COMPUTECH
Computer Group

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- 10X SPIN CD ROM
- 16 BIT SOUND CARD
- 160 WATT STEREO SPEAKERS
- 15" XVGA DIGITAL MONITOR
- 1.44 Floppy Disk Drive
- 104 WIN95 KB & Mouse

SOFTWARE
- Microsoft Windows 95 ver D
- Microsoft Works for Windows
- Microsoft ENCARTA 97
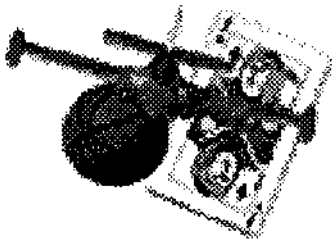- Microsoft Dangerous Creatures
- Microsoft GOLF
- Microsoft Sampler

PRINTER
- Canon BJC 210 ST Colour Bubble Jet Printer
- Printer Cable

INTERNET
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- 20 Hours Free Internet Access
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$2459.00

257 2525

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

- By email to *pcug.editor@pcug.org.au*
- By fax to (02) 6253 4922
- By mail to the Centre's address above.

Anonymous contributions will not be published, though name and address can be withheld from publication on request.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

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This month in

SIXTEEN BITS

Editor's Desk Top

Tamsin Sowden, Managing Editor

Something of a bumper issue this month as we begin two series of articles (one on microprocessors and one a self-paced course on HTML) and include profiles of your new Committee members (page 8).

The microprocessor article, contributed by Glenn Pure (who gave us a series on cryptography a few months ago), explains the mysterious and almost incomprehensible workings of that tiny yet essential part of your computer.

The article on HTML can be followed by anyone who would like to learn the secrets of Web publishing via a series of self-paced lessons. All the files you need can be found on the PCUG's Web site.

This month we also begin what I hope will become a regular feature – a 'Bits and Bytes' page (page 16) of humorous snippets gathered by members from the Net and elsewhere. Don't forget: if you have stories, jokes or drawings of a computerish bent, your magazine wants to hear from you!

Observant readers will notice that all the ACT phone numbers have been updated this month as per the new 8-digit regime – and what a jolly little exercise that was. We have also tried to update the contact numbers of the other Australian PC users groups where possible (see next page). Don't forget to update your access number to TIP and any other ISPs on the great day (18 August).

Profiles for the new Committee members are included this month. Perhaps predictably, it's an all-male Committee this time – no women have nominated at all. I don't know what this says about the Group, committees in general or computers but it's certainly disappointing. Mind you, I'm a fine one to talk, having resisted strenuously attempts to get me interested in nominating but there must be other women out there with a little time to spare and an interest in technology who want to play a part in shaping our Group's future. Think about it for 1998, sisters!

Just a reminder about Volunteer's Day on Sunday, 24 August for those who receive their magazine by then. This is a great chance for all the Group's volunteers to meet and I'm looking forward to meeting in the flesh people I have only met in print. All members of the Editorial Team will be there (Team, this is your leader speaking!) on pain of never getting their hand in the Official *Sixteen Bits* Lolly Jar ever again!

President's Letter

Ann Byrne, President

This is being written from Melbourne on a cold and windy Wednesday night. The wonders of modern technology allowed me to borrow the PCUG laptop, and with a bit of luck I should be uploading this to our Editor later tonight.

As I noted last month, minutes of the Committee Meeting are now available at the Centre for members' perusal. Just ask Petra or one of the Centre Staffers.

The survey is giving us some interesting data, and we should be able to target areas of concern to the members. One overwhelming comment from members seems to be 'Yes, I would like to be a volunteer but I don't have the expertise…'. Which is kind of amazing as most of the volunteer work we are looking for does not need computer expertise – we are usually looking for people who can man the Centre one day every couple of months, help with the stuffing nights, or man the PCUG stand on days such as ACT Alive. In these areas we are looking for people who enjoy talking to other people, promoting the group and just generally spreading the good word! It is usually a lot of fun and very rewarding so don't be shy, get in touch with Rod Farr our volunteer coordinator.

The survey also seems to be telling us that no-one objects to us having paid staff but they don't want to pay for them from membership fees. An interesting quandary indeed. However it will be up to the new committee to disseminate and act on this information.

I hope the new changeover of phone numbers did not inconvenience any of you too much. As I write this we are 16 days away from changeover and still have not heard from Telecom exactly when we will switch [*18 August -Ed.*]. For TIP, unlike for normal phone lines, we will not be given any changeover time with redirections – it will just happen and we had better be ready. I'm sure the TIP guys will keep us informed and give as much notice as possible.

The BORDERLINE™
(The early months)
By Gabe Martin
borderln@cts.com
http://www.cts.com/~borderln/

"Man, I must have picked up a virus today. I think I'll go crash."
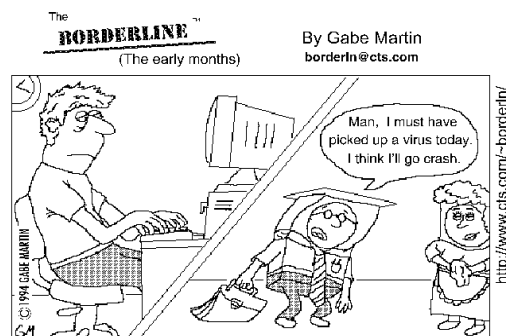
As Dave is finishing up the last page of "the" big term paper, his hard drive decides to take a sick day.

Letters
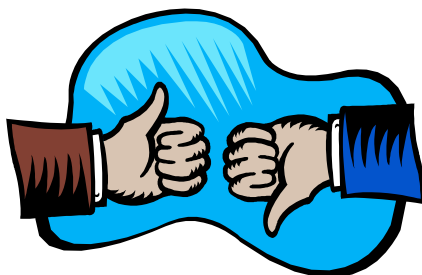
Dear Editor

In a recent Letter to the Editor, David Robertson referred to me as the PCUG's 'founding father'. Most complimentary, but I did not join the PCUG until three years after it was founded.

Karl Auer

Dear Editor

Re Mark Hummel's letter in last month's magazine about token time.

Nice to see that you researched your letter professionally and with no preference to Internet Service Provider whatsoever. However, in defence of Canberra's largest dial-up ISP I have to make a brief comment.

Dynamite Internet does not allow users to leave their modem connected continuously unless they (the user) have purchased a permanent connection account. Your statement that 'most commercial service providers work on a monthly flat rate scheme' cannot be more wrong. You were smart not to mention names in your description of most commercial ISP's as you will find that they actively discourage the practice of users leaving their modems connected continuously.

As an example, Dynamite Internet offer unlimited Internet access starting from around 95 cents PER DAY. However, access is restricted between peak usage times (say 4pm till midnight). Even with unlimited access it is impossible to stay permanently connected to the Internet (at least through Dynamite) unless you actually pay for the privilege.

Your statement that 'most ISPs' work on a flat rate sceme is wrong, almost liable.

Peter Tilbrook

Oz User Groups

Adelaide PC Users Group
PO Box 2541
Kent Town SA 5071
(08) 8332 0766
Meet 7.30pm, 3rd Tuesday 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)
Meet 12 noon, 3rd Sunday of the month at Bardon Professional Cntr.

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

Melbourne PC User Group
2nd Floor, 66 Albert Road
South Melbourne VIC 3205
(03) 9699 6222
10am - 3.30pm
(03) 9699 6499   Fax
Email *office@melbpc.org.au*
Home 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.

Journal of the PC Users Group (ACT) Inc

SIXTEEN BITS

@nline

Now in Adobe Acrobat format!

PCUG Committee

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Vice President	**Mike Gellard** *mgellard@pcug.org.au*	6258 2361
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Treasurer	**Hugh Alston** *pcug.treasurer@pcug.org.au*	
Training Officer	**David Schwabe** *pcug.training@pcug.org.au*	6254 9086
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BBS Sysop	**Michael Phillips** *pcug.sysop@pcug.org.au*	6281 1980
General Committee	**Allan Mikkelsen** *amikkels@pcug.org.au*	6278 3164
General Committee	**David Schwabe** *dschwabe@pcug.org.au*	6254 9086
General Committee	**Ken Livingston** *kenliv@pcug.org.au*	6282 2536
General Committee	**Rod Farr** *rodf@pcug.org.au*	6286 1597
General Committee	**Iain Gould** *iain@pcug.org.au*	6255 2405
General Committee	**Darrell Burkey** *dburkey@pcug.org.au*	
Immediate Past President	**Karl Auer** *kauer@pcug.org.au*	6248 6607

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

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Membership Secretary	**Mike Burke** *pcug.membership@pcug.org.au*	

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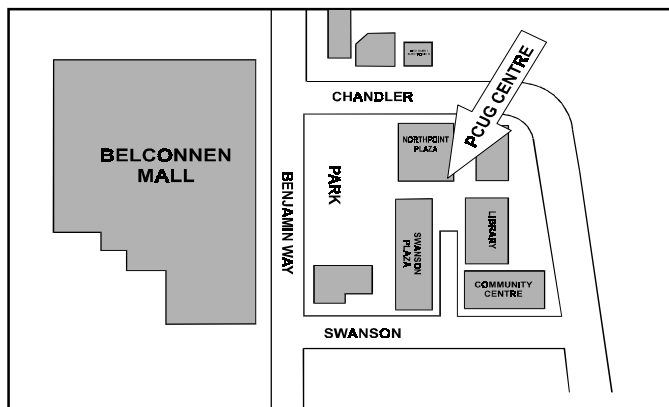(02) 6253 4933 (5 lines 33.6k bbs)
Fidonet address 3:620/243

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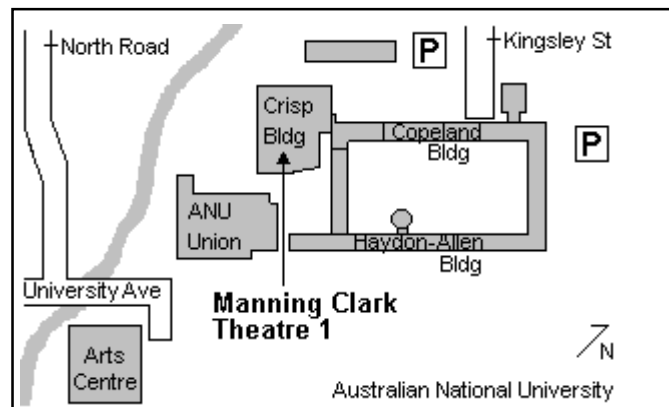(02) 6253 4966   (6.00pm - 9.00pm)

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.

Membership Notes

by Mike Burke
Membership Secretary

Welcome to new members reading *Sixteen Bits* for the first time and welcome to the PC Users Group.

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

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

Membership Card

Your membership card will be mailed to you as soon as possible after your application for membership, or renewal, has been processed. 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).

Membership cards and disks will usually be dispatched on the third Monday.

Information Disk

New members will also receive a disk containing information about the Group and its services. You will find the answers to most of your questions there.

New Members' Information Night

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

Main Meetings

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

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

There is no main meeting in December.

Special Events

We also have some special events such as the 'Bring and Buy Night' 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.

The yukky pink renewal warning labels seem to have been noticed by plenty of members although some of the comments concerning my taste in colours have been less than charitable. Whatever, they seem to be working so if you received one of these labels with this issue of *Sixteen Bits* please don't hesitate to let us have your opinion along with your membership renewal, **TODAY**.

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 included on the New Members' Disk and is currently available from the BBS.

> **Next New Members' Night**
> **1 September 1997**
> **7.30pm**
> **PCUG Centre**
> **Northpoint Plaza, Belconnen**

Committee

Here are the nominations received by the Secretary by the closing date (25 July 1997) for your new Committee. There will be no need for elections to take place at the 1997 Annual General Meeting as not all vacant positions were filled. The new Committee will take office at the conclusion of the 1997 Annual General Meeting and, under Rule 16(4), may (that is, if it feels the need) appoint a member of the PC Users Group to fill any of the three vacancies.

As avid readers of *Sixteen Bits* will recall, nominees were requested to provide profiles for publication in this issue, to enable the membership at large to learn a little about those aspiring to Committee membership. I guess that even non-provision of a nominee's profile may tell us something about that nominee!

Hugh Bambrick
Secretary
PC Users Group (ACT) Inc.

Position	Nominee	Nominated by	Seconded by
President	Ken Livingston	Self	Hugh Bambrick
Vice President	Iain Gould	Self	Mike Gellard
Treasurer	Allan Mikkelsen	Owen Cook	Self
Secretary	Rod Farr	Hugh Bambrick	Michael Phillips
Committee:			
	George Beaton	Self	Peter Bennett
	Owen Cook	Allan Mikkelsen	Wolf Lieske
	Basil Chupin	Self	Peter Watney
	Wolf Lieske	Owen Cook	Allan Mikkelsen
	David Schwabe	Ann Byrne	Hugh Bambrick
	Nhan Tran	Owen Cook	David Schwabe
	Peter Watney	Self	Basil Chupin

President – Ken Livingston

I decided to nominate for President as the submission deadline for Committee nominations was drawing nigh and no one else had nominated for the position. I'm sure the time will come when I'll look back at my decision and wonder what on earth I was thinking that day. But there it is.

As an ordinary Committee member, I've been actively involved in many areas of the group: member of the Internet Project Management Committee (IPMC); Advertising Manager; Meetings, Venues, and Publicity person; Policy and Planning sub-committee chairguy; member of the occasional Communications Policy Team; Sixteen Bits Online restorer; and PCUG representative member of the On-Line Services Advisory Group to the ACT Government. Anyone who reads the TIP newsgroups probably has a reasonably good idea of my personal views on various issues. We are a non-commercial group, and we should stay that way. Management of the group should consist of finding the best means to facilitate our 'users helping users' ethic. This includes pooling our resources to provide services and facilities for the use and enjoyment of all our members.

Our group is not about computers; our group is about people – computer users sharing common interests. We are a dynamic group. And we must be prepared to adapt to changing technologies and attitudes without forgetting what we are all about.

Vice President – Iain Gould

This is a blatant reprint of my last year's bio for the committee nominations with only minor changes. I make no apologies because ... well just because, okay?

I was born in England, but my parents returned to Australian whilst I was still a babe in arms, so it didn't affect me. Raised in Canberra, I left to seek fame and fortune in Sydney. Finding none, I returned a few years ago, and have settled back in to the better life.

I am an Engineer by qualification, a Networking and Communications Systems Consultant by trade, and a PC junkie by hobby. A self-confessed fiddler, I love nothing more than pulling things apart, putting them back together again, and wondering why I have bits left over.

My membership number starts with 93, so I guess I've been in the Group for about 4 years. I have been on the committee for 2 sittings. I am Co-Assistant Project Manager of The Internet Project, one of the PCUG's 3 delegates on the IPMC, occasional accounts processor, tape-master, keeper of TIPs modems and communications equipment, and the semi-official mouthpiece in *Sixteen Bits*. I have nominated for Vice-President of the PCUG this year because I have always wanted to be able to say that I take care of the committee's vices.

I think that I bring to the committee youth, good looks, intelligence, and obviously a sense of humour. If you really must, have a look at my web page (*http://www.pcug.org.au/~iain*) but it really sucks at the moment (still). Hopefully I can spiff it up before September.

Profiles

Treasurer – Allan Mikkelsen

I have been a member of the PCUG since 1989 and of the Committee since the 1996 AGM. My work background is in computing, and I spent 30 years in the Australian Public Service in jobs such as programmer, IT manager, and support specialist. My academic background is in mathematics, physics, and statistics with some post-graduate studies in statistical computing. I am now (semi)retired.

My current positions with the group include member of the Internet Project Management Committee, member of the meetings, venues, and publicity sub-committee, and I am the PCUG part of the TIP webmaster team.

My hopes for the coming year are to see more continuous improvement in TIP for the benefit of subscribers in particular and PCUG members in general. I would like to see facilities at the PCUG Centre expanded and this great asset of the group put to better use. All of the PCUG activities must be backed by sound financial management and I hope to see existing policies continue to provide services to members in a financially responsible manner.

I have enjoyed working with the current committee members and the numerous people I have met through Coffee and Chat, the Internet Special Interest Groups, and other PCUG activities. I look forward to continuing this in the coming year.

Secretary – Rod Farr

I have been a member of the Group since 1987. For the last couple of years, I have been a general member of the Committee and the Volunteer Co-ordinator.Thanks to the great volunteers we have in the PCUG, I have enjoyed that job. I also enjoy staffing the Centre every 8 weeks or so - something I can commend to anyone interested in helping out.

I'm sure that I will have difficulty filling Hugh Bambrick's shoes as Secretary of the PCUG but I am looking forward to the challenge.

Owen Cook

I have been with the PCUG since 1993 and have been actively helping out with various PCUG activities since mid 1995. My nomination for the committee is an extension of these activities.

Wolf Lieske

A latecomer to computing (65 years late in fact) – I am a Joiner and Carpenter by trade with wide experience in most areas of the building industry and 40 years at managerial level. A short time after retirement I took up computing for mental stimulation.

It wasn't long before I joined the PCUG and found that the policy of 'users helping users' worked well for me. The friendship, guidance and caring advice I received from Darrell Burkey, Owen Cook and everyone else at Coffee & Chat was remarkable and is still greatly appreciated.

I am now reasonably computer literate (almost graduated from infants level) and spend many hours surfing the Net, experimenting with graphics (saves money on Xmas cards) and doing what retirees do when they are too busy to go to work.

In the last two years I have taken care of the finances of Coffee & Chat and organized the occasional BBQ, Melbourne Cup and Xmas lunches, recently negotiated the purchase of ZIP drives and accessories at competitive prices for our group.

The self-help ethos is very important to me and I feel that while the club must move with the times it should not lose sight of what makes it most worthwhile – the benefits that come with membership of a volunteer organisation. I believe that I, without being a computer expert and as a Senior Citizen, can contribute to the further development of our club as a committee member and look forward to working with the management team.

David Schwabe

I have been a member of the PCUG for about three years. I was first interested in the PCUG as a group when modem technology went past the 2400 baud rate barrier and the cost of modems came down to something affordable. My interests are in computers generally and data communications specifically.

Apart from training I enjoy the Internet Clinics which are now being trialed at twice a month to give a better service to the members of the group. The training has been an interesting task. For a group membership of over 3000, the training facilities are very much under-utilised. The training facilities are available for use by members. If there is a training course that you consider should conducted at the Centre then let the Centre know.

Nhan Tran

I am an IT consultant. I have been a member of the PCUG for eight years. Some of the work I have done and/or still do for the PCUG is: writing articles for the *Sixteen Bits* magazine, developing the help pages for the TIP Web site, participating in the TIP help mailing list, staffing the PCUG Centre at weekends, helping users in the Internet Clinic, developing training materials and conducting training courses, and putting my name in the Help Directory (not any more, sorry).

I believe that the PCUG is heading to a major turning point, and the Group may be prematurely commercialised. If such a situation occurs, I want to be there to advocate for the spirit of 'users helping users'. I believe that the group needs more co-ordination, co-operation and efficient management, and I'll do my best in promoting and contributing to such improvements. You can always find me at the Centre on most weekends at around lunchtime.

MICRO Magic!

The first of a two part series on the magical mysteries of microprocessors by Glenn Pure (glennpur@pcug.org.au)

Have you ever wondered what makes your computer, well ... compute? How on earth does it do all the fancy things it does – the snappy animated graphics, the sound, the serious number crunching?

The beauty of the modern computer, with its incredible processing power and megabytes of memory is that you don't have to know! Clever electronic engineers and programmers have hidden most of the messy detail from us. We can simply sit back and enjoy our machines if we want. But in case you are just a little bit curious about what makes *your* computer work, then read on.

I will mainly focus on the 'thinking' part of the modern computer – the *microprocessor* – although I will also spend a bit of time on that key peripheral – memory. You'll be surprised to learn how simple the basic structure and function of a microprocessor is.

I became interested in learning more about microprocessors about seven years ago. In order to really gain a good understanding I decided to learn a little electronics then actually design, build and program a small computer. And I did it! It now runs the watering system in my garden and is driven by an ancient Z80 microprocessor which I scavenged off some junked circuit boards. Anyway, that's enough introduction.

The name 'microprocessor' is a very apt description of what it does. It processes information, and it's tiny. In spite of the incredible things that microprocessors can do, they rely on some very primitive processing to get the job done.

Just what type of things can they do? They can shuffle data from one place to another and they can add and subtract numbers. All sorts of things are possible even with such a basic set of functions. For example, two numbers can be compared simply by subtracting one from the other. If the result of the subtraction is zero, the microprocessor knows that the two numbers were the same. Numbers can be multiplied together just by repeated

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You'll be surprised to learn how simple the basic structure and function of a microprocessor is.

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addition. Microprocessors can also do simple logical operations like AND, OR and XOR.

Most importantly of all, microprocessors can make decisions, but again very simple ones. For example, they can first compare two numbers as outlined above, then make a decision about what to do next based on the result.

You are probably beginning to wonder if microprocessors can doing anything other than manipulate numbers. The simple answer is no. The things we are familiar with in our day-to-day lives like words or images must first be converted to numbers before a microprocessor can handle them – then converted back after being 'processed' so we can understand them.

Standards have existed for a long time that specify how real world information should be converted to numbers that computers can handle. One you may have heard of is the ASCII character set. ASCII

stands for American Standard Code for Information Interchange. This code specifies unique numerical values for letters of the alphabet, special characters, symbols and digits. As I type these keys on my keyboard, they are being converted into numbers inside the keyboard and sent to the microprocessor in the computer for processing. Likewise, when the microprocessor needs to send output to, say, the video monitor, it sends this information as numbers which are converted back into coloured dots on the screen by the electronics in the video card and monitor.

You might also be starting to wonder how the microprocessor knows what to do, in what order to do it, and when? Who or what is giving it 'instructions'? If you haven't already guessed, the answer is *software*. In fact, software is nothing more than a long string of instructions for the microprocessor. I use the term *string* of instructions with good reason. Microprocessors can normally only execute one instruction at a time and so must be fed these one after another, in a long 'string'.

One interesting implication of the 'one instruction at a time' limitation is that only one piece of software can be running on a microprocessor at any one time. If you think your computer already breaks this rule, it has fooled you! Most desktop computers only have one microprocessor. But this microprocessor is very fast and can repeatedly switch between several pieces of software at such a rate that it gives the illusion of having several programs active at once.

Committee Profiles

Peter Watney

I have been a member of the PCUG since 1986, and was Treasurer of the Group from 1988 to 1994, for which service the Group honoured me with Life Membership in 1995.

Despite the growing size of the Group at that time, and despite the increase in workload provided by TIP, my successor as Treasurer had the resources available to him substantially reduced.

The motto of the Group, 'users helping users', sums up my aspirations for the Group, and I believe that it is the Committee's task to enable that motto.

It can only be done properly from a firm and known financial base, so my first priority would be to require the Treasurer to provide the Committee with sufficient information to carry out its task, and to enable the Treasurer to do so by providing adequate resources.

In order to enable users to help users, I believe that a more open style of management, a more accessible Committee and greater sensitivity in answering questions from the bewildered would be an advantage.

What is binary information?

Each wire or pin on the microprocessor can only transmit (or receive) an *on* or an *off* signal – like a simple light switch which either turns the electricity on or off to a light. Because there are only two possible options (on or off), microprocessors are described as operating with 'binary' data. The 'on' position is usually represented by the number '1' while the off position is given the value '0'.

To be of any use, numbers much larger than 1 must be handled by microprocessors. To do this, more than one 'binary' line is used. Some simple calculations can show us that two lines would enable numbers up to three to be handled. Eight bits (1 line = 1 bit) can code numbers up to 255. On many current microprocessors like the Pentium, the data is encoded on 32 lines (ie 32 bits) enabling numbers up to about 4.2 billion to be processed. Hence, the Pentium is called a 32 bit microprocessor. New processors are now coming out that process 64 bit data 'words'. These can process extremely large numbers.

Some binary number sizes are given special names:

- 8 bit numbers are called *bytes*

- each 4 bit half of a byte is called a *nibble*

A nibble can encode numbers from 0 to 15. For convenience, engineers and computer programmers like to write a nibble's value as a single character. To do this they use the numerals 0 to 9 to represent nibble values 0 to 9. For nibble values 10 to 15, the letters A to F are used. This is called *hexadecimal* notation. The number 11 would be written as 'B' in hexadecimal. The number 15 would be 'F' and 16 would be written as '10'.

Binary numbers are written in the same way as ordinary numbers, except there are only two possible digits in these numbers: 1 and 0. Here are a few examples:

Number	Binary representation	Hexadecimal representation
0	0000 0000	0
4	0000 0100	4
15	0000 1111	F
33	0010 0001	21
255	1111 1111	FF

Physically, the microprocessor is just one of the many 'chips' or integrated circuits you will find on the main circuit board in your computer. Lots of metal 'pins' protrude from it, usually from the base on today's microprocessors, but on older chips, they are found around the perimeter. These pins are wired to the little chunk of silicon that actually does all the work inside the plastic chip package. The pins connect externally to other chips or devices on the circuit board through thin metal 'tracks' on the board. Microprocessors can have anything from only a few dozen pins up to the 300 mark.

Figure 1 shows the three main types of connections a typical microprocessor has to the world around it. Some are inputs, some are outputs and some carry information both ways. All of them handle binary information. The three main classes of connections are *data, address* and *control*.
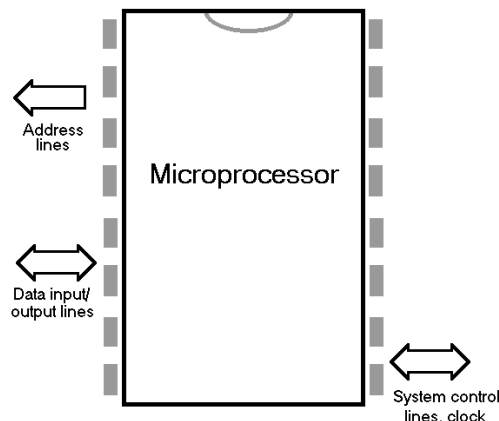
Let's start with the *data* connections. These are usually two ways 'data' can travel – either into or out of the microprocessor. The number of data lines depends on the microprocessor. A microprocessor with 32 data lines is said to have a 32 bit *data bus*. On older microprocessors, the size of the data bus was usually the size of the data 'words' that the microprocessor could internally perform calculations with. On newer microprocessors, the data bus is often much wider than the data word for performance reasons. For example the Power PC microprocessors found in some current Macintoshes have 64 bit data buses but can only process 32 bit numbers internally. Don't worry too much about this. The important thing I want to focus on here is the size of the data word that the microprocessor can perform calculations on internally.

'Data' can consist of any information that is being used by the microprocessor. In fact, a lot of the data is actually instructions that tell the microprocessor what to do. Instructions are sometimes called operation codes or *op codes* for short. The microprocessor always knows the difference between ordinary data and instructions, although to you or I, it would be hard to distinguish. Both are just numbers. The microprocessor relies solely on the order in which the 'data' is received to tell the difference. There are a few simple rules it follows to do this:

- the first word of 'data' received when execution starts is always an instruction

- each instruction can consist of one word by itself or an instruction word followed by one or more words of additional data

Figure 1–the main classes of connections to and from a microprocessor

Address lines

Data input/output lines

Microprocessor

System control lines, clock

Figure 2–a graphic representation of the clock signal used by microprocessors
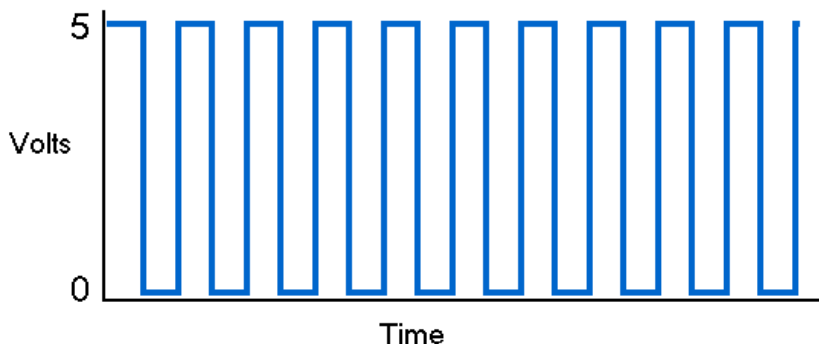
- for each particular instruction the number of following data words is always the same – so on receiving an instruction, the microprocessor first determines which instruction it has received. This tells it how many more data words (if any) to expect before the next instruction.

Microprocessors are extremely reliable machines in that they can receive many billions of 'data' words and not loose track of whether the next word will be data or an instruction! You can guess what happens if it goofs – your computer crashes.

Each microprocessor model has its own unique instruction set or *machine language*. For example, the number 118 tells a Z80 microprocessor to stop everything it is doing and go into a 'suspended animation' state. The number 118 would tell an Intel 80x86 microprocessor to perform a conditional jump from one location to another depending on the result of the calculation it has just performed. On the Motorola 68000 microprocessor, this number would cause some completely different action.

That's enough on the data lines for the moment. Lets now look at the *address* connections on the microprocessor. These are crucial to making sure the right data and instructions get to the microprocessor. The address lines are usually one way only – they are used to send information *from* the microprocessor. The main place this information is sent is to the computer's memory where the data is stored. The address lines are like the

data lines in that there are many of them and they are used to transmit large numbers. In the case of the address bus, the numbers transmitted on it are interpreted by the memory circuits to find out exactly which location in memory the microprocessor wants to obtain its data from. For example, if the number 2397 was transmitted on the address lines, it would mean that the microprocessor wanted to obtain the data at location 2397 in memory. That's about all there is to addresses.

The *control* lines on the microprocessor are the most interesting and diverse. The best way to understand how they work is to look at a few of the typical ones – although each microprocessor has its own unique set. Two lines that are common to virtually all microprocessors are the *read* and *write* lines. They are used when sending data from or to memory. The microprocessor generates these signal (in other words, they are output pins on the microprocessor). They are used to tell the computer's memory whether the microprocessor wants to read from memory or write to it – with the actual location in memory being the number currently being displayed on the address lines. When read is on and write is off, the read command is being issued by the microprocessor and vice versa.

Another interesting control line is the *input/output request* line or *ioreq*. This is also an output signal from the microprocessor and is used in conjunction with the read or write signals. It is used for sending data to or from the computer's

input/output (I/O) devices. These devices are usually connections to the outside world like a keyboard, printer port, serial port or disc drive. Like memory locations, each I/O device has a unique numbered address. The microprocessor can write to or read data from these devices by first placing their address on the address lines then turning ioreq on, along with either the write or read line.

The *reset* line is an input to the microprocessor. It is used to clear and restart the microprocessor. If you are wondering what the reset button on the front of your computer is connected to, you now know.

The *clock* line is another input. Unlike the clocks we are familiar with, the microprocessor relies on a very different type of clock. The clock signal is simply a repeating series of on-off pulses. If you drew a graph of this signal, it would look something like Figure 2. Each microprocessor has a limit on its maximum clock rate and this varies anywhere from only a few megahertz (1 megahertz is one million on-off cycles per second; abbreviated MHz) up to 500 or 600 MHz. The faster the clock runs, the faster the processor can execute instructions.

The clock is critical to the microprocessor's functioning since it controls the sequencing of all events inside the chip. Think of it like the relationship between music and a waltz. The music beat provides the cues for the sequence of steps in the waltz. The microprocessor clock provides the cues for each of the steps needed to execute an instruction. In the microprocessor case, the instruction might be to fetch a byte of data from the keyboard. The first clock cycle might cue the microprocessor to put the correct address on the address lines. The next might cue it to turn the read and ioreq lines on, and the next clock cycle might be the one in which the byte is actual read from the data lines.

An important thing to notice about clock cycles and instructions is that they are not the same. It takes several clock cycles to execute one instruction (the

number of cycles depends on the microprocessor and the instruction). This obviously slows the microprocessor down quite a bit. Newer microprocessors have some innovative architecture to help get around this problem. *Superscalar* microprocessors have multiple instruction processing units enabling several instructions to be executed at once.

The superscalar approach isn't perfect and causes its own problems – for example, things like conditional program branches are difficult to handle (a conditional program branch is an instruction that says 'if the result of the previous calculation was x, then execute instruction A but if the result was y, then execute instruction B'). Clearly, the branch can't be predicted until *after* the previous instruction is completed. In cases like this a superscalar processor has to start executing down both branches, then abandon the incorrect one when the results of the branch instruction are known. Nevertheless, in many other cases there is a substantial improvement in performance. Both of the major microprocessor makers (Intel and Motorola) incorporate the superscalar approach in their current microprocessors.

Probably the most complex control lines found on most microprocessors are the *interrupt* lines. These are inputs to the processor. While the operation of interrupts is quite complex, the principle is very simple. You can think of the interrupt line serving the same function as the whistle on a kettle. When the kettle boils, the whistle sounds and you are immediately alerted to turn it off. When a device wants to get the microprocessor's attention, it can send a signal to it on the interrupt line. This tells the microprocessor that something out there requires its attention. An example might be the keyboard. Each time a key is pressed, an interrupt is sent to the microprocessor to tell it that another keystroke is ready for processing.

Interrupts are quite efficient because they allow the microprocessor to do other things (or even have a 'rest' to conserve power) instead of having to constantly make the effort to check external devices to see if they are doing anything that needs attention. The interrupting device only gets the attention it needs, and when it needs it – at the time it sends an interrupt. In case you're wondering, the other method, where the microprocessor takes the initiative to constantly check peripheral devices, is called *polling* – although you won't come across systems that use this approach very often.

(to be continued ...)
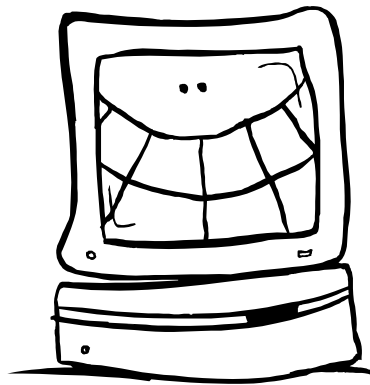
The excerpts on this and the next page were found on the Internet or contributed by members. Further contributions welcome!

How does the chicken cross the road?

The Microsoft Chicken is already on both sides of the road, AND it just bought the road.

The OS/2 Chicken tried to cross the road several times, and finally gave up.

The UNIX Chicken says there's no need to cross the road. Just make a symbolic link to the chicken anywhere you want it to be.

The Java Chicken's server will download a chicklet to the other side for you, as will the ActiveX Chicken's server.

The Web Chicken jumps out onto the road, turns right, and just keeps on running.

The Cray Chicken crosses faster than any other chicken, but if you don't dip it in liquid nitrogen first, it arrives on the other side fully cooked.

The Mac Chicken claims that no reasonable chicken owner would want a chicken to cross the road, so there's no way to tell it to.

APPLE	Arrogance Produces Profit-Losing Entity
BASIC	Bill's Attempt to Seize Industry Control
CD-ROM	Consumer Device - Rendered Obsolete in Months
DOS	Defunct Operating System
IBM	I Blame Microsoft
ISDN	It Still Does Nothing
MACINTOSH	Most Applications Crash; If Not The Operating System Hangs
OS/2	Obsolete Soon, Too
PCMCIA	People Can't Memorise Computer Industry Acronyms
SCSI	System Can't See It
W W W	World Wide Wait

& Bytes

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

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

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

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

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

Thirteen years ago...

'It is clearly matter of opinion how much disk capacity should be provided with a microcomputer. Large Fortran or Basic programs are not usually required in a structural engineer's software library and 2 or 3 diskettes will probably carry 30 or 40 programs of perhaps 300 to 1000 lines of source code each and this may well be all the problem-solving software that he would need. However, files tend to become large in word-processing systems and it makes for easier electronic scissors-and-paste working if all the needed components of an article are on the one diskette. Two diskette drives are essential for backcopying disks painlessly and hard disks are admirable in most respects except for the added cost and weight and the problem of backup. In a typical word-processing system one might hold up to 100 letters or perhaps 10 large documents together with the word-processing and operating system on one 600 kilobyte diskette. Backup copies must be maintained for security and one could forecast that a professional engineer might presently find his diskette library stablising at 100 diskettes costing about $500. Some 10 diskettes would probably see a student through the whole of his undergraduate course.'

Webster's Dictionary definition of Windows95: Windows95: <win-doz-nin-te-fiv> n. 32 bit extensions and a graphical shell for a 16 bit patch to an 8 bit operating system originally coded for a 4 bit microprocessor, written by a 2 bit company, that can't stand 1 bit of competition.

A helicopter was flying toward Seattle when an electrical malfunction disabled all of the aircraft's navigation and communications equipment. Due to the extreme haze that day, the pilot now had no way of determining the course to the airport. All he could make out was a tall building nearby, so he moved closer to it, quickly wrote out a large sign saying 'Where am I?' and held it in the chopper's window.

Responding quickly, the people in the building penned a large sign of their own ... it read 'You are in a helicopter'. The pilot smiled and within minutes he landed safely at the airport. After they were on the ground, the co-pilot asked how the sign helped him determine their position. 'I knew it had to be the Microsoft building,' the pilot replied, 'because like any computer company's help staff, they gave me a technically correct but completely useless answer!'

Contributed by Peter Tilbrook

CD ROM
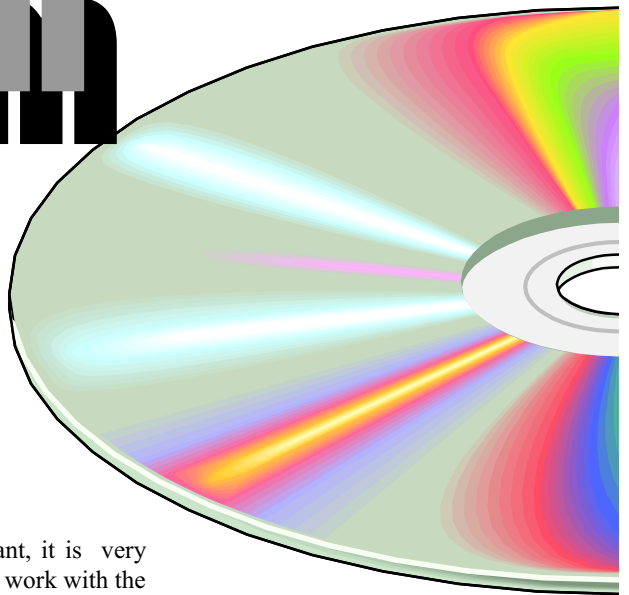
By Nick Thomson

Welcome to the August 1997 issue. This month I have included reviews of 3 of the 12 or so products that I have reviewed for InfoRom during the last month - to see the other reviews check **www.inforom.com.au**. It features reviews of educational, home reference and edutainment CD-ROM software.

The reviews are of *Encyclopedia Britannica CD 97, Rodin* and *Pingu.* Copyright for the reviews rests with InfoRom.

REVIEW – Encyclopaedia Britannica CD 97

Encyclopaedia Britannica CD 97 is the latest multimedia version of one of the world's leading encyclopaedias. The pricing of the package is very much more realistic than the 96 version - at under $300 (Australian) it is within reach of most households. Given this fact, it can now lay serious claim to being one of the best of the CD-ROM encyclopaedias available. There are more than 65,000 articles on a wide range of topics, with more than 400,000 references. There are no videos or sound clips as with programs like *Encarta* and *World Book,* but the level of information on most topics is more comprehensive, and the program is quite easy to use - suitable for upper primary and secondary students. Another plus is the fact that it is relatively undemanding of hardware - the PC version will run on a 386/25 (486/33 recommended) with 4Mb of RAM (8 Mb recommended).

The program is unusual in that it uses Netscape browser as its search engine. Version 2.0 is provided with the program - but you can elect to use your own, previously installed version if you have one. While this can take some getting used to if you are not an Internet user, it is easy to use and relatively quick. In addition, if (like me) you live in a household with students that routinely search the Internet

for the information they want, it is very handy for them to be able to work with the same interface when they are using a CD-ROM encyclopaedia as when they search the Net. Hyperlinks and buttons such as <Home> and <Back> work in exactly the same way as they do when you are browsing the Net.

Just as when you are using the Internet, results of searches are presented as a list of articles with brief summaries and a heading that is hyperlinked to the article itself. These articles are generally presented at a level that upper primary or secondary students can understand, and in some cases e.g. countries, there is the choice of a 'brief treatment' (several pages) or a more detailed report that is presented in several sections. There are about 700 of these more detailed articles,

and each of them includes a Table of Contents that makes it easier for the user to locate specific sub-topics. One can do Boolean searches using operators such as AND and OR, or natural language searches e.g. *What is available on cycling?* Most articles also include a list of hot-linked, related topics. Diagram 1 is a typical topic screen.

Apart from *Search* and *How to Search*, one can access five other features from the Home Page of Britannica CD 97:
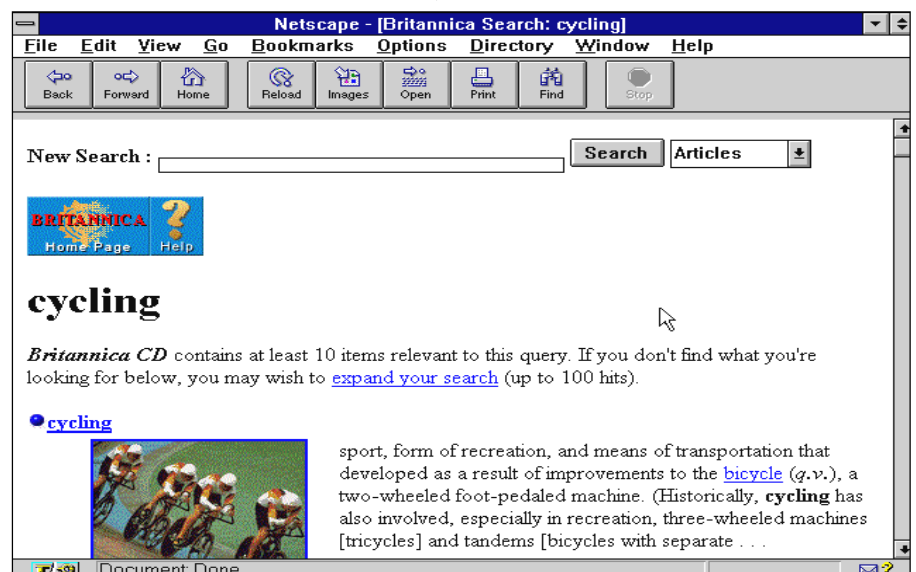
Diagram 1
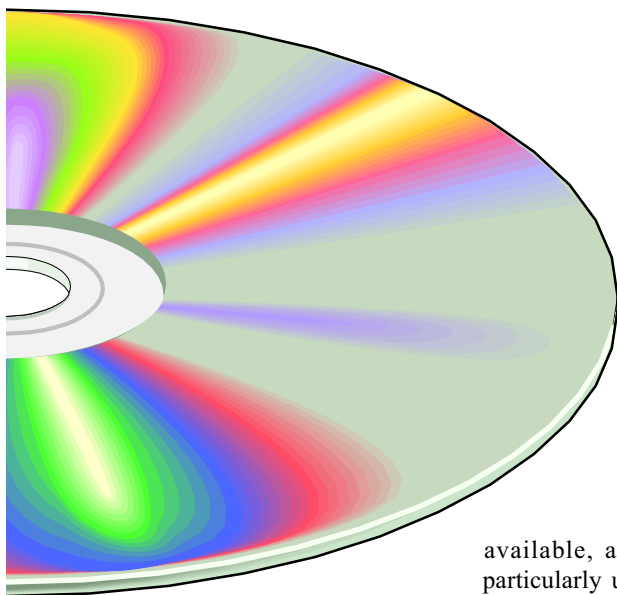
- Nations of the World – a database of articles, flags, maps and statistics (current to 1995) on the countries of the world;
- Propaedia – information organised in 10 subject categories such as Matter and Energy, Art and The History of Mankind;
- Random Article – jump to a randomly selected article;
- Random Image – jump to a randomly selected image;
- Connect to Britannica Online.

For an additional fee, users can connect directly to Britannica Online, which provides the following services;

- Latest editions of *Britannica Book of the Year;*
- Thousands of links to related sites on the Internet;
- Background information on current events;
- *Britannica Classics* - notable articles by prominent contributors from past editions.

The package also includes *Merriam-Webster's Collegiate Dictionary*, which provides dictionary entries for every word in the encyclopaedia.

One can copy or print articles or selections of articles, or the current page (including any pictures or diagrams). There is comprehensive online help available, as well as a colourful and particularly user friendly 56 page user's guide.

AustralianDistributor:
Encyclopaedia Britannica (Tel: 02 9680 5666)

Format: One Hybrid Compact Disk (Windows 3.1./Windows 95 and Macintosh)

Internet: www.eb.com.au

REVIEW – Rodin

Rodin is a detailed introduction to the life and major works of Auguste Rodin, the great French sculptor of the late 19th and early 20th centuries. The program is suitable for secondary and tertiary art students as well as anyone with an interest in sculpture, and it has three main components:

- The Visit;
- The Works;
- The Book.

The Visit is a most interesting 35 minute video tour of the Musee Rodin in Paris. As well as background information on the life of a great sculptor, it provides video explorations of and commentary on some of his works, including The Age of Bronze, Saint John the Baptist, The Gates of Hell and The Burghers of Calais, as well as topics such as 'Rodin and women' and 'The gardens' (a tour of the sculptures and antiquities displayed around the gardens of the Musee).

The Works presents 18 chapters organized around Rodin's most notable works or themes such as Rodin and the woman, or Rodin the portrait painter. There are over 500 images of his work in all. Each one can be viewed full screen or alongside commentary on aspects of the work such as its history and what it represents. The visual quality is very good, and one cannot help but be impressed by the artistry and sheer

Diagram 2

majesty of the man's work. In the case of major works such as The Burghers of Calais it is possible to trace their history via historical context, sketches and various metamorphoses of the actual sculpture. Diagram 2 is an example screen.

The Book provides 34 chapters of extensive information on Rodin's life, works and interests. It too includes many examples of his sculptures, drawings and paintings, as well as a number of portraits and photographs of the man himself, and a detailed chronology of his life. Within each topic there are hot links to various pictures that may be relevant to a particular work or theme.

The program is easy to install and use, and it represents a comprehensive, and very well presented introduction to one of the world's great artists.

There is no online help, but there is a user guide of 15 pages, that provides a good explanation of all program contents.

Australian Distributor: Dataflow (Tel: 02 9417 9700)

Format: One Hybrid Compact Disk (Windows 3.1 or later and Macintosh)

Internet: www.dataflow.com.au

Pingu

Pingu is a compendium of educational games and puzzles for children aged 3-6.

It is based on the animated penguin of book, video and audiocassette fame, and consists of 5 games, 5 puzzles and 5 screen savers. Diagram 3 is a sample of one of the games.

The puzzles are as follows:
- Colour Puzzle - identify matching colours and line up moveable colour blocks to help Pingu get his ball out of the tunnel;
- Shapes Puzzle - match an object dropped by a seagull to its shape;
- Numbers Puzzle - count the number of objects or complete a simple addition problem;
- Letters Puzzle - match a word to a picture that Pingu has painted by clicking on the appropriate letters;
- Sound Puzzle - match familiar objects with their sounds and repeat sound sequences.

The games consist of the following:
- Building blocks - complete puzzles using coloured building blocks;
- Snow Maze - help Pingu find his way through the mazes, picking up various objects along the way;
- Fish Tennis - move Pingu or Robby (1 or 2 players) to catch and return a fish from one side of the net to the other;

- Ice Flow - cross the river by jumping on and off ice blocks;
- Music Time - create music, sing along with prerecorded nursery rhymes or record and play back their own musical compositions.

The various activities are colourful and creative, and all of them are easy for young children to play. There are two or three skill levels in each one. Pingu (along with his various sounds and actions) is faithfully represented.

For those who are dedicated Pingu fans, there is a choice of 5 screen savers (including Stunt Pingu and Snowball Fight) that users can install within Windows. As an added bonus, when you are in the main menu you can get Pingu to undertake a variety of dance movements such as the squash, the headstand and the nug (to the accompaniment of suitably zany music).

When you start up there is a brief introduction to the main menu, and there is online help available at the main menu as well as within the various activities. This provides clear written and audio instructions, and most 5 or 6 year old children would be able to understand it. There is also a 15 page user's guide that provides a good explanation of all program features.

Australian Distributor: Roadshow (Tel: 029552 8700)

Format: One Compact Disk (Windows 3.1./Windows 95)

Internet: *www.village.com.au*

Diagram 3

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

Ten years ago in Sixteen Bits...

From an editorial written by the then editor, Mike Cassidy, in the August 1987 issue of Sixteen Bits:

'... Now, as [over twelve months ago], *Sixteen Bits* is the only channel of communication between all members. Yet during my tenure as editor I have not had more than half a dozen letters. This seeming reluctance of members to communicate with each other poses a number for our group. User groups exist for members to help each other - sharing is their life-blood. While a small number of our members do share through personal contact, we would expect many members to demonstrate their willingness to share by writing on their experiences for the benefit of all. A short letter to the editor is most assuredly the easiest way for members to share with all their fellow members. So what is the problem: are we content to take without giving or do we really believe we have nothing to share? Too few of us give time month after month in providing various services and organising special interest groups. Surely many more of us could contribute the half hour or so to write a brief letter on some experiences for the benefit of all.'

The Internet Clinic

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

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

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

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

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

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

David Schwabe *dschwabe@pcug.org.au*

Nhan Tran's Now Official TIP Web Help Pages

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

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

TIP Technical Information

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

< HTML >
A beginner's guide

by Greg Baker
The first module of a short course on HTML

1. THIS COURSE

This is a beginner's guide to HTML to be used by people with a need to develop or service web pages. It is a self-paced course which can be used as a reference work to be used when completed.

The course uses the web browser Netscape and Microsoft Windows Notepad. This is because Windows Notepad is well known and using it avoids the dilemma of choosing from the vast range of HTML editors currently available. It also means that readers will be taken behind the scenes to look at HTML code in the raw; this is often glossed over in dedicated HTML editors and conversion programs.

Because the author has yet to be convinced that Windows 95 is a necessary resident in his machine the series uses Windows 3.1. It assumes a knowledge of Windows 3.1 and of Windows Notepad. As far as possible the course uses HTML 2.0. Any deviations from this standard are noted where relevant.

This course makes use of a number of text and HTML files. These can be found at *http://www.pcug.org.au/pcug/files/html.*

Download all these files to your hard disk drive. This course assumes you place them in a **c:\inet** subdirectory.

For additional assistance with HTML the reader can refer to a number of web sites. One place to start is at *http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html.*

2. CONVENTIONS

2.01 Keyboard and mouse commands

Commands using the keyboard are labelled with the icon

Commands using the mouse are labelled with the icon

Often keyboard and mouse commands are interchangeable. When this is the case the alternatives will be noted. Sometimes, however, there will be no keyboard shortcut and you will need to use the mouse. In these cases only the mouse icon will appear.

2.02 Keyboard Notation

The action of holding down one key while pressing another is indicated by linking them with a plus sign. Thus Alt+F says to hold down the Alt key while pressing the F key, and Ctrl+R says to hold down the Ctrl key while pressing the R key.

Sequences of keystrokes are separated by commas. Thus Alt+F, A says to hold down the Alt key while pressing the F key, to release the Alt and F keys and then press the A key.

Although the letter keys are shown in upper case here for aesthetic reasons, do not use the Shift key to make them upper case. If you do you may find you are carrying out another operation entirely. Thus Ctrl+Shift+F is different to Ctrl+F.

2.03 Alt+Tab switching

To use this course effectively you will need Netscape and Notepad running on your PC. The exercises carried out during the course will move backwards and forwards between Netscape and Notepad. The most efficient way to do this is to use Alt+Tab switching.

Thus to switch to Notepad from Netscape simply depress and hold the Alt key and repeatedly press the Tab key until the Notepad name and icon appear on screen. Then release the Alt and Tab keys and you will be in Notepad.

To get back to Netscape when you want to check your modified HTML code Alt+Tab until you are in Netscape.

2.04 Saving new HTML code

When you have created some HTML code and you want to test it you need to save it from Notepad. To do this simply

Type Alt+F, S.

Select the File menu and click on Save.

If you wish to keep a copy of the original exercise files then you will need to save your changes under a different file name the first time you modify it.

Subsequent saves can be carried out as above. To save with a different filename

Type Alt+F, A and enter your own filename. Press Enter to finish.

Select the File menu and click on Save As. Enter your own filename then click on OK.

2.05 Loading HTML code

Once you have prepared your HTML code ready to test you will need to load it into Netscape. To do this start Netscape then

Type Alt+F, F *or* Ctrl+O. Select or type the filename for the HTML code you wish to test. Press Enter when the filename is selected.

Select the File menu and click on Open File. Select the filename for the HTML code you wish to test and click OK.

2.06 Reloading HTML code

When you wish to test modified code you will need to reload your code into Netscape. This is because Netscape does not automatically detect that you have changed the source code.

Hence when you are ready to test your modified code, save it from Notepad as above. Then switch to Netscape and

⌨ Type Ctrl+R *or* Alt+V, R to reload your code to be displayed.

🖱 Select the View menu and click on Reload.

2.07 Viewing source code in Netscape

Viewing HTML source code produced by others on the web is a good way to look at techniques and ways to write HTML code. Remember as you do this though that not all HTML code available on the web is good code and you will need to treat the coding techniques of others with some caution.

⌨ Press Alt+V, S to view HTML source code. Press Enter or Esc to return to Netscape.

🖱 Select View then click on Document Source to view HTML source code. Click on OK to return to Netscape.

Note that in Netscape you can select your own HTML source code viewer instead of the in-built viewer.

To do this in Netscape go to the Options | General Preferences dialogue box thus

⌨ Type Alt+O, G.

🖱 Select Options and click on General Preferences.

To set up your own text or HTML editor as the default used by Netscape you will need to use the mouse thus

🖱 Click on the Apps tab then in the View Source box type in the full path name of your text or HTML editor. Click on OK to finish.

Note that if you choose Notepad as your text editor you may need to close Notepad after viewing HTML source code in Netscape. If you do not you may unknowingly open up multiple instances of Notepad with subsequent operations to view source code. This may not be a real problem unless you have more than five or six instances of Notepad open but it is not a particularly elegant way to operate.

3. WRITING HTML

Hyper-text markup language (HTML) is computer code used to write World Wide Web (WWW) pages for the Internet.

These pages are mainly text but often include graphic images and other audio-visual material. Audio visual material can include animated images and audio clips.

This course will look at ways to include graphic images but will not look at audio-visual material.

HTML code is simply text which has been augmented with HTML codes—tags—to tell web browsers how the text and associated graphics should be displayed.

A web browser is a software application that is able to find and read HTML code and display it on screen.

The most commonly used web browser in current use is Netscape 3.0. However there are other browsers including Mosaic and Microsoft Internet Explorer. Although browsers all follow certain standards—which we will discuss later—the browsers will all interpret HTML codes in their own way. If your intended audience is the general Australian and overseas public you will need to allow for these differences. The most practical way to do this is to test your HTML code on as many browsers as you have access to and follow the currently approved standard HTML.

The currently approved HTML standard is HTML 2.0. As far as possible this course adheres to this standard. Where tags are used which are not standard HTML 2.0 that deviation is indicated.

The exercises which follow will in the main develop pages for a fictitious web site: the *Stop Mousing About!* web site.

To see an example page start Netscape and load the file c:\inet\nomouse7.htm. Notice the range of font sizes, bold and italics and ruled lines. Notice also the footer information.

3.01 Basic page layout tags

EXERCISE 1
Open Notepad and open the text of c:\inet\nom8_0.htm. You will see that it is laid out roughly as you could want it to appear in a final published Web page.

To see what this page looks like under Netscape switch to Netscape and open this file.

You will notice that all layout in the original document has disappeared and you are left with a maze of text that is for all practical purposes unreadable and hence inaccessible to anyone wanting to read it.

To provide browsers with layout information you will need to place HTML tags in the text file.

Most HTML tags begin with a < and close with a >. Web browsers interpret what lies within these symbols and uses this information to layout the final page.

Anything that a browser cannot interpret it ignores.

Many HTML tags come in pairs. The first one of the pair indicates that a particular feature is to be turned on; the second one in the pair indicates that the feature is be turned off. Each tag of such a pair has the same form as the other except

that the second one in the pair is indicated by placing a forward slash as the first character inside the angled brackets.

Hence tags are distinguished thus < > and </ >.

Line and paragraph breaks

The two most basic page layout tags follow.

Line break. Note that browsers do wrap text so that it lies entirely on the screen. However <BR> needs to be used to indicate where you want to force a new line.

<P>

Paragraph break. This performs the same function as <BR> but places a blank line in the output page at this point.

Note that these tags are used by themselves and do not need a closing tag.

EXERCISE 2

Switch to Notepad and insert <BR> and <P> codes into nom8_0.htm to improve the final layout.

As you go, check your progress by saving your code and switching to Netscape and reloading the page.

Save your work if you want to retain your original files.

To see a completed version of this exercise examine nom8_1.htm when you have finished.

3.02 Improving appearance

There are a great range of other tags that can be used to improve the appearance of your output page. These include the use of bold and italics and the use of horizontal rules.

Bold and italics

The tags to use here are

<STRONG> </STRONG>

Strengthens the text enclosed within the tag pair. Depending on the browser this tag has the effect of bolding enclosed text.

<EM> </EM>

Emphasises the text enclosed within the tag pair. Depending on the browser this tag has the effect of italicising the text. Thus

<STRONG>
This text will appear strengthened in comparison to plain text nearby.
</STRONG>

and

<EM>
Text between these tags will be emphasised.
</EM>

Note that the way these tags are interpreted depends on the web browser your clients are using. They are called *logical tags* and can be compared with the *physical tags*

<B> </B>
Bolds text enclosed within the tag pair.

<I> </I>
Italicises text enclosed within the tag pair.

It is generally considered to be better coding practice to use the logical rather than physical tags in these situations and to allow web browsers to choose appropriate display characteristics.

EXERCISE 3

In Notepad return to your file nom8_0.htm and place logical tags to improve the appearance of your output page.

If you have not finished placing <P> and <BR> tags into your version of this file you can open c:\inet\nom8_1.htm and work on that file.

Check your coding by reloading the file in Netscape.

To see a completed version of this exercise examine c:/inet/nom8_2.htm when you have finished.

Ruled lines

Text can also be broken up into sections by inserting horizontal rules across the output page.

<HR>
Insert a horizontal rule at this point.

Note that of necessity <HR> begins on a new line. Hence you do not have to code in a <BR> tag before the horizontal rule.

If you want to give the horizontal rule some room above you will need to code in a <P> tag above the rule. To allow some room below you will need to code in a <P> or <BR> tag which seem to be interchangeable in this place.

EXERCISE 4

Return to your exercise and use <HR> to break it into logical sections.

If you have not finished placing <STRONG> and <EM> tags into your version of this file you can open c:\inet\nom8_2.htm and work on that file.

Check your coding by reloading the file in Netscape.

To see a completed version of this exercise examine c:\inet\nom8_3.htm when you have finished.

3.03 Coding standards

HTML code that is difficult to understand at a glance is difficult to debug and difficult to maintain.

This means that as you develop HTML code you will need to spend longer at your endeavours if you do not adhere to some coding standards.

The repetitive cycle of changing code and testing until it produces the desired output with a range of browsers is unnecessarily lengthened by poorly structured code.

It also means that anyone who is asked to maintain the code will need to spend longer than is necessary attempting to understand what the code does before they are in a position to modify that code.

Although this may appear to present no problems if the person who originally wrote the code maintains it as well and if the code is relatively short and simple, it becomes a great difficulty when code is

Annual General Meeting

The Annual General Meeting of the PC Users Group (ACT) Incorporated will be held on Monday 29 September 1997 at 7.30pm at Manning Clark Theatre 1, Crisp Building, Australian National University, Canberra.

Members who wish to vote at the meeting will need to bring a current membership card or the latest *Sixteen Bits* mailing label or other suitable identification as a currently financial member of the PC Users Group (ACT) Inc.

Members who will be unable to attend the meeting may appoint a proxy in the form of the notice set out below. No member may hold more than 5 proxies. **Proxy forms must be received by the Secretary no later than 7.30pm on Sunday 28 September 1997.**

Agenda

1. Apologies

2.(a) Minutes of the previous Annual General Meeting held on Monday 30 September 1996
2.(b) Matters arising from the Minutes

3.(a) Minutes of the Special General Meeting held on Monday 28 April 1997
3.(b) Matters arising from the Minutes

4. President's Report

5. Presentation of Accounts

6. Election of Returning Officer

7. Election of Committee for 1997–98

8. Appointment of Registered Company Auditor

No motions have been received by the Secretary for consideration at the Annual General Meeting

FORM OF APPOINTMENT AS PROXY
Sub-rule 35(2)

I, _____
　　　　　　　(full name)

of _____
　　　　　　　　(address)

being a member of the PC Users Group (ACT) Incorporated

hereby appoint _____
　　　　　　　　　　　(full name of proxy)

of _____
　　　　　　　　(address)

being a member of that incorporated association, as my proxy to vote for me on my behalf at the Annual General Meeting of the PC Users Group (ACT) Incorporated to be held on the twenty-ninth day of September 1997.

_____
(signature of member appointing proxy)

Date ___ / ____ / ____

passed on to someone else to maintain, if the code is complex and if the length of time between successive updating of the code is more than a relatively short period.

In this context it is important that your HTML code is written in as transparent a fashion as possible and that comments are included to assist in the maintenance of code.

Rules of good HTML coding practice

Note that these are *my* rules. Readers are at liberty to use, modify or ignore these as they choose. I have given reasons for my choices.

USE CAPITAL LETTERS IN TAGS

Web browsers recognise HTML tags whether they are in upper or lower case or even a mixture of the two.

are interchangeable.

However tags written in upper case are more readily seen within text which is most often lower case.

Hence you are encouraged as much as possible to code HTML tags in upper case.

Thus use

Start a new line here.

rather than

Start a new line here.

and

This is a paragraph tag.
<P>

rather than

This is a paragraph tag.
<p>

LEFT JUSTIFY TAGS

As far as possible HTML tags should be left justified with respect to text. This should not be seen as a rigid rule but rather a consideration that should undertaken whenever you write HTML code. The reason to left justify tags is that it makes the codes more visible and makes the structure of the code more transparent.

Use

<STRONG>
This will displayed in a stronger type face than normal text.
</STRONG>

rather than

<STRONG>**This will be displayed in a stronger type face than normal text.**</STRONG>

and

<EM>
A sentence that you want to be emphasised in the output
</EM>

rather than

<EM> A sentence that you want to be emphasised in the output</EM>

This standard is more important when a lot of text is involved and the closing tag may disappear in the text.

<STRONG>
A really long sentence that needs to be strengthened and that runs over several lines to provide plenty of information to readers of the page and to stress its importance.
</STRONG>

BLANK LINES

White space in the form of blank lines makes your code much easier to read with little overhead in file size.

For example:

<P>

<STRONG>
Counting to three
</STRONG>
First count one

Next count two

Then count three
<P>

<STRONG>
Saying your ABC
</STRONG>
First say A

Next say B

Finally say C
<P>

INDENTATION

It is often useful to be able to indent code blocks to make the structure of code as transparent as possible. Examples of the use of indentation are later in *Code structure* and *Lists*.

The disadvantage of this approach is of course that it takes up more room on a printout or page and means longer lines may need to be wrapped.

EXERCISE 5
Return to your exercise and move tags to comply as much as possible with these suggestions.

Keep their suggestions in mind when you code HTML while you are working through this course and when you are creating or maintaining web pages.

3.04 Code structure

Although some browsers will work and produce acceptable output without them it is good practice to always use the following tag pairs.

<HTML> </HTML>

These tags indicate to the browser that the enclosed code is HTML. It is good practice to use these tags. Thus these will be the first and last tags of your HTML code.

Within an HTML document there are two sections: the *head* and the *body*.

<HEAD> </HEAD>

The head provides the browser with information about the document.

<BODY> </BODY>

Netscape - [file:///C|/inet/text2.htm]

File Edit View Go Bookmarks Options Directory Window Help

Back Forward Home Edit Reload Images Open Print Find Stop

Location: file:///C|/inet/text2.htm

What's New? What's Cool? Destinations Net Search People Software

Plain text looks like this

Heading level 1

Heading level 2

Heading level 3

Heading level 4

Heading level 5

Heading level 6

Document: Done

The body is the document text itself.

To maintain easy-to-read code you could consider indenting your code thus

```
<HTML>
 <HEAD>

 </HEAD>

 <BODY>

 </BODY>
</HTML>
```

EXERCISE 6
Again return to your exercise. Insert the above tags into your HTML code.

Remember that that body tags enclose your existing code and that you could consider indenting your code.

Test by reloading in Netscape.

Has anything changed?

To see a completed version of this exercise examine c:\inet\nom8_4.htm when you have finished.

3.05 Headings

In most documents it is useful to set up a hierarchy of headings to distinguish sections within the document and to make the structure of the document clear.

In HTML this task is accomplished by a six level hierarchy of headings.

```
<H1> </H1>
Level 1 heading
<H2> </H2>
Level 2 heading
<H3> </H3>
Level 3 heading
<H4> </H4>
Level 4 heading
<H5> </H5>
Level 5 heading
<H6> </H6>
Level 6 heading
Thus
<H1>
This is a Level 1 heading.
</H1>
```

EXERCISE 7
Alt+Tab to Program Manager and open up another instance of Notepad. Open c:\inet\text2.htm.

Examine the code for the placement of HTML heading tags.

Switch to Netscape and load text2.htm to see how the heading hierarchy appears in the final page.

Leave this instance of Notepad open and Alt+Tab switch to your example Stop Mousing About! file in the other instance of Notepad. Place level 1 and level 2 headings in the code to improve its appearance.

Test by reloading your code into Netscape.

To see a completed version of this exercise examine c:\inet\nom8_5.htm when you have finished.

Note that headings are strengthened and that they do not need line or paragraph breaks before or after.

3.06 Titles

All good HTML code also includes a title. Although a title may sound as though it should be synonymous with a heading, note that titles are in fact information provided to browsers about your code.

```
<TITLE> </TITLE>
```

Enclosed text is used by some browsers as a title in the browser title bar and used by some web spiders to locate pages.

It is a good idea to keep titles short and to the point so that they fit onto browser title bars. The amount that will fit depends on screen resolution and what other applications are using this title bar space for their own purposes.

As an example Netscape will fit around 60 characters onto its title bar when no other applications are using this space. Hence you should treat this as the absolute maximum length of a title while preferring a short title at 20 or 30 characters as a compromise.

Note that titles are not part of the HTML document but are part of the information *about* the document used by web browsers. Hence titles appear in the head section of your code.

Note also that titles appear in Netscape's list of recently accessed documents; this list can be brought up using the Go menu.

Thus

```
<HEAD>
<TITLE>
Greg Baker's Home Page
</TITLE>
<HEAD>
```

(to be continued ...)

Phil Trudinger

Software Library

NEW AND UPDATED WINDOWS PROGRAMS

(An asterisk denotes Windows 95 specificity or compatibility)

CALCULATORS

CALC97*

Vulcan FinanceCalc 97 1.01 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

CITY97*

Vulcan CityDistance 97 1.11 is a city distance calculator for Win95/NT with a database of over 1900 cities worldwide. It can calculate in kilometers, miles and nautical miles. You can save your results as text or a bitmap file. Reg Fee $20

CONV97*

Vulcan Converter 97 1.01 is a measurement conversion package for Win95/NT with 15 categories and over 270 different measurements. You can save charts as a bitmap file or set charts as Windows wallpaper. Reg Fee $20

KALK32*

Kalkulator (32-bit) 1.50 is a powerful scientific/engineering calculator for Win95/NT. Features include more than 100 functions, column-wise operations on statistical data,

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	Madrid	Miami	Moscow	New York	Paris	Sydney	Tijuana	Tokyo	Toled
Berlin	1,850	8,007	1,616	6,396	890	16,105	9,457	8,972	6,88
Biddeford	5,418	2,161	7,115	425	5,435	16,306	4,219	10,757	1,09
Boulder	8,108	2,813	8,841	2,645	7,881	13,410	1,362	9,348	1,8
Lisbon	527	6,695	3,913	5,446	1,443	18,186	9,204	11,209	6,15
London	1,257	7,145	2,504	5,588	351	16,998	8,885	9,615	6,14
Los Angeles	9,415	3,779	9,811	3,960	9,123	12,075	241	8,851	3,15
Madrid		7,131	3,423	5,804	1,024	17,670	9,469	10,804	6,48
Miami	7,131		9,249	1,758	7,367	15,058	3,638	12,058	1,79
Moscow	3,423	9,249		7,537	2,505	14,497	9,977	7,532	7,88
New York	5,804	1,758	7,537		5,850	16,015	3,927	10,913	8
Paris	1,024	7,367	2,505	5,850		16,981	9,212	9,785	6,42
Sydney	17,670	15,058	14,497	16,015	16,981		12,092	7,773	15,22
Tijuana	9,469	3,638	9,977	3,927	9,212	12,092			3,12
Tokyo	10,804	12,058	7,532	10,913	9,785	7,773	9,076		10,40
Toledo	6,482	1,797	7,883	815	6,427	15,222	3,129	10,409	
Vienna	1,791	8,369	1,663	6,802	1,038				

CITY97

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linear algebra, unit conversion, save and restore functions, and more. Reg Fee $40

COMMUNICATIONS

COMPASS

Compass is a powerful Netscape bookmark file editor. Features include colour coding, a variety of sorting options, the ability to import/export a hotlist, easy description editing, and much more. Reg Fee $0

ESCOUT32

eScout (32-bit) 1.02 combines your Internet Explorer Favorites and your Netscape Bookmarks into one convenient window. Reg Fee $20

FAX_V520 (Win31)
FAX_N520 (Win95)*

FaxMail for Windows 5.20 adds faxing capabilities to all Windows applications. Features include an auto-print on receive option, background operation, custom cover pages, a fast fax viewer, timed sends, logging of all past and future fax events, and much more. Reg Fee $29-$59

FORMPOST*

FormPost Edit 1.5 is a special text editor for contending with posted Web forms. In addition to the many standard editing capabilities that the program has, its specialty is interpreting the extraneous characters contained in posted Web forms, turning them

into readable text. Requires Win95 and VB40032. Reg Fee $12

MC21_16 (Win31)
MC21_32 (Win95)*

MailCat 2.1.1 is an off-line reader for Internet email. It allows you to create messages in a comfortable Windows environment, connect to the Internet, send all your messages, and download and save any mail waiting for you. Reg Fee $55

WEBTABS*

WebTabs tracks visits as you browse the Web using Netscape Navigator or Microsoft Internet Explorer. It allows you to organise bookmarks into folders, supports annotations on folders as well as bookmarks, allows you to open documents from bookmarks, supports drag-and-drop operations for organizing folders and bookmarks, and more. Requires Win95/NT and 16MB RAM. Reg Fee $35

DATABASES

32PSIV20*

PrimaSoft Inventory Organizer (32-bit) 2.00 helps you organise your home or office possessions in Win95. Features include support for an unlimited number of records, a graphical data field for scanned-in images, flexible filtering and sorting, a customisable display, label printing, and much more.

The files described in this article are on the July 1997 CD-ROM (PsL Vol 5, #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.

Requires the Borland Database Engine. Reg Fee $30

IDEXW102

Infodex for Windows 1.02 is a versatile database manager used to keep track of business contacts, equipment, computer software, passwords, etc. Features include support for custom databases, an easy-to-use drag and drop layout, import/export facilities, the ability to search for text in any field, a print preview option, and much more. Reg Fee $40-$50

NAME200

NameBase for Windows 2.00 keeps track of names, addresses, phone numbers, dates, notes and other miscellaneous data about persons and organisations. A unique feature allows you to organise entries into any category you wish then view these categories separately or combined. Other features include sorting on any field, SQL syntax for searches, a variety of print options, and more. Reg Fee $29

GAMES

BINGO*

CapeSoft Bingo 1.0 is a fun multiple-card bingo game for Win95/NT. Features include two different bingo variations, a speed control, and WAV sound effects. Reg Fee $10

COLIDA

Collidascope 1.0 is an arcade game where you try to vertically match colours of the falling blocks with the blocks at the bottom. Features include excellent 256-colour graphics, a high score listing, a musical soundtrack, and more. Reg Fee $20

EQUA220

Equatron 2.20 is a challenging game using mathematical equations. The computer randomly generates a mathematical equation for each round. Your task is to score more or less than the computer, depending on the round. There are special tiles to help you in your task. As the rounds progress, the equations become more complicated, adding more variables, operators and parenthesis. Reg Fee $10

HEARTS

MVP Hearts for Windows 1.1 lets you play a challenging game of Hearts against a variety of colourful computer opponents. Features include excellent graphics and music, the ability to customise the rules of play, support for multi-player games over the Internet, the

ability to change background textures and text colours, and more. Reg Fee $24

IVORYA31 (Win31)
IVORYB31 (Win95)*

Ancient Ivory 3.1 is a centuries old Caribbean dice game of strategy and luck (also known as Yahtzee). It features an intuitive interface, photographic quality, 256-colour images, realistic sound effects, a competitive computer player, and background music. Points are given for five of a kind, long straight, small straight, four of a kind, etc. Reg Fee $15

MBINGA25 (Win31)
MBINGB25 (Win95)*

Penny Penguin's Math Bingo 2.5 is a fun math game that you play against a whimsical animated penguin. It covers number recognition and simple addition. Digitised children's voices offer positive comments while you are playing. Requires VGA, HD, and a mouse. A sound card is highly recommended. Reg Fee $10

PATIEN12

Patience 1.2 is a collection of over 20 solitaire card games for Windows. Reg Fee $20

WAXMANW

Waxman 1.6w is a chess game for Windows that you play against the computer. It will let you specify the amount of time the computer can think about its next move. Other options include move analysis, editing of the board to set up special situations, changing sides, and more. Waxman plays a surprisingly strong game. If you like speed chess, set it on 40

moves in five minutes and see if you can beat it. Reg Fee $20

ASKP20B +
ASKP20C

WinAsks Professional 2.00 lets you use images, sounds, animation and video to create multimedia questionnaires and surveys. Features include automatic analysis tools, statistics, charts, the ability to create distribution disks, four different question types, and more. Reg Fee $69-$699

CPLAY2

Child's Play II is a 256-colour paint program for children. It occupies the full screen to help prevent the child from going to other applications. Features include unique graphic special effects, rubber stamps, various screen erasers, fun sound effects, the ability to load/save/print images, and more. This is an excellent program, with many creative options to keep the little ones busy for hours. Reg Fee $20-$25Graphics

ASKP20A +

DINOS

Dinosaur Clip Art 1.0 contains drawings of six dinosaurs in Windows BMP format. These include both black-and-white and colour images of Tyrannosaurus, Stegosaurus, Brachiosaurus, Protoceratops, Iguanodon and Deinonychus. Reg Fee $5

EZSLIDE

EZSlideShow 1.3 allows you to easily create a slide show in Windows. You simply create a text file with a list of BMP images, and use mouse clicks to advance through the slides. This supports all BMP graphics, from monochrome to 24-bit. Reg Fee $20
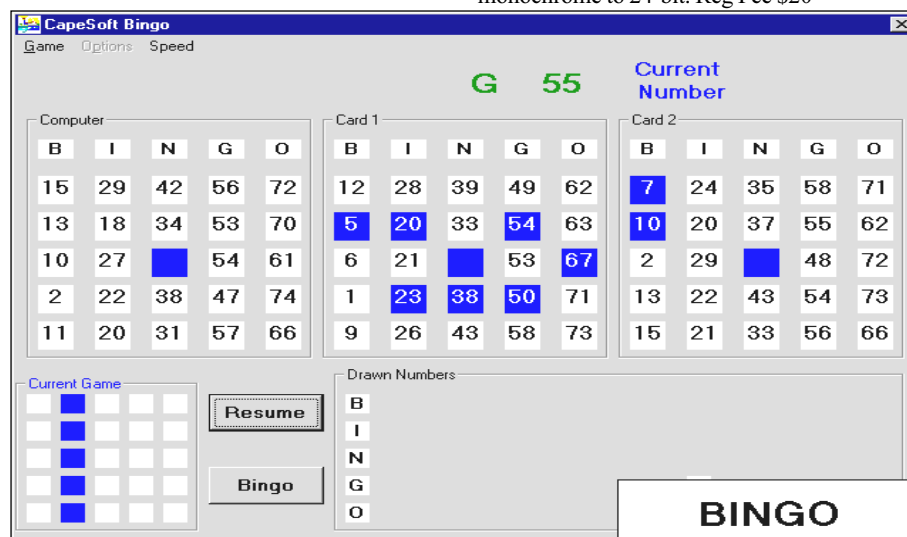
GIFCON (Win32)
GIFCON32 (Win95)*

GIF Construction Set 1.0P is a powerful collection of tools to work with multiple-block GIF files in Windows. It will allow you to assemble GIF files containing image blocks, plain text blocks, comment blocks and control blocks, and provides facilities to manage palettes and merge multiple GIF files together. Requires a minimum of 4MB RAM, but 8MB is recommended. Reg Fee $20

GWSW95*

Graphic Workshop 95 1.1x allows you to convert, print, view, dither, transform, flip, rotate, and scale virtually any graphic file in Win95. Other features include slide show capabilities, the ability to catalog images, a wide variety of special effects, thumbnail previews, and much more. Reg Fee $45

ICONEXTR

Icon Extractor (EM) extracts the icons from any file. Once the icons have been extracted they are shown in the Icon Extractor window. Then they can be saved as separate icon files, bitmap files or copied to the Windows clipboard to be pasted into any document that will accept images. Reg Fee $20

IV32160*

ImgViewer/32 1.60 is a Win95/NT viewer/printer for GIF, JPG and PNG graphic files. Features include fast JPG decoding, long filename support, and more. Requires VB40032.DLL and MFC40.DLL. Reg Fee $30

POSTER35*

The Poster Program 3.5 allows you to easily generate large posters, signs, and banners in Windows. Text and graphics can be enlarged up to 9 feet by 9 feet, with automatic scaling and tiling over multiple pages. Several sample graphic files are included. Supports Windows 95, NT, and Windows for Workgroups. Reg Fee $16

SETUPGV

Graphic Viewer (DM) 1.0 is a graphic-viewing package for Windows that supports BMP, CUR, GIF, GROB, ICO, JPG, PCX, PPM, TGA, and TIF formats. Other features include drag and drop support, the ability to create slide shows, user-defined image categories, a thumbnail preview option, and more. Reg Fee $30

WMCA10

World Maps Clip Art 1.0 contains several maps of the world in Windows BMP format. This includes line drawings of North America, Africa, Asia, Australia, Europe, South America, and several globe maps. Reg Fee $0

MISCELLANEOUS

CLW*

Contact-Lens! (32-bit) 1.93.7 is a sophisticated contact management system for Win95/NT. Features include built-in financial, chronological, and scientific calculators, a handy year at a glance display (for any year), unlimited user-defined scheduled pop-up alarms, a built-in phone dialer, a full-blown report writer, and much more. Reg Fee $50

KJDICT14

King James Dictionary Bible 1.40 helps you learn the meaning of archaic words in the King James version of the Bible. Reg Fee $6

MYSTA241 (Win31)
MYS32241 (Win95)*

MyStars! 2.4.1 is an astronomy/planetarium package that allows you to view the stars, planets, and Messier objects to scale as seen from any place on earth at any date or time. Reg Fee $20

PCLK

Power Clock 1.01 is a powerful time-clock package for Windows. Features include a familiar mechanical clock interface, automatic synchronization of files among different physical locations, a built-in email system, a wide variety of printed reports, and more. Reg Fee $89-$109

PD95INST

Print2Disk95 1.2 contains a Win95 printer driver that lets you redirect your reports from paper to one of several popular image formats, including DCX, PCX and BMP. Reg Fee $39

QUIKGRD3

QuikGrid 3.3 can read a set of scattered data points representing a surface and generate a grid from this data and then, using that grid, display the surface as a contour map, or as a grid with hidden lines removed. The grid may be output as a series of XYZ triplets or in the ER Mapper raster format. Reg Fee $37.50

SMOKIN11

Smokin' 1.1 is a personalised, automated nicotine withdrawal tool that can help you quit smoking comfortably and inexpensively. It is based on a set of special mathematical formulas, which generate all the information needed to manage, reduce, and finally end your nicotine use. Reg Fee $20-$25

EZLABEL1

Easy Personal Labels 2.1 allows you to quickly print one address label, a series of labels with different addresses, or a complete sheet of return address labels in Windows. A database is provided to store your addresses, or you can simply type or paste an address that you wish to print. You can use any of your Windows True Type fonts, select from left justified or centered text, and print in colour. Reg Fee $10-$15

REMINDERS

ALARMCAL
Alarm Calendar 2.0 has 10 daily repeating alarms, 10 appointment alarms, and a countdown timer. It also prints calendars in 4 sizes with and without borders. It optionally shows holidays; saves and prints daily memos; and more. Reg Fee $26

BATHAPPY
BatHappy 1.0 is a birthday reminder system for Windows. Reg Fee $25

PDREMIND
[pd-reminder] 1.0 allows you to set up reminders to yourself and have them displayed periodically or on specific dates. Notes of up to 64k may be attached to each message. Messages can be displayed for events that occur daily, weekly, monthly or yearly. Reg Fee $?

SCREEN SAVERS

GTIJPG10*
GTI JPEGSaver 1.00 turns your favorite image files into a unique personal screen saver slideshow, complete with transition effects. Requires Win95 Reg Fee 8 Pnds.

GTIMED11
GTI MediaSaver 1.1a allows you to turn your favorite multimedia files into a unique personal screen saver for Windows. This supports AVI, JPG, and MPEG files. Reg Fee 10Pnds

HEYMAC20
Hey, Macaroni! 2.0 is a hilarious screen saver that pokes fun at the popular Macarena song and associated dance. Elbow macaroni dance and sing on your Windows desktop. The 3-D artwork and music soundtrack are extremely well done. Reg Fee $0

MYOSS
Make Your Own Screen Saver 2.0 is a WIN31 screen saver module that allows you to display BMP graphic files from a selected directory. Reg Fee $14

MYSCRN10
My Screen Saver 1.0 display a sequence of your own favorite graphic bitmap images with transition effects. Features include the ability to scroll custom messages from right to left across your screen, display left or center justified messages on your screen every 5-30 seconds, and password protection. (ASP) Reg Fee $15

QUOTSV20*
QuoteSaver 2.0 is a screen saver for WIN31/ Win95 that displays your favorite BMP pictures and WAV audio files while showing inspirational quotes. Reg Fee $29-$39

SAFARI11
Safari Saver 1.1 is a Windows screen saver with photo-realistic animated scenes from the African savanna. Reg Fee $29-$39

SCRNPX20
ScreenPix 2.0 is a WIN31 screen saver that will display any bitmap graphics files that you choose. You can customise it to show just the pictures you want and choose the duration that the pictures appear for. This can also be used as a slide show program. Reg Fee $29-$39

STBSW
"Scotland the Brave!" is a Windows screen saver that displays a floating flag of Scotland on your monitor. Reg Fee $10

WWS32320*
WWSaver32 3.20 allows you to use JPG/GIF images as a Win95/NT screen saver. Various customizing options are available. Reg Fee $30

UTILITIES

ALRM_CRA
Alarm Clock for Win95 2.0 is a 32-bit application that provides 10 daily repeating alarms, 10 appointment alarms, and a count-down timer. You can easily set the dates, times, and messages for all alarms. Reg Fee $23

CM32_426*
ClipMate (32-bit) 4.26 lets you view, edit, combine, and print clipboard data in Win95NT. Support is provided for most clipboard formats, including BMP, Picture, RTF, OLE, and more. Reg Fee $25

COPYZT10
Copy-Zit 1.0 allows you to split and re-join large files in Windows. This version can only split files up to 2 MB. Reg Fee $25

DIALPRO
DialerPro 1.5 is a desktop phone-dialing package for Windows. You simply type in names and phone numbers, then double-click on one from the list to dial it. A modem is required. Reg Fee $29-$39

DLLCHK95*
DLL Check 95 4.0 is a DLL management utility for Win95. Features include the ability to create a log of all modules that load or unload in a session, the ability to search for duplicate modules, and a detailed information display for selected modules. Reg Fee $80

EFCW*
Commander (32-bit) 1.04-4 is a Norton Commander clone for Win95/NT. Reg Fee $39

ES20132*
EZ-Split (32-bit) 2.01 is an easy-to-use file splitter for Win95/NT. Its main function is to take a large file and split it across multiple diskettes. Reg Fee $15

FSPLIT10*
FSplit 1.0 allows you to split large files into smaller pieces for copying to disk or transferring over the Internet. This process only adds about 100 bytes. Requires Win95. Reg Fee $25-$30
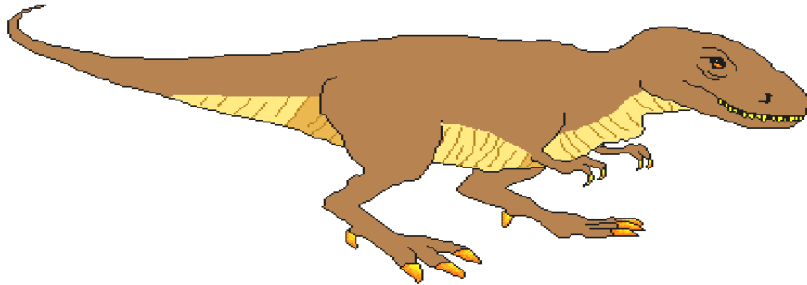
DINOS

GRBACK18*

GRBack (32-bit) 1.80 is a backup utility for Win95/NT that allows you to easily maintain you important data. It copies source data and creates a PKZIP compatible archive (including directory information) with long filename support Reg Fee $40

HYSNP302*

HyperSnap-DX 3.02 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 $20

PREFECT*

Game Prefect 1.00 helps parents monitor their children's use of the computer. You can create a "time budget" in minutes, and two lists of programs. One list is of "debit" programs that draw down the budget (programs you want to limit). The other list has the "credit" programs, educational and other programs you want to encourage your children to use. Using credit programs increases the child's time budget. Requires Win95. Reg Fee $19

QDP97*

QuikDial Pro97 is a telephone-dialing utility for voice calls. Features include a handy toolbar, user-defined dialing directory for up to 1000 entries, a scratch pad for note taking while on the phone, and much more. Requires Win95/NT. Reg Fee $28

RED2416 (Win31)
RED24132 (Win95)*

RedHand Security Monitor 2.41 will tell you exactly what someone did on your computer while you were away, exactly when they did it, and how long it took, and they won't even know they were being watched. Reg Fee 12 Pnds.

SNAGIT32*

SnagIt Twin Pack 3.24 is an easy to use screen capture utility for Windows. It captures your screen, window or region to the printer, clipboard, or a variety of file formats, including PCX, JPG, TIF, and BMP. This fully supports DDE and MAPI for easy integration into your applications, and supports all Windows video modes and rastering printers. Both 16- and 32-bit versions are included. Reg Fee $40

SCLIP340*

SuperClip 3.40 is a Win95/NT Clipboard viewer that can save all or part of the image on the clipboard to a graphics file in BMP, GIF, or PCX format. Reg Fee $39

SENTR101*

Sentry 95 1.01 will prevent all unauthorised users from accessing the Win95 desktop whenever your computer boots. Reg Fee $14

UTIL_PAK*

Small Utility Pack is a collection of utilities for Win95. This includes screen capture tools, a utility for quickly launching items in the Start Menu, a floating memo window, and more. Reg Fee $20

V95301E1 +V95301E2 + V95301E3*

VirusScan for Win95 3.0.1 is a native Win95 application that detects and removes computer viruses. Reg Fee $65

WWPLS267

WWPlus 2.67 provides powerful tools to change, edit, and convert Windows wallpaper. Features include a screen saver module to turn wallpaper into a screen saver, 3-D icon toolbar, and more. Reg Fee $25

YATS32

Yet Another Time Synchronizer (32-bit) 3.5 allows you to synchronise your system clock using various timeserver types commonly available on TCP/IP networks such as the Internet. Multiple servers can be specified and will be tried sequentially until a valid time is obtained and your system time set. Reg Fee $35

WORD PROCESSORS/EDITORS

ANOTE113

Another Notepad 1.13 is a powerful replacement for Windows' Notepad. Features include support for files up to 16MB in size, hotkey support, the ability to change fonts, line sorting capabilities, user-defined margins, file merging, auto-save of all settings, and much more. Reg Fee $15

BYHAND10

ByHand 1.0 is a WYSIWYG text editor for Windows that uses high-quality script fonts that look like handwriting. It will automatically make smooth joins between script letters and adjust line spacing to accommodate larger or smaller characters. Reg Fee $50

CSBEW2

BIG ED the Poetry Editor 2.00 allows you to edit various specific forms of poetry in on-screen labelled and formatted frames designed specifically for each form. Brief tutorials are provided on each form, and instructions are included for English sonnets, villanelles, and the Welsh cynghanned. Reg Fee $25

EZLABEL1

Easy Personal Labels 2.1 allows you to quickly print one address label, a series of labels with different addresses, or a complete sheet of return address labels in Windows. A database is provided to store your addresses, or you can simply type or paste an address that you wish to print. You can use any of your Windows True Type fonts, select from left justified or centered text, and print in colour. Reg Fee $10-$15

HE32_20

Hurricane Editor (32-bit) 2.0 is a full-featured text editor for Windows that allows you to edit multiple files using a convenient tabbed page approach. The editor can edit files of any size limited only by memory. It also offers printing, drag and drop support, column marking, search and replace, and word-wrap. Reg Fee $19

NTSPAD32*

Notepad (32-bit) 7.4a is a powerful Notepad replacement for Win95/NT. Features include the ability to have up to eight large documents open at once, macro support, instant access to important system files, multiple undo/redo, and much more. Reg Fee $0

YW11_16 (Win31)
YW11_32 (Win95)*

Yeah Write (16-bit) 1.1.3 is unique word processor that allows you to fill-in the blanks on a variety of predefined documents including notes, memos, letters, a journal, and more. The tabbed interface is extremely easy to learn and use Reg Fee $15-$20

NEW AND UPDATED DOS PROGRAMS

AVSCAN

AVScan 3.42 is a freeware scanner that can detect more than 4500 virus signatures. Reg Fee $0

BOULDERS

Lomax Boulders is a challenging puzzle game where you must gather gems from a cave without being crushed by the surrounding boulders. Features include fantastic sound effects, 256-colour graphics, five difficulty levels, a high score listing, and much more. Requires a VESA-compatible graphics card and a Sound Blaster compatible sound card. Reg Fee $30

CLDEMO1 + CLDEMO2

Clone (AP) 1.00a is a mind-boggling puzzle game with excellent graphics and music. Your character must navigate through a dangerous castle, collecting gems and protective potions while avoiding devious traps. Throughout the game you will encounter acid pots, deadly thunder clouds, menacing bows and arrows, one-way corridors, fire/ice traps, and much more Reg Fee $25

CMWT10

World Time (WT) 1.0 displays the time for many cities throughout the world. It also includes an analog clock display, calculator, and calendar. Reg Fee $29

HEAL211

Healing with Herbs 2.11 is a comprehensive guide to the healing power of herbs. It provides the information you need to use herbs confidently, effectively, and safely. Information is also provided on preserving herbs and making of herb preparations. AWindows-based installation program is included. Reg Fee $20

HERB311

Herb Power 3.11 is a colourful and informative guide to the use of herbs for medicine and general good health. It provides full descriptions of a wide variety of herbs, benefits, uses, cultivation techniques, cooking, and more. Reg Fee $20

HTMTUT30

The Only Web Publishing Tutorial You'll Ever Need 3.0 helps you learn the language of the World Wide Web. This tutorial covers text formatting, page design, tables, frames, graphical content, and links for HTML, FTP, and other Internet services. It is easy to use, and contains plenty of samples and images to help get you started Reg Fee $29

LILPIC13

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

PRINTGF

PrintGF 1.32 is a GIF file-printing program. It prints or displays GIF files on most PC bit mapped graphics devices at 240 shade levels per colour plane, colour or black/white, with error diffusion dithering, brightness and contrast for each plane, user selectable clip area, print size, portrait or landscape. PrintGF supports a large number of printers, including PostScript, and video types, and outputs to PCX files as well. 15- and 24-bit VESA SVGA support is provided. Reg Fee $34

SCNI301E

VirusScan 3.0.1 scans diskettes or entire systems and identifies any pre-existing PC virus infection. Reg Fee $65

TXTLS1V0

TEXTools 1.0 is a collection of 50+ DOS filters that you can easily combine together to form mini-programs that process text files. It can be used interactively from the command prompt to quickly handle ad hoc requests, or it can be called from batch file processes. This can be used to extract data from cumbersome log files, organise lists, customise text output from other programs, count lines of text, and much more. Reg Fee $35

IVORYA31

QOOL QURLs

Compiled by Anne Greiner

CHAUCER: THE CANTERBURY TALES

Quite apart from the information in this page, which is considerable and comprehensive, the graphics are quite simply delectable. They come from a fifteenth century manuscript of the chronicle of Jean Froissart, a contemporary of Chaucer's, and has reference to the source in the page. It has been designed to provide an extra resource for Eng 404 students, and contains sound bites of readings of Canterbury Tales in the original Old English and in modern translations, a complete annotated bibliography of Chaucer studies. There is also a wonderful chronology of important events in the fourteenth century, beginning with the 100 Years' War in 1338, and covering the Peasants Revolt, and the death of Watt Tyler. An absolute joy of a page.
http://www.siue.edu/CHAUCER/

THE PRINCIPALITY OF HUTT RIVER

And now for something completely different. This is the homepage of Prince Leonard of Hutt River Principality, and gives the history of the formation of the province and then the principality, the secession from Australia, and the legal arguments provided to the West Australian Government and Governor. It covers how to apply for citizenship, and describes the investiture ceremonies and titles. They have a Royal Mint, a Royal Post, and Embassies around Australia and overseas. The principality is tiny, (295 sq miles), and has a population of only 14,000, but just see what can happen if the Government imposes inappropriate wheat quotas. I wonder, now, about the tax laws?
http://www.wps.com.au/huttriver/square.htm

DIABETES

All you ever really wanted to know about Diabetes, and what is interesting here is that the information is presented in a number of different ways. The page asks if the reader is: a diabetic, friend or relative of a diabetic, doing a school project, a researcher, a doctor, or an allied health professional, and scales the content accordingly. There is a quiz to fill out to check at risk status, and numerous links to both Australian and American sites, and has links to all sorts of ancillary sites, such as diets and so on. The site is rather ordinary in appearance, but the information is solid, which is what matters.
http://www.idi.org.au/

FISHNET

This is a blokes' page. Did you ever want to tell the whole world about the one that didn't get away? Well now, not only can you *tell* the whole world, you can publish your picture of yourself and your fish! It's true, there are all these blokes holding large and not so large fish, with some text telling us ignorant people what sort of fish it is, and what collection of picene technology they used to lure the poor little thing to its doom. There are chat rooms to boast in, shopping malls to buy all that oh so expensive equipment (whatever happened to a handline with a hook and sinker?), weather reports, news, fishing clubs, and lots more that I didn't investigate (yawn). There are also lots of fishing infolines, and lots of fishy links. Despite my lack of enthusiasm about the sport, the page is excellent.
http://fishnet.com.au

GABI'S KÜCHE

Translated, this is "Gabi's Kitchen", and this site reminds me of my mother-in-law who was a wonderful cook. The page is devoted to German recipes, and let me tell you, the disclaimer at the beginning of the page is absolutely accurate. "As you can see, they are not low in fat, nor are they low in calories." There are recipes for bread dumplings, potato pancakes, sauerbraten (roast meat) with all the pan drippings poured over the bread dumplings, yeast pastries of all descriptions, and a lot of other traditional goodies that Deutsche Muttis make. There is a guest book that has as many comments in German as English, and links to a Recipe Ring. Just reading the site will harden the arteries, make any of the recipes at your own risk, but like all things that are not so good for us, they taste wonderful.
http://www.gabiscott.com/pages/gabi.html
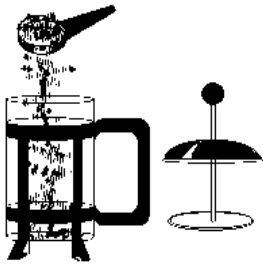
COFFEE FOR CONOISSEURS

This a commercial site, but they say they have a great range of different coffees to buy, a free sample offer and all sorts of information of what type of coffee to buy, what sort of equipment to use, and how to use it. For instance, did you know that most of us who make plunger coffee don't really do it properly! See the site for detailed instructions. They also advocate the use of something called a coffee syphon, which looks like something that should be on the Mars Landing Vehicle, and say that it is the very best way to make coffee. If I can't handle a plunger, what hope do I have with this! But anyway, coffee is one vice I am not prepared to give up, and I've sent off for my free sample.
*http://www.ozemail.com.au/~alanfrew/
index.html*

HORSEFUN

Are you a Saddle Club fan??? Are you under 16, and possibly female?? Then this site is for you! There is information and history on the various breeds and quantities of other equine facts and fables. There are horsy competitions with prizes, games, online correspondence pages and pen pal lists. Pony Club is looked at, and a number of Australian Pony Clubs have unofficial sites within this site. There links to magazines, and numerous other horsy links, here in Oz, and overseas. Yeeehhhaaaarrrrr!

http://www.horsefun.com/index.html

GANG GANG

This is a great site that has organised and categorised the huge amounts of shareware out there. How often have you downloaded something, only to find that not only was it not what you really wanted, but that it had inserted itself into the ini and registry files, and even after vigorous efforts, traces still remain, or worse still, it takes up residence with the other 105 other bits of shareware and demos that haven't been used in months or years, and are taking up valuable space. (This is not a confession, really). Gang Gang have not only categorised a large selection of available shareware and software, they have given a brief description of the program, assessed the usability, and given it a rating. A good one to bookmark.
http://www.ganggang.com.au/default.htm
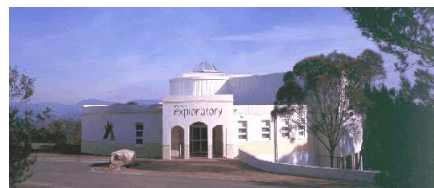
STROMLO EXPLORATORY

Stromlo Exploratory is a new visitors' Centre situated among the telescope domes of Mount Stromlo Observatory. The site, like the Exploratory itself, is still under construction, but there are a few lovely bits already in operation. There is a calculator that will give Sun, Moon, and Bright Planet rise and set times, and information about existing an upcoming exhibits, but best of all is the fund-raising idea they have come up with to help raise $1.2 million needed to build these exciting, hands-on, high tech, fun exhibits. We are asked to adopt a star, for a price, and there is a scale of prices from $50 for the least bright stars, to $150 for rather bright ones, and the two brightest categories are auctioned. For this price you will get a number of things, including your name recorded on the Exploratory Display as sponsor of that star. I found the list of sponsors interesting reading.
*http://msowww.anu.edu.au/exploratory/
funds/adopt.html*

YIKES!

This page was rather confusing to navigate initially (and latterly), but the thought of having those 3D fried eggs on the homepage I have yet to write was more than I could resist. The author, a college student ("I have a lot of school works to do") has crammed as many graphics and as much dialog and as many ads as possible into the available space, and used lots of black backgrounds, making the whole thing rather difficult to read, but the graphics are great fun, if a bit slow to download. There is also an offer to design web graphics to order. Worth looking.
http://dewa.com/yikes/

THE LAB

Many of us have looked at the ABC site, but have you looked since The Lab has opened? The Lab is the page for Science on the ABC, and includes Karl K. from JJJ, Robin Williams from the Science Show on Radio National, plus Quantum etc. from television. Who said Auntie was a fuddy-duddy. The site is visually and intellectually stimulating, and at the moment, even leans slightly towards a feminine viewpoint in their investigation not of gravity and electromagnetism, but the grand unifying theory of shopping, with particular emphasis on the cosmetic industry. And then there is the article on the Boys Club, and I quote: "…it would be another two centuries before women were admitted into the boys club of physics." Or you could join the Virus of the Month Club. Terrific page.
http://www.abc.net.au/science/slab/main.htm

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 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: **$120**

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 the 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 the organisation expires, so too does your membership of the 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.

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 date of application, Limited Access provides up to 100 'hours' usage.

8. Full Access
   a) Full Access includes email, news, and SLIP/PPP.
   b) Full Access is not free. Current rates are $120 for one calendar year of access with up to 300 'hours' usage.
   c) When your Full Access subscription expires OR you use 300 hours of access (whichever is earlier), you will be required to purchase another subscription for one calendar year from that date.
   c) 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. A waiting period of two months applies to new members of the PC Users Group (ACT) Inc.

11. For existing members, please allow up to two weeks for your application to be processed.

12. 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.

13. You (and your parent/guardian if you are under 18 years of age) will be required to sign an Acceptable Use Policy Declaration when you pick up your login details. Photographic proof of 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)

*   soundblaster card

*   zip drives.

Videos include:
*   Developing Applications with Microsoft Office
*   Using Windows 95

Stuffed Again

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

Bruce Black
Mike Burke
Owen Cook
Eddie Snr, Eddie Jnr &
Raymond de Bear
Graham Dietrich
Geoff Donges
John Dyer
Tony Fitzpatrick
Rufus Garcia
John Hempenstall
Vernon Kronenberg
Wolf Lieske
Allan Mikkelsen
Don Nicol
Keith Sayers
John Starr
John Taylor
Gordon Urquhart
Marion Van Wely
Peter Watney

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 and any of your knotty computer problems can be debated 'at the round table' in congenial company. If you would like to help, please ring Petra Dwyer at the PCUG Centre on 6253 4911 and she will fill you in on all the details.

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

Next Stuffing
5.00pm **Monday 22 September 1997** at Northpoint Plaza, Belconnen.
(see map page 6)

We now have a Giveaway Table at the PCUG Centre.

If you have any SMALL items of computer related equipment (software or hardware) that you no longer need or use and don't want to throw 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.

WhAT'S

NEWS?

Compiled by Malcolm Morrison

MacOS 8

Apple's new operating system for the Macintosh, MacOS 8, went on sale in August. Claimed as the biggest upgrade of the operating system since the Mac was launched in 1984, the upgrade was expected to cost $149 in Australia. Apple summarises MacOS 8's features this way:

Faster, smarter, & more efficient with PowerPC-native, multi tasking Finder. The new Finder lets you perform multiple tasks at the same time, such as making copies, duplicating files, launching new applications, emptying the Trash.

New and more efficient desktop, with spring-loaded folders and pop-up windows.

Automate your work flows with the incred-ible power of AppleScript.

Harness the power of the Internet. Connect to, explore, and publish on the Internet and World Wide Web.

Includes Netscape Navigator,™ Microsoft Internet Explorer, Claris Emailer™ Lite, and America Online Internet Setup Assistant speeds setup and configuration, making it easier for novice users to get online.

Dazzling multimedia.

Superior cross-platform support. Mac OS 8 provides excellent support for PC files and media (yes, it does Windows).

Reduced life-cycle costs Easy setup and configuration. Easier day-to-day use. Reduces cost of ownership

MacOS 8 will run only on newer Mac models powered by PowerPC or Motorola 68040 processors.

See *www.apple.com.au* for details.

$3,000,000

It may too late to enter this year's Corel $3 million World Design Contest - entries close on 30th September - but why not look ahead to the ninth contest next year? Entry forms for this year are available in PDF format at *www.corel.com.au*

Have you tried the Weblicator?

Lotus Weblicator is described as the first Web information management tool which lets you Work with Web information Off-Line. Simply add it to your Win95/NT web browser to immediately get more power to work the Web! Download free 60-day trial software.

Lotus Weblicator is a powerful Web information manager that lets you experience the Web when, where and how you choose, totally unplugged from the Internet!

If you're browsing a Web page online and want to copy it to your computer's hard drive, you simply click "Add Favorite" on the Weblicator dashboard. You can control the amount and type of information you transfer, while never leaving the page you're surfing. Plus, if pages include large graphics or animation, you can filter them out or download them in the background while you continue to surf. Once Web pages are on your computer's hard drive you can unplug from the Internet and work with the information just as if you were still connected. But because you're working offline, you'll enjoy faster display times for text, graphic and animation and avoid endless delays on busy sites.

You can also schedule Lotus Weblicator to automatically surf and copy Web sites to your computer's hard drive while you're in a meeting or at lunch - then when you're ready, so is the information. If you're a browser user that currently works with business infor-mation on a Web server, Lotus Weblicator lets you take the infor-mation with you. Review sales statistics and other data, update and submit orders and forms, or participate in team discussions totally unplugged from the 'Net.

When you reconnect, Weblicator auto-matically synchronises with the server just as if you never left the office. The Australian RRP is $39.

Try *www.lotus.com/australia* for more details and a trial version 60 day download.

Not Censorship, Just a Code of Conduct

The Australian Government has announced plans for a new code of conduct for the transmission of "objectionable material" on the Internet. The Broadcasting Services Act is to be amended so that fines, suspensions or terminations can be levied on Internet service providers which knowingly allow a person to publish material that would be refused a classification under the guidelines of the Office of Film and Literature Classification or state or territory law.

Return to Sender

A major disruption to e-mail on the Internet has been traced to an error by computer operator in Virginia, US. Millions of e-mails were returned to senders and many Web sites were inaccessible for about four hours. The problem was caused by an employee of Network Solutions which controls the main InterNIC rootserver. He ignored malfunction alarms in a routine updating of Internet addresses.

McAfee blocks Internet-viruses

McAfee has announced WebScanX, a complete Internet protection application for Web browsers and email. As a result, it's the first company to simultaneously protect against the newest threat — 'hostile' applets built using ActiveX and Java, and Net-borne viruses. WebScanX will be available in Australia in August. Using McAfee's Hunter technology, WebScanX loads each applet into a protective buffer, and compares the applet with a library of hostile Java and ActiveX programs. If a match (or near match) is found, you can eliminate the applet before it is allowed to run.

If the initial scan doesn't identify the applet as hostile, it continues as usual. However, while the applet is running, WebScanX monitors it for suspicious behaviour. If rogue behaviour IS identified, the applet is immediately shut down to prevent damage.

WebScanX also checks on email. It will scan applets, including rich HTML, embedded in email. WebScanX also blocks viruses downloaded or attached to email, MAPI compliant email, Eudora Mail and Lotus cc.Mail.

McAfee says that in the realm of Internet commerce, in which computers will be able to digitally sign legally binding documents, addressing these security issues is a must! The company says a recently written applet, which deducts money from a user by accessing his/her home banking software, indicates how financial transactions can be affected.

McAfee PC Medic 97

Medic 97 helps reduce the cost of desktop ownership by pro-actively diagnosing, repairing and preventing the incidence of common Win95 glitches. PC Medic incorporates McAfee's VirusScan anti-virus product, and can integrate with McAfee's network management and Help Desk products. PC Medic also allows you to keep track of the very latest in software revs: as new software is introduced, PC Medic 97 broadcasts the latest fixes and patches to you automatically via the Internet using new BackWeb Internet software.

McAfee says that with PC Medic 95 onboard , you can stop poking around the Windows registry to figure out why your PC is suddenly so slow: PC Medic make sure your hardware and software are operating with peak efficiency. Easy drag-and-drop procedures allow you to back up and restore your data with compression and encryption options. The Australian RRP is $99. More information from *www.mcafee.com.au*

ClarisWorks for Kids

Claris is releasing ClarisWorks for Kids in a Mac OS form initially. It is described as the first all-in-one writing, painting, graphing, list-making, cross platform education software solution designed specifically for grades K-5. It offers a kid-friendly filing system, a teachers-only password system to protect the software's vital functions and a text-to-speech function for auditory learners that reads out loud what students have typed in. More than 50 activities such as school newspapers, weather fore-casting and lunch nutrition measurement provide educational content appropriate for K-5 grade levels. There is also easy access to the Claris Works for Kids Website. A Windows 95 version is scheduled to be announced later in the year. Information from *www.claris.com.au*

QV from Europress

QV Software is offering three new products: 1000 Borders, 2000 Backgrounds and 2000 Cartoons to enhance your documents. Each product comes with a browser to give a thumbnail preview before you select an item for copying to your harddrive. The programs come on CD-ROM and run under Windows 3.1, Windows 95 or Windows NT. Each costs $49.95. Information from *www.europress.com.au*

Corel CATALYST

Corel Corporation, award-winning developer and marketer of productivity applications, graphics and Internet software has released its new localization tool, Corel CATALYST™ to the market.

Corel CATALYST was developed by Corel to provide a solution to problems and bottlenecks caused by a fragmented localization process. The tool provides a single, interactive environment that allows translators, engineers, and project managers to manage and track multi-faceted localisation projects.

"Corel CATALYST is a tremendous step forward for Corel in the area of localization," said Dr. Michael Cowpland, president and chief executive officer of Corel Corporation. "This new product is a revolutionary new tool designed to streamline the localization process and facilitate simultaneous shipment of localized products."

Working within the integrated Corel CATALYST environment reduces the time it takes localized products to get to market. The key features of the Corel CATALYST environment facilitate the simultaneous release of localized products, maximize the quality of localized products, and ensure the consistency of translations and terminology across product lines. For more information go to *www.corel.com.au*

Special Interest Groups

The Internet SIG

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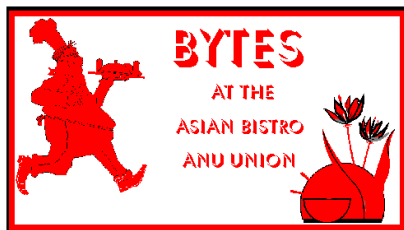
Bytes

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

AutoCAD

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

C/C++

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

GUI Developers

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

The Investment SIG

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

The OS/2 SIG

An enthusiastic forum for those operating or interested in OS/2 Warp. Meetings include wide ranging discussion and interesting hands on demonstrations. Meetings are held on the third Thursday 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.*
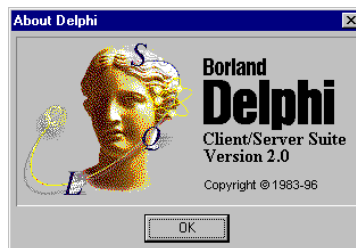
The Delphi SIG

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 Al Kabaila email *akabaila@pcug.org.au.*You are welcome to also subscribe to the PCUG Delphi mailing list by sending message 'subscribe act-delphi-l@pcug.org.au [your email address]' to Majordomo@auug.org.au

Linux User Group

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

Networks

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

Computers and Vegetarianism

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

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

Internet Daytime Demo and Discussion SIG

Meets every second Monday at the PCUG Centre from 10.00am to noon. We meet to discuss internet issues, software, sites (and anything else of relevance), and demonstrate, on Centre equipment, selected software and techniques. The meeting starts with informal discussion and coffee, followed by a more in-depth look at a particular topic of interest. There is also time for discussion (and hopefully solving) of members problems with the internet. A home page for the SIG is at *http://www.pcug.org.au/~amikkels/intddd.html* Enquiries or suggestions for topics are welcome at *amikkels@pcug.org.au.*

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

Training News

by David Schwabe

The program for 1997 has been adjusted to meet the demand for particular courses, particularly 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 currently scheduled, contact Petra 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
Microsoft Access: In September, an introductory course on Microsoft Access will begin. This powerful database program is ideal for all those handling large amounts of data. It forms part of the Office suite and offers the ability to process raw data and generate comprehensive reports.

The **Full Access Internet** course is an introduction to the programs used to access the World Wide Web, send and receive email, 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.

The **Microsoft Internet Explorer** course has been designed to complement the updated TIP kit. The new TIP kit is now available for purchase from the Centre. The kit contains an easy method for setting up new members' computers to connect to the Internet.

Contacts

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

Training coordinator and course information (**not** bookings): David Schwabe, 6254 9086 (h) 7.00pm to 9.00pm, 6265 0471 (w)

Microsoft Product courses (**not** bookings): Michael Lane 6242 9278 (h) 7.00pm to 9.00pm

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

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

Month	Date	Day	Course	Length
September	6	Sat	*Sixteen Bits* Layout Day / Internet Clinic	Clinic: Morning
	7	Sun	Intro - Database (Access 2.0)	Full Day
	13	Sat	C Programming Introduction	Full Day
	14	Sun	Internet - Full Access Intro	Full Day
	20	Sat	C Programming Intermediate / Internet Clinic	Full Day
	21	Sun	Introduction To Win95	Full Day
	27	Sat	Internet - Full Access Intro	Full Day
	28	Sun	Intro - Using the BBS effectively	Morning
	28	Sun	Internet - Limited Access Intro	Afternoon
October	4	Sat	*Sixteen Bits* Layout Day / Internet Clinic	Clinic: Morning
	5	Sun	MYOB	Full Day
	11	Sat	Introduction To Win95	Full Day
	12	Sun	Internet - Full Access Intro	Full Day
	18	Sat	Introduction To The Internet / Internet Clinic	Full Day
	18	Sat	Internet - Microsoft Internet Explorer	Full Day
	19	Sun	HTML Introduction	Full Day
	25	Sat	Internet - Full Access Intro	Full Day
	26	Sun	Intro - Using the BBS effectively	Morning

Vendor Discount Scheme

The following local vendors offer discounts to PCUG members

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

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

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Accountants				
Peng Lee BA, Bec(ANU), FCA Chartered accountant Registered tax agent Holder of Certificate of Public Practice	Accounting and taxation services *A fee schedule will be forwarded upon request*	Ph: 6258 0156 Fax: 6258 0157 Mobile: 0419 625 801 Email: leep@pcug.org.au	6 McGuiness Place McKellar ACT 2617	10% discount to PCUG members
Lesley Piko Certified practising accountant, registered tax agent	Personal and business taxation services General accounting services	Ph: 6288 8888	Suite 1 17 Trenerry St Weston ACT	15% discount off quoted fee
Books				
Collins Booksellers	A wide selection of computer titles for the novice and also advanced computer user	Ph: 6251 4813 Fax: 6251 3926	Belconnen Mall	10% discount off computer book purchases only
Daltons Books	No. 1 for computer and business books	Ph: 6249 1844 Fax: 6247 5753	54 Marcus Clarke St Canberra City	10% off RRP of computer books
Computer related				
ACT Valley Computer Repairs	Repairs, upgrades, new systems, software installation. Low rates Open 7 days	Ph: 6294 2592 Mobile: 019 323 435		10% discount on upgrades and repairs
Amalgamated Business Machines		Ph: 6280 4887	65 Kembla St Fyshwick	5% discount on repairs
Bettowynd & Taltech Solutions	Prompt, guaranteed, fixed price repairs to monitors and terminals	Ph: 6239 1043	Unit 5, Centrecourt 1 Pirie St, Fyshwick	5% discount
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)
The Cartridge Factory		Ph.: 6295 5935	Canberra Business Centre 49 Wentworth Ave Kingston	10% discount on remanufactured laser toner cartridges 10% discount on inkjet refill kits No discount available on new ink or toner cartridges

BUSINESS	SERVICES/PRODUCTS	PHONE/FAX/EMAIL	ADDRESS	DISCOUNT
Computer related (cont)				
Clarion Database Systems	Computing consulting Business applications development Software sales	Mobile: 041 108 7754		10% discount off RRP on Microsoft and other vendors' products and consulting services
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
Nhan Tran	Internet software installation and configuration in your home	Ph: 6254 5293 (h) 6264 1388 (w)		Fixed price, 20% discount to PCUG members
Nullarbor Electronic Publishing		Ph/fax: 6248 6656 Email: nep@nullarbor.com.au www.nullarbor.com.au		5% discount Web/Winhelp, publishing and training
Rob's Computer Help Desk	Telephone and on-site help for *all* your computer and support needs	Ph: 6292 3211 (24 hours/7 days)		5% discount on consulting services
The Software Shop		Ph: 6285 4622	42 Townsend St Phillip	5% discount off our already low prices
Sproatley Computer Services Pty Ltd	Upgrades New and used PCs MYOB specialists Software installation 24 hour help desk	Mobile: 0412 231 224 Fax: 6231 3605		10% discount on all services
Michael Vetz	Home PC support available for all PC problems including upgrades and tuition at your place – all hours	Ph: 6251 2184		Discount of $25 per hour – maximum charge $50
Other ANU Union Asian Bistro			Upstairs, Union Building, Union Court, ANU (next to main meeting venue)	Union member discount on PCUG main meeting nights **ONLY**
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

Tape drive

HP Colorado Travan tape drive. 400MB (800 with compression). Comes with DOS, Windows 3.1 and Windows 95 backup software. Includes 3 x 400 (800) MB tapes and 5 x 80 (160) MB tapes. $220 ono.
Dave Oswald 6286 4394(ah), 6275 5878(bh) or email doswald@pcug.org.au

Network Cards

Network cards, token ring HyperTec ISA and an IBM MCA 16/4. Will sell for $10 each or will trade.
Victor Markwart 6231 4345 (h)

Computers

486 SX 33, 8MB RAM, 210MB HDD, 1.44MB FDD, 14" monitor. $350 ono
486 DX4 100, 16MB RAM, 540MB HDD, 6x CD-ROM, Sound Card and 240 watt speakers, 14" monitor, FDD. $850 ono
Matthew Dormer 6296 1806

Various

486sx-25 motherboard with 4 x 16 bit slots and 3 x Vesa local bus slots, and 8 x 1MB SIMMS on board. Prefer to sell with memory included. $100
1 Trident Vesa 9440 AGI video board with 1MB on board memory. $40
1 multi I/O board with 2 x 16550 COM ports, parallel and joystick ports. $10
1 IDE/floppy controller board. $10
1 ISA controller board with 2 serial ports, parallel and joystick ports, FDD and HDD ports. $10
Jusmbo 250 tape drive with software for DOS/Win 3.1, 250MB tape included. $60 ono
Quicken 3.0 for Windows. $5
Quicken 4.0 for Windows. $10
National Restaurant Guide on floppy disk. $5
Ari Vennonen 6216 4215(w) 6241 2532(h)

WANTED

Programs

COBOL and Borland C++
Matthew Dormer 6296 1806

Computer

To entice an elderly and potentially keen friend to join the ranks of the computer literate: computer, say 286 with monitor and printer.
Peter Marcusson 6290 1384
marco@pcug.org.au

PC Users Group Membership Application / Renewal

Annual Fees Applicable (☑ one)

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

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

I am paying by (☑ one)

☐ Cash (if paying by person) ☐ Cheque to *PC Users Group (ACT) Inc*
☐ Credit card — Bankcard, Mastercard or Visa

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

I would like to (☑ one or more)

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

Reasons for Joining ☑ (one or more)

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

Other _____

TOTAL PAYMENT DUE $_____

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

Additional Corporate Membership Nominees

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

The Help Directory

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

Subject	Name / Email	Phone	Days	Times
Access for Windows	Graham Fry	6288 3138	All days	7.30pm - 8.30pm
Assembly Language	Thomas McCoy	6294 2226	Mon - Fri	8.00pm - 10.00pm
Audio	Peter van Runt	6288 5556	Mon - Fri Weekends	All day 12noon - 8pm
AutoCad	Geoffrey May *	6295 5942	Mon - Fri	4.00pm - 5.00pm
AutoCAD Rel 12, 13 and LT	Neil Moffat	6292 7108	All days	Noon - 10.00pm
BASIC + Machine Language	George McLintock	6295 6590	All days	8.30pm -10.00pm
Bluewave	Jorge Garcia	6282 2681	All Days	7.00pm - 9.00pm
Batch Files, TSRs, Utilities	Bill Ghysen	6287 1234	Mon - Fri	8.00pm - 10.00pm
Braille transciption (Duxbury and Megadots)	Carolyn Simpson *ryn@effect.net.au*	6241 0705	All days	Anytime
Bulletin Board Service	Michael Phillips *	6253 4966	All days	7.30pm - 8.30pm
Chinese Star for Windows	Peng Lee	6258 0156	All days	1.00pm - 9.00pm
Clipper	Cedric Bear	6258 3169	All days	7.30pm - 8.30pm
Excel	Graheme Fry	6288 3138	All days	7.30pm - 8.30pm
Flight Simulation	Roger Lowery *lowery@pcug.org.au*	6258 1583	All days	Anytime
Free Agent / Agent Newsreading	Allan Mikkelsen	6278 3164	All days	Noon - 9.00pm
Front Page	Peter Tilbrook *webmaster@dynamite.com.au*	6242 8696	All days	Anytime
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 *liz@nullarbor.com.au*	6248 6656	Mon - Fri	7.30pm - 8.30pm
HDK	Ivana Leonard	6231 4169	Mon - Thu	7.00pm - 9.00pm
Internet Explorer (Microsoft)	Peter Tilbrook *webmaster@dynamite.com.au*	6242 8696	All days	Anytime
Internet (Netscape, Eudora)	Carolyn Simpson *ryn@effect.net.au*	6241 0705	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 *kermit@dynamite.com.au*	6242 8696	All days	Anytime
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
Online doc using Help Compiler (Win3)	John Carroll *jcarroll@pcug.org.au*	6248 0781	All days	7.30pm - 10.00pm
OS/2	Andrew Acton *aacton@pcug.org.au*	6293 1684	All days	9am-9pm
OS/2	Dave Thrum *davet@ozemail.com.au*	6201 8806	Mon-Fri	8am-6pm
OS/2	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Scream Tracker 3 (3SM) / MOD Music	Chris Collins	6258 8276	Mon - Fri	7.30pm - 9.00pm
Small Business Computing	Nick Thomson	6241 3239	Mon - Thu	7.30pm - 9.30pm
SuperBase	Paul Blair	6288 3584	All days	7.30pm - 9.30pm
Telix	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
SCO Unix & Xenix	Jeremy Bishop	6291 0478	All days	7.00pm - 9.00pm
Unix	Michael Lightfoot *	6258 8185	All days	7.30pm - 9.30pm
Turbo Pascal	Michael Phillips *	6281 1980	All days	7.30pm - 8.30pm
WinBBS Australia	Peter Tilbrook *webmaster@dynamite.com.au*	6242 8696	All days	Anytime
Windows 95	Graeme Challinor *gchallin@pcug.org.au*	6236 8166	All days	10.00am - 4.00pm
Windows 95 (basic help)	Carolyn Simpson *ryn@effect.net.au*	6241 0705	All days	Anytime
Word 6 & 7 (Mac or PC)	Carolyn Simpson *ryn@effect.net.au*	6241 0705	All days	Anytime
Word for Windows	Lis Shelley *liz@nullarbor.com.au*	6248 6656	Mon - Fri	7.30pm - 8.30pm
WordPerfect 5.1 DOS, 6.1 Win	Gayle Scott *gayles@pcug.org.au*	6254 1579	All days	7.30pm - 9.30pm
WordPerfect for Windows	Peter Tilbrook *webmaster@dynamite.com.au*	6242 8696	All days	Anytime
WordStar	Dave Hay	6258 7310	All days	7.00pm - 9.00pm

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Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
New Members' Night PCUG Centre *7.30pm* **1**	Coffee and Chat PCUG Centre *10.00am* **2**	**3**	Internet SIG PCUG Centre *7.30pm* **4**	Sixteen Bits Commercial Ad deadline for September **5**	Internet Clinic PCUG Centre 9.30-1.00pm ___ Layout Day for 16Bits *10.00am* **6**	TRAINING DAY PCUG Centre *9.30am* Introduction to Databases: Access 2.0 **7**
Internet Daytime Demo and Discussion SIG PCUG Centre *10.00-2.00* **8**	C /C++ SIG , PCUG Centre *7.30pm* **9**	**10**	**11**	**12**	TRAINING DAY PCUG Centre *9.30am* C Programming Introduction **13**	TRAINING DAY PCUG Centre *9.30am* Internet: Full Access Introduction **14**
15	Coffee and Chat PCUG Centre *10.00am* ___ Delphi SIG PCUG Centre *7.30pm* **16**	Committee Meeting PCUG Centre *7.30pm* **17**	OS/2 SIG IBM Building 8 Brisbane Ave Barton *7.00 for 7.30pm* **18**	**19**	Internet Clinic 9.30-1.00pm TRAINING DAY *9.30am* C Programming Intermediate **20**	TRAINING DAY PCUG Centre *9.30am* Windows 95: Introduction **21**
Internet Daytime Demo and Discussion SIG PCUG Centre *10.00-2.00* ___ 16 Bits Stuffing and Mailing PCUG **22**	**23**	**24**	Linux Users Group Room N101 Computer Science Dept ANU *7.30pm* **25**	Sixteen Bits Article deadline for October **26**	TRAINING DAY PCUG Centre *9.30am* Internet: Full Access Introduction **27**	TRAINING DAY PCUG Centre *9.30am* BBS Intro *1.30pm* Internet: Limited Access Introduction **28**
Main Meeting Manning Clarke Theatre 1 Crisp Bldg. ANU *7.00 for 7.30* Bytes SIG Asian Bistro ANU *6.00pm* **29**	**30**					