Octek or Ocean Office Automation, Ltd. ([www.oceanhk.com/](http://www.oceanhk.com/)) makes 486, P5, and P6 boards, supports Cyrix 5x86, 6x86 and AMD K5. Ocean's USA site is at ([www.ocean-usa.com/ocean/](http://www.ocean-usa.com/ocean/))
- Supermicro Computer Inc. (USA) ([www.supermicro.com/](http://www.supermicro.com/)) makes P5 and

P6 motherboards. Supermicro News group NEWS:alt.comp.periphs.mainboard.supermicro

- Tyan Computer (USA) ([www.tyan.com/](http://www.tyan.com/)) makes P5 and P6 boards. Tyan Newsgroup NEWS:alt.comp.periphs.mainboard.tyan

For what it is worth the model numbers of computer components are often different between the UK, the USA and Australia. This is puzzling when trying to compare reviews of components in US, UK magazines and from the Internet It can lead to even more annoying if you want to import computer components directly from overseas. You should try to get a good quality motherboard with a long warranty which is reflected in the board's workmanship, the manual, and its ease of use. You should at least be informed and ask what is in the computer you are about to buy. Ask if you can read the motherboard manual. Don't buy a computer with a small motherboard manual which you can't understand or is not reasonably comprehensive.. It will take less than half an hour to read the manual

and you will at least know what features you are getting. Model changes are frequent.

Some computer shops fails to install the motherboard that you have paid for. However, this is uncommon in Australia. Most computer shops are ethical.

Profit margins are small, particularly with custom built computers. Basically you get what you pay for.

Some consider it is best to buy locally and then at least you have someone to complain to. Others are able to accept the risk of buying at computer shows or interstate.

Prices in Canberra are fairly competitive with Sydney or Melbourne.

Finally even if the whole motherboard thing is beyond you, ask questions and talk to your friends before buying a new computer. You could also take the trouble to search out information on the internet for yourself. It is remarkable how much information there is out there.



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# Super NoteTab

*A worthy replacement for a tired notepad*



...by Terry Bibo

Honestly now, which of the two windows below would you rather see when reading or editing a text document in your Windows 95?

When Microsoft devised or created the new operating system, Windows 95, it brought with it the Notepad of Windows 3.1 fame. This is not up to the quality of Win95, particularly as it is made the default reader for the text files spelling out properties, installation instructions and updates to so many programs. A particular limitation with Notepad is the almost invariable requirement to go through Edit | Word Wrap to get an initial screenful of readable text from any file. There is no provision to save word wrap as the default setting.

Notepad deficiencies, of course, encouraged programmers to write many replacements, even back in the Win3.1

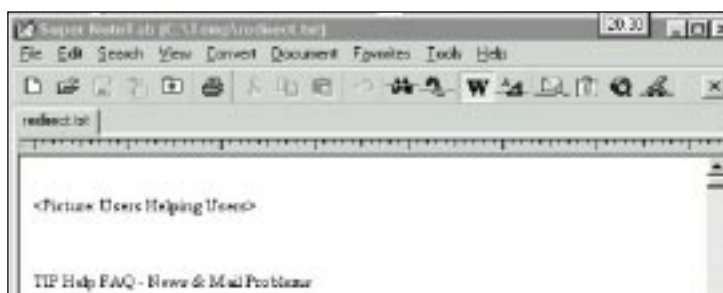
of system resources. Each document can have its own configuration of text, tabs and margins.

A tab bar is attached to each open document to enable easy switching between documents. A cascading menu under File | Reopen provides a list of my nine previously opened documents for rapid reopening.

It has a user-friendly interface with a comprehensive toolbar and is highly customizable. Besides the usual features we would hope to see in a good text editor, such as sorting, joining, splitting and indenting lines, and changing case, its preferences cover font selection, file filters, page and text colours, and a link to a web browser. This latter feature is important as the program is web sensitive and will use the browser to open



days. One of the best of those was Spad, a free program that I am sure is still available. Win95 has its free equivalent with even more features, Super NoteTab



by Eric Fookes, that I obtained from Tucows on the Internet, and we'll look at some of those features now.

Super NoteTab can edit documents of any size up to the limit of computer memory and in any number up to the limit

links in the text or to view HTML files. It will strip HTML tags from files for export or convert special characters to HTML syntax.

Like the browser it includes a Favourites menu from which files can be nominated for autoloading. Text filters permit conversion between ASCII, UNIX and Mac formats. And Text Statistics in the Tools Menu provide not only the word and character count for the current document or any selected block of text, but also an alphabetical list of every word used and its frequency as well as other fascinating facts. Printing from NoteTab supports page numbering, margins, headers and footers.

Importantly, Super NoteTab does not make any entries in the Windows system registry or INI files. Its files can be put in the Windows directory or preferably in a dedicated folder, and it is most easily run by putting a shortcut on the Desktop. Uninstalling is as simple as removing the dedicated folder and its contents, but preserving any documents you might have saved there and want to keep.

Having NoteTab as a replacement for Notepad is not much fun if it has always to be run from the Desktop or Explorer. It should be made the default application for viewing .TXT and .DAT files at least. To achieve this it is only necessary to make minor changes within Explorer. The steps are: Open Explorer. Select View | Options | File Types. Scroll down to DAT File, highlight it and select Edit. Make no changes to the next screen but select Edit again. In this final screen, as the 'Application used to perform action' enter the path to NoteTab.exe, eg C:\NoteTab\Notetab.exe. This can be typed in or found by browsing. Now click OK then Close. This takes you back to the File Types tab, and from there you can scroll down to the Text Document and repeat the editing process. Double clicking on TXT or DAT files will now open them with NoteTab instead of Notepad. This editing of file type viewers is worthy of elaboration and I will expand on it in weeks to come. Those of you who are familiar and comfortable with these editing procedures may want to uninstall Notepad and replace it totally with NoteTab. But I don't intend to discuss that option here.

Super NoteTab is freeware and you are encouraged to use it and give it away. Updates can be found on Tucows or by visiting the creator's web site at [www.unige.ch/sciences/terre/geologie/fookes/](http://www.unige.ch/sciences/terre/geologie/fookes/).

Enjoy your computing.  
Terry Bibo.

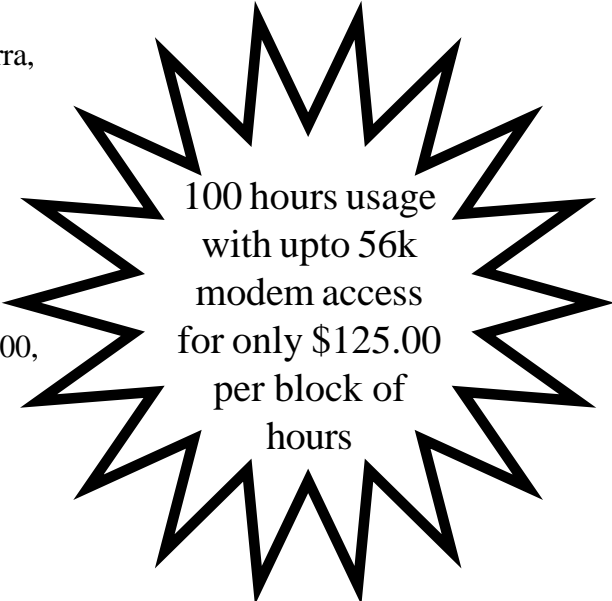


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# Soft Options

## 2 - a matter of interpretation



...by Robert Dakin

### Prehistory

Around 1951 the Ferranti Mark 1 computer at Manchester University was redesigned as the Mark 1\*. While it was being constructed, software development got under way. The problem was, how to test it? Could they use the Mark 1, even though its instruction set was different? Could you program one computer to make it behave like another?

Three of the Manchester crowd came up with an idea to do just that. One of them was an Australian called John Bennett. The upshot was a program that processed Mark 1\* instructions one at a time, replicating their effect. The first interpreter was born.

At the heart of an interpreter is a program loop that looks like this:

Read the next instruction and figure out what it is supposed to do.

Execute native machine instructions that produce the desired effect.

If you look at a computer's processor you will see essentially the same logic implemented in hardware. However, with software, the interpretation process is much more open to public view - you can easily find out and control what is going on by inserting code in the interpretation loop. It is more *self conscious* than hardware interpretation.

Interpretation has proved to be much broader in scope than just computer emulation. The instructions that are interpreted don't *have* to be machine instructions but can be Basic statements, Unix shell commands, pseudo code generated by a compiler, or something you just thought up.

The down side of interpretation is performance; the first part of the loop is an overhead that can often be avoided by using a compiler - in effect, doing all the

interpretation once, in advance. However interpretation has its advantages, and compilation is not always an option.

I have had quite a lot of fun with interpreters over the years, as you will see if you have the stamina to read on.

### The computer that nearly was

1959 was my last year in Electrical Engineering at Sydney University. I was an honours student, and this involved undertaking a short research assignment in the long vacation following the final exams. At the time David Wong and others

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*I remember 1963 for two things - I got married, and Sydney University acquired a new computer*

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were developing a computer - "SNOCOM" - for the Snowy Mountains Authority, and I took on a project with him.

At the same time people from the SILLIAC computer laboratory were developing a SNOCOM software library. John Bennett had returned to Oz as 'Senior Numerical Analyst' in charge of SILLIAC, and he knew how to create a software test environment...

My honours project was to investigate variations to SNOCOM design to improve performance. My main tool was John Bennett's SNOCOM emulator, and John became an informal co-supervisor of my project.

SNOCOM's performance was well worth improving. *All* of its memory, even processor registers, lived on a magnetic drum! As fast memory goes, a drum is extremely slow. Data was accessed a word at a time. Rotational latency - waiting for the word you want to reach a read/write head - was *the* dominant performance issue, and minimising latency was a major (and tricky) part of any programming project.

Internal registers were implemented on the drum using a 'circulating register' arrangement that avoided latency.

However this technique was rather expensive in drum resources and could not be used for large scale memory.

I needed reliable performance information, so I inserted code into the SNOCOM emulator's interpretation loop to calculate what the execution time would be on real hardware. I then made further modifications to emulate various ways of adding small amounts of fast memory. Finally I ran a test set of SNOCOM programs under the different emulations, giving comparative performance figures for the various design variants.

I found that you could get very substantial reductions in execution time (20 to 55%) with just 8 words of fast memory; this could be implemented quite cheaply by adding a couple of 4 word circulating registers. You needed quite a *lot* more fast memory to do significantly better than this.

It was a good project, but my design ideas were never implemented.

### Two ways to bridge the generation gap

I remember 1963 for two things - I got married, and Sydney University acquired a new computer, an English Electric KDF9 which eventually replaced SILLIAC. Much of the finance came from Adolph Basser, and the computing laboratory became the Basser Computing Laboratory. By this time John Bennett was Professor of Computing in the Physics School and I was his first PhD student.

The KDF9 had an innovative stack architecture and used discrete transistor and magnetic logic and magnetic core memory - a considerable advance on SILLIAC, with its vacuum tube logic and Williams Tube memory.

But SILLIAC had one big advantage - it had a ton of technical software. The challenge was to build on this software base *and* exploit the new hardware.

There were two strands to SILLIAC software - machine code and an

interpreted language called A9. The machine code side was handled by a SILLIAC emulator written by Peter Poole<sup>1</sup>. Like all hardware emulators it was no speed hog, but it did the job.

I took on the A9 side. A9 was more like a set of powerful machine code instructions than a computer language as we know it. It was still a lot easier to use than anything else that was available, providing convenient access to floating point arithmetic, I/O and array handling facilities.

A9 provided a much more disciplined programming environment than machine code. You simply couldn't do such fun things as bit twiddling and code modification on the fly, and this meant that there was no compelling reason to use an interpreter. So I took on the task of developing an A9 *compiler* which generated, and then immediately executed, KDF9 machine code. It was not related to my PhD work, but it was a fun thing to do and, besides, I was paid for it.

Compared to the SILLIAC A9 interpreter its performance was quite spectacular - with a faster processor, hardware floating point and no interpretation overheads. It became rather more than a transition tool - quite a lot of new A9 software was written *for* the KDF9.

### Saving space and time

In the 1970's I worked at the UK Atomic Energy Authority's Culham Laboratory. Peter Poole, with Bill Waite (also ex-Basser) and others, had devised a portable development system based on the use of a generalised macro generator with the improbable name of 'Stage 2'. They used this system to develop, among other things, a portable text editor called Mitem.

It turned out that the machine code version of Mitem was too large to run in the interactive command partition in the ICL 4/70 computer at Culham. The

<sup>1</sup> Subsequently Peter moved to England to work at the UKAEA's Culham Laboratory. Later he was Professor of Computing at Melbourne University and was, until recently, Dean of Information Technology at Bond University.

solution was to change the macros to generate a more compact pseudo code and interpret it. This did the trick - you could now run Mitem in the interactive partition. Performance, on the other hand, was pretty painful.

At this stage I got involved in the project with Peter, and we set about solving the performance problem. I did most of the work, and the ideas were a joint effort.

We ended up with a 'mixed code' version that was developed as follows:

- I put code in the interpreter loop to obtain an execution profile. As we expected, it showed that most of the time was spent in quite a small proportion of the code. More importantly, we knew *which* code was heavily used.
- I modified the Stage 2 macros to generate machine code for the most frequently executed parts and pseudo

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*Mixed code survives today in the Microsoft Visual C++ compiler - perhaps we should have patented the idea!*

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code for the rest; we put directives into the source code to switch from one mode to the other.

- I found a more space efficient way to store the pseudo code, offsetting the extra space requirements for the machine code sections.

The result was a version of Mitem which ran in the same space as the original pseudo code version but with nearly the same performance as the pure machine code version.

Mixed code survives today in the Microsoft Visual C++ compiler which can generate a mixture of pure machine code and a compact interpreted pseudo code called P-code. Perhaps we should have patented the idea!

### Throwing code away


Some time later Peter Brown, then at the University of Essex I think, came out with 'throw-away code' - an improved, more dynamic version of mixed code. It works like this:

- The *first* time a particular pseudo code instruction comes up it is executed via the classical interpreter loop logic, but with a wrinkle: machine code to execute the pseudo code instruction is generated explicitly and saved in a buffer.
- If it comes up *again*, the buffered code is executed directly, avoiding the interpretation overhead.
- When the buffer becomes full, the code in the buffer is thrown away - so it is back to first time executions starting from an empty buffer.
- This turns out to be a good way to maintain a near optimal adaptive code mix. Any repetitive loop that can fit in the buffer will be captured in machine code after one or two loop repetitions; thereafter the loop runs flat out. So the system maintains a code mix that is adapted to the *actual* profile for *current* program execution. Very neat!

Throw-away Code is alive and well today i Also...

There is a more that could be said... While at Culham I wrote a small interpreter that turned out to be a JCL macro facility, though that was not how it started. Later I

tried something a bit more ambitious - a front end application that converted system-independent job control statements into the native JCL of a variety of back end systems - it worked quite well. A few years ago I wrote an interpreter to make the API of an EDI translation engine accessible to low end business applications. And I have views on Java bytecode interpreters...

But this is an article, not a book. Time to stop, I reckon. 

### HARDWARE AVAILABLE FOR USE AT THE PCUG

*CENTRE (by members only)*

\* *New scanner with both graphics and OCR capability and 35mm transparency adaptor*

\* *Scanner with graphics capability*

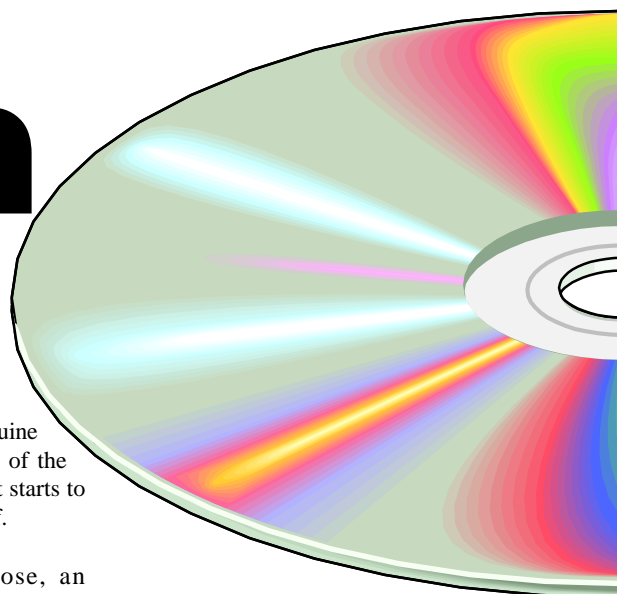
\* *CD burner*

*(remember the copyright regulations here, please)*

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# ed rom

By Nick Thomson



Welcome to the July 1998 edition of this column – sorry about last month. I am in the middle of the busiest surge in my management training/consultancy business that I have ever experienced, so I just didn't have a chance to do a piece for 16 Bits. I apologise also for the lack of screen shots – I am having a lot of trouble with my current screen capture utility. Anyone care to recommend a good screen capture program for Windows 95? This month I have included reviews of 4 of the 15 or so products that I have reviewed for the "InfoRom Hot 100" during the last month - to see the other reviews check [www.inforom.com.au](http://www.inforom.com.au). It features reviews of educational, home reference and entertainment CD-ROMs.

The reviews are of *Babe*, *The Age of Rembrandt*, *GradeBuilder Algebra 1* and *Egypt 1156BC: Tomb of the Pharaoh*. Copyright for the reviews rests with InfoRom.

## EGYPT 1156BC: TOMB OF THE PHAROAH

Egypt: 1156BC: Tomb of the Pharaoh is a powerful adventure game set in Ancient Egypt, with the added bonus of a considerable amount of quality educational information about the life and times of Ancient Egypt. The game immerses you in a spectacular 3D world, with over 30 live action characters and a variety of places to visit. The quality of sound and video is excellent, with exceptionally realistic characterisation and some fascinating 'footage' of some of the ancient rituals of the time. There are three main components to the program:

- The Game;
- Visit the Site;
- The Documentary Zone.

All three components feature genuine Egyptian music from Egypt, Music of the Nile from the Desert to the Sea. If it starts to become too much you can turn it off.

In the game you are Ramose, an ordinary man living in Karnak, Egypt (now called Luxor), in the time of the reign of King Ramses the Third - about 1156 BC. Your father has been accused of arranging the pillage of the tomb of Sethi - one of the great Pharaohs of ancient Egypt. Unless you can show the Pharaoh proof of innocence, your father will be executed, and his name erased from history. You start off your adventure in conversation with one of the tomb keepers, then you enter the tomb itself in search of clues that will help you solve the mystery. The tomb is faithfully reproduced, with beautifully rendered (and realistic) wall paintings and artifacts and a variety of mysterious (and somewhat forbidding) passage ways. If you survive your excursion through the tomb there are a number of other locations that you need to visit, and in so doing experience some of the political, social and religious issues of the day.

As you move along you need to search for clues, collect/use a variety of tools and objects, and dialogue with a number of characters. The voice/lip synchronisation of this dialogue is very good, and in most cases there are a variety of replies that you can make (each of which will produce different outcomes). It is possible to save the game at any time, and users are advised to do this frequently, as there are all sorts of traps and perils that await the unwary. There is also a game within the game - the board game of Senet.

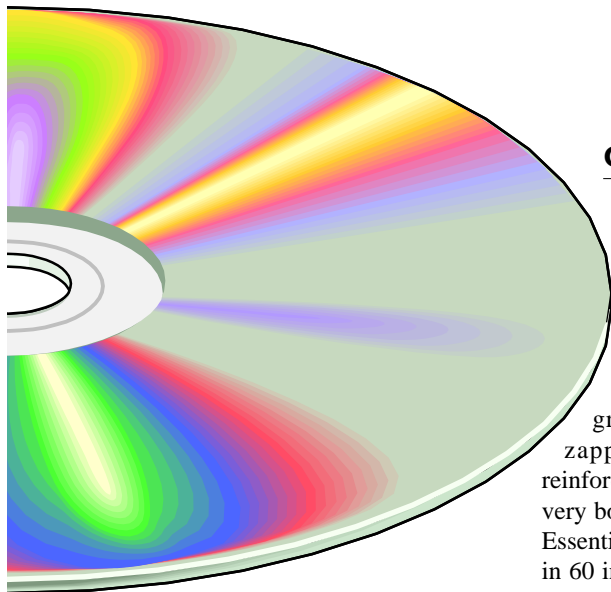
Visit the Site allows you to undertake a virtual tour of the various locations in the game; including the Tomb of Sethi,

the House of Panehesy, the village of Deir-el-Medinah and the Domain of Amon-Re (the heart of the main religious and economic center of the country). You can wander at will without fear of something untoward happening, and without having to interact with any of the characters. As well as providing the user with a most interesting way to explore various elements of ancient Egypt e.g. the tomb and the house of an Egyptian workman, this feature provides you with some valuable clues. For example, in "visiting the site" of the ancient tomb we discovered that the only way for Ramose to safely negotiate a hidden (but bottomless) pit was by first obtaining a wooden plank. Users are strongly advised to visit all of the sites in search of clues and hints prior to commencing the game. Objects, paintings, buildings etc. in the various sites have hot links to the relevant entries in the 'encyclopedia' of information about ancient Egypt.

The Documentary Zone provides users with access to an encyclopedia of information on ancient Egypt, organised in the following categories:

- Earth - geography of the Nile and the Karnak area, then and now;
- Time - Egyptian ways of measuring time, chronology of history, Egyptian concept of eternity;
- People - everyday routines such as eating and working, as well as





## **GRADEBUILDER; ALGEBRA 1**

Grade Builder: Algebra 1 is an entertaining and well presented introduction to algebra for upper primary and secondary students. It features well sequenced lessons and two slightly zany games, making good use of graphics, sound effects and 'zippy zappy' dialogue to teach and/or reinforce a fairly complex (and potentially very boring) subject in an interesting way. Essentially it presents a full year of algebra in 60 interactive lessons, covering a range of topics including:

- Equations;
- Factoring;
- Inequalities;
- Functions and graphs;
- Polynomials;
- Quadratic equations;
- Word problems;
- Statistics and probability.

One particularly useful feature is that the lessons are cross referenced to the appropriate chapter in 20 of the most popular algebra textbooks, including those from publishers such as Addison-Wesley, Houghton Mifflin and Holt, Rinehart & Winston. You choose a lesson, then select the appropriate textbook from the list, and then the appropriate chapter references for the current topic/s will be listed. It is therefore relatively easy to ensure that what the student is covering is closely linked with where they are up to in class. It should also be pointed out that many of the textbooks listed are also used in Australia.

The quality of graphics and sound is great, and the various characters in the program engage the user in a sort of ongoing dialogue that generally is pitched pretty well at its audience e.g. "Lose your five lives and you win squat, but you can always play again." The program is set in the Infinity Cyber Learning Café, and it features 3 main components:

- Lessons;
- Death by Algebra;
- Soak Your Sibling.

As mentioned above, the Lessons are a series of interactive introductions to a fairly wide range of algebra topics. Each one features definitions, explanations and practice exercises. To illustrate by example, I worked through a lesson on "Writing Equations". It consisted of 13 screens, with some definitions, followed by explanations of the topic e.g.

*My dad is four years younger than my mom*  
becomes  
 $d=m-4$

Finally, there were a number of test exercises, then the program offered me the option of Death by Algebra to practice my skills.

Death by Algebra is a quiz game that covers 49 of the program's 60 lesson topics. It consists of a gameboard with a number of different squares worth points ranging from 250 to 1000 - the higher the points, the harder the question. You can go for general revision or set the game to give you only questions relevant to the current chapter. Each time you get one right there are weird and wonderful graphics and 'wow' sound effects, and if you get a new high score (in the top 10) then you get to have your name engraved on the Death by Algebra tombstone.

Soak Your Sibling is an arcade game that covers the concepts taught in the 11 coordinate geometry lessons. You select your face and a suitable sibling face, then play against him/her, trying to solve questions in things like Ordered Pairs and Linear Equations faster than the pesky sibling. Each time you get one right you get to throw a water balloon at them, the idea being to thoroughly saturate them before they do the same to you.

The program includes InfinityWeb, a simulated website that includes pictures of the various characters in the program as well as 'updates' on program content.

information about the vitally significant Egyptian rituals of mummification and burial of the dead;

- haraohs - Egyptian government and royal functions, and detailed information about Pharaoh Sethi I;
- Gods - descriptions of all the Egyptian gods such as Horus and Anubis, including their functions and significance.

Each subject area has topics and subtopics, and for each of these there are one or more pages of text, complete with full color illustrations of such things as tomb paintings and artifacts. At any time you can call up an index of all terms, places and people covered.

There is no online help, but there is a 14-page user guide that provides an outline of all program features.

### **Australian Distributor:**

Metro Games (Tel: 03 9329 2999 )  
(Fax: 61 3 9329 2995 )

[www.metrogames.com.au](http://www.metrogames.com.au)

**Format:** CD for Windows 95 and Macintosh

**Publisher:** Cryo Interactive [www.cryo-interactive.com](http://www.cryo-interactive.com)

However, it is also possible to jump from within the program to a dedicated site on the Internet at [www.learningco.com/gradebuilder](http://www.learningco.com/gradebuilder). This provides information on other textbooks (not covered within the program), that can then be downloaded to your computer.

There is online help available within most areas of the program, as well as a 30-page user guide that provides a good explanation of program content.

**Australian Distributor:**

Roadshow New Media (Tel: 61 2 9552 8700)  
(Fax: 61 2 9660 8436)  
[www.village.com.au](http://www.village.com.au)

**Format:** One CD for Windows 3.1, Windows 95 and Macintosh

**Publisher:** The Learning Company  
[www.learningco.com](http://www.learningco.com)

**BABE**

Babe is an interactive moviebook that presents a detailed multimedia outline of the story of the award winning film about the pig that thought he was a sheep dog. The story is presented in 52 pages with text, movie clips, photos, animations and a variety of puzzles and educational activities.

The main component of the program is the moviebook - a more comprehensive presentation of the story of the movie than in most programs of this type. It can be 'played' in interactive mode, where you page through at your own pace, or auto-read, where the story is read to you. The story presentation is entertaining and engaging. It is presented in 10 chapters, each with the following components:

- A musical introduction from the mouse choir;
- Several pages of narrated text;
- A number of photographs and clips from the movie;
- Word games such as "spot the missing word" and "scrambled word";
- Brief quizzes on the content of each chapter.

As well as the story, the program includes the following games and activities:

- Curio cabinet - Answer the question by clicking on the right item in the curio cabinet;
- Kooky koop - memory matching game with chicken eggs;
- Barnyard scene - create your own barnyard scene with your favorite Babe characters (scenes are printable);
- Silly skins - put 'silly skins' on Babe characters to change them;
- Create a card - complete special cards by finding the missing items (cards are printable);
- Hidden pictures - find the hidden objects in the picture;
- Danger maze - Lead Babe and Ferdinand (the duck) through the maze.

There is a 5-page user guide that provides an outline of all program features, as well as one page of diagrammatic online help within the moviebook.

**Australian Distributor:**

Dataflow (Tel: 02 9417 9700)  
(Fax: 61 2 9417 9797)  
[www.dataflow.com.au](http://www.dataflow.com.au)

**Format:** One CD-ROM for Windows 3.1/Windows 95

**Publisher:** Sound Source Interactive

**THE AGE OF REMBRANDT**

The Age of Rembrandt is an annotated collection of over 120 paintings by Netherlandish painters from Hals to Rembrandt. The paintings can be displayed full screen, and then select portions of each painting can be enlarged for a closer look. The excellent quality graphics makes it very easy to appreciate the full color and amazing detail of some of the world's finest paintings.

"The Age of Rembrandt saw an unparalleled blossoming in Dutch art. Around this great master of Amsterdam, the Dutch painters were to carry the old

**Oz User Groups**

**Adelaide PC Users Group**

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

**Brisbane PC Users Group (Brisbug)**

PO Box 985  
Toowong QLD 4066  
(07) 3299 3943 Info Line  
(07) 3209 4980 (fax)  
Pam Kirk (Pres)  
Home page <http://www.brisbug.asn.au>  
Meet: Kelvin Grove High School, Kelvin Grove, Brisbane. 9am-5pm approx, 3rd Sunday of the month.

**Darwin Computer Users Club**

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

**Melbourne PC User Group**

2nd Floor, 66 Albert Road  
South Melbourne VIC 3205  
(03) 9699 6222  
10am - 3.30pm  
(03) 9699 6499 Fax  
Email [office@melbpc.org.au](mailto:office@melbpc.org.au)  
Home Page <http://www.melbpc.org.au>  
Meet: 6pm, 1st Wednesday of the month (except Jan) at Pharmacy College, 381 Royal Parade, Parkville.

**Perth PC Users Group**

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

**Sydney PC Users Group**

PO Box A2162  
Sydney South NSW 2000  
(02) 9972 2133  
Meet 6pm, 1st Tuesday of the month at main auditorium, Teachers Federation, 300 Sussex Street, Sydney.

*continued on page 19 ...*

artistic traditions to their apogee: genre painting, the still life, the individual portrait, the group portrait, the landscape." The program includes paintings by the following:

- Van Haarlem (e.g. The First Family);
- Goltzius (e.g. Jupiter and Antiope);
- Wtewael (e.g. The Martyrdom of St. Sebastian);
- Ter Brugghen (e.g. The Calling of St. Matthew);
- Hals (e.g. The Gypsy Girl);
- Lastman (e.g. The Entombment);
- Rembrandt (e.g. The Stoning of St. Stephen);
- Lievens (e.g. The Raising of Lazarus);
- Dou (e.g. The Dropsical Woman).

The paintings can be displayed by author or by historical period, and there is also an index that allows you to search for paintings by artist, museum or themes such as Allegory, Moses, History Themes. For most paintings the following is available:

- When it was painted and (in some cases) text information;
- Where it is located now;
- An audio commentary (in some cases) that provides useful and quite detailed information on the content and context of the painting.

There is no online help, but there is a 15-page user guide that provides an outline of program features.

**Australian Distributor:**

Dataflow (Tel: 02 9417 9700)  
 (Fax: 61 2 9417 9797)  
[www.dataflow.com.au](http://www.dataflow.com.au)

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

**Publisher:** ODA Laser Edition



*Nick Thomson is the manager of The InfoRom Hot 100, a service on the Internet that reviews educational, home reference and entertainment CD-ROM software. It can be found at [www.inforom.com.au](http://www.inforom.com.au).*

**Nhan Tran's Now Official TIP Web Help Pages**

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

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

**TIP Technical Information**

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

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

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

Now in Adobe Acrobat format!

# QOOL URLS



Compiled by Anne Greiner



## Artscape 2000

The aim of Artscape 2000 is to supply a space where artists and galleries worldwide can promote their work online. This is a very laudable ideal, but in practice Artscape centres on work produced in and the around New York, which is, in itself, not a bad thing. This is a well constructive site, but perhaps a little difficult to comprehend on a smaller monitor because of the wealth of material. There are lots of pictures, which may slow down browsing to some extent, but after all this is an art gallery isn't it?

<http://www.artscape2000.com>

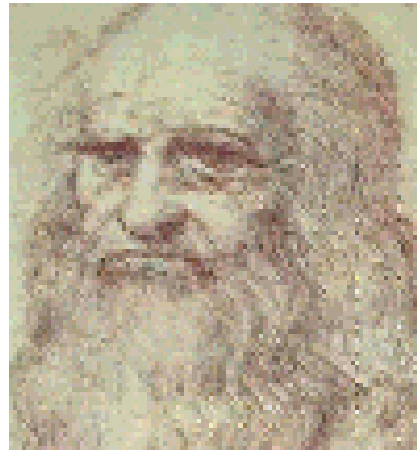


## Good Guys Bad Guys

Good Guys Bad guys is probably the hottest thing on Australian television just at the moment. It's locally made (in Oz) and features Elvis Maginnis who is good, and bad, but definitely not dirty (he owns a drycleaning business). He is an ex cop from a family heavily into organized crime in Melbourne, with a side kick who has Tourette's Syndrome, and a sharp, red headed girlfriend. If you've only just

started watching, head over to this site to catch up on what you've missed. There are character backgrounds, episodes, summaries, production information, AV down loads (including some hilarious goof reels) and it's all wrapped up in wry humour and really wonderful design. It is one of my very favourite shows.

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



## Why is Mona Lisa smiling

Leonardo da Vinci's priceless masterpiece has been greatly admired worldwide in all kinds of media, mostly because of those eyes — and that smile. It's a smile somewhere between smart and sneaky — it's a smile keeping a secret. Da Vinci kept records in his notebooks of most of the models who sat for him, but the Mona Lisa model was not recorded. Who was she? Discover a few theories on this site including radio interviews and notes from art critics and scientists. At the centre of this particular project is doctor Lillian Schwarz of Bell Labs who believes.... well you've just have to see for yourself now won't you? When you are done with gazing at Mona Lisa, jumped to some Leonardo links (fortunately not of the DiCapprio kind), for more of the inspired

art/science blend. An intriguing little history lesson.

<http://library.advanced.org/13681>



## Bible Gateway

Bible Gateway is a detailed and comprehensive biblical search engine. You can search for specific passages, or by keyword, in nine languages, through 6 different versions of the Bible. Can't remember the order of the 'begats', or what the dietary laws in Leviticus forbid us to eat, or exactly how the loaves and fishes were subdivided? Or just see what the Bible has to say about specific words, and how the words have changed with each new edition (I'm a King James person myself). It is an excellently designed search engine, by the way, with a truly intuitive interface, and it is a pity that some of the larger search engines don't adopt some of the same methodology. Maybe the authors had a little extra help when they were designing this engine!

<http://bible.gospelcom.net/>



## Hell

Hell is a non-Satanic membership only "private parallel web" for which membership is only available on invitation. So why would you want to look at it? Because they've come up with coolest way to tell you to err.. go away from Hell actually. The FAQ is called 'No Answers' and includes the rather good point that Hell resides on no search engines, and has

no links, so why on earth did you feel the urge to type in [www.hell.com](http://www.hell.com) as the URL. You can also send your personal definition of Hell, which can have interesting links. Hell members do however hold the occasional exhibition, so it's worth sending your email address to [someone@hell.com](mailto:someone@hell.com) in case you ever get invited. Other than that just hang around for while and see how nasty they can get.

<http://www.hell.com>



#### Chaos Music Market

It has been a long time coming, but it was worth the wait. We now have a site where a we can reliably buy CDs and have them delivered within three working days anywhere in Australia or New Zealand . The site has only just been launched, so some of the categories on offer have all of one CD listed, but hopefully regular maintenance will ensure a bigger range. A couple of the genres were surprising in themselves, chemical beats, Prog Hop??? I havn't heard of most of the names, let alone what they sound like. A really great thing about this site (and I took advice from someone in the correct agegroup here) is that artists, and I use the term with some reservation, can submit their own independent CDs to be sold on the site, which should encourage some variety in the music, rather than just the names of the homogenous wash of corporate post pop that currently abounds in most households with a population under 25.

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

*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*



#### Sevenmag

I don't usually do two music sites in row, but this site is interesting to me, not so much for the contents, yet another music web site covering popular music, but because of the way this site is designed. The pages here flow from left to right rather than up and down, and it works remarkably well. After all we read from left to right don't we? The design and graphics are very slick and cover interviews, weekly news, and a Real Audio section with sound bites from selected performers. Worth it for the novelty.

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



#### The Doctor Who Domain

I am sure there are lots of closet doctor who fans out there who will be happy to have this page in the bookmarks. This is the closest thing you'll find it to an official site of the cult TV show, which means they are actually licensed to use the images. It's a great site that, in my mind, owes a lot to the style of props and sets used in the show, which is at least half the charm of the site. The introduction sequence is a message to the people of earth from the Darleks. It's rather dated but great fun, and is at least as believable as X-Files. This is a well designed site that is a worthy tribute to show of such calibre. I still believe in Darleks - doesn't everyone?

<http://www.tcsnetwork.com/doctorwho/main.htm>



#### Single Sites

Are you looking for romance or just a penpal? Go no further. Well, you can go further, like going to the pub on the corner, or going to the gallery, or the laundromat, or just about anywhere, and actually meeting someone. But then, that the is not for everyone. Anyway, Single.com offers a wide variety of services for the lovelorn and lonely. Place an advertisement for free, answer someone else's ad, browse through the whole section of photographs to check out any likely options. Now this is a better deal than many of us actually get in real-life, isn't it? They don't tell lies about themselves, really, do they??

<http://www.single-sites.com/lovers/>



#### Bandai Toys

This is the official home page of Bandai Toys, creator of Power Rangers, Beetle Borgs and Tamagotchi, the ultimate virtual pets. Tamagotchi hatch from tiny eggs after travelling millions of light years through cyber space, and with proper care and feeding, accomplished by pushing buttons on the toy which hangs around the neck, Tamagotchi quickly grow into adorable virtual pets. If you're considering buying one of these pets for your ankle biter, be warned that they demand serious love and attention otherwise they starve and die. Methinks, a very interesting marketing ploy here.

<http://www.bandai.com>

# Ockham's Razor

Robyn Williams: I've been re-reading Professor Lewis Wolpert's provocative book 'The Unnatural Nature of Science'. In it, the famous prof says that science had very little to do with technology and innovation until about 300 years ago. And since then the relationship has been, well, tenuous. Engineers tend to improve on present practice he says, scientists build theories, then test them. Archimedes would have been a splendid example of both, I would have thought, but anyway the connection between research and innovation is, as someone else remarked, a bit like that between prayer and deliverance ... unpredictable.

Which brings me to today's wielder of Father William of Ockham's Razor. She's Berry Ann Billingsley and all you need to know just now is that she did science at Oxford and makes TV programs for the Education Department in Melbourne.

Berry Ann Billingsley:

At this moment, I'm in pain. It's my toes. They're killing me. I could stop this pain right now but if I do, the last five minutes will be completely wasted. My baby Hannah is finally just drifting into sleep after an energetic morning. I just have to keep rocking her bassinette for a few more minutes and she'll be asleep. At the same time, I'm right in the middle of typing a script on my computer and I'm desperate not to take my hands away from the keyboard. So you might ask, how is it possible to rock a baby without taking your hands away from the keyboard? That's where the toes come in.

You see, I've discovered that if I take off my shoes and socks, I can grip the bassinette leg between my toes and then at great pain and possible permanent damage to the bones in my feet, I can rock the bassinette by waving my leg to and fro. Meanwhile, my hands are left free for the keyboard. And provided my toes don't either freeze on the cold metal or seize up with cramp before Hannah falls asleep, this method is moderately successful.

It occurs to me that a much better solution to this problem would be a small personal robot. The robot I'm imagining would transform the life of the overstressed, overwrought mother. Not only could it rock tired bubs to sleep, it could

also dust and vac the house, and peg the washing on the line – thus saving me precious dollars running the tumble dryer. And while it's at it, make me a cup of coffee. Why not?

We could call it Mummie's Little Helper – or anyway, somebody else can think of a good gimmicky name. There's a big market for this kind of robot. I've just finished making a TV show about robotics and one of the things we did was vox pop the public about the kind of robot they'd like to have.

A home help robot was the unanimous answer. A robot to clean, to paint, to do odd jobs and empty the bins, to feed the pets and do all the other yucky little jobs that bug us. So, 'Where is this miraculous machine?', I want to know. There are robots to shear sheep, and robots to build cars and robots that go to Mars so why don't we have a robot to do the household chores? You'd think in this day and age it would be a cinch.

Well apparently, according to my father John Billingsley, who's a professor of robotics, housework is a particularly challenging project, robotically speaking. So what are the aspects of housework that put it beyond today's technology? Well, take vacuuming. Besides manoeuvring around table legs there's also the issue of cable management. It takes too much power to run a vacuum cleaner off batteries which means the robot will have to be plugged in. Aah, but don't robots do everything themselves? So first it's got to plug itself into a plug socket in your hall and then, when it's finished vacuuming the hall it will have to unplug itself and move to the lounge. And then in the lounge, it's got to plug itself in again – aah, but what if the TV is

plugged into the socket in the lounge. Is it going to grope around the skirting board in search of another socket? And if that wasn't hard enough, it's also got to make sure it doesn't tie itself in knots with its own cable.

What's more, if you've paid good money for a robot that claims it's going to be able to clean your house you're going to want your money back if you find it vacuuming around an apple core instead of picking it up. Or worse, trying to suck

up your cat with its automatic vacuum nozzle.

According to Dad, a truly reliable and sophisticated vacuuming robot is still someway off. Other robotic home help devices however, are currently available. We have a robot that washes dishes – it's a dishwasher. And we have a robot that boils water. It's a kettle. Because according to Dad, the strategy that engineers are applying to the housework is as follows. As soon as they have the technology to build a robot to do a particular task they go ahead and build it. The point is that the engineers find it easier to design machines specifically for each purpose rather than build a generic humanoid machine that is capable of doing everything. Every time you want a robot to do something you go and buy a robot that does that particular thing.

The washing machine is a robot designed to wash clothes. It's hopeless at making toast but that's OK because our engineers have also been sweet enough to provide a robot that cooks toast and it's called a toaster. Some robots have rotating drums, some robots have grippers, some robots have temperature sensors and some robots have lights that go on when you open the door. In this way, explains my father, incredible though it may seem, our everyday world is full of robots if only we could recognise them. It's a fun idea, because loading the dishwasher takes on a whole new excitement when you think of it as R2D2 designed to wash dishes.

And eventually, according to this notion, we will have robots to do all of our chores. But it won't be one robot that's a jack-of-all-trades, it'll be a whole house full of machines each dedicated to do one task. You see, according to engineers like my father, the public has its ideas about robots all wrong. The public expects a robot to look like a shiny, metal humanoid with square eyes and plastic hair. The kind of think you see on Star Trek or Lost in Space or any other science fiction movie. But real robots only have exactly what the need to do the job they are designed to do and no more.

# Where's the robot of my dreams?

Thus, a toaster does not have eyes, since the theory goes that it doesn't need to see your toast to cook it. Instead it has a timer, which is cheaper. Tell you what though, if it did have eyes, it would have seen my toddler stuffing a plastic comb into its slot. For days I wondered why my toast came out smelling like burnt plastic, even though it popped before it was barely brown. You see, you engineers haven't really thought of everything. Even a robotic sniffing device would have done the trick.

But ah yes, when it comes to those optional extras, the question is, are we willing to pay for them. Take, for example, talking. If we the public say, where are the robots that speak, the engineers will say, 'Are you sure you want robots that speak? How many more dollars would you be willing to pay for a toaster that shouted, "toast's up, mate", rather than just popping out the slice of bread?'. Apparently, our engineers think, not enough, since as far as I know no-one's made a talking toaster.

Another key concept in robotics is that robots only seem intelligent because they've been programmed by intelligent people. In fact, take the robot out of its usual environment, or throw in something unexpected and it looks very silly indeed. To get a robot to act with anywhere near the intelligence of a human would require incredible technology and huge amounts of research money. Suppose you wanted a robot to cook your breakfast. Allow me to introduce Zippy, the robot butler. It's humanoid in shape and deviously dexterous. It has to be, because it's first task is to open the fridge door and find a box of eggs which may or may not be hidden behind the cauliflower on the second shelf. Let's hope its robot vision is up to the task. Zippy must then grapple with the cardboard tab on the egg box, open the box and lightly take out an egg. I say 'lightly', because I don't want my eggs scrambled in the box, I want them scrambled in the pan. Having placed the saucepan on the stove, our robot must then work out how to ignite the gas ring. This is a feat which sometimes defeats me, but again, let's imagine that Zippy is sufficiently advanced. Besides a

scrambled egg, I'm also hoping for toast with vegemite and a good hot coffee. This means Zippy will need to unscrew a few jar lids, sniff my milk to check if it's gone off yet and get a china tea plate from the high cupboard over the fridge. OK, point made. A challenge for any cybernetic invention.

In fact, if a robot did exist to make breakfast, it would probably look more like a metallic square box covered in dials and tubes. There'd be a tube at the top to drop in an egg and at the required moment a small quantity of water would be heated, probably by microwaves and the egg would begin to boil. The whole think would run off a timer like a teas-maid, so that if you set it up correctly the night before, you'd be in with half a chance of breakfast, hot and ready in the morning. Of course, if you'd got anything wrong – for example, you forgot to load it with

coffee powder then bad luck chum, you'd have milky water for your breakfast beverage and no apologies from the chef.

The point of the story is: never underestimate the intelligence of a human. Because, using present technology, it is just about impossible to get a robot to act with anywhere near the wit or expertise of a human. We are adaptable. Robots are not. We can do several tasks at the same time. Robots do one task. And the more we want the robot to do, the more money it costs and the more scope there is for failure.

One of the goals for robot designers is not merely designing the robot but designing the world that the robot will operate in. Humans, as I say, are adaptable and provided the humans are sufficiently impressed with the help the robots will provide they will put up with changes to

*continued on page 26 ...*

## The Internet Clinic

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

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

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

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

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

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

*dschwabe@pcug.org.au*

# The Great Coffee & Chat Luncheon



The Coffee and Chat group had their annual luncheon at the Canberra Yacht Club last week, and a thoroughly good time was had by all who attended.

Four members were honoured by the group for services rendered, and were awarded with life membership of the Coffee and Chat Group, and were presented with a unique badge to mark the occasion



Awards were made by the group for services of various kinds to the group, and recognized a significant contribution to both the Coffee and Chat group, the PCUG, and the community as a whole.

Ted Macarthur presented the awards to Gloria Robbins, Alf McMicken, Darrell Burkey and Owen Cook.





- 
1. **Remove this double centre page from the magazine**
  2. Carefully split down centre with a sharp knife
  3. Place the notice for the Training Room hire onto a notice board at work or in a prominent place e.g. library, local shopping centres, church, etc.
  4. Nominate a hardworking person for next year's Committee on the nomination form and return it to the secretary

---

# Committee Nominations

In September, the Annual General Meeting of the PC Users Group (ACT) Inc will elect a new Committee to lead the Association for the ensuing year.

Nominations are now called for your 1998-1999 Committee.

Under the Rules of the Association, the Committee consists of **four office bearers and up to ten ordinary members**, together with the Immediate Past President.

The office bearers are:

- **President**
- **Vice President**
- **Treasurer**
- **Secretary**
  
- **10 Committee members**

A member may nominate for more than one position. Election of office bearers will be in the order shown in this Notice, followed by election of the ordinary committee members. If elected to one position, a member will not be eligible to be elected to any other.

Persons who have been nominated for an office bearer position may also wish to consider being nominated for an ordinary member position in the event that they are not elected to an office bearer position.

Nominations need not be on the form provided in this issue of SIXTEEN BITS, but all names, relevant membership numbers and the position nominated for must be clear and legible.

Members may nominate themselves as long as another member seconds the nomination. Nominator, seconder and nominee must be financial members of the PC Users Group (ACT) Inc.

Candidates should bear in mind the large commitment of time and talent involved in being a committee member, and are strongly urged to provide profiles for publication in SIXTEEN BITS. This will enable the membership, prior to the Annual General Meeting, to give serious regard to the nominations received. Profiles of candidates must reach the Editor by the deadline for the August issue of SIXTEEN BITS (in which formal notice of the Annual General Meeting will also appear).

Nominations for committee positions must be received *in writing* on or before **Friday, 24 July 1988** by:

The Secretary  
PC Users Group (ACT) Inc  
PO Box 42  
BELCONNEN ACT 2616

---

## 1998/1999 COMMITTEE NOMINATION FORM

### NOMINATED:

I, \_\_\_\_\_, a financial member of the PC Users Group (ACT) Inc, hereby nominate  
(full name)

\_\_\_\_\_ for the position of \_\_\_\_\_  
(full name) (see above for committee positions)

Signed: \_\_\_\_\_ Membership No. \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(signature of nominator)

### SECONDED:

I, \_\_\_\_\_, a financial member of the PC Users Group (ACT) Inc, second the above  
(full name)  
nomination

Signed: \_\_\_\_\_ Membership No. \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(signature of seconder)

### ACCEPTED:

I, \_\_\_\_\_, a financial member of the PC Users Group (ACT) Inc, accept the above  
(full name)  
nomination

Signed: \_\_\_\_\_ Membership No. \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(signature of nominee)

# Training Room for Hire

## Computer training facilities available

The PC Users' Group (ACT) has a modern, well equipped computer training room available for hire.

For further information:

please contact the PCUG Centre  
Northpoint Plaza, Belconnen

Phone: (02) 6253 4911

Fax: (02) 6253 4922

email: [pcug.hire@pcug.org.au](mailto:pcug.hire@pcug.org.au)





## LIFE MEMBERS

Darrell Burkey  
Alf McMikken  
Gloria Robbins  
Owen Cook



Photography for this report is by Jeff Colwell  
Reprints are available from Ted Macarthur if you haven't already ordered some.  
Design is by Ivan Kramer



continued from page 23...

their everyday environment. Humans can also be relied upon to fill in the spaces where the robot is not clever enough to do the task as it stands. The bottom line in robotics is to make life as easy as possible for the robots. This often means we have to redesign our world to suit robots. Robots have very different needs from humans. For example, think about a jar of jam. If this jar is designed for human use, it will have a pretty picture of a pile of apricots in the foreground and sunlit meadows in the background. If the tin is for robotic use it will have a bar code and a plain white label for good contrast.

Well until now, I've never had a problem with this. I've taken it for granted that if I want my robotic washing machine to wash my clothes, I must take the clothes to the washing machine, rather than shouting out, 'the laundry basket's in the bathroom'. I've also accepted that I must set the washing machine correctly. If it fast spins my knitwear and turns it into fluff I have only myself to blame. I also have a robotic dishwasher. It cannot clear the table, I must pack it and stack it correctly. Feed it with soap, ensure it has access to a drain or it will flood my kitchen, thereby

making more work than it saves. I must also remember to switch it on otherwise I may find I have a hungry family sitting up, ready for dinner, and not a clean plate in the house.

Well now Dad, here's my point. For thirty years you've explained to me that engineers have been supplying the busy mother with robots to make her life easier. And for thirty years I've believed you. You've told me about washing machines, and toasters and tumble driers and all sorts of bits of mechanical hardware and I've thought 'Bravo! engineers, good on you'. But now that I am a busy mother and I rock my baby with the leg of the bassinette still wedged between my stiff and aching toes I realise you've had me fooled. The truth is, right now, these household appliances are not there to make my life easier, I'm there to make their lives easier. To get any one of these robots into a state of readiness for work, I must first run around my house, dodging my two year old and my scatty dog, loading the thing up, giving the thing instructions, setting dials, pressing switches and double checking for silly mistakes.

If the dishwasher was really designed to help, I would hear it cry out, 'Uh-oh, I can see the baby's crying in the kitchen and the toddler is creating havoc with the toilet rolls in the bathroom and the dog is about to trip her up so I'll just get in there and take those dirty dishes off the table and stack them up myself. Then at least that's one thing she won't have to worry about'. But the dishwasher doesn't help. It just sits there. Inert and yet strangely smug. A single light flashing to tell me it's finished yesterday's wash and is still waiting to be unloaded.

Who are you kidding Professor, this household of individual robots each designed to do a single task will never replace the multi-dexterous robotic slave of my dreams. If R2D2 were here now, I could say, 'OK mate, stop stacking dishes and come and rock the baby. That's more important right now and the dishes can wait'.

Robyn Williams: Of course they can. Berry Ann Billingsley works for the Education Department in Victoria and her Dad, by the way, is Professor of Engineering at the University of Southern Queensland in Toowoomba.



## Thank you PCUG members.

A portion of every dollar you spend is going to help Esther Kirikumwino, in Uganda, to have a better chance in life. Why ???, because in this day and age of rapid obsolescence with computer products, every \$500 worth of product is worth very little in a short period of time. However, that same \$500 can have a significant impact in improving a child's life chances in a developing country. Esther is indirectly sponsored by PCUG members.

Find out more about Esther by visiting our Web site

[www.ls.com.au](http://www.ls.com.au)

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# Capture It!

...by Jim Hume

**H**yperSnap-DX brings professional quality, conveniently executed Windows 95/98 and NT Screen captures to your fingertips. It was clearly designed for ease of use, with powerful and useful features to both professional and home user. As an Editor I find it indispensable and to anyone involved with graphics or the internet, once loaded I think they will agree.

The program is released in two parts: Basic and Pro with the licence covering both versions. As an occasional user the Basic version with its small size and simplicity is probably all you will need and if you later discover you need the additional features you can always subsequently download the Pro version.

The Basic version can capture the entire desktop, selected window or just a client area, or draw a rectangle over the desktop to select. 'cuts' can be made with pixel precision. Screens from DirectX and 3Dfx Glide games can be captured in addition to automatic vertical scrolling and simultaneous capture of an entire window area not shown on screen, which is great for capturing entire WEB pages and other documents.

Images can be saved as a BMP, GIF, JPEG file in Basic version, and print or copy

to clipboard and in many more formats with optional, free 'Pro' plug in. Pictures can also be resized change colour resolution or be converted to grey scale. You can even

trigger new captures every x seconds and have the file name increment-ed.

There are many other features, all of which are detailed online together with an excellent tutorial in plain English.

Having hopefully wetted your interest, I now go to the main purpose of this article, which is not intended as a full review. The author of HyperSnap-DX American Greg Kochoniac and his wife Barbara became cyberspace friends of PCUG members Bob and Jeanette Pillifeant and when Jeanette recently died, Greg offered as a memorial to Jeanette a HyperSnap-DX licence to all members of the PCUSERS GROUP (ACT) Inc. which will allow any



member of our PCUG who takes advantage of this generous and meaningful memorial to become a fully registered user of HyperSnap-DX at no cost.

Hypersnap-DX version 3.xx can be downloaded from:

<http://www.hyperionics.com>

When down-loaded install the program and run HyperSnap-DX. At first it will complain that it is not registered. Select the 'Help' menu in the HyperSnap window, then 'Enter Licence No' item. from the menu that pops up. Another window will appear, where you may enter the following information exactly as spelled below (case sensitive)

Register To: Members of PCUSERS GROUP (ACT) Inc.

Key: UNHU-SVBD-IESY-RJFZ-GHZQ-MXXY

Licence Type: Unlimited Site Licence. (Select this type in 'Licence Type' frame and then substitute Members of PCUSERS GROUP (ACT) Inc.). Be sure the key string is exactly typed in. When done, click on the OK button. If all was entered correctly, the licence entry window will disappear without further messages. You may verify the licence by displaying Help/About box, when PCUSERS GROUP should appear.



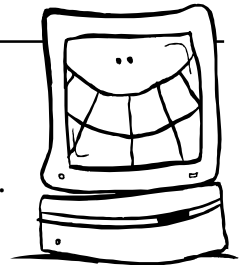
Full Screen



Region

# Bits & Bytes

By Andrew Clayton.



## 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, Microsoft is the Victim of a Legal Mugging

## 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.

Help Wanted: Telepath. You know where to apply.

By Gabe Martin  
borderline@nets.com

The BORDERLINE



Darryl began to wonder whether the new 255 character filename limit on Windows 95 was really going to be all that helpful.



# Puzzle Corner

...compiled by Victor Bushell

## Last month's puzzle ---

This one also attracted a good response — some correct and some nearly correct. Of those who gave their solution method and were not correct the main stumbling block seemed to be the question of uniqueness. And I would suspect that this was also the problem for those who gave incorrect solutions but without their method. I would encourage all readers and, in particular, all those who nearly (or didn't) get it out to read the following solution.

P.S. If you forward your solution method along with your answer, I can spot any problems and offer hints! Gratis!

I originally set out the solution to the puzzle last month, but after receiving all the answers I was particularly struck by the lucid explanation from Peter Foster, and I have absorbed his solution into my earlier effort. Well done Peter.

Congratulations also to Toby Pearson, Jill Pearson, Joel Pearson, Jim Pearson, M Fraser McQueen, Ray Coutts-Smith, Patrick Harrison and Barbara Duus.

Thanks also to Chris Fondum for his contribution.

### Children At Play Solution

The maximum number of children is 17.

There are 4 families with distinct numbers of children.

Under these conditions, several house numbers exist from 24 to 140, which are the product of the children of 4 families decreasing in size to a minimum of 1; and several house numbers from 120 to 240,

which are the product of the children of 4 families decreasing in size to a minimum of 2.

There are a total of 38 such combinations or partitions: 1, 2, 3, 4; 1, 2, 3, 5; ... , 2, 4, 5, 6. You need to list these combinations.

Now if the product of the numbers of children (which equals the house number) was unique, then the solution is immediate. But because the visitor had to ask for more information, it meant that there was more than one set of numbers. That is, the answer to the question would provide useful information only if the product could be partitioned several ways. The only such product is 120.

The maximum number in the smallest family is 2, because if higher than 2, the total for 4 families would be a minimum of 18 (and then they could play baseball).

When the question was asked, "Does your cousin's family consist of a single child?", it was known that the house number was 120, because that is the only house number in which the minimum number in the family may be either 1 or 2.

However, although the partitions 8, 5, 3, 1 and 6, 5, 4, 1 will both give 120, the only partition that includes 2 to give 120 is 5, 4, 3, 2.

Therefore, the answer to the question must have been, 'no' (if the answer had been 'yes' he would not have been able to distinguish between 8, 5, 3, 1 and 6, 5, 4, 1), and the visitor then knew that the

numbers of children in the respective families were 5, 4, 3 and 2.

## This month---

We again have a problem about a house, its occupants and its house number, somewhat similar to last month's but different.

While away the long cold evenings with a puzzle or two! Exercise the old grey cells and keep them warm!

### The Census Taker

A Census Taker, Mr Smith, is gathering information from the owner, Mr Jones, of a suburban home. After Mr Jones had given the requested information about himself Mr Smith asked, "Who else lives here?" Jones answers, "Three others, but they are all out."

Smith replies, "Then perhaps you can give me their names and ages."

After giving the names in order of seniority, Jones, with a twinkle in his eyes, says, "The product of their ages is 1296 and the sum of their ages is the number on this house."

Smith ponders a moment, then asks, "Are any of their ages the same as yours?"

Jones answers, "No," whereupon Smith leaves satisfied.

What is the house number?

Email the answer to:  
[vicbus@pcug.org.au](mailto:vicbus@pcug.org.au)



# SOFTWARE Library



Phil Trudinger

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

## NEW AND UPDATED WINDOWS FILES

(Files marked with an asterisk  
require Windows 95)

### AUDIO

#### CDMAGIC (855322)

CD Magic 1.0 is an audio CD player for Windows, with an easy-to-use pushbutton interface. Reg Fee \$0

#### CDMAX151\* (279283)

CDmax 1.5.1 is a powerful audio CD player for Win95. Features include the ability to store artist/title/track on each of your CDs, full CDDB support, a built-in volume control, the ability to minimise to the System Tray, and much more. Reg Fee \$0

#### COOLCD\* (1556655)

Cool CD PRO 1.0 is a stay-on-top audio CD player for Win95/NT. Features include direct access to all tracks, very low CPU usage, and more. Requires the 32-bit VB5 runtime files. Reg Fee \$0

The files described in this article are on the May 1998 CD-ROM (PsL Vol 6, #5) 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.

#### DJ11 (319541)

Desktop Jukebox 1.1 is a full-featured multimedia jukebox player for Windows. Features include Win95 long filename support, support for up to 10,000 selections on the playlist, the ability to adjust the tempo of songs or videos, Internet support, and much more. Reg Fee \$19

#### JZ32V31N\* (1915274)

JAZZ++ 3.1 is a MIDI sequencer package for Win95. In addition to basic sequencer functions like record and play, it provides many powerful editing features such as quantise, copy, transpose, graphical pitch editing, multiple undo/redo, and more. Reg Fee \$?

#### MM32V12\* (1672898)

Music MasterWorks 1.2 is a music editor/sequencer package for Win95 that utilises the MIDI functionality of your sound card. It allows you to use keyboard commands like a word processor, or just point and click to create your compositions. Reg Fee \$20

### CALCULATORS

#### CAL32\_04 (132412)

Vinny RPN Calculator 1.04 is a 32-bit calculator for science and engineering students.

It allows direct use of keypad digits, [+,-,\*,/] keys, [Enter] and [Up/Down Arrow & Page] keys. Trigonometric and logarithmic functions are provided by mouse clicking on dialog box buttons. Linkage to other applications is available through use of the Windows clipboard. Reg Fee \$5

#### LINCLC12 (344301)

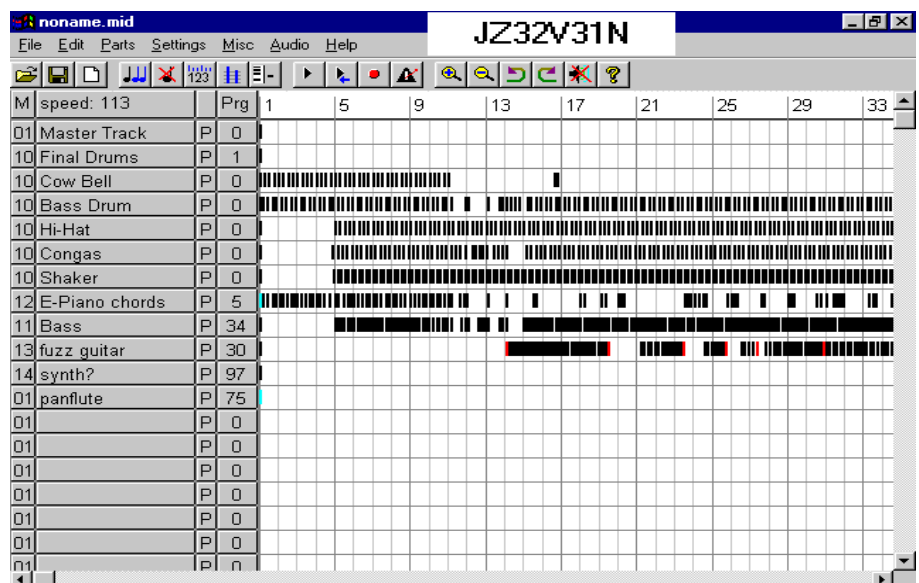
LinCalc 1.02 is an object-oriented calculating system designed to make working with vectors and matrices as simple as possible. Each vector or matrix that is entered, and the result of every operation, becomes an object displayed in its own persistent window. The user performs an operation on one or more objects by selecting the object windows and then activating the appropriate function button on the calculator face. Reg Fee \$5

#### OSFORM (1101427)

Formulator is a calculator with the additional function of being able to use formula macros. Reg Fee \$100

#### VULCAL (362412)

Vulcan FinanceCalc 97 1.10 is a powerful financial calculator for Win95/NT. It can calculate major results and results for each period, and results can be saved as text or a bitmap file. Reg Fee \$20



## COMMUNICATIONS

### ALIVE (234389)

Alive 1.0 maintains your Internet connection by fooling your ISP into thinking that you are busy surfing the Web even when your machine is idle. Reg Fee \$0

### BTLR3215\* (641764)

Download Butler 1.5d help you keep track of all the files you download from anywhere using any software application that you use to retrieve files. This works interactively with Netscape in Internet Explorer by prompting you for a detailed description and associated URL before downloading. Requires Win95/NT. Reg Fee \$29

### EMEFX141 (405597)

Email Effects 1.4.1 allows you to dress up your email with ASCII art. Several sample graphic files are included, or you may create your own. Reg Fee \$15

### GOZILLA (1379383)

Go!Zilla 3.0 helps recover from download errors, resume failed downloads, and manage and categorise files to download later. You can gather links to files that you want to download by simply dragging them from your favorite browser or it can integrate with your browser for easy click and download support. Reg Fee \$20

### SIG97V4 (2716662)

Siggen97 4.0 generates ASCII-art letters for your email signature file. You can create your own fonts using the built-in character set editor. Reg Fee \$0

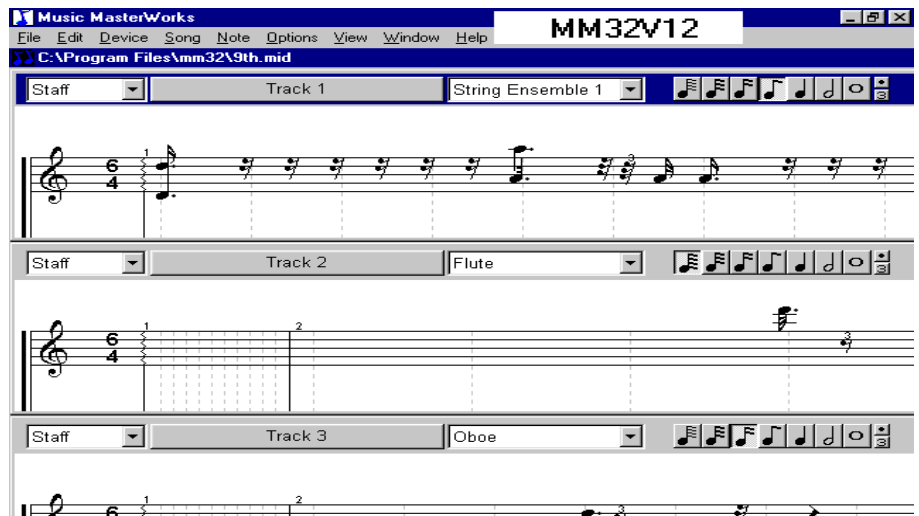
### WMWIN115\* (231606)

WebMirror 1.15 is an advanced off-line browsing tool that allows you to re-create sections of the Web directly on your hard drive or local network. You can save particular pages, complete with text, links and graphics. Requires Win95/NT. Reg Fee \$25

## DATABASES

### CARDBASE\* (193454)

CardBase 2.5 is a combination address book and phone dialer for Win95/NT. Along with the regular fields for names, addresses and phone numbers, it can also store email addresses, FAX numbers and web site URLs. Cards can be quickly sorted by name or custom card groups. Searching and sorting operations are fast and intuitive. Reg Fee \$0



### FLEXI51 (2155832)

FlexiDat 5.1 is an easy to use, small database program ideal for various uses such as CD, software or other collections, addresses, etc. Six user-labeled data fields are provided with up to 50 characters each. Reg Fee \$?

### INFT32\* (2716870)

InfoTree32 3.5.1 is a free-form information storage and retrieval package for Win95/NT. Features include a built-in text editor for the creation and maintenance of information, full Windows font support, a multi-level structured view of information, organisation by subjects within folders, unlimited user-defined keywords for indexing purposes, network support, and much more. Reg Fee \$45

### NURSRY20 (254455)

Nursery 2.00 maintains a database designed for a nursery. It can produce sign-in sheets (age and grade), a birthday list, parents list, and mailing labels. Other features include attendance tracking, grade tracking and grade graduating, and a parent scheduler. Reg Fee \$85

### PDB20 (6530330)

My Personal Data Binder 2.0 is an address book with a tab interface for Personal, Business/College, and Internet information. It also has two search engines, which let you search for a person by their full name, or a partial search that lets you search using wildcards. A variety of reports may be printed. Reg Fee \$15

## EDUCATIONAL

### CODW3163 (628443)

### CODW9563\* (673313)

Morse Code Made Easy for Windows 6.3 helps you learn Morse code at your own pace. You can control the tone, number of words per minute, how many characters are sent at a time and whether or not the characters are displayed as they are sent. It tracks the user's progress and displays scores based on levels. Reg Fee \$25

### CSKY3220\* (774804)

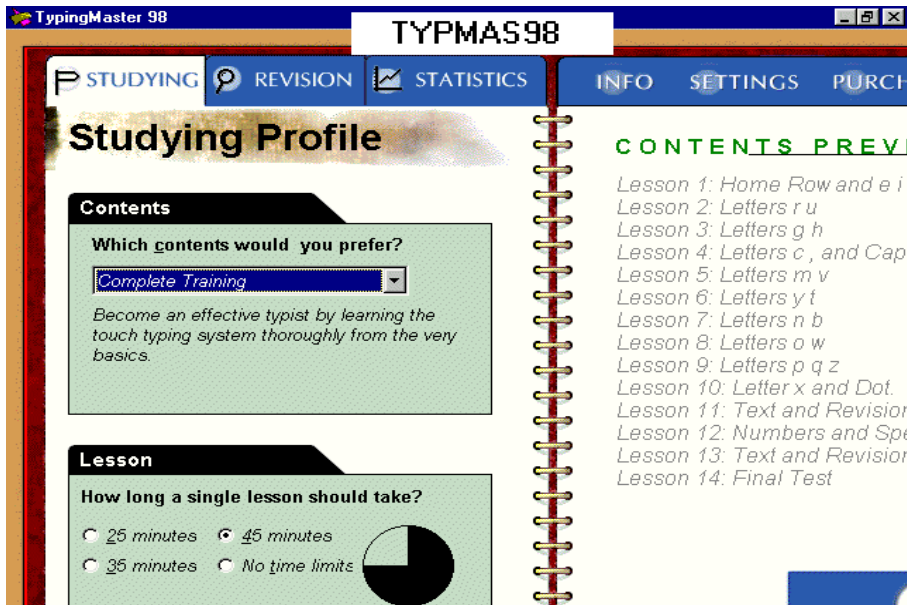
CyberSky 2.0c is a colourful, easy-to-use astronomy program for Win95. It displays the sky from any location on the earth at any time between 4000 BC and 4000 AD. Features include animation, glossary of terms, and much more. Reg Fee \$28

### RHDEMO32\* (1072528)

WriteExpress Rhyming and Phonetic Finder 3.1 is a computerised rhyming dictionary for Win95/NT. This allows you to find End Rhymes (blue/shoe), Last Syllable Rhymes (timber/harbor), Double Rhymes (conviction/prediction), and more. You may also specify the number of syllables or letters you want in your search. Reg Fee \$30

### STELLA\* (1599034)

Stella 2000 1.2 is a powerful astronomy package for Win95 that allows users to examine realistic skies in real time. Other features include an observing log, live ephemeris, a location browser, and a sophisticated search embracing planets, comets, DSOs, and over 9000 stars. Reg Fee \$45



#### **SWINBK81\* (1762174)**

Super WinBook 98 1.1 allows you to quickly and easily produce high quality "electronic" books for Win95/98. It includes a word processor, compiler, and compressor. A sample ebook is provided. Reg Fee \$40

#### **TYPMAS98\* (2699658)**

TypingMaster 98 4.0 is a touch typing tutorial for Win95/NT, which covers study material from the very basics all the way to advanced text typing exercises. Learning is efficiently backed up by educational games. This is suitable for individual users as well as organisations. Reg Fee \$25

#### **WINDICT\* (539000)**

Dictionary for Windows 95 3.2 is an English/German and German/English dictionary with over 100,000 words. Reg Fee \$20

### GAMES

#### **1SOLPACK (924516)**

Solitaire Package One 2.97a contains six one-deck and four two-deck solitaire games for Windows. This includes Agnes, Canfield, Hemispheres, Penguin, and others. Reg Fee \$15

#### **500WIN41 (1044384)**

Five Hundred for Windows 4.1 allows you to play the popular card game of 500. Reg Fee \$28

#### **BLOX (1753094)**

Blox 2.0 is a unique and challenging puzzle game in which you have to push blocks around a screen to achieve a certain goal. Reg Fee \$10

#### **BOMBER\* (386560)**

Bombberman 1.5 is a fun 2D maze game where you must use bombs to clear out a path to destroy the alien. You must be sure to run away after placing a bomb, or you could blow yourself up. Up to four players can compete. Requires DirectX. Reg Fee \$0

#### **DEEPP10 (200218)**

Deep Pockets 1.0 is an addictive logic game for Windows, where the object is to gain points by removing game pieces from the board. When you place five same-colour pieces on the same square they are removed from the board. Reg Fee \$20

#### **FIVEP11\* (1331125)**

Five+ 1.1 is an interesting puzzle/strategy game for Win95/NT. You get points by aligning five or more balls of the same colour horizontally, vertically or diagonally. You cannot move a ball unless it has a clear path around other balls. Reg Fee \$11

#### **OOG\_V12 (477580)**

OOG, The Object Orientation Game 1.2 allows you to solve polyform puzzles in Windows. You can use three different shapes, including tangrams, pentominoes, and hexagons. Other features include the ability to create your own puzzles, a hint option, auto

detection of solved puzzles, auto snapping of game pieces, the ability to save/restore your progress, and more. Reg Fee \$20

#### **WW52 (2446948)**

Word Wheel 5.2 is a word game for Windows similar to a popular TV game show. Options include support for up to four players, sound, number of rounds, timer, and more. Over 900 puzzles are included. Reg Fee \$?

### GRAPHICS

#### **CCVIEW40 (649855)**

CCViewer 4.0 is a fast and flexible image viewer that supports six different file formats (BMP, JPG, GIF, EMF, ICO, and EMF). You can easily zoom in/out, fit to window, print, and delete images. Other features include drag and drop support, a MDI interface so you can view multiple images at the same time, and more. Reg Fee \$10

#### **ICEV33\* (3033022)**

IceView '95 3.2 is a powerful graphics manipulation package for Win95 with support for over 30 different image formats. Features include a built in screen capture facility, rapid image decoding, unlimited zoom, the ability to set any image as wallpaper or startup logo, selectable dithering modes, slideshow capabilities, and more. Reg Fee \$20

#### **IMPRLA10 (1205808)**

imPRESSion Lite 1.01 is a drawing/publishing package for Windows. Features include editable distortion effects, lathing effect, more than 150 gradient types, text flow around and inside any shape, and extensive control over the paragraph text. Reg Fee \$59

#### **MV\_S12\* (1270724)**

MagicViewer 1.2 is a graphics viewer for Win95/NT that also allows you to create animated GIFs for your Web pages. Features include a batch conversion tool, 'drop shadow' effects, the ability to save and display image icons on the desktop, and more. Reg Fee \$30

#### **VIN16\_91 (381066)**

#### **VIN32\_91\* (367518)**

Vinny Graphics 1.91 is a graphing and data analysis program for engineers and engineering students. It is easy to use and accepts and exports data through a variety of sources. Reg Fee \$10

## INVENTORIES

### EIOWN17B\* (2683417)

Everything I Own! 1.7b is a household inventory package for Win95 that can help you keep track of every item in your home or collection. Features include the ability to print a variety of reports, easy-to-use backup/restore options, powerful sorting and data filtering, and much more. Reg Fee \$25

### HRW32\* (1184169)

Household Register for Windows 5.10 is an easy-to-use full featured home/office inventory program. Stores all the correct information so your insurance company pays in case of loss due to fire, theft, etc. Features include a toolbar with buttons for most database operations, a built-in print preview, comprehensive query and find functions, and more. Reg Fee \$25-\$30

### ML98\_40\* (4921157)

Music Label 98 4.0 is a powerful music collection organiser for Win95/NT. Features include special support for classical music, a variety of printing options, the ability to keep track of loaned items, and much more. Reg Fee \$20

## MANAGEMENT

### CLUBSEC2 (1228146)

Club Secretary Club/Association Manager 2.0 is a complete club/association management package for Windows with many powerful

features such as financial tracking and form letters. Reg Fee \$49

### OUTABT50 (610351)

Out'n About 5.0 is an electronic 'In/Out' board for Windows that allows you to quickly and easily locate employees. Features include the ability to leave status messages for the other users to view, automatic notification when someone checks in, the ability to send and receive 'While You Were Out' style messages, and more. Reg Fee \$99

### PBPRO97 (1259360)

Idyle Phone Book PRO 97 2.88 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 print-outs, the ability to print envelopes, and a print preview function. Reg Fee \$25

### SHOP401 (3442670)

Shop Manager 4.01 is a record-keeping package for an automotive fleet repair shop. It tracks and reports on vehicles, parts, work orders, personnel, financial transactions and vendors. Summary and detailed reports are generated for user-defined time frames. Requires Win95. Reg Fee \$45

### TMLSS121 (1318323)

Timeless Time & Expense 1.21 is designed to track time and expenses without taking a lot of time. Most time and expense tracking software is geared towards collecting just enough information to provide accurate billing.

This goes further and allows you to easily track time at a much finer level of detail. With its flexible reporting capability, you get the information needed to accurately estimate time and costs on future tasks in addition to accurate billing information. Requires Win95/NT. Reg Fee \$43

## MISCELLANEOUS

### BIOSETUP\*\* (698778)

Universal Biorhythms 1.1 is an easy-to-use biorhythm generator for Win95. You can save and print the graphs of your emotional, physical, and intellectual ups and downs. Reg Fee \$20

### CLINST (722043)

Business Logic Corporation allows you to write a variety of commonly used legal agreements. This includes a bill of sale, commercial and residential real estate lease, sublease, contractor agreement, promissory note, personal guarantee, and lottery pooling agreement. These agreements are Canadian-based. Reg Fee \$35

### CLOCKIT\* (245643)

ClockIt is a simple timer that totals the time you spend working on a project. It minimises to the System Tray, and its window can be set to be always on top. Requires the 32-bit VB5 runtimes. Reg Fee \$0

### GLBLDIR\* (1777925)

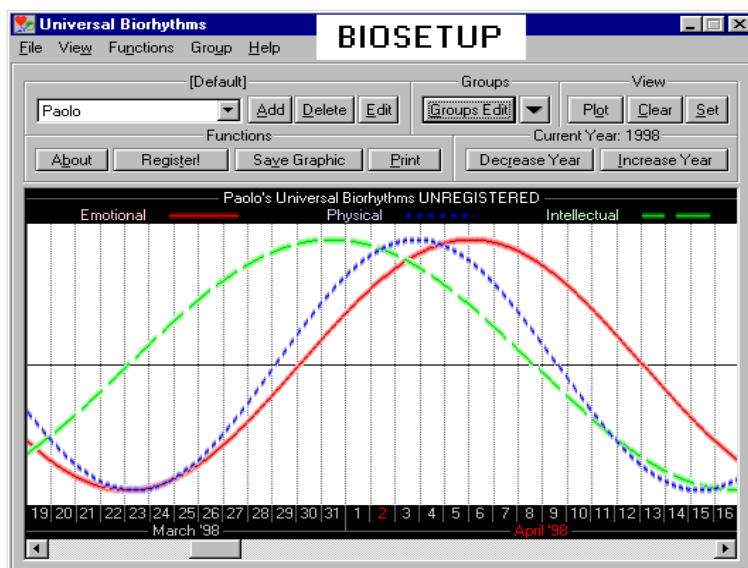
Global Diary 3.51 is a powerful diary/journal package for Win95. Features include secure password protection, a search function that allows you to locate any text string in the diary, a built-in calendar, and more. Reg Fee \$18

### ICHING16 (1155643)

I Ching: The Mystic Map of Time and Change provides two complete I Ching oracles to provide a complete range of divination tools. This is designed for a wide range of uses, from simple decision-making to detailed journalising to serious study of I Ching and other systems of divination. Reg Fee \$25

### LEASEC98 (646161)

Lease Consultant 98 3.0b will calculate lease payments based on the car's price, residual, interest rate and length of lease. It also allows you to add tax to the monthly payment, use money-factor in place of interest, include a capital cost reduction (down payment), etc. Reg Fee \$15





#### **WDWEB16\* (4468640)**

WordWeb 1.6 is a powerful thesaurus/dictionary for Win95/NT. Features include a template for use with Word, over 100,000 synonym sets, over 120,000 root words, and more. Reg Fee \$0

#### **WINCCS2 (648375)**

PCX2CCS for Windows 2.0 converts any PCX file to a counted cross stitch chart. Reg Fee \$40

### SCREEN SAVERS

#### **DDWELLER (163953)**

Dungeon Dwellers is a sample of a WIN31 screen saver collection with a medieval fantasy theme. This version provides an animated Brownie that runs across the desktop, smearing the screen in his wake. Reg Fee \$15

#### **GTTITAN\* (1026196)**

Sinking of the RMS Titanic 2.0 is a screen saver that shows an animated sinking of the Titanic, as it hits the iceberg, goes vertical, and sinks. Reg Fee \$0

#### **PHANTAST\* (265546)**

Phantastic ScreenSaver 1.8 contains eight interesting screen savers for Windows in one single application. This includes moving pictures and company logos, screen fader, fractal painter, colour fader, falling rain, 'crazy' balls, 'Bull's Eye' and a 'funky' clock. Reg Fee \$9

#### **SMEAR (39188)**

Smear is an interesting screen saver module that makes your screen appear as if it is wet paint and smears the contents continuously in different directions. Reg Fee \$5

#### **SPRING1 (592872)**

Spring Flowers Screensaver 2.0 displays beautiful images of springtime flowers on your Windows desktop. Reg Fee \$10

#### **WILDLIFE\* (1739247)**

Wildlife Screensaver 2.2 brings the wildlife of the Rocky Mountains directly onto your computer screen. These breathtaking wildlife photos include grizzly bears, elk, deer, eagles, bighorn sheep, mountain goats, coyotes, and more. Requires Win95/NT. Reg Fee \$20

### SECURITY

#### **F32C27J\* (103991)**

FAT32CP 2.7 allows you to backup and restore FAT32 partitions of Win95. Reg Fee \$40

#### **I\_M401AW (549611)**

#### **I\_M401A9\* (591447)**

Integrity Master for Windows 4.01a is an anti-virus and data integrity system for Windows. It can help protect against hardware glitches, software bugs, CMOS changes, and even deliberate sabotage. If a virus strikes, the program identifies it by name and also identifies any viral damage. Reg Fee \$49.50

#### **LOCK\_98\* (1975564)**

The Lock 98 4.98.29 allows you to password protect a Win95 system using a local password and username. It also has the ability to validate users through Netware or Windows NT servers. Reg Fee \$25

#### **PASSEC\* (1036854)**

Password Security Package 1.0 allows you to create random passwords of up to 9,999 characters. Requires the VB4 runtime files. Reg Fee \$?

#### **PC400\_P\* (415383)**

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+

#### **QH32E511 (3322342)**

Quick Heal 95 5.11 is an anti-virus package that scans for files when executed, accessed and created. This prevents virus infection from floppies, file execution, Internet download, FTP, network, email attachments, etc. Features include the ability to scan inside archives, scheduled scans, a toolbar with stay on top and auto-hide options, and more. Reg Fee \$34

#### **SHRED95 (440926)**

Shredder95 1.04 is a powerful utility for permanently removing sensitive data, pictures, or files. It shreds, truncates, and renames file so that absolutely nothing remains. Reg Fee \$30

#### **TBW95805\* (1148753)**

ThunderBYTE Anti-Virus for Windows 8.05 is a Win95 front-end interface for use with the ThunderBYTE Anti-Virus Utilities version 6.05 or above. Reg Fee \$125

#### **WINS46\* (675498)**

WinSafe95 4.6 allows you to backup all major Win95 bootup files. It automatically informs you when your configuration changes to allow current files to be saved. Files can be restored from the DOS prompt, in case Windows cannot initialise. Reg Fee \$30

## UTILITIES

### CABPCK12\* (209577)

CabPack 1.2 is an extension to Microsoft's MakeCAB that makes it easy to create CAB files. It must be run in a DOS box under Win95, and will prompt for the information necessary to create CAB files (source, destination dir, compression method, disk spanning, etc.). Reg Fee \$0

### CALEN101\* (216690)

CalendEzy 1.01 is a zoomable virtual wall calendar package for Win95/NT. You just point and click to move around and zoom in and out. The fonts and colour scheme are customisable. Reg Fee \$15-\$20

### DLLSHOW\* (125381)

DLL Show for Win95 3.1 displays a list of all tasks and processes currently running on your Win95 system. Reg Fee \$0

### DSTAT112 (194010)

DiskState 1.12 reports the current state of your disks including space used, swap space, and more. It can also eliminate wasted space and duplicate files. Reg Fee \$10

### EXIT (96896)

Exit Windows 1.0 allows you to reboot Windows in half the time it normally takes. You simply place a shortcut on your desktop and double click. If you are on a network it won't even log you off. Reg Fee \$0

### FLDSYNC\* (806539)

Folder Synchronisation 1.0 allows you to easily synchronise two folders and their sub-folders in Win95/NT. Reg Fee \$15

### HYDEME12 (114880)

HideMe! 1.2 allows you to safely hide desktop icons from view and still let them exist on the desktop. This is an excellent way to help clean up a cluttered desktop. Reg Fee \$0

### HYSNAPP\* (1102160)

HyperSnap-DX Pro 3.10.03 allows you to capture the desktop, highlighted window areas, or user-defined areas in Win95/NT. Features include hotkey support, cropping facilities, the ability to save images in BMP/GIF/JPEG format, and much more. Reg Fee \$25

### JUNKCLE2\* (885451)

PC Garbage Analyzer 2.0 helps keep your entire system clean of the excess garbage that accumulates over time. This not only searches

and finds various files left over by Win95, but also searches for many other space consuming files that may have been left behind from Internet downloads or program installations. Reg Fee \$25

### LOUPE32\* (110464)

Screen Loupe 3.8 displays a magnified view of whatever is beneath the mouse cursor, much like a printer's or jeweller's loupe. It also displays information about the current hardware configuration and dynamic system resource usage as well as an ASCII/ANSI character code chart, MS Windows error codes, and horizontal/vertical rulers. Requires Win95/NT. Reg Fee \$0

### NC401\* (324147)

Nico's Commander 4.01 is a powerful file management utility for Win95/NT. Features include configurable buttons for one-click launching of your favorite apps, the ability to display date/time in the title bar of the active window, built-in zip/unzip functions, and more. Reg Fee \$20

### PKEYBP\* (519369)

Perfect Keyboard 2.0 allows you to create a file of frequently used phrases, paragraphs, or email addresses to use in any application just by typing an abbreviation or pressing a hot key. It supports macro recording (keyboard and/or mouse events), has its own script commands for insertion of time and date, activation of windows, and launching applications. Requires Win95/NT. Reg Fee \$?

### SCRS9800\* (2163116)

ScreenShot 98 is a powerful screen capture utility for Win95/98. It allows you to capture

the entire screen or a user-defined portion, numbers each capture sequentially, and can include the mouse in the capture. Reg Fee \$19

### TM31\_16 (277229)

### TM31\_32\* (319627)

TransMac 3.1 allows you to access Macintosh 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 \$6

### TWEAKR12 (2811804)

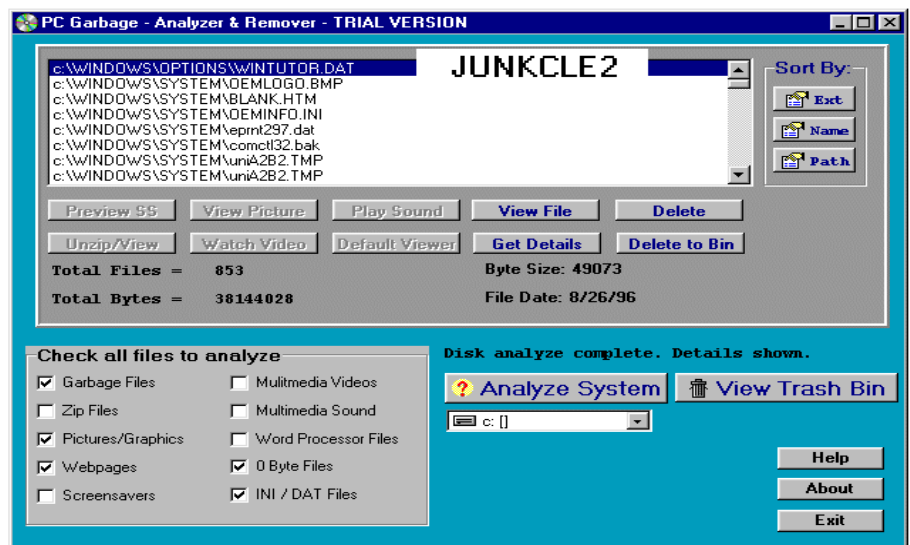
Tweak Reg 1.1.2 allows users of any level of experience to tweak some useful features of the Windows Registry. This comes complete with a Help file explaining how to use each feature and any damage that could be caused. This version allows ten uses before registration is required. Reg Fee \$10

### WINUTL12\* (14671)

Windows 95 Utility Suite 1.2 is a collection of six handy utilities to make life with Win95 a little simpler. They can clear your 'documents' menu, remove cookies, delete unnecessary files, look up your computer's name, list/print installed fonts, and display free hard disk space. Reg Fee \$0

### ZIPSRCH (2474407)

Zip SEARCH 5.0 is a powerful Zip Code assistant for Windows. You can search by zip, city, state, county, state and area code. Information can be quickly copied to the Clipboard for easy pasting into other applications. Reg Fee \$19



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# MS vs Evil

So what's wrong with one large monopoly? Monopoly, a word loaded with undesirability. Most people would answer this with one word: 'everything'. Now lets look at the world's biggest emerging monopoly ever: Microsoft.

When Microsoft Corporation came out with MS DOS the I.T. world was littered with different operating systems. All platforms had their own quirks, their own advantages and disadvantages; all had their own experts writing programs for them. This was a world full of incompatible software, hardware, and drivers.

Microsoft's DOS changed all this, and provided a platform that most people were happy with and could run on most PCs built on the popular Intel x86 based processor. To follow was Microsoft 'sWindows, and this took the world by storm. It's popularity grew and grew and grew. People bought it because it was such a popular operating system with plenty of software available for it, and all at a competitive price.

Imagine a software company. They employ one or more developers, and they like to produce a program they can sell to as many possible customers. If they had to make the same program on multiple platforms, they would need more experts, more time, more resources, different packaging, labeling, and so on. When the

world started to predominantly use Microsoft DOS and Windows, the software developers obviously followed suit and used that platform to develop software.

Apple made some really nice computers, very nice to use, the first friendly personal computer to hit the world. The primary advantage was the full 100% compliance between hardware and software. It was made virtually hand in hand. Apples became popular, but more people in the end preferred the cheaper alternative, a clone PC at budget price, with a popular operating system for which every man and his dog were making software for at budget prices. Part of this budget price was the not quiet 100% compatibility, and its resulting system crashes, reboots and consequently less stable environment for those adding/upgrading or changing things regularly.

Through cleaning up their act the clone PC manufacturers got a good reliable product. They started cooperating with each other, working to standards, agreeing on protocols, and specialising. Intel became known for its motherboard chipsets and their CPUs, Trident for their video chips, Rockwell for their modem chips, Panasonic was good with the floppies...and Microsoft was good with its operating systems. All these

companies became high profile, but Microsoft was in the forefront that everybody always saw when they turned on their computer. It became an icon.

Now the world is profiting from great technology. We can buy cheap PCs because the manufacturers have all specialised in their respective fields. Everybody agreeing to standards, and cooperating. Obviously there is still some competition around, which is healthy. Competition will always continue, but in some cases, like Vegemite, there just is no competition.

The advantages of having large corporations is that there is more money to be invested in R&D, companies that are as large as Microsoft can afford offices and affiliations in many countries and cities. They can buy up good ideas and follow them up with seemingly endless funds. If you developed something and a Vegemite in the industry wants to buy it from you for some extraordinary amount and promise to keep all the developers and those involved in your product employed, wouldn't that be a dream come true?

Given someone big has bought your product and continues its development, improves it, and then sells it to a market you never could have reached yourself. If you had the capital and expertise to do that yourself you could have made

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*continued from page 35...*

## **ZSPLI18A\* (826602)**

ZSplit 1.8a allows you to easily split big files into smaller ones. Features include auto-detection of remaining free diskette space, the ability to verify split files, the ability to replace file names, and more. Requires Win95/NT. Reg Fee \$10

## **NEW AND UPDATED DOS FILES**

### **ASTINV11 (1287224)**

AssetsInventory 1.1 is an inventory system for recording and cataloguing your personal or business assets. It can be used to maintain your assets records for insurance purposes.

Reports can be printed under location or category, so this also makes it ideal for recording your musical cassettes, videos, books, etc. Reg Fee \$23-\$26

### **CCEPKA (30193)**

CCEPKA is used to reset the CMOS settings, in order to reset the system password in the event that the owner of the machine has forgotten it. Reg Fee \$15-\$17

### **CRAZY11 (110350)**

Crazy Eights 1.1 is a card game. It has high resolution VGA graphics, mouse support, SoundBlaster support and the ability to customise the game to play your favorite variation. Reg Fee \$19

### **EZM18 (393263)**

Easy Money (WS) 1.8 is a personal income/expense tracking program for DOS. Reg Fee \$15

### **SYSCHK45 (124214)**

SysChk 4.5 is a configuration reporting program. It starts with a system summary in the view window with a menu window to the side. Menu options change the view window to show detailed information about your CPUs, BIOS, I/O, hard disks, floppy disks, video, memory, TSR map, and system throughput speed. It will optionally print out the system information. NEW: Added information on CPU (if Pentium or newer 486 model), IDE and SCSI ASPI information, and Pentium floating point division (FDIV) bug detection. Reg Fee \$29







multiple millions yourself, for hard work and possibility of divorce, bankruptcy and other usual high stress enterprise symptoms along the way. Now a large company with capital and expertise bought your company from you for millions, relieved you from all the risks, and ensured your employees of an as rosy future as possible.

As a consumer we only get better products at better prices, as we are paying for fewer CEOs, less for failed products, don't have to deal with software who's companies have dissolved and the frustrations that follow. How can we complain?

Now I hear you ask what about the power Bill Gates has? I think that power is overestimated. If he turned evil and doubled all his prices he would have instant competition. Linux or Unix may see money in developing a slightly user-friendlier version of what they currently have and offering it at realistic prices (especially Linux, the 'people's product'!) to the public. IBM or Novel may turn to operating systems 'again'. If Internet WWW browser become bigger than PC operating systems Netscape will bite too!

And why would it be unfair for Microsoft to add a WWW browser in their operating system? It is called marketing, value adding, and above all, a natural progression! As operating system turn more towards the Internet, operating systems should too! If Microsoft refused to do that they would be old-fashioned and a-retentive instead of the progressive company it is now! The users enjoy well-matched operating systems and programs, so why should we let Netscape give legal rights to messing up our nicely matched operating system!

We are not arguing to legally put Netscape out of business, in fact, let Netscape develop a better product, then let the market decide! Netscape may well become the new operating system when we are all connected to cable and use centralised computer resources. Imagine only having to have a 'network computer' of which we can have three in the house -

like phones and TVs - and use programs and operating systems centrally run from your local 'exchange'. The programs would be regularly updated for us and new facilities added. We would only pay the subscription fee, like for pay TV, and Bob's your uncle. Fax and phone via the Internet to the world for marginal fees, use your computer to run programs from other computers in the world without burning your own resources and having to upgrade your own hardware! It is only just around the corner!

Should we stop Microsoft from legally working towards this bigger picture? Why should we make Microsoft market the browser separately? Why hasn't WinFax taken Microsoft to court for packaging MicrosoftFax, or Norton for Defrag and Scandisk, Novell for MS Networking, and so forth. These are accepted as built in features of the operating system. Microsoft even included a basic graphic and word processor program.

Microsoft is not bundling Word97 or any of the MS Office Products in its operating system, and subsequently forcing people to pay \$1000 for its operating system and having to buy MS Office as part of it! This is purely a strategic company decision based on market predictions. If Microsoft thought it would be profitable they would do it! Microsoft does realise people could buy other operating systems just because they would not want to use MS Office, or people would pirate the software more because it was not affordable for everybody, whereas \$100 for an OS is acceptable in a computer purchase!

Now lets stop these costly court proceedings

where the consumer ultimately pays, throw this non-sense out the door, let these companies market their cars with their own steering wheel cover, as well as their own car stereos! So what if Bill goes awry, the millions of people he employs won't go along with evil should it come to that! If Bill wants to rule or destroy the world he is hiring the wrong type of people, he's not hiring mercenaries or nazis, he is merely hiring and buying IT and business professionals - in the thousands!

Maybe we should put pressure on the courts to fight the copyright act and change the duration of code protection. That is an issue worth fighting for, and worth an other article!

Writer: Walter van Praag  
Australian News Syndicate pass no. 2949

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## BETTOWYND

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with

**TALTECH SOLUTIONS Pty Ltd**

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(including Macintosh)**

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# WHAT'S NEWS?



Compiled by Malcolm Morrison



Whoa.

It's okay, you don't have to say anything.

## Apple Latest - the iMac

Since 1984 there have basically been three kinds of computers. Computers that are large and hard to use. Computers that are small and hard to use. And computers called Macintosh. Now the company that started the personal computer revolution is helping parents, kids, students and teachers take advantage of Internet evolution.

Introducing iMac, the computer that combines all the possibilities of the Internet with all the magic of the Macintosh. Apple Computer, Inc. ignited the personal computer revolution in the 1970s with the Apple II, and reinvented the personal computer in the 1980s with the Macintosh. Apple is now recommitted to its original mission - to bring the best personal computing products and support to students, educators, designers, scientists, engineers, businesspersons and consumers in over 140 countries around the world. In August Apple is introducing not just a completely new computer, but a completely new idea. We've called that idea iMac. Designed around a simple premise - that the Internet should be as easy to use as a Macintosh - iMac is the Internet-age "computer for the rest of us." With one-button online access and a stunning new design, iMac combines all the possibilities of the Internet with all the capabilities of the Macintosh.

The iMac will come fully loaded. You'll get everything you need to explore the Internet for just \$1,299 - estimated retail price. (U.S.) That "everything" includes a 233MHz PowerPC G3 processor, 512K of backside level 2 cache, 32MB of SDRAM (expandable to 128MB), a 4GB IDE hard

disk drive, Mac OS 8.1, two 12Mbps Universal Serial Bus (USB) ports, a 4Mbps infrared technology (IrDA) port, keyboard and mouse. Plus built-in a 24x speed CD-ROM drive, built-in 15-inch monitor, built-in 10/100BASE-T Ethernet support, built-in 33Kbps modem, built-in stereo speakers with SRS sound. See [www.apple.com](http://www.apple.com) for more details.



## HP Upgrades Colour Palmtop

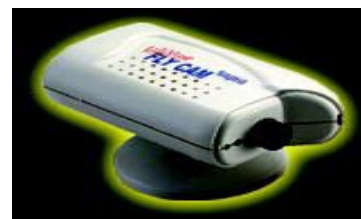
The HP 620LX Colour Palmtop PC now comes with 256 colour, touchscreen display. Run your Microsoft Windows CE 2.0 applications, which are all optimised for colour and see your work in bright, rich vibrant colours. The HP 620LX Colour Palmtop PC features a 640 by 240 pixel, full-width display. Information and applications appear just as they do on a desktop PC.

With its new fullwidth colour display, you can now see more of your spreadsheet documents without the hassle of scrolling sideways and read your e-mail with no more distortions and scrambling of text. A bright energy-saving backlight gives you unmatched readability. It also stays on until you turn it off, another convenience with you in mind. Go to [www.hp.com/handheld](http://www.hp.com/handheld) for more.

## Coming from Viewpoint

VDO Modem is a stand-alone video conferencing device. It allows you to talk to your colleagues or friends via regular telephone line 'face to face'. You don't need expensive ISDN services to do video conferencing. All you need is a regular TV set, a telephone, and VDO Modem will do the rest for you. It is so conveniently

operated, even your grand mom can use it. VDO Modem, don't live home without it. Fly CAM Supra is a parallel-port-interfaced CCD camera, with hardware compression to achieve highest video capture rate at the convenience of portability. With Fly CAM Supra, you don't need the screw driver any more. Just plug the Fly CAM Supra into the parallel port, it instantly turns you desktop or laptop computer into a personal video studio, video mail station, and even video conferencing system. While at home or on the go, Fly CAM Supra will be the best companion on the digital highway.



## Microsoft, Sega Collaborate on Dreamcast

Microsoft Corp. has announced it will collaborate with Sega Enterprises Ltd. on Sega's new Dreamcast home video game system, slated for release in Japan on Nov. 20, 1998, and in the rest of the world in 1999. As a result of the collaboration, Microsoft will provide an optimised version of the Microsoft Windows CE operating system with integrated DirectX services as the operating system for use with Dreamcast.

The Microsoft and Sega collaboration marks a leap forward in game console technology. Dreamcast will include advanced hardware technology in 3-D graphics, sound and input devices, as well as an on-board modem to support Internet access and network gaming. The inclusion of Windows CE with DirectX provides a flexible, versatile development environment, supported by Microsoft development tools, that eases title development and makes possible true cross-platform title compatibility with Windows-based PCs. The result is a powerful platform that enables creative and technical advances in video games to reach entirely new levels.

"We have worked very closely with Sega for nearly two years to optimise Windows CE to provide the services and level of performance necessary for the exacting development requirements of video games," said Harel Kodesh, general manager, consumer appliances group at Microsoft. "We are tremendously excited by the opportunities the Dreamcast system offers to traditional video game developers and the PC gaming community."

"Sega is excited to announce that Dreamcast is the first home entertainment system to be designed for use with Windows CE," said Shoichiro Irimajiri, president of Sega Enterprises Ltd. "We are confident that our collaboration with Microsoft will create an unequalled environment for developers that will lead to the greatest selection of high-quality game titles ever seen on a home video game system."

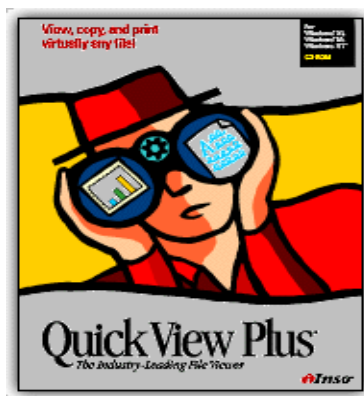
With the inclusion of Windows CE, Dreamcast will bring the benefits of an advanced Windows-based development environment to the world of console game development for the first time. Using Windows CE, developers will be able to create cross-platform titles more efficiently by taking advantage of well-established Win32 and DirectX APIs that are source-code-compatible with the Windows operating system on the PC. Incorporation of DirectX will also allow the Dreamcast system to capitalise on the momentum toward PC gaming and the ever-increasing body of developers creating games for the Windows platform.

The Windows CE environment has been minimised in terms of memory requirements and optimised in terms of game performance, giving developers the confidence that software developed for Dreamcast will take full advantage of every hardware capability in the system. An additional benefit of this new software platform will be the key services provided by the operating system and DirectX-based game libraries, including support for input devices, sound, 3-D graphics, and memory and CD file management. Support in Windows CE for standard Internet protocols, Winsock and the DirectPlay API will allow developers to take advantage of the Dreamcast system's modem capabilities. In addition, the modular architecture of Windows CE means operating system components and DirectX-based services can be eliminated if not required, or

replaced by the developer's own custom libraries.

(Microsoft Windows CE is the 32-bit, Windows-compatible operating system designed to fill the need for a small, flexible, scalable operating system that works in a broad selection of products, including mobile computers, embedded products and home digital information and entertainment appliances.)

Read more at [www.microsoft.com](http://www.microsoft.com)



#### Quick View Plus 4.5

Quick View Plus gives users the power to view, copy, and print almost any file or attachment instantly - whether or not they have the originating application installed on their desktop. Incorporating Quick View Plus into a corporate setting enables users to share attachments and files created by virtually any word processor, spreadsheet, presentation, or graphics application. QVP supports more than 200 file formats and provides a highly efficient, cost-effective solution to the messaging, Internet, intranet, and legacy information access needs of corporations.

Quick View Plus is also a critical tool for companies that are migrating to new operating systems or software applications. It provides the bridge between legacy documents and technology and newer solutions being implemented by a company. See [www.inso.com](http://www.inso.com) for details.

#### Universal ADSL - Coming to a Phone Line Near You?

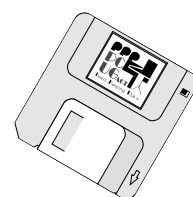
The world's major international telecommunications companies have announced they are joining an industry group of the personal computer, networking, and U.S. telecommunications leaders aimed at accelerating the adoption and availability of high-speed digital Internet access for the mass market.

The Universal Asymmetric Digital Subscriber Line (ADSL) Working Group (UAWG) has welcomed several new companies, including leaders Deutsche Telekom, France Telecom, British Telecommunications, Singapore Telecom and NTT. With these additions to the group, telecommunications companies controlling over one-third of the world's phone lines are now working together to deliver services based on a single, interoperable specification. Universal ADSL technology delivers high-speed PC-based communications over standard telephone lines at speeds up to 25 times faster than today's fastest analog modems. A significant benefit of ADSL is that it is "always on," allowing continuous usage. Consumers can now avoid time-consuming connection procedures and busy signals and benefit from new services available from an "always on" connection. With "always on" connectivity the Internet can become an integral part of a consumer's daily life and facilitate an enriched Web lifestyle.

Universal ADSL will significantly reduce additional device requirements to be installed outside the home and helps to eliminate the need for special installation services or for additional wiring inside the home. This effort will enable PC vendors to integrate this technology in the future. In addition, simplified software setup of Universal ADSL communications will be included in future versions of Microsoft Windows. This results in ensuring simple plug and play access for consumers to high-speed communication services.

The goal of the UAWG is to propose a simplified version of ADSL that will deliver to consumers high-speed modem communications over existing phone lines based on an open, interoperable International Telecommunication Union (ITU) standard. Universal ADSL will deliver "always-on" Internet access to dramatically improve consumers' Internet experience.

The UAWG foresees Universal ADSL modems being a preferred PC modem technology in North America by the year 2000, and internationally soon thereafter. Read more at [www.uawg.org](http://www.uawg.org)



# 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 calendar year, calculated from the 1<sup>st</sup> 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 membership card with you when collecting orders.*

## Disks & Tapes

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

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

## BBS Access

New members wishing to access the PC Users Group (ACT) InterActive Bulletin Board Service (BBS) should dial (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.

**Sharon & Raymond de Bear**  
**Kama-Jay Myles & Eddie De Bear**  
**Tony Fitzpatrick**  
**Rufus Garcia**  
**Anne Greiner**  
**John Hemenstall**  
**Emil Joseph**  
**Geoff Lau**  
**Neville Maddern**  
**Allan Mikkelsen**  
**Don Nicol**  
**Keith Sayers**  
**Carol & Charlie Syms**  
**Ted Tregillgas**  
**Marion Van Wely**  
**Sylvia & Lew Yardley**

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

### Next Stuffing

5.00pm **Monday 20 July 1998**  
at Northpoint Plaza, Belconnen.  
(see map page 3)

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

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

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

# 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](mailto:afreeman@pcug.org.au) or WWW at <http://www.pcug.org.au/~afreeman/cvsvg.html>

## AutoCAD

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

## C/C++

Peter Corcoran . [peterc@pcug.org.au](mailto:peterc@pcug.org.au) 2nd Tuesday 7.30pm PCUG Centre

## GUI Developers

Peter Harris 6287 1484  
[pharris@pcug.org.au](mailto: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](mailto: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](mailto:Majordomo@auug.org.au)

## Linux User Group

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

## Networks

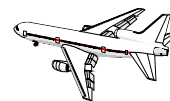
Garry Thomson 6241 2399  
[gthomson@pcug.org.au](mailto:gthomson@pcug.org.au) Thursday after main meeting Please call for venue.

## 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](mailto:freeman@pcug.org.au) or WWW at <http://www.pcug.org.au/~afreeman/cvsvg.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](mailto:lowery@pcug.org.au)

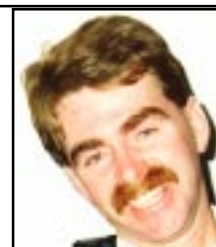
## Internet Daytime Demo and Discussion SIG

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](mailto: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](mailto: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.

## 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. **Please note that from July onwards Netscape Communicator 4.05 will be used to teach this course.**

**Designing your own web page - Intermediate:** In July there will be a follow on from the June Intro course in designing your own web page, conducted at the Centre. The course will cover the more advanced features in design and layout of a web page and how to use such things as DHTML and CSS. It is advisable that interested members have some basic understanding of HTML before nominating for this course.

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

## Future Courses

**Win95 - Advanced Users.** This course will be conducted at the Centre on Sunday 6 September 1998. Petra can accept bookings from members who wish to nominate now.

**MYOB:** There will be an intro to MYOB course conducted at the centre on Saturday 12 September 1998. Petra can

## Contacts

**COURSE BOOKINGS: Petra Dwyer, at the PCUG Centre on 6253 4911**

Training coordinator and course information (**not** bookings): Peter Elliott  
6258 9806 (h) 7.00pm to 9.00pm  
[pelliott@pcug.org.au](mailto:pelliott@pcug.org.au)

Microsoft Product courses (**not** bookings): Henk Brummelaar 6258 9332 (h) 7.00pm to 9.00pm

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

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

	Date	Day	Course	Length
July	4	Sat	<i>Sixteen Bits</i> Layout Day/Internet Clinic	Clinic:Morning
	5	Sun	Intro to the Internet - Full access (ideal for beginners)	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	Access7 (databases) - Intermediate	Full Day
	25	Sat	Intro to the Internet - Full access (users with some experience)	Full Day
	26	Sun	Desktop Publishing - Intro	Full Day
Aug	1	Sat	<i>Sixteen Bits</i> Layout Day/Internet Clinic	Clinic:Morning
	2	Sun	Word 7 - Intro	Full Day
	8	Sat	MYOB	Full Day
	9	Sun	Win95 - Intro	Full Day
	15	Sat	Visual Basic Programming - Intro	Full Day
	16	Sun	Intro to the Internet - Full access (ideal for beginners)	Full Day
	22	Sat	Excel 7 - Intermediate	Full Day
	23	Sun	Designing your own web page - Intro	Full Day
	29	Sat	Intro to the Internet - Full access (users with some experience)	Full Day
	30	Sun	Win95 - 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
<b>Accountants</b>				
Peng Lee BA, BEc(ANU), FCA Chartered accountant Registered tax agent Holder of Certificate of Public Practice	Accounting and taxation services <i>A fee schedule published 1 year in advance will be forwarded upon request</i>	Ph: 6258 0156 Fax: 6258 0157 Mobile: 0419 625 801 Email: leep@pcug.org.au	6 McGuinness 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
<b>Books</b>				
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
<b>Computer related</b>				
Ivan Kramer Web Design	Proven experience, quality graphics, artistic talent. Publish online @ a fraction of the cost of print.	Ph: 6259 0500 Mobile: 0413 967 045 Email: <a href="mailto:ivan@pcug.org.au">ivan@pcug.org.au</a> <a href="http://www.pcug.org.au/~ivan/">www.pcug.org.au/~ivan/</a>	Canberra	\$200 (66% off normal price of \$600) for all graphics, logo, design, up to 15 pages
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
<b>Computer related (cont)</b>				
Bettowynnd & Taltech Solutions	Prompt, gauranteed, fixed price repairs to monitors and terninals	Ph: 6239 1043	Unit 5, Centrecourc 1 Pirie St, Fyshwick	5% discount
Hi-Micro Computers		Ph: 6280 7520 Fax: 6280 7540	6/18 Whyalla St Fyshwick	5% discount on accessories and upgrade installation
L & S Associates		Ph: 6257 7555	69 Paterson St Ainslie	Special price on any Microsoft product: dealer price plus 5%
NCH-Swift Sound	Email to wav Professional voice overs, music and SFX for multimedia, IVR, games, software	Ph: 6281 6124		25% discount to non-corporate members
PE Computers & Software Solutions	New systems Upgrades Hardware and software installation, setup and home PC support Software tuition including Win95 and Internet software	Ph/fax: 6258 9806 Mobile: 015 484 711 Email: pelliott@pcug.org.au		5% discount on all new systems and upgrades 20% discount on installation, tuition and home PC support
Rob's Computer Help Desk	Telephone and on-site help for <i>all</i> your computer and support needs	Ph: 6292 3211 (24 hours/7 days)		5% discount on consulting services
The Software Shop	Suppliers of all business, educational and personal software and selected hardware	Ph: 6285 4622	42 Townsend St Phillip	5% discount off our already low prices
Sproatley Computer Services Pty Ltd	Upgrades New and used PCs MYOB specialists Software installation 24 hour help desk	Mobile: 0412 231 224 Fax: 6231 3605		10% discount on all services
Michael Vetz/Mobile PC Support	Home PC support available for all PC problems including upgrades and tuition at your place – all hours	Ph: 6251 2184 Fax/Message: 62512184 Mvetz@pcug.org.au	P.O. Box 485 Belconnen ACT 2617	Discount of \$25 per hour – maximum charge \$50
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.
<b>Other</b>				
ANU Union Asian Bistro			Upstairs, Union Building, Union Court, ANU (next to main meeting venue)	Union member discount on PCUG main meeting nights <b>ONLY</b>
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 **\$ 2 0 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:**  
**DELL Docking Station** for laptop, Model NoMS-1 (Part#74691/77185, new in box **\$30**  
**VGA Cards**, several - all tested  
 Single \$12; two for \$20; or four for **\$35**  
**Motherboards**, 386SX16, 386DX33, some RAM (1Mb) two for **\$20**  
**RAM SIMS:**  
 72 pin 4Mb- 70ns x1 **\$10**  
 2Mb- 80ns OKI/Sanyo x2 **\$12**  
 1Mb Wang x1 **\$3**  
 30 pin Various, mainly 1Mb, sets of 4 **\$4**  
**Or All above items for total of \$110**  
**NEC 386 SX 20**, x2 HDD 140Mb, 10 Mb memory (9216k Ext), VGA, Keybd **\$150**  
**NEC 386 DX 20/25** HDD 300Mb, 10Mb memory, VGA, Keybd, + spare 8Mb memory card **\$180**  
**Printer**, Toshiba P351SX sheet & tractor feed, ribbons **\$30**  
**Or Both PCs plus printer \$290**  
**OR ALL ITEMS + COMPUTERS \$340**  
**Discount for cash/cheque \$310**  
 Credit cd accepted

**Dereck Brennan**  
 Ph: 6251 4511, Fax: 6251 1387 (24 hrs)

**FOR SALE:**  
**IBM Compatible 386 DX40** with VGA monitor mouse and dotmatrix printer. 4Mb RAM 100 Mb HDD **\$200**  
**Don Nicol**  
 dnicol@pcug.org.au Phone - 6254 6584

## WANTED

**WANTED**  
**Secondhand Computer Parts**  
 Hard Drives, 500 MB or larger  
 Mother Boards, 486 DX100 or faster  
**John Plumidis**  
 Phone 6281 2350  
 plum@pcug.org.au  
**WANTED URGENTLY**  
**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<sup>1</sup> \$ 50
- Concessional<sup>2</sup> \$ 25
- Corporate<sup>3</sup> \$130
- Additional Corporate<sup>4</sup> \$ 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](mailto: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 transcription (Duxbury and Megadots)	Carolyn Simpson <a href="mailto:ryn@effect.net.au">ryn@effect.net.au</a>	6230 4795	All days	Anytime
Bulletin Board Service	Michael Phillips *	6253 4966	All days	7.30pm - 8.30pm
C/C++	Nhan Tran <a href="mailto:ntran@pcug.org.au">ntran@pcug.org.au</a>	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 <a href="mailto:ntran@pcug.org.au">ntran@pcug.org.au</a>	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Excel	Grahame Fry	6288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery <a href="mailto:lowery@pcug.org.au">lowery@pcug.org.au</a>	6258 1583	All days	Anytime
Free Agent / Agent Newsreading	Allan Mikkelsen	6278 3164	All days	Noon - 9.00pm
Front Page	Peter Tilbrook <a href="mailto:webmaster@dynamite.com.au">webmaster@dynamite.com.au</a>	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 <a href="mailto:lis@nullarbor.com.au">lis@nullarbor.com.au</a>			
HDK	Ivana Leonard	6231 4169	Mon - Thu	7.00pm - 9.00pm
Internet connection	Nhan Tran <a href="mailto:ntran@pcug.org.au">ntran@pcug.org.au</a>	6254 5293	All except w'end & Tue	7.00pm - 9.00pm
Internet Explorer (Microsoft)	Peter Tilbrook <a href="mailto:webmaster@dynamite.com.au">webmaster@dynamite.com.au</a>	6242 8696 0411 508 169	Weekdays	10.00am - 6.00pm
Internet (Netscape, Eudora)	Carolyn Simpson <a href="mailto:ryn@effect.net.au">ryn@effect.net.au</a>	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 <a href="mailto:webmaster@dynamite.com.au">webmaster@dynamite.com.au</a>	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 <a href="mailto:apurdam@pcug.org.au">apurdam@pcug.org.au</a>	6230 2231	All days	Anytime
Online doc using Help Compiler (Win3)	John Carroll <a href="mailto:jcarroll@pcug.org.au">jcarroll@pcug.org.au</a>	6248 0781	All days	7.30pm - 10.00pm
OS/2	Andrew Acton <a href="mailto:aacton@pcug.org.au">aacton@pcug.org.au</a>	6293 1684	All days	9am-9pm
OS/2	Dave Thrum <a href="mailto:davet@ozemail.com.au">davet@ozemail.com.au</a>	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
Telex	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 <a href="mailto:cbear@interact.net.au">cbear@interact.net.au</a>	6258 3169	All days	7.30pm - 8.30pm
Windows 95	Graeme Challinor <a href="mailto:gchallin@pcug.org.au">gchallin@pcug.org.au</a>	6236 8166	All days	10.00am - 4.00pm
Windows 95 (basic help)	Carolyn Simpson <a href="mailto:ryn@effect.net.au">ryn@effect.net.au</a>	6230 4795	All days	Anytime
Word 6 & 7 (Mac or PC)	Carolyn Simpson <a href="mailto:ryn@effect.net.au">ryn@effect.net.au</a>	6230 4795	All days	Anytime
Word for Windows	Lis Shelley <a href="mailto:lis@nullarbor.com.au">lis@nullarbor.com.au</a>			
WordPerfect 5.1 DOS, 6.1 Win	Gayle Scott <a href="mailto:gayles@pcug.org.au">gayles@pcug.org.au</a>	6254 1579	All days	7.30pm - 9.30pm
WordPerfect for Windows	Peter Tilbrook <a href="mailto:webmaster@dynamite.com.au">webmaster@dynamite.com.au</a>	6242 4000 0411 508 169	Weekdays	10.00am - 6.00pm
WordStar	Dave Hay	6258 7310	All days	7.00pm - 9.00pm

# July

*Monday Tuesday Wednesday Thursday Friday Saturday Sunday*

			<p>Networks SIG (Call 6241 2399 for venue)</p>  <p>1</p>	<p>Sixteen Bits Commercial ad deadline for August</p>  <p>2</p>	<p>Internet Clinic PCUG Centre 9.30– 1.00pm</p>  <p>Layout Day for Sixteen Bits 10.00am</p>  <p>3</p>	<p>TRAINING DAY PCUG Centre</p> <p>9.30am Intro to the Internet – Full Access</p>  <p>4</p>	<p>5</p>	
<p>Internet Day- time Demo and Discussion SIG PCUG Centre 10.00am–2.00pm</p> <p>New Members' Night PCUG Centre 7.30pm</p>  <p>6</p>		<p>Committee Meeting PCUG Centre 7.30pm</p>  <p>7</p>				<p>TRAINING DAY PCUG Centre</p> <p>9.30am Designing your own web page – Intermediate</p>  <p>10</p>	<p>TRAINING DAY PCUG Centre</p> <p>9.30am Introduction to Windows 95</p>  <p>11</p>	<p>12</p>
	<p>Coffee and Chat PCUG Centre 9.30am–12.00</p> <p>Flight Simulator PCUG Centre 1.30pm–3.30pm</p> <p>C /C++ SIG PCUG Centre 7.30pm</p> <p>13</p>			<p>OS/2 SIG IBM Building 8 Brisbane Ave Barton 7.00 for 7.30pm</p> <p>OS/2WARP</p> <p>15</p>		<p>TRAINING DAY PCUG Centre</p> <p>9.30am Excel 7 – Introduction</p>  <p>17</p>	<p>TRAINING DAY PCUG Centre</p> <p>9.30am Databases – Intermediate</p>  <p>18</p>	<p>19</p>
<p>Internet Daytime Demo and Discussion SIG PCUG Centre 10.00am– 2.00pm</p>  <p>16 Bits Stuffing and Mailing PCUG Centre 5.00pm</p> <p>20</p>	<p>Delphi SIG PCUG Centre 7.30pm</p>  <p>21</p>		<p>Linux Users Group Room N101 Computer Science Dept ANU 7.30pm</p> <p>Investment SIG PCUG Centre 7.30pm</p>  <p>22</p>	<p>Sixteen Bits Article deadline for September</p>  <p>24</p>	<p>TRAINING DAY PCUG Centre</p> <p>9.30am Intro to the Internet – Full Access</p>  <p>25</p>	<p>TRAINING DAY PCUG Centre</p> <p>9.30am Desktop Publishing – Intro</p>  <p>26</p>	<p>27</p>	
<p><b>Main Meeting</b> Manning Clark Theatre 1 Crisp Bldg. ANU 7.00 for 7.30</p>  <p>Bytes SIG Asian Bistro ANU 6.00pm (before PCUG meeting)</p> <p>27</p>	<p>Flight Simulator PCUG Centre 1.30pm–3.30pm</p>  <p>Coffee and Chat PCUG Centre 9.30am– 12.00</p>  <p>28</p>		<p>Networks SIG (Call 6241 2399 for venue)</p>  <p>29</p>				<p>TRAINING DAY PCUG Centre</p> <p>9.30am Introduction to Windows 95</p>  <p>30</p>	<p>31</p>
						<p>1 August</p>	<p>2 August</p>	