

Significant Bits

Journal of the Brisbug PC User Group

Meeting Sunday, 19th September

Vol 8 No 10
September 1993
\$ 4.00

The Main Event

Q&A for Windows

1:30 pm

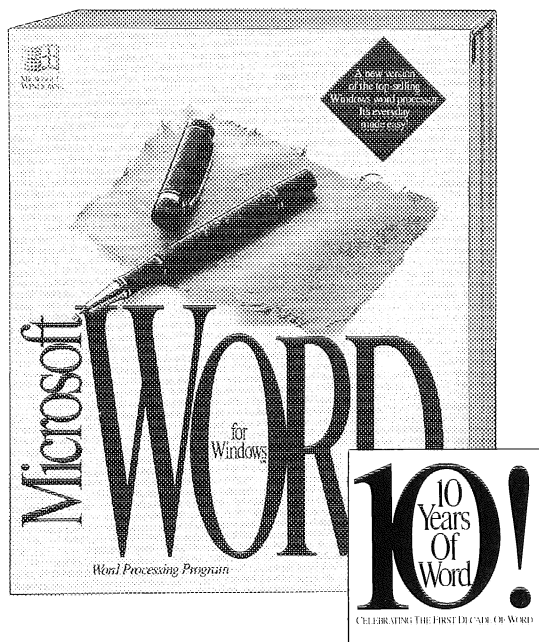
Lunchtime Special

Windows NT on a DEC Alpha

Inside

Junior Corner
Learning Assembler
Brisbug goes to Gladstone
Backing up in OS/2

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Software Library & Shop

Post Prepaid requests to:
Brisbug Software Library,
95 South Station Road,
Booval 4304
or phone: (07)281-6503 MON-FRI
9am to 1 and 2 to 4pm ONLY!!

Significant Bits Magazine

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Contributions always welcome and needed! Preferably on disk (any sort), or modem upload to Brisbug BBS ("Stack Overflow" file area)
Deliver disks, artwork or copy to:
Ron Lewis, 12 Firelight St, SUNNYBANK HILLS 4109

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Advertising

The rates, sizes and other information needed by advertisers is set out below. Significant Bits will take color or black and white ads. Position must be requested. Advertiser printed inserts can also be arranged.

DEADLINES

Normal deadlines are the third Friday of the month preceding publication. Space reservation deadline: 3rd Friday of month preceding publication. Replacement artwork deadline the last Friday of that month. Artwork must accompany space booking. If booked by phone or FAX, booking becomes effective only when artwork is received. The magazine is usually printed the second week of the month of publication, so that changes to copy must be in the preceding week.

TERMS

Payment must accompany bookings unless an account has been established. Discounts are offered for multiple insertions when advance payment is made. Members may advertise at half rate, but member payment must accompany ads (Classified ads not exceeding three lines are run free of charge. More than three lines attract a minimum charge of \$5.)

FORMAT

The magazine is A4 size, offset printed and saddle stitched. More than 2300 copies are printed of each issue and distributed throughout Australia and overseas. Artwork should be full size, paper bromide, film (right-reading emulsion down) or laser print. Postscript print or EPS files can be accepted by arrangement via modem. Brisbug does not typeset ads other than classifieds. Text only ads 1/6 or 1/12 page can be FAXED. The layout for these must be at the editor's discretion and are accepted without proofs. All sizes are given as height x width in mm. Artwork must not exceed stated sizes.

FULL PAGE SIZE DETAILS

Normal article text (3 col)	260x178
Page trim	295x208
Max assured print area	280x190
Optional bleed extent	300x215

RATES

Color covers	\$600	Doublepage spreads ..	\$500
Colour page	\$450	Colour 1/2 page	\$250
Colour 1 column	\$110	Colour 1/12 page	\$50
Centrefold spread	\$525	Full page	\$275
2/3 page	\$175	1/2 page	\$160
1 column	\$110	1/4 page	\$70
1/6 page	\$50	1/12 page	\$25
Special positions:			
Full page RH side, 1st 20 pages	\$285		
Inside covers, B&W	\$350		

INSERTS

Inserts are subject to prior arrangement. The charge is 1.5 times the full page rate. The inserts may be color and double-sided and may be in foldout or booklet form, but may not exceed A4 size. The required quantity of printed inserts are to be delivered to Significant Bits. Quantity, delivery and other details will be advised on request. Advertisers may contact Ron Lewis (07)273-8946, FAX (07)273-8954.

FROM THE ENGINE ROOM

Confusion reigns...

Our August meeting started with the usual confusion - Where do I go to Register? - Where is such-and-such class being held? - Where is the Bookshop? Quite normal for a Brisbug Meeting, except that Angus and Robertson did not show up at all. Their excuse, which I received in a round-about fashion, was "That they thought it was the next Sunday (22nd)". On behalf of Brisbug, I apologise to members who made a special attempt to come to the meeting specifically to purchase books for Angus and Robertson.

Things did not get better.

Our main presenter Wordperfect did not make an appearance either. Graeme Darroch tried to contact them - even spoke to their Sydney operator who in turn tried to locate their representatives, but to no avail. Their "No-Show" at our meeting was inexcusable as their representative had confirmed attendance during the week prior to the meeting. Subsequent correspondence with the company has produced no response, other than the lame excuse that they thought it was the next Sunday!!

Members who had made an effort to attend to learn about the new versions of the product to be presented can be excused for their comments that the companies business manners may be less than perfect.

Hopefully, this month, things will go better - new sign boards are being prepared directing members to Registration - Classes etc., presentation equipment for the main theatre will work better and the presenters will attend for the two presentations.

COMPUTER SHOW

The annual computer show is on again at the Exhibition Grounds on 29th, 30th September and 1st and 2nd October. A number of members have expressed their intention to help "man-the-stand" over the 4 days of the show. Doubtless, many other members will also visit the show. If you are available to help and have not already done so, please contact Graeme Darroch at the next meeting, as he will still be able to use your services at our stand.

MEETING DATES

Meeting Dates for Brisbug for the remainder of the year are:

SEPTEMBER 19
OCTOBER 24
NOVEMBER 21
DECEMBER 12

Again I remind members to note October's meeting on the 24th - the 4th Sunday in that month and December 12th, the second Sunday in December. Mark your calendars *NOW* so that you don't get confused.

Lloyd Smith

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Minutes

Brisbug General Meeting Sunday 15/8/93

I am lead to believe that the meeting opened dead on time at 1.00 p.m. Vouch for that I cannot, since a technical hitch lead to *yours truly* arriving at least 10 minutes late to what was an unusual meeting of the Brisbug gentry (apologies to the females present).

A most unusual meeting...

In spite of my asking for them to "start again", the Chairman declined, stating that "only the President and Vice-President have presented reports" (does that mean I missed nothing?)

Ron Kelly, ("President-of-Vice" extraordinaire), later told me that he had spoken to the members thusly:

"Apologies for the signage "muck-up" today - it won't happen again... promise! - If members have ANY concerns about the club and it's facilities please LET US KNOW! Don't abandon the club when your fees are next due simply because "it is not giving me exactly what I am after".

Moves are afoot to have a 'Junior Section' in the club's magazine -written by juniors FOR juniors." - keep your eyes peeled.)

Treasurer's report

Back to the meeting - Max Kunzelmann then presented his report. Sums of money poured from his lips as easily as from those of his Federal counterpart! (with fewer hassles from the backbenchers).

Start of month	\$ 9,120
Incomings	\$ 8,589
Outgoings	\$ 6,887
End of month	\$10,822

What more could he say?! Nothing - so he sat down!

President and Librarian's report

The Chief Librarian (Lloyd Smith *a.k.a* "EL PRESIDENTE") then gave his report to the expectant throng.

by Chris Raisin - Secretary

There was mention of a couple of kits of anti-virus programs, catalogues being produced on a single disk (come off it! How?...a CD??) and a new InspectA kit. Will have to refer to the mag for further details, since I can't write that fast!

Rex Ramsay is the club's new Education Co-Ordinator! He has taken over the reigns from that club stalwart, Ron Kelly (not put out to pasture, simply gaining further "work experience" within committee).

*Rex Ramsey has taken over
from Ron Kelly as Education
Co-ordinator, Ron having
been elevated to Vice
President*

After Rex issued a plea for members to approach him with requests for further courses and any other "Educational"-type ideas, I guess there was applause (since I have the words "*clap!clap!*" written on amongst these rather untidy notes).

SIG report

Bernard Speight (whose wife makes EXCELLENT coffee and cake for the Committee meetings) then gave another informative SIG (Special Interest Group) Report. All his news is stale by the time these minutes get to print - but one bit of news is worth printing (it's sad really!) The Accounting SIG is no more! - only three people turned up to the last "meet" and so the group has now gone down the proverbial plug-hole (my eloquent turn-of-phrase, not Bernard's.)

A scurry of feet from the back of the meeting room caused many a head to turn....and....YES!...it was the club Sysop (man of magic) Paul Marwick! (GEE!...it's

getting harder to dress these minutes up each month!) Bounding to the stage, a sudden hush fell across the crowd. (Actually Paul bounded to the stage, NOT the crowd). Those now famous words rang clear: "It's still working!". (Thanks, Paul!)

Mr Darroch snapped the crowd back from its state of shock. Graeme (as he is known to his friend (*sic*)) is looking for LOTS of volunteers over the next couple of months. We need people for the Gold Coast Computer Show (26-27-28 August...darn! That's happened already! Forget you read it...) and the PC Expo in Brisbane on 29-30th September, 1993 and 1st-2nd October, 1993.

The Computer Show

If you would like a free T-Shirt (with measurements personally supervised in private by Ron Kelly) PLUS free entry to the show itself, all you need to do is give up two hours of your time on the Brisbug stand, selling the club to prospective new members. The show runs from 10.00 a.m. to 8.00 p.m. on the Wednesday, 10.00 in the morn to 9.00 in the eve Thursday and Friday and 10.00 till 6.00 on the Saturday. (BYO Panadol)

An amazing "No-Show"

A question and answer time followed - and then the unexpected happened... well, didn't happen really! Wordperfect Corporation had taken a wrong turn (it seems) and instead of giving their presentation at our new venue at QUT they were down in Sydney! ("missed us by THAT much!", to paraphrase Maxwell Smart)

To make matters worse, Angus and Robertson Bookshop also had a no-show. (N.B. It has since been ascertained that BOTH parties thought the meeting was the following weekend....it seems that months which have the date of the "1st" falling on a Sunday cause confusion in the computing world!)

Key Systems (who gave a great presentation as the Lunchtime Special prior to the general meeting) were still around! They came to the rescue by running a further Question and Answer session on ETFax and Lineshare.

The SIGS and classes then met early and kept all members and visitors busy for the rest of the afternoon - it was a hectic day really! ○

From the Assistant Stoker

a.k.a. Vice-President's Report

A success story...

The success story of the moment would have to be our Junior Education Group. Some two years ago, with the help of a fellow member by the name of Les Cathcart, Management introduced a Special Interest Group for the children of Brisbug Members.

Les gathered around him a small group of very staunch parent helpers and established a platform on which our children could enjoy using a computer in the companionship of their own age group.

Yes, a lot of fun was had by playing games and learning from each other how to master these games, but in between times Les and his co-horts taught some valuable fundamentals on how to use computers other than for game playing.

It became evident to management that this success story needed a slight change in direction.

Early this year Management introduced the Junior Education Group still with Les, his helpers and the Juniors, doing much the same for the first two hours (from 10am to noon) as they were doing as an S.I.G. but then introducing two education sessions from noon to 3pm. During these 'Educational Periods', Les invites experienced senior club members to instruct the Juniors further into computer fundamentals also other programs which to date have included windows and Dos 6 among those presented...

Allowance has also been made for Juniors who are either experienced in the subject under discussion or find it... just a little above them at this time. These juniors are catered for in other computer activity under the guidance of parent helpers while the main-stream talk/instruction is taking place. The success of this junior education group has another plus to it. A 'PLUS' which I never contemplated when, as Education Services Coordinator, it was necessary for me ensure that Les and his helpers were not hindered in the change, and that Management Committee were fully informed so as necessary approvals for the format within this directional change were forthcoming.

This 'PLUS' I refer to is:

...If you just happen to look in on this group any club day...count the parents who are sitting beside their children taking in the same instruction ...there are quite a few...I think it's great...and I don't know about your thoughts as to this comment, but I just happen to think that this is one aspect of what Brisbug stands for and what life is really all about.

At the August Club Day General Meeting I raised a possible extension of activity for our juniors.

I asked for Junior input into each month's edition of Significant Bits. Members attending Brisbug's August General Meeting will recall I raised junior input following a comment to me from a parent who said there was nothing in our magazine to catch the imagination of our juniors.

If entries are received our editor said he would establish a special section for juniors in each month's edition of Sig. Bits.

A few ideas....

The article could be 100 words or half a page or more, or perhaps a 'piece' of graphic, or it may be 'how you broke through level eight of a game which was real hard to break through... You may have a question you would like answered, or you might have the answer to somebody else's question..

The only criteria required are : —

- The 'input' must be in your (juniors) words or design.
- At the end of your article enter your name, your age, Mum or Dad's Brisbug Membership Number and name of your town, shire or suburb.
- The Editor's requirements must be strictly followed. (I am sure Mum or Dad could help you with requirements.) These requirements are usually found on page 2 or thereabouts, just below list of committee names or if you are unsure, give the editor a ring (07) 273 8946 (Ron Lewis), I am sure Ron wouldn't mind....

So how about it, all you young lads and lasses of Brisbug. It doesn't matter if you can or cannot attend the Sunday Junior Group we want to get to know you in Sig.Bits.

I am sure you would like to have your own 'Junior Corner'. *Ron Kelly*

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Environmental Sensing

Pat Andersen gave an in depth treatment on the behaviour of the games port last month. He took his cathode ray oscilloscope (CRO) along and displayed the wave forms of the timer chips and the timing capacitor. It was possible to view the rate of charge of the capacitors as the resistance of the input device changed. The resistive state of the input device is measured by timing how long it takes to fill the capacitor built into the games adaptor. A low resistance enables a large current to flow and the capacitor fills quickly where as a high resistance allows only a small current and the capacitor fills slowly. When software calls the interrupt to read the port, the short circuit is taken off the capacitor, a counter starts and when the capacitor is full the counter stops. The number in the counter (between 4 and 512) is then poked into the AT register of the CPU for software to read. This can happen several hundred times per second.

One problem encountered with the games port is the instability of the output in the higher values. It oscillates four or five units once the value goes over about 255. Pat demonstrated the cause of the fluctuation was the tangential approach of the charge near full charge as it approached the trigger level of the cut off point of the cycle. The capacitor fills quickly at first then slowed down when the input resistance is high. Since the intersection of the rising charge and full charge was tangential, the interpretation by the sensor when to act varied. Pat overcame the problem by controlling the flow of the current into the port with a fixed current chip. The current that the chip allowed into the capacitor was determined by the sensor. The trace on the CRO showed the rate of charge not as a curve but as a straight line. The approach of full charge and the cut off was much more decisive and the output was stable to within the bit.

Pat presented a circuit incorporating the chip mentioned above with some operational amplifier chips to control input. The cost of the device comes to over ten dollars per channel. Pat went on to say that a more economical and stable arrangement with more ports could be built to work on the parallel port.

Dan Emerson

Pat conducts beginner electronics classes at South Brisbane TAFE. Phone me for details. He has a digital house alarm project coming up later.

This month we have a guest speaker who is a professional in the field of electronic

sensing. (Dr) Michael Swift, (a younger and better looking version of Harrison Ford, ladies) discerns the state of play in oil wells by lowering in heat sensors. He uses equipment with a greater resolution and stability than what we are playing with (16 and 24 bit). A tentative agenda is currently a presentation on sensing generally, a demonstration of sensing radiation and some information on professional sensing products.

See you there !!

DBase Notes

Dan Emerson and Raman Vasram

You ain't seen nothin' yet!! This time Dan will look at functions and you will be amazed at the power unleashed into your hands....watch out data!!

...index on iif(current,'YES','NO')+ ' '+MONTH(Birth_Date.....

..by the end of the session UDF (user defined functions) will be yours.

Leon Percy, boss of the xBase group gave me a tip about an undocumented indexing routine he found. Suppose you have a relation set into a second table, you can index on a field in the secondary table and the primary table will be sorted by that index. Good one Leon!!

Raman will approach functions through the menu system.

SIG Notes

Genealogy SIG

Another month seems to have gone by the boards, but I have managed to get some more information on my line, and from the strangest of places, at the Ekka.

As I mentioned in the previous letter I thought I would be busy this month and I was, time goes so fast when you are having fun and I am up against the deadline already.

At our last meeting we discussed how to use the Gedcom format in transferring your files this month I would like to find out what you are doing and discuss some of the share ware programs that are available to help with some of the existing programs and see where you would like to

go for the next visit, apart from the computer expo.

I will be looking to see if any of you are willing to take a class in your preferred choice of program or interest in the family history chase that is currently going on.

With all of the new share ware programs that are now around I think that PAF is still the best choice, but I am mindful that it does not do all the things that some of the members want to do so let me have some of your views as to why you use the program you do.

See You at the next meeting.

Rob Gurney 07-355-4982

SOFTWARE LIBRARY

NEWS

Lloyd Smith

SCAN & CLEAN

Last month details of the ANTI-VIRUS program disk containing McAfee's SCAN and CLEAN programs were outlined in this column. However, acting on information from one of the Australian Distributors of these programs, the offer to upgrade the ANTI-VIRUS program disk must be withdrawn.

SCAN, CLEAN and other associated programs may only be distributed on the following basis:

1. That the software programs are purely for evaluation purposes, and that use of these programs BEYOND 5 DAYS requires a valid licence or registration through McAfee Associates or an Authorized McAfee Support center.
2. That no service or subscription be offered that includes updates of McAfee Software.
3. Access to, or provision of, McAfee Software updates is a benefit of properly licensing the Software through McAfee Associates or an Authorized Agent.

Users of these programs are reminded that use of the programs SCAN, CLEAN and other associated McAfee programs is purely for EVALUATION and FOR A PERIOD NOT EXCEEDING FIVE (5) DAYS. After that time you must remove the programs from your computer and from any floppy disks. If you intend to use these programs on a continual basis you must purchase a full registered version of the programs.

REGISTERED VERSIONS

Arrangements have been made for Brisbug to supply registered versions of SCAN and CLEAN to members only who wish to purchase this product. There are two methods available:

1. A licensed disk containing the latest version of SCAN and CLEAN can be purchased from the Software Library for a cost of \$9.00. This disk will give you a

licence to use the version purchased for private use only for one (1) from the date of purchase. If you wish to upgrade to a later version you must purchase the later version at the cost of \$9.00 (BRISBUG Members only). The suggested retail price of this disk is \$9.50.

The licensed disk will be made available in the following formats: 5.25" 360K, 5.25" 1.2M, and 3.5" 720K, and will come sealed with shrinkwrap.

2. A Professional Version, for private use only, containing the latest versions of SCAN, CLEAN etc. contained in a

presentation case together with documentation and a registration form will be available for \$75.00 (BRISBUG Members only).

On completion of the supplied registration form, the purchaser will be entitled to use the programs for one (1) year, and will receive a copy of each update to the programs by disk in the mail each time the version is updated. This allows the purchaser to legally update his or her version of the McAfee programs.

3. Commercial users may only purchase a site licence of these programs and details will be available from the Software Library for any interested members.

The current versions of SCAN and CLEAN, at the date of publication, are Version 107.

The Software Library will discontinue supplying evaluation copies of SCAN, CLEAN and associated programs.

INSPECTA KIT

Following a successful presentation of INSPECTA at the OS/2 Sig at the last meeting, an INSPECTA Kit containing the Shareware version of INSPECTA together with all necessary archiving programs has been prepared. This Kit is now available for purchase by members for \$10.00

INSPECTA KIT (DOS) - \$10.00

*CLASSIFICATION * File Management * Utilities * Hard Disk*

INSPECTA is a multi-purpose file management tool, but is primarily aimed at management of files on any system running a FidoNet Technology mailer and associated utilities. It incorporates the following functions:

General file management; copy, move, create delete directories & files, run other programs, view text files, determine file type, etc.

Archive management; allows viewing, adding to, deletion from, extraction and testing files in SEA ARC(tm) version 5.x, 6.x and 7.x, PKWARE's ZIP, Yoshi's LHARC/LHA, Robert Jung's ARJ, NoGate Consulting's PAK, Dhesi's ZOO format archives, and Peter Gutmann's HPACK compressed file libraries.

FidoNet common *.MSG format messages; when a .MSG file is selected for viewing from the file manager, InspectA provides the ability to read and interpret these files.

FidoNet (FTSC) type 2.X format packets; InspectA provides the ability to view raw .PKT format files, including diagnostics, some limited editing capability, allows individual messages to be exported to FTS-0001 *.MSG format, and provides "packet splitting" capability to enable more convenient handling of very large packets.

File descriptions support, as used by a 4DOS (4OS2) "DESCRIPT.ION", Waf file BBS "@FILES" or BBS "FILES.BBS" files - any method of describing files which uses a text file containing the filename followed by its description. The name of the file used, and the priority in which they may be used is set by the user.

Fast file search capability, to locate a file or files on a drive or any section of it. Wildcard searches are fully supported.

DOS command shell capability with swap to XMS, EMS or disk with command history.

Fully network aware, and uses network sharing modes for file access.

INSPECTA (OS2) Kit is also available - \$10.00

SOFTWARE SHOP ROOM CHANGE

At the September meeting, the Software Shop will be located in Room 307, the room to the left of the walkway opposite the second corridor. Software Shop Supervisor, Brian Sanborne, has asked for this change as it save shifting tables from one room to another to set up the Software Shop and Library. Membership Registrtion and reception will be set up in Room 343A, which was previously used by the Software Shop.

Because of these changes classes normally held in room 302 will be held in Room 343B. Members should check with the notice boards at the Meeting.

DISK PRICES

Again, for those who forget...

5.25" Disks - \$4.00 each

3.5" Disks - \$5.50 each

High Density Disks
(Special Programs only as advertised) **\$8.00 each**

Postage

Up to 8 disks \$3.00

Over 8 disks \$5.00

Catalog Disk Exchange \$2.00 at meetings or when accompanied with an order for other disks - \$5.00 if ordered separately.

There are 5 - 5.25" disks or 3 -3.5" disks in our catalogs. Don't forget to allow for these when calculating postage.

CREDIT CARD MINIMUM - \$25.00

BBS USER GUIDE

Copies of the BBS USER GUIDE by Graeme Darroch are still available for \$10.00 each (P & H \$3.00 extra). This book was reviewed in the Melbourne Age on the 31st August and generated a great deal of interest by Melbourne readers.

Education News

Rex Ramsey

The following courses will be available at our September meeting:

Morning Lectures 10:00 to 12:00

For the New User

Getting to Know Your Computer

John Tacey Room 315

Introduction to dBase IV

Dan Emerson Room 302

Not so New User

Hardware

Ron Lewis Auditorium

Advanced

BASIC Languages

Rex Ramsey Room 309

C++ Language

Geoff Baker Room 312

Xbase

Leon Percy Room 310

Lunchtime

NEW MEMBERS ORIENTATION TALK

12:00 - 12:30 Room 310

All Day (10:00 - 3:00)

JUNIOR EDUCATIONAL GROUP

Les Cathcart Room 301

Afternoon Lectures - 3:15pm

NEW USER

Getting to Know Your Computer

Chris Raisin ... Room 309

All Users

Environmental Sensing

Dan Emerson ... Room 302

Main Presentation

Symantec Corp presents:

Q&A for Windows

1:30 pm in Theatre

Lunchtime Special

Microsoft Corp and DEC present

Windows NT on a DEC Alpha

SIG ROOM LOCATIONS

Accounting	301
Genealogy	310
OS/2	312
PASCAL	315
Windows	Theatre

BBS News

September 1993

.Currently, Line 4 is using a borrowed PEP/V32 modem. This modem is configured to issue V25 tones along with the normal PEP tones. Unfortunately, these tones are causing problems for some modems. It seems that a number of modems have problems with the combination of PEP and V25 tones. For the moment, there is very little that I can do about the problem.

Anyone experiencing problems can try adding a few commas to the end of the number for line 4. This will cause the calling modem to wait for a short while before it "listens" to the line, and may allow modems which do not have good enough tone discrimination to survive the mixed tone used by the line 4 modem.

Hopefully, we'll be upgrading the modems on lines 1, 2 and 4 in the not too distant future.

There will be some area changes taking place on all systems sometime soon. These are to accommodate new file areas, and may involve some downtime, since making those sort of changes while the systems are online is difficult and can cause problems. In addition, the machine which runs lines 1 and 2 will be being taken down for maintenance within the next few weeks - the power supply fan sounds as though it is on the point of failing. At the same time, OS/2 2.1 will probably be reinstalled.

I have finally managed to get the Line 1 & 2 machine to reboot cleanly from DOS (in the past, this has given trouble with the video card fitted to the machine). Since this now seems to be working reasonably reliably, regular backups will be put in as a scheduled event. It currently takes 4 250 mega-

byte tapes to back the system up. Each tape takes about an hour to backup and then verify. As a result, from sometime very shortly, Lines 1 and 2 will be going off-line for this period 4 times per week. This will be during the hours from 1am to 4am, the exact time depending on how easy it is to schedule the backups. Unfortunately, until some suitable OS/2 software is available for the Wangtek tape drive, this has to be done under DOS, so both lines will have to be taken offline to allow the backups to proceed.

FOR SALE

WINDOWS DRAW

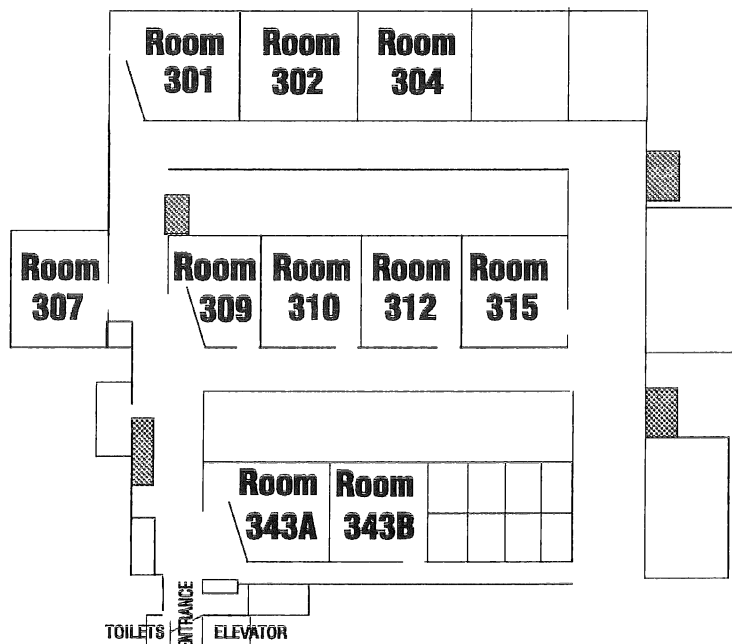
(Award winning Drawing Program)

by Micrografx

Powerfull Drawing & Special Effects
Compatible with Windows 3.0 & 3.1,
with over 30 True Type fonts & over
2600 customable ClipArt images.

\$140 PH 2072706 A/H Bob Lyndon..

CLASS LOCATIONS



B BLOCK - LECTURE ROOMS

"IRISH" MEDICAL DICTIONARY

ARTERY..	.....	The Study of Paintings
BACTERIA	.....	Back Door of a Cafeteria
BARIUM	.....	What Doctors Do When Patients Die
BOWEL.....	.....	A Letter Like A.E.I.O.U.
CAESAREAN SECTION	.....	A Neighbourhood in Rome
CAT SCAN	.....	Searching for Kitty
CAUTERISE	.....	Made Eye Contact with Her
COMA	.....	A Punctuation Mark
D & C	.....	Where Wash/ng'ton Is
DILATE..	.....	To Live Longer
ENEMA	.....	Not a Friend
FESTER	.....	Quicker
FIBULA	.....	A Small Lie
GENITAL	.....	Not a jew
HANGNAIL	.....	Coat Hook.
IMPOTENT..	.....	Distinguished, Well Known
LABOUR PAIN	.....	Getting Hurt at Work
MEDICAL STAFF.....	.....	Doctor's Cane
MORBID	.....	A Higher Offer
NITRATES	.....	Cheaper Than Day Rates
NODE	.....	Was Aware Of
OUTPATIENT	.....	A Person Who Has Fainted.
PAP SMEAR	.....	A Faltherhood Test
PELVIS	.....	A Cousin to Elvis
RECOVERY ROOM	.....	Place to Do Upholstery
RECTUM	.....	Dang Near Killed 'Em
SECRETION	.....	Hiding Something
SEIZURE	.....	Roman Emperor
TABLET	.....	A Small Table
TERMINAL ILLNESS	.....	Got Sick at the Airport
TUMOR	.....	More Than One..
URINE	.....	Opposite of "You're Out"
VARICOSE	.....	Nearby
VEIN	.....	Conceited

KIDS

ORNER

NEWS FROM THE JUNIOR GROUP



Above Junior Club Convenor, Les Cathcart, is shown here with some of the group

What's in a Name?

The Juniors will no doubt want my scalp for calling their section "Kid's Korner".

The best name for this area submitted to the Editor before the deadline for next month's magazine (3rd October) will win their choice of five shareware disks from the library.

All entries - in writing - to the Editor (Ron Lewis) please.

Letterbox

Hi! my name is Michael Kelly. I live at Loganholme, am 12years old and enjoy using my computer.

We have a game called "The Incredible Machine" (TIM). It's a game or program where you get to make inventions or solve puzzles using different bits and pieces that include light globes, fans, windmills, solar power points, conveyor belts, balloons, sea saws, balls and many more things. We got the game from the Brisbug Software Shop. It's great fun. The game has 87 levels so if you wanted to finish the 87 in one go you'll be going for around 24 hours non stop.

So I wouldn't try to finish it all in one go!

My name is Christopher Kelly, I live in Loganholme I am 10 years of age and love being on the computer. Well to tell the truth I'm basically on it all the time. I'd just like to tell you about one of the games I've got. It's called "Jill of the Jungle". You can find it in the Brisbug software shop. "Jill of the Jungle" is a very skillful and brain teasing game. It is made by Epic Mega Games. To make Jill jump you simply use shift, to make Jill use her weapons you just simply press Alt. Towards the end of the game there are secret icons that can change Jill into other creatures and animals e.g. birds and frogs. There are 16 levels in Jill of the Jungle and that should keep you busy for a couple of hours a day!

Thank you for reading my article.

Last Month at Brisbug

The challenge to the Juniors last month was to use the program "Thedraw" to produce a logo for the group. "Thedraw" uses only ASCII text characters to produce highly colourful screens which can be sent over a modem to a terminal. Many BBSs use these as entry screens.

Anyone who's tried to learn "Thedraw" will know that it's not easy to get a result you don't want to erase immediately, but with some patience (and talent), the results can be very attractive.

This effort by GLENN HARWOOD, Age 8

Brisbug Goes to Gladstone

Brisbug has just made its third annual pilgrimage to Gladstone.

Jointly hosted by the two local clubs, the QRI Gladstone Computer Club and the Gladstone Computer Group, Brisbug was represented by President Lloyd Smith, Meeting Convenor, Graeme Darroch, and Editor Ron Lewis. This was Graeme's first trip to the "deep north", but he'd been well warned of the overwhelming hospitality to be expected. Regular Brisbug guest, Rob Neary, of Ramware Pty Ltd, on a northern safari to his schools customers, was also warmly welcomed.

Visitors from as far away as Gympie (the Cooloola Computer Group), Hervey Bay (Fraser Coast CUG), Bundaberg (led by BCUG President Merv Hersom) and Rockhampton (Nick Quigley) joined around 100 locals to spend the day discussing "matters computing".

After a welcome from organiser, Dave Franklin, (well-known as *fuhreur* of QRICC Bulletin Board System), Lloyd made a brief presentation on Brisbug Club, its aims and ideals. Ron then presented a typical program for a Brisbug Sunday.

First talk of the day was on upgrading your computer. As an illustration of the sort of gear being discussed, Ron built a 486-based PC on the desk (sans case) so that those who take the "Don't Open" warranty warning on their computers seriously could see what the various bits being discussed looked like. Thanks to Franklin Technol-



The QRI Gladstone CUG are fortunate to have their own, very comfortable premises, complete with catering and bar facilities. Presentation equipment was also top notch, thanks to the generous assistance of the locals and Electroboard, Brisbane.

ogies (Gladstone's leading computer store - Dave paid me to say that) for supplying the bits. *I believe Dave's Quality Control Department insisted on my effort being dismantled-Ed.*

Rob Neary then gave an impressive display of MultiMedia, emphasising its value in education. Unfortunately he was keeping a very close eye on that magnificent

50" monitor, so we couldn't bring it back for Brisbug.

Ron Lewis complemented Rob's display by demonstrating his Roland MIDI/WLT card, which, coupled to his ghetto blaster, showed musical talents that Ron never actually possessed. Local member, David Lindley, of Lindley Electronics, then hooked up a real (BIG) HiFi system to the SCC1 to demonstrate that computers can do more than just squeak through a 2"



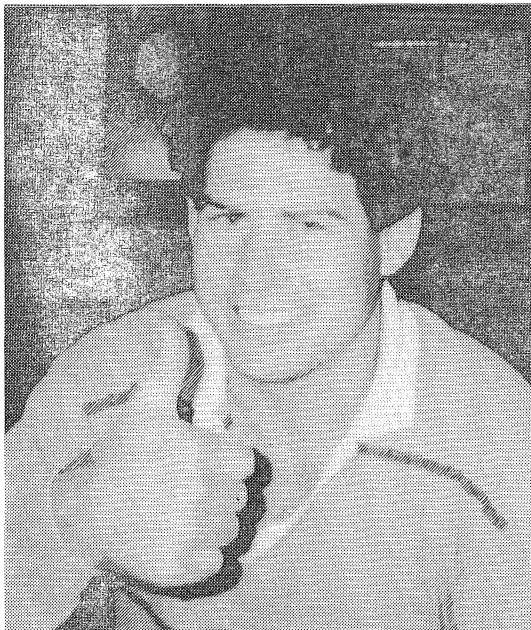
Left. The joint welcoming committee of the two Gladstone computer clubs comprised (left to right) Jim McBride- Secretary, Gladstone CUG, Mike Bowen-Treasurer, QRI Gladstone CUG, and Lloyd Fraser-President, QRI Gladstone GUG. Other club Presidents attending were Merv Hersom (Bundaberg), Dorothy Ross (Caloola), (Fraser Coast), Nick Quigley (representing Rockhampton), and of course, Lloyd Smith (Brisbug).



Left. Gail Pascoe of the QRICUG heads the team organising food and refreshments for the masses attending the Saturday sessions. Feeding over 50 hungry computer users two hot meals allowed Gail to demonstrate her organising skills. Lloyd Fraser required close supervision whilst barbequeing the hamburger buns for lunch to ensure the taste monitoring did not get out of hand.

cheap trannie speaker. After the roof was replaced and the members hearing restored, Ron used a TV Tuner/PAL to NTSC card combo to show how to turn your 486 and NEC 4D monitor into a 17" TV set. Actually, the potential uses of this system in such areas as "instant" interactive catalogs was not lost on the audience.

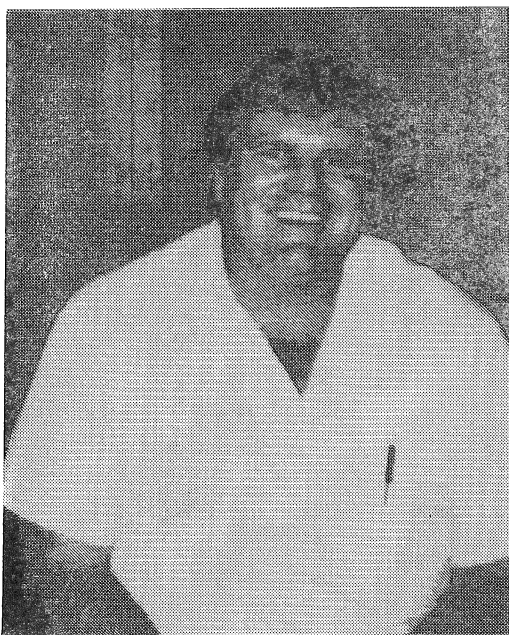
Graeme then took over for a demo of long-distance computing. After first hooking up to the Brisbug BBS, he then connected to Oz-E-Mail, the still beta-testing system of public electronic mail. Piece-de-Resistance, however was a successful hook-up to GlobalNet, the world-wide net of PC User Groups. The on-line conversations between Graeme, several operators in the USA and one in Asia was quite impressive.



Left. "She's right now, mate", says Dave Linley, after installing a UHF antenna so Ron's computer could demonstrate TV reception on his monitor. Dave's truck also concealed a high-powered HiFi set, used to good advantage with Ron's SCC1 music card

Below left. Dave Franklin, Sysop of the QRI BBS and organiser of the Open Day. Dave also supplied the "bits" used in Ron's demo of how to build a functioning computer on the top of your desk. He also insisted we "un-build" it

Below. It's a family day for many of the attendees. Janelle Franklin is supervising the kids afternoon drinks (What was Dave drinking, Janelle? - that's a funny coloured Coke)



In recognition of Murphys Law, when Graeme tried to repeat this exercise for the afternoon group, the net was "down" ... dead silence!

The show continued with Rob Neary using the new PageMaker 5 to desktop publish an advertising brochure. Rob was sporting the latest 600DPI Hewlett-Packard LaserJet 4L laser printer... the quality of it's output has to be seen to be believed! The importance of using the right quality of paper, and of keeping it under the right conditions was very well demonstrated

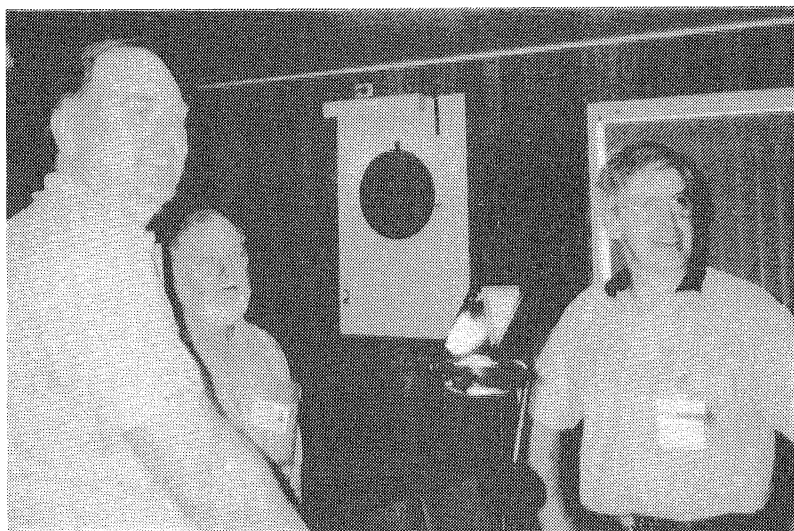
Ron rounded off the day's events with an after dinner demo of business programs, essentially accounting programs to the few "die-hards" remaining after an excellent dinner and resisting the lure of the nearby bar.

Throughout the day, there were a number of give-aways of software, mouse-mats, and useful hardware "bits" to keep the audience on their toes. The generous donations of software by Microsoft (Bris-



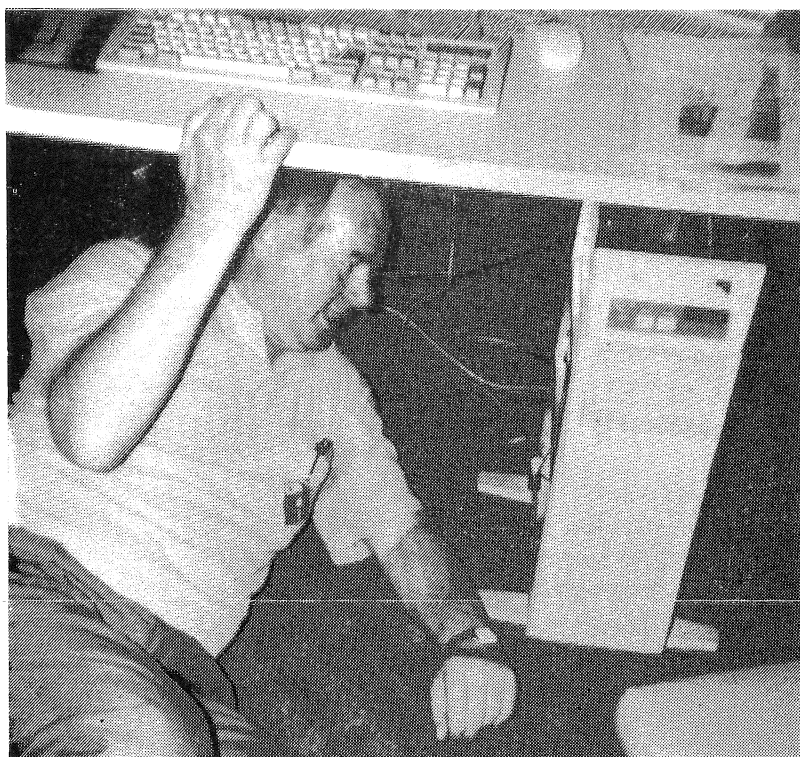
Above. Rob Neary of Ramware Pty Ltd kept the audience highly entertained with his educational multimedia demonstration, then backed up to showcase Pagemaker 5.

Right. Graeme Darroch and Ron Lewis check that the overhead projector pad is working properly prior to the first lecture, helped by a visiting Fraser Coast member.



Right. "That bloody bug's in there somewhere!", Ron seems to be saying. Actually a number of hardware changes were carried "out on the fly" during the day as different hardware items were demonstrated.

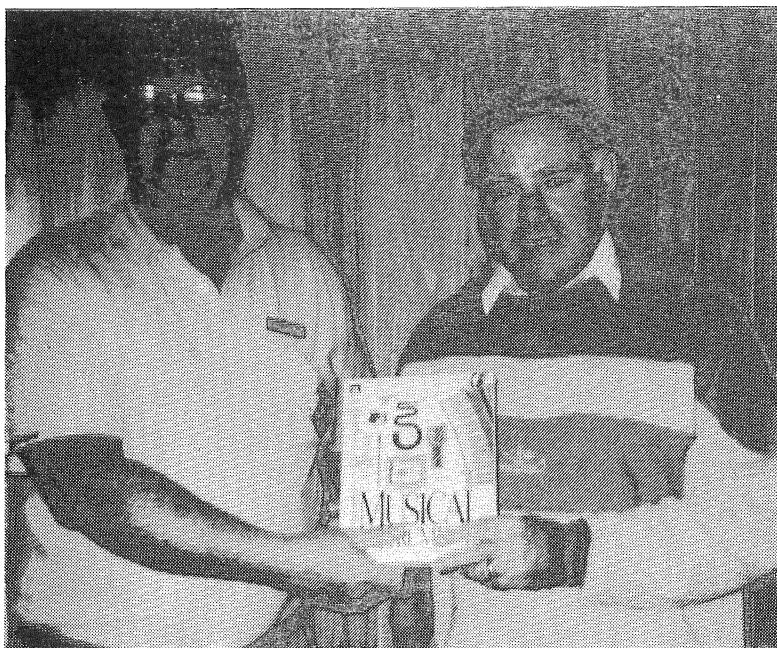
"There're more cards in there than in the Jupiter's Casino Blackjack room!", was Dave Franklin's summary of the situation.



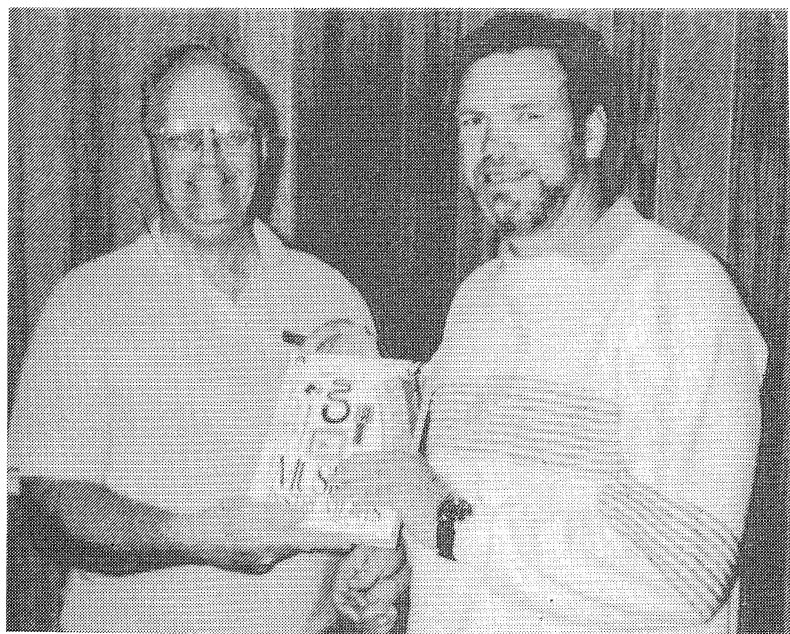
bane) were acknowledged by all present. Perhaps a new "tradition" was set when we gave away two copies of Microsoft's *Musical Instruments*. By sheer coincidence these were won by two schools, Clinton and Gladstone South State Schools, who have both Apple Macs and real PCs in their repertoire.

The raffle was won by Janelle Franklin, which resulted in a chorus of "Redraw"s from disappointed ticket-holders. Somehow it appeared appropriate that someone who'd worked so hard for the day's success should take off a prize. Post-draw discussions overheard at the bar suggested that Dave was not about to misappropriate Janelle's good fortune.

Towards the end of the day, Lloyd Smith presented the two organising clubs with the profits of the days kit sales... Lloyd can't resist the temptation to run a software shop, no matter how far from home he is.

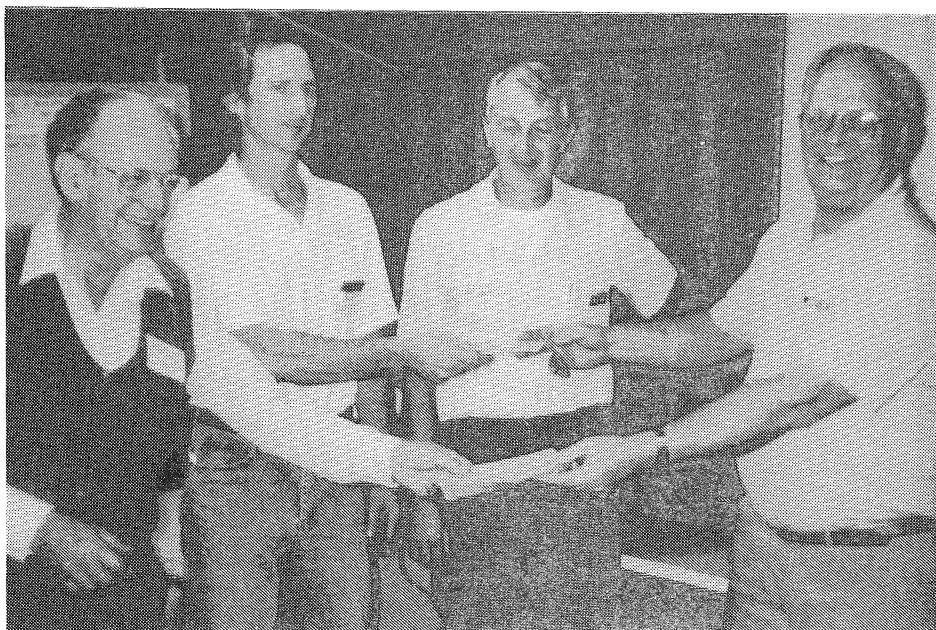


Top Right. *President Lloyd presents a copy of Microsoft's "Musical Instruments" to Terry Freyling, Principal of Clinton State School and member of QRI Gladstone CUG.*



Right. *President Lloyd presents a copy of "Musical Instruments", Microsoft's multimedia educational program for the Mac to Bob, the principal of Gladstone South State School*

Right. *More presentations... this time a share of the profits from the software shop run by Lloyd during the day. Brisbug kits proved very popular, and should provide ongoing sales for all clubs involved. In true Treasurer style, Mike Bowen takes charge of the money while president Lloyd Fraser looks on. This donation helps balance the budget on the not inconsiderable investment in publicity by the clubs to attract non-members to come and look and listen... perhaps to join*



Seen at the meeting ...



So what did the Gladstone clubs get out of this? Firstly, considerable exposure in the wider community. Probably 30 percent of people at the meeting were not current members, and many more were from clubs outside the Gladstone area, with different backgrounds, experiences, and expertise. Much of the interest is in the friends you make, and stories you swap in the breaks between lectures and for meals. From a purely mercenary point of view, a lot of prizes were given away. Hopefully, most people, if they weren't too busy talking, saw something new, and expanded their computer knowledge.

In summary though, most just had a good time. Brisbug had a chance to see how smaller clubs operate, and hopefully picked up one or two ideas to improve our club, too.



Above left. Cathy Bottom (Fraser Coast), seated left, Dorothy Ross (President, Caloola), standing right, and "JP" Leslie (Caloola) discuss the day's events with the local ladies.

Left. Ladies were well-represented in the audience. Cathy Bottom (Fraser Coast), rear, and "JP" Leslie (Caloola) are joined by two local ladies in a group listening to Rob Neary's presentation of Pagemaker 5 as a desktop publishing medium.



Left. After all the talking of the day, it was time for a quiet drink to lubricate a very dry throat, and a reflection on how it went, and whether we'd do it differently next year.

Peter Pascoe (QRI), Cec Wilmott (GCC), Graeme Darroch (Brisbug), Mark (QRI), Ron Lewis (Brisbug) and Jim McBride (GCC) do some "serious" debriefing.

Learning Assembly Language

This month marks the start of a new series of articles about programming in assembly language. The example programs have been written and tested using Borland's Turbo Assembler 3.0. Because the code was written with TASM in a MASM mode, it should also work with Microsoft's assembler, MASM. When I get to interfacing Assembly and C, you'll also need to have Borland C++ 3.0, or Turbo C++ 3.0. Both work equally well.

Carlo Hamalainen

Hardware

If your computer can run Turbo/Borland C++, you've got nothing to worry about. At the most, the example code will need an 80186.

What you should know

Before you can program in assembly language, you must have some knowledge of the different numbering systems. You only need to know binary (base 2), decimal (base 10) and hexadecimal (base 16). It helps if you can convert between the different numbering systems, but for most of the time you'll only need to convert binary to decimal to binary.

Figure 1 (below) shows how.

Write the binary number digit-by-digit into the spaces. Then add up all the numbers above a 1.

|	128	|	64	|	32	|	16	|	8	|	4	|	2	|	1	|
|	0	|	0	|	0	|	0	|	0	|	1	|	0	|	1	|

The above table would be: 4+1=5.

So, 00000101b = 5 decimal.

Figure 1. Binary to decimal conversion

You can expand the table so that you can change more than one byte into decimal. Just keep doubling the numbers across the top, going left (1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, etc).

Assembly basics

If you had to pick an assembly command that is most used, it would have to be **MOV** and its variations. When you think of it, the basic thing that the computer does is to write and read data. This naturally involves **MOVing** (copying) data. Before I can explain how to use the **MOV** command, you must know how to use the registers on an 8086/8088. Figure 2 shows the complete list for the 8086/8088. A register is a part of memory on the CPU itself. The main advantage for using registers is that they are fast. Heaps faster than main memory. To copy, say, 4 to the

AX register, you'd use the following code:

```
MOV AX,4
```

The first operand (**AX**) is the destination, and the second operand (4) is the source. The name **MOV** doesn't really describe its operation - **COPY** might have been better. One thing to note about the registers

Name	Category	Use
AX	General	Accumulator
BX	General	Base
CX	General	Counter
DX	General	Data
SI	Index	Source index
DI	Index	Destination index
SP	Stack	Stack pointer
BP	Stack	Base pointer
CS	Segment	Code segment
DS	Segment	Data segment
SS	Segment	Stack Segment
ES	Segment	Extra Segment
IP	Segment	Instruction pointer
FLAGS	Operation flags	

Figure 2 The 8086/8088 registers

in the General category is that they are 16-bit. What if you need 8-bit storage? You just use the high and low order bytes.

For example, **AX** is made up of **AH** and **AL**. You can use them in the same way, it's just that they are 8-bit.

The same goes for the rest - **BX** has **BH** and **BL**, **CX** has **CH** and **CL**, and **DX** has **DH** and **DL**.

The register called **FLAGS** can't be accessed directly. Trying to do so will result in some form of an error. Commands like **JE**, **JC**, **JNE**, use the

flags to check conditions. I'll explain these later.

Memory addressing

If there is one thing that is horrible on the IBM, it would have to be the memory organisation. When Intel got together to design the x86 series of processors, they decided to give it 640K of RAM. This was ten times the normal amount of that time. Instead of having one big register for addressing all of the memory, they decided on a segmented memory architecture (ssss:oooo). With this system, ssss points to a 64K chunk of RAM, and oooo points to an offset in that chunk. To find the absolute address, just multiply the segment by 10h (16 decimal) and add the offset.

$17A5:FED0 = 17A50h + FED0h = 27920h$.

The 8086/8088 processor has a few registers devoted to segment:offset use. If you were to use the **MOVSB** command, which moves a sequence of bytes, you need to have **DS:SI** pointing to the source and **ES:DI** pointing to the destination. The **CX** register has the number of times a byte should be moved. Unless you know what you're doing, don't mess around with **CS** or **IP**. They point to the current Code Segment and the Instruction Pointer. These registers are used to point to where the processor is up to. Filling them with garbage will almost certainly hang the system.

The Stack

The other thing that must be understood is the stack. It's a segment of memory that has been set aside as a 'scratch pad'. **SS:SP** points to the current stack location. The stack works on a first in last out basis. The **PUSH** command can push registers onto the stack and **POP** pops them off.

```
MOV AH,5
PUSHAH
; code in here
POP AH
```

This code would make AH = 5, and then push it onto the stack. The line **POP AH** would get back the 5. When some C code calls an assembly procedure, it assumes that **DS** among others is preserved. If the

code needs to use the **DS** register, you would need to save it on the stack:

```
; Procedure starts here
PUSHDS
; code goes here
POP DS
RET
; End of procedure
```

This code would exit with the **DS** register unchanged.

BIOS and DOS

Both BIOS and DOS make available a number of services that can make a programmer's life much easier. DOS mainly concentrates on disk activities, starting and exiting programs, while BIOS has stuff for writing to the screen, reading disk sectors, reading the keyboard, etc. You can use a BIOS or DOS service with the **INT** command.

Waiting for a keypress is easy using BIOS:

```
MOV AH,00h
INT 16h
```

This code makes use of service 00h, and **INT 16h** calls the keyboard interrupt. After this is called and a key is pressed, **AH** and **AL** contain the ASCII and scan code for that key.

At this time it would be good to buy a book like "Using Assembly Language 3rd Edition" or similar which contains a reference to all of the BIOS and DOS services. Armed with this knowledge, you can write a program that displays the incredibly original message "Hello World". Figure 4 shows the source (if you need it, Figure 3 shows a stand-alone skeleton -just add your own code).

Copy the listing to a file called **HELLO1.ASM**, and then type the following:

```
TASM HELLO1.ASM /m2 TLINK
HELLO1.OBJ HELLO1
```

The option **/m2** is needed because of forward referencing. If you don't include it, the compiler will generate an error. This program demonstrates all of the previous principles. It uses the BIOS service 10h to write "Hello World", waits for a key and exits.

How it works

The first line of code sets the large memory model. In this model, all code and data is far. This means that you can have programs that take up more than 1 segment of data and code. It then initializes a stack. You can say how much memory can be used by the stack, for example:

```
STACK 100h
```

would give you a stack of 100h bytes. **DATA** marks the start of the **DATA** segment. To declare a variable, just have the name, size, and value in that order. If I wanted to have a word of data called **MyData**, this would do it:

```
MyData DW 0
```

```
; Stand-alone assembly program skeleton

.MODEL small
.DATA
; Put all data in here. The following line allocates
; 1 byte for a variable called "MyVar", and puts the
; ASCII string into it.
MyVar DB 'Hello World'
.CODE
.186
; .186 says the code uses 80186 instructions

; The program's main code starts here.

; You can then have the subroutines (functions in C
; terminology)
name PROC

RET
name ENDP

; The END directive says that this is the
; end of the file.

END
```

Figure 3. A skeleton for a stand-alone assembly program

```

.MODEL large
.STACK
.DATA
message DB 'Hello World'
.CODE
mov bh,0
mov bl,07h
mov dh,0
mov dl,0
push @data
pop es
mov bp,OFFSET ES:message
mov cx,11
mov ah,13h
int 10h

call CurOff

mov ah,00h
int 16h
call CurOn
.EXIT

```

```

CurOn PROC
mov ah,3
xor bx,bx
int 10h
and ch,1Fh
mov ah,1
int 10h
RET
CurOn ENDP

```

```

CurOff PROC
mov ah,3
xor bx,bx
int 10h
or ch,20h
mov ah,1
int 10h
RET
CurOff ENDP
END

```

You can also have arrays. If you needed an array of 100 bytes initialized to 0, this would do it:

MyArray DB 100 DUP(0)

Next, CODE starts the code segment. The first few lines just set a few registers with the values needed to print a string to the screen. For example, DH and DL contain the row and column references. The thing to look at is the two lines that involve PUSHing and POPing registers. With this service, you need to have ES:BP pointing to the ASCII string. The directive @data contains the data segment. By pushing this value, and then popping it into ES, we get the data segment in ES. Then, BP gets the OFFSET of message in the ES segment. The value in CX is an important one, because this contains how many characters to print. If the number is too small, not all of the string gets printed, and if it's too large, you get some garbage at the end of your string. Finally, INT 10h calls the BIOS video interrupt to write to the screen.

If you want to see some of the garbage, just change MOV CX,11 into something

like MOV CX,15. Next up, it calls a procedure to turn off the cursor. This also uses BIOS. You don't need to worry about how it works, but it's a good idea to keep the code if your own program needs to turn off the cursor. After that, the BIOS keyboard service is called to get a key. CurOn then turns on the cursor, and EXIT inserts some code that uses the DOS service 21h (to do this yourself would be as hard as using any other INT service).

Procedures

When the compiler finds a CALL command, it pushes CS and IP onto the stack and then makes them point to the the procedure. This is for a far call, if it was near it would only push IP (same code segment). Remember to include the RET command, because if you don't some weird things can start to happen.

Next month I'll explain more about procedures, and then go on to interfacing assembly to C programs.

Carlo Hamalainen is a 14 year-old who has been involved with computers for around 3 years, and programming for 2.

Buying a computer? How Big is Enough

A recent survey, published in the "Reseller", listed the factors which most annoyed computer owners as:

- lack of memory
- lack of expansion slots
- case too small
- power supply inadequate
- poor quality video

Specifying the computer you want to buy is a balancing act, much like buying your first house.

With no kids, a one-bedroom house would be plenty, but you have to think not only of expansion, but also of resale value. Expandability requires not only a big enough block, but the right design of house, and the likelihood of council approval, and that involves careful examination of your needs, current and near-term (2 years). Careful buyers will seek the expert advice of friends, acquaintances and members of User Groups like Brisbug before parting with their hard-earned cash. The alternative, of course, is to simply sell up and move to bigger premises, but that will involve giving away the familiar surroundings and local knowledge that's taken so long to build up.

Those who buy solely on price, perhaps encouraged by large-scale advertising or salesmen's assurances, are probably due for disappointment when their purchase needs updating, and that will likely be sooner rather than later. Some brands are almost unsaleable. (Everyone else knows their limitations).

At Ron Lewis Computers we'll give you advice based on (sometimes expensive and bitter) experience, to try and fit you to the right machine for your needs. Saving a few dollars on initial purchase is not a bargain if you have to quit an under-specified machine at a big discount not far down the track.

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Figure 4. HELLO1.ASM source listing

THE SUNDAY FROM HELL

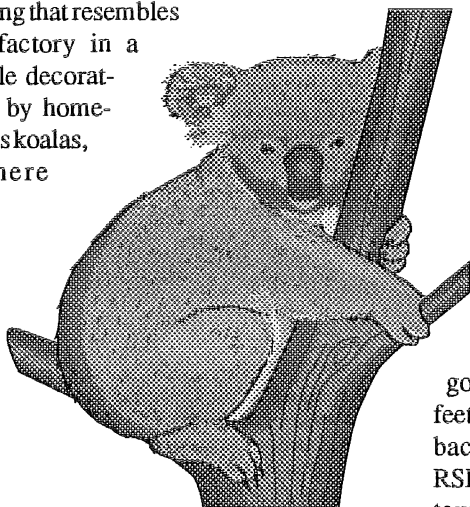
Some days just don't go right - Sunday, August 15th was one of those days.

Although the omens were good (it was the Third — Brisbug — Sunday), the immediate portens were ominous.

It started early morning when I went to load my computer and other gear into the van, only to find a front tyre looking decidedly like yesterday's mango, very squashy. "No problems", thought I, "I can either drive (very carefully) up to the local "servo" and re-inflate it, or put the spare on".

On reflection, however, neither alternative was attractive. Visiting the "servo" would make me about 20 minutes late, changing it would be a very messy job. Perhaps I should explain this latter point. My van doubles as the disposer of garden trimmings, and the day before had gone to the local tip. Now this is a *real* tip, not some Lord Jim high-tech thing that resembles

a factory in a hole decorated by homeless koalas, where



Tip-dwelling politician-waterer

the "Yuppies" in their recycling uniforms carefully empty the Volvo wagon and hand-sort their off-casts by smell, feel, and probable re-use into sterile concrete bins. This is a real tip, located in prime bush wet-land, with dirt roads, dump-rats (of the human, council-licensed, scavenging for recycling kind) and open sky so the seagulls can congregate, and a breeze to disseminate the fine aroma of a trillion compacted plastic bags of last week's vegies.

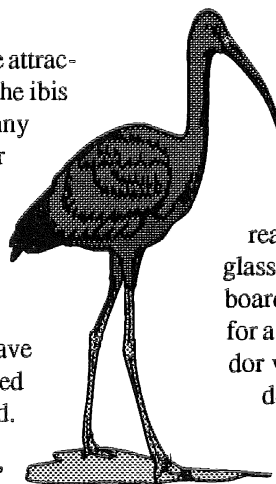
My tip even has it's unique wildlife attraction — a large flock of ibis. Now the ibis is a large bird, and despite its skinny legs (it would never be mistaken for a Kiwi bird) it's quite heavy, and needs every advantage it can muster when taking off. "Regulars" at my tip know that you do not roar past the feeding flock startling them into flight lest they leave your vehicle looking like it just passed through a black-and-white blizzard.

Anyway, to cut a long story short, Saturday had been a bit showery, and the van had accumulated an undercoat of red mud of undefineable, but definite aroma. My van spare tyre is located under the vehicle, and would definitely have benefited from a hose-down before

being touched. (If I might digress for a moment from this tight narrative, that's why you are not allowed to let your dog out when you go to the tip. It's not that he might chase the birds, find something interesting to eat after digging for a while, or enter a politician-watering contest with the local koalas; rather once they get good tip mud on their feet, they are not allowed back in the van. The RSPCA has declared dog-towing illegal — not to mention my better half, who suggests that, if the dog could drive, as opposed to chasing, vans, husband-towing would be more appropriate to the intelligence that let the pup out in the first place).

After 10 minutes of manual pumping, we're on the road.

On arrival at QUT, I find that someone has removed the lecturer's monitor from the theatre. My talk this morning involves installing DOS 6 (yes I like to live dangerously) on my very new (spare) computer. How do I face the audience, and at the same time see what's going on on the



projector screen directly behind me?

I have an additional problem — being shortsighted, I can't read the screen without my glasses, but can't tread the keyboard with them on. (Appeals for a computer literate Labrador with typing skills fell on deaf ears). After locating the throat microphone, and positioning myself side-on to both screen and audience, I just know I

am going to end up with sorer neck muscles than a tunnel-visioned spectator at a tennis match.

But rescue was at hand. Twenty minutes into my talk, the machine locks up with the dreaded "PARITY ERROR - SYSTEM HALTED" message on the screen. After a reboot, it lasted only 2 minutes before the screen image flared to a nasty shade of green, then disappeared altogether.

Despite requests from the mob to "do it again, we were napping and missed it", the computer is *karput*.

The throng then got a demonstration of how to install a video card borrowed from the Junior Club. They then got

a demo of how to re-install a borrowed video card in the machine that it came from, as mine steadfastly refused to come back to life. (I should mention we had to bribe Junior Club *supremo*, Les Cathcart, with promises of extra funding before he would risk a precious machine on someone who had just "black-fingered" his own.)

At least something went right! We ran out of time, and could not install the dreaded DoubleSpace.

While all this was going on, President Lloyd and Meeting Co-ordinator, Graeme,

After 2 minutes, the screen flared to a nasty shade of green, then disappeared altogether

have sent out search parties for Gavin Bruce of Angus & Robertson Bookshops, who were "on" for today. It's very hard to miss Gavin's large van of books, but, like the horses I back in the Melbourne Cup, he's still coming.

The "Lunchtime Special" team (and do I mean *team* — Kelly (Keys, of Key Systems), arrived with about 10 of his staff, not to mention two portable telephone exchanges, modems, line switchers etc - obviously he suspected he might have to use equipment supplied by me) needed only a few minutes to set up.

No hassles here, except we had to cut off question time to start the Club meeting on time.

About this stage, half an hour before the "Main Event", Graeme is buzzing around ominously unaccompanied by anyone resembling a WordPerfect rep. While Ron Kelly is entertaining the meeting with his Vice-President's report,



Don't let on... I can't find our main presenters... stretch the question time

Graeme is warning me (the acting chairman) to "stretch" question time to delay the main presentation, unless he appears smiling and *sans* "yuppie phone" by 1:30. Of course no-one in the audience realises the absence of main presenters ... they think I've forgotten the time (again), or am busy showing off my vast technical knowledge.

By 1:50pm, we've run out of problems to solve, except for the absence of our presenters from WordPerfect. At this stage, I can hand over to Graeme - the Main Event

is his "chair" - and leave him with the problem of ad-libbing for 90 minutes, until it's time for the SIGs. Thinking on his feet, Graeme remembered that there were still questions being asked when he stopped the Lunchtime Special. Always the entrepreneur, Kelly and team accepted the invitation to return for an encore.

By 3:30 Graeme and I had had enough, so we headed for home. Had to pass his local "watering hole", so decided we'd stop in for

one quiet drink (the way the day had gone we reckoned two drinks and we'd probably meet the Booze Bus - and get stopped at random). Quiet drink indeed! Sunday is Kareoke day at the Springwood Tavern, and the pub was overflowing with budding Kenny Rodgers (complete with motorbikes) and latent Dolly Partons. And we two standing there in bright gold shirts with pocket logos declaring we were computer nerds! Fortunately nobody invited us to sing. (We had speculated that a rendition of "My Boomerang Won't Come Back" might typify our day).

Did I find the problem with my computer? Yes, the main processor (a 486DLC-33) had died. All good stories end happily. The supplier (Formosa Technology) replaced it without quibble, and the computer now functions perfectly.

Did Wordperfect contact us? No way!

Did Angus & Robertson contact us? No way.

Will Wordperfect be here next month? Yes, to make a brief statement.

Will A&R be here next month? No way (but BCF will be).

PS At least when I got home my favourite dinner and a good bottle of Reisling was waiting for me -- *How do they know?*

ACCORD

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UPGRADE AND SAVE ENHANCE YOUR COMPUTER POWER

The Reverend Zeller's Congruence Theorem

or

How DOW I love you, let me count the days

Have you ever wondered on which day of the week you were born? Or what day of the week will the 1st January, 2000 be? Or whether the year 2000 is a leap year? Was 1900 a leap year? If you have, then the good works of the Reverend Zeller are for you.

The TWO calendars

In modern times we have used two calendars - the Julian calendar (named after Julius Caesar) and the Gregorian calendar (named after Pope Gregory). But to confuse, there is an important mathematical routine called the "Julian Period". According to the 1984 World Almanac, the Julian period was devised in 1582 by Joseph Scaliger and named after his father, Julius, not after Julius Caesar or the Julian calendar.

The Julian date

To calculate a given date (or perform other date arithmetic), we use a Julian period conversion, called the Julian Date, which calculates a number representing the Julian period day.

Scaliger began the first Julian Day at noon, January 1, 4713 B.C., the most recent time that three major chronological cycles began on the same day: the twenty-eight-year solar cycle, the nineteen-year lunar cycle and the fifteen-year indication cycle. It will take to the year 3267 to complete the period, a total of 7,980 years which is the product of 28, 19 and 15.

Thus the Julian Period is a continuous count of days and fractions thereof from 1st January, 4713 B.C. To perform arithmetic (i.e. addition and subtraction) on a date, we convert a date from our

calendar format to a Julian period date, make the addition or subtraction, and then reconvert the Julian number to a calendar date.

To actually obtain the Day of the Week (i.e. Sunday, Monday, etc.) we apply the Reverend Zeller's theorem and some modulus mathematics.

Our routine must take into account the "Gregorian leap year rule". By this rule a centesimal year (ending in 00) whose number cannot be divided by 400 is not a leap year; therefore, years such as 1800 and 1900 in the Gregorian calendar are not leap years, but 2000 is.

For an interesting and amusing discussion of "Zeller's Congruence", the reader is referred to articles by Jeff Duntemann in April, October and November, 1990 also February, 1991 of Dr. Dobb's Journal. The following is a summary of those articles.

Enter the Rev Zeller

The Reverend Zeller's treatise was originally a very brief paper published in German as "Acta Mathematica" #7, Stockholm, 1887. Zeller says very little in his paper about how it works.

In broad terms, the algorithm describes how the day of the week advances. Most people realise that for every year, the day of the week for a given day generally advances by 1; that is September 1 is on a Wednesday in 1993, but it will be on Thursday in 1994. If the next year is a leap year, it would be two days ahead

because the extra day in February pushes things ahead by one additional day.

Explaining Zeller's method

As simply as I can put it, Zeller laid out the algorithm like this:

Given: J = Century (e.g. 19)
K = Year (e.g. 93)
q = Day of the month
m = Month, but with a twist: March is still month #3, but January and February are considered months #13 and #14, of the previous year. In other words, if you're going to calculate a day of the week value for a date in January of 1990, you must call the month #13 and the year 89.

Assuming the Gregorian calendar, we evaluate the expression in Example 1. We then divide the value of the expression by 7 and use the remainder as the index of the day of the week, with 1 = Sunday and 2 = Monday, and so on.

So it's easy to understand the K term, since for every year the day of the week advances by one. Ditto the K/4 term, which tosses in an extra day every four years, and the J/4 term, which tosses in a day every four hundred years, when the "century year" leap year that is ordinarily skipped is instead observed. (to repeat - 1700, 1800, and 1900 were not leap years however, 1600 and 2000 are.) The day of the month term q advances the value from the start of the month.

The peculiar term (m+1)*26/10 advances the count to the start of the given

$$q + \frac{(m + 1) * 26}{10} + K + \frac{K}{4} + \frac{J}{4} + 5 * J$$

Figure 1: Evaluating the expression for the Gregorian calendar.

* The 1st January, 2000 will be a Saturday.

month. For each month, the day of week advances somewhat erratically, but Zeller was bright enough to come up with the $(m+1)*26/10$ term to describe it. The term (which is in fact the single most right-brainedly brilliant part of the whole shebang) compensates for the fact that the months have different numbers of days in them. The twist in the months numbering (that part about making January and February months 13 and 14 instead of 1 and 2) serves by putting the most pathological month of all (February) at the end of everything. This allows the oscillations of the leap years to be accounted for elsewhere in the expression, since the $(m+1)*26/10$ term only takes you to the beginning of a given month. Variations in the length of February thus stay out of the $(m+1)*26/10$ term.

Now, the last four terms in the expression are actually two terms plus two corrections. The day of the week advances by one for every year, so we add K. However, every four years, the day of the week advances by an additional (leap year) day, so we have to add $K/4$, which throws in an extra day for every four years we add. The $K/4$ term is thus a necessary correction to the K term.

The day of the week moves back by two days every century. This has led to the expression in figure 1 being written as in figure 2 with some disastrous consequences.

Why disaster?

Where is the term that shows how the day of the week advances for every century? You guessed it: $-2*J$. Using the expression in figure 2, for certain dates (mostly in March early in a given century) the result of the full expression comes out negative, because the $2*J$ term is greater than everything else taken together. The whole calculation turns into a pumpkin

Our Program
 Who art in memory
 Hellohex be thy name,
 Thy operating system come,
 Thy command be done
 Act the printer as on the screen.
 Give us this day our daily data,
 And forgive us our I/O errors
 As we forgive those whose priority bits are
 missing.
 Lead us not into frustration,
 And deliver us from power surges.
 For thine is the algorithm, The application
 and the solution
 Looping forever and ever
 Return

Margot Irwin- Scriptsit '93

and gives erroneous results. The results of the expression in figure 1 are always correct. Why is this so?

Because two days less than a multiple of seven days is absolutely the same thing as five days more than a multiple of seven days. It's just as valid to say that in the century between Halloween 1893 and Halloween 1993, the day of the week went forward by five days: from Friday to Wednesday. We're not the least bit concerned about the actual number of days that pass in a century; we're only concerned with the relative position of the day of the week from one end of the century to the other. $+5*J$, $-2*J$; five steps forward, two steps back: modulo 7, it's all the same.'

In conclusion, may I say...

The ability to perform arithmetic on dates, to derive from the results a calendar date and to consequently determine the day of the week, are problems that most programmers face as soon they start programming in the "real world". Even if it is only for the purpose of displaying the current day of the week on the screen.

Beginning programmers (and sometimes intermediate programmers) become quite frustrated when they know that a certain thing can be done, yet they lack the knowledge of how or why. I hope that this article has clarified some of the why.

As to how, most programmer's toolboxes provide routines for conversion to and from Julian dates and implementation of the Reverend Zeller's theorem to determine the day of the week. I have example programs in Basic, Pascal, C and dBase. My preferred choices are the TechnoJocks Toolkits (for Pascal).

Neil McPherson August 30, 1993 (Monday)

Extracts from Dr. Dobb's Journal reproduced with the kind permission of the author.

$$q + \frac{(m + 1) * 26}{10} + K + \frac{K}{4} + \frac{J}{4} - 2*J$$

Figure 2: The expression for the Gregorian calendar rewritten to show more clearly that the day of the week moves back by two days every century.

WORDPERFECT ANNOUNCES

WORDPERFECT SIX.0 FOR WINDOWS

New product is completely customisable and makes the most of the Windows environment

WordPerfect has announced WordPerfect SIX.0 for Windows, the next release of its best-selling Windows word processor. WordPerfect SIX.0 for Windows offers everything needed to create professional-looking documents: powerful word processing, drawing, charting, spreadsheet functionality within tables, and direct integration with other Windows applications. The product is scheduled to ship fourth quarter 1993. "WordPerfect SIX.0 for Windows has been completely rewritten to give users the best in Windows word processing," said Alan Ashton, president and CEO of WordPerfect Corporation. "Virtually every feature in the product has been improved or enhanced in some way. These improvements are the result of thousands of user requests, feedback from focus groups, and extensive usability testing." WordPerfect SIX.0 for Windows is designed to give users complete customisation, the easiest transition to Windows, and a product that makes the most of the Windows environment.

Bar. The Button Bar gives users access to any WordPerfect feature or macro with a click of a button. The Button Bar can be placed anywhere on the screen or as a floating palette. Users can display buttons with icons, text, or both, and can create their own icons and text. Users can create as many Button Bars as they like and display up to three rows of buttons. The product ships with sample Button Bars for specific tasks such as graphics, tables, outlines and page layout, as well as context-sensitive bars that will change according to task.

Power Bar.

The Power Bar contains icons for quick access to the most common formatting tasks. The Power Bar remains at the top of the screen and users can customise the bar by selecting from 81 options. When placing the mouse pointer over any Power Bar icon, help prompts appear at the top of the screen to explain the icon's function.

Templates.

Templates revolutionise word processing by giving users a quick and easy way to create professional-looking documents. WordPerfect SIX.0 will ship with ExpressDocs, more than 45 predefined templates for fax forms, memos, newsletters, and more.

ExpressDocs are more than just customised documents; they are interactive and can prompt users for information such as the name and fax number on a fax cover sheet. Users can edit these templates, or create

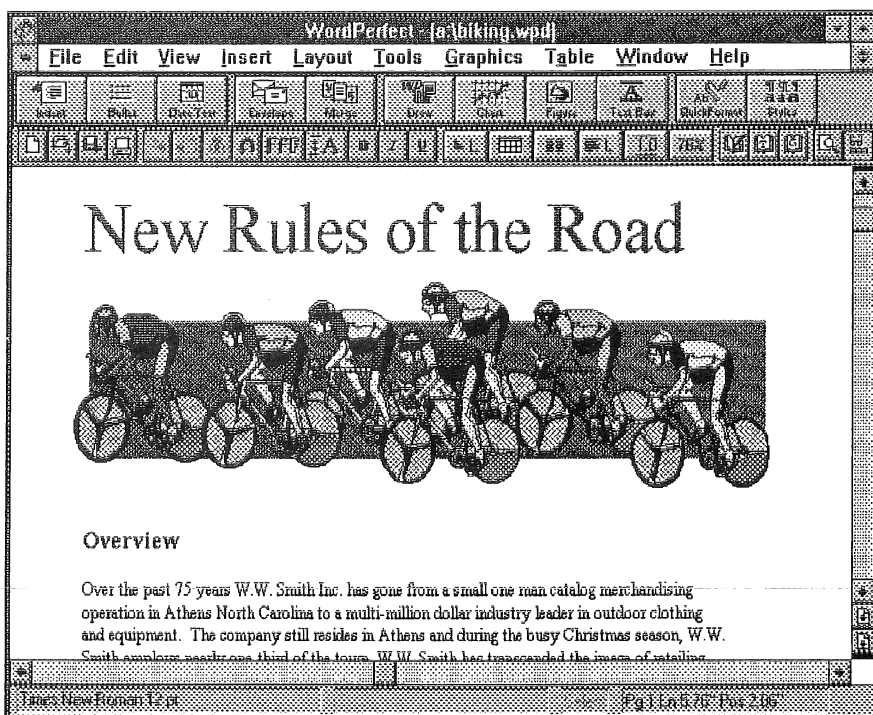
their own with customised menus, styles, Button Bars, keyboards, abbreviations and macros. "Customisation of the interface and templates gives users enormous control of their working environment, allowing them to personalise WordPerfect SIX.0 for Windows to work the way they want to work," said Todd Titensor, product

Missed the Wordperfect presentation to the August meeting?... Then here's the text of WP's press release for SIX.0

Complete Customisation

Customisable Interface.

WordPerfect SIX.0 for Windows is fully customisable so users can personalise their word processor for any environment or task. Virtually all aspects of the interface can be customised: Button Bar, Power Bar, Ruler Bar, status bar, keyboards and menus. Users can also select Hide Bars for a clean screen, but still have access to the main menus when placing the mouse pointer at the top of the screen. Button



marketing director of WordPerfect for Windows. "Corporate users will benefit by being able to create standard interfaces and documents to automate company tasks and maintain consistency."

Easiest Transition to Windows

WordPerfect SIX.0 for Windows gives WordPerfect DOS users the easiest transition to Windows with feature and file compatibility, as well as macro conversions. Users can write macros that will work in both WordPerfect SIX.0 for DOS and Windows. WordPerfect SIX.0 for Windows also includes a WPDOS keyboard layout. "No other word processor makes it easier for WordPerfect DOS users to make the move to Windows," said Titensor. "No other product offers better compatibility with existing WordPerfect files and macros, or better cross-platform compatibility."

Coaches.

Like a personal instructor, a Coach prompts a user through a variety of common tasks with step-by-step instructions. Because Coaches are written with WordPerfect's macro language, users can write their own to add to the Help menu.

QuickMenus.

Working in Windows is easier with context-sensitive QuickMenus that are accessed by clicking the right mouse button virtually anywhere in WordPerfect. For example, clicking the right mouse button anywhere in a document presents a QuickMenu to change fonts, spell check, or centre text, while clicking the left margin presents a menu to select text, change margins, or add comments to a document.

Preview Windows.

Preview windows in dialog boxes let users see how changes in a document such as columns, margins, line spacing will look before making them.

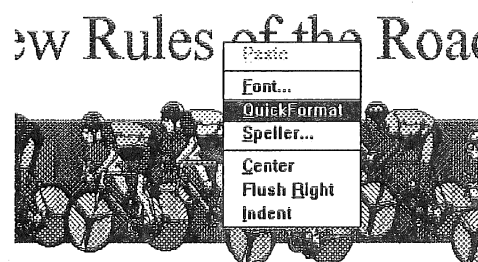
Making the Most of Windows Program Launching.

Any Windows program or file can be placed on a Button Bar for quick access and launching from within WordPerfect.

For example, a user could drag the program file for Quattro Pro from the Windows File Manager to a Button Bar to launch Quattro Pro while working in WordPerfect. Or a user could place a Microsoft Excel file on a Button Bar and with a click of a button launch Excel and load the file.

Direct Spreadsheet and Database Import

Spreadsheet and database information can be linked via Dynamic Data Exchange (DDE) or Object Linking and Embedding (OLE), and can also be directly imported into WordPerfect SIX.0 for Windows. All leading spreadsheet formats and a variety



Windows-style drop-down menus

of database formats such as Paradox, dBase, Oracle, and popular SQL servers are supported. Users can perform queries on database files to extract only the needed information.

File Management.

The powerful functionality of the WordPerfect File Manager is now included in the Open File dialog box. With the File Options button, users can copy, move, rename, delete, print, and change file attributes, as well as create and rename directories. Files can be displayed and sorted by filename, extension, size, date/time, and descriptive name and type.

WordPerfect Draw.

WordPerfect Draw contains the sophisticated drawing and charting tools from WordPerfect Presentations including Bezier curves and the ability to contour text on a curve.

The charting module lets users turn tables and spreadsheet data into a variety of charts: 3-D, bar, line, area, hi-lo, pie, and exploded pie charts. WordPerfect Draw works through OLE and is easily accessed

by double-clicking any chart or graphic image. WordPerfect Draw also supports the TWAIN standard for direct access to scanners.

Collapsible Outlines.

WordPerfect for Windows now features collapsible outlines with a range of predefined formats. These will display at the level selected by the user, and the outline style can be switched at the click of a button. One part of an outline can be moved and renumbering is automatic.

Other New Features

Spreadsheet in Tables.

WordPerfect is the only Windows word processor to include advanced spreadsheet capabilities. The Tables feature contains nearly 100 built-in formulas, numerical cell formatting, automatic calculation, data fills, and named ranges. QuickFormat. QuickFormat lets users extract formatting or styles from text and quickly apply it to other text in a document. The mouse pointer changes to a paint roller and lets users "paint" the formatting to selected text.

Bullets and Numbering.

From the new Insert menu, users can select from predefined bullets and numbering styles or create their own. Numbered items are automatically renumbered if moved.

Abbreviations.

The Abbreviations features will replace an abbreviation in a document with a longer piece of information that can include text, graphics, formatting anything that can be placed in a document. Borders. A wide variety of borders and fill patterns can be used for paragraphs, pages, columns, tables, table cells, and graphic images.

SIX.0

Improved Features

Simplified Mail Merge.

WordPerfect's powerful Merge feature has been enhanced with an easy-to-use interface. The introductory Merge dialog box includes the three elements of a merge data file, form file, and merge with corresponding preview windows. Creating and editing data files is easy using the Quick Data Entry dialog box.

WordPerfect SIX.0 for Windows can directly use data files in other formats such as spreadsheets, database, SQL, or ASCII text files. Users can also select specific records to merge using a query by example interface.

Corresponding envelopes can automatically be created and appended to a merge file.

around irregularly shaped objects.

Document Management.

The QuickFinder rivals standalone packages with some of the fastest indexing and

text retrieval in the industry. Users can index directories or groups of files and perform nearly instantaneous searches. The QuickFinder dialog box has been improved to include access to Boolean operators, document components (such as first page only), case sensitivity and word proximity.

Document Summary has been improved to include more than 50 document summary fields such as author, subject, date and abstract. QuickFinder can be used to search any of these summary fields.

Document Comments can now include name, initials, date stamps and time stamps, and be represented by a coloured icon in the left margin. Users can have specific colours so the document can be circulated for editing.

Document Compare has been improved to compare by word, as well as by phrase, sentence and paragraph.

Graphics Editing.

An Image Tools palette offers in-place graphics manipulation to move, rotate, crop and size a graphic image. Users can wrap text on both sides of a graphic image or contour text **Styles**.

In addition to character and document styles, version SIX.0 will include paragraph styles so users can click anywhere in a paragraph and select a style to affect the entire paragraph. Users can also create styles by clicking anywhere in formatted text, then clicking the Styles field on the Power Bar to give it a name.

Pricing and System Requirements

The retail price of WordPerfect SIX.0 for Windows will be \$695. Upgrades from any DOS or Windows version of WordPerfect will be available for \$189. WordPerfect SIX.0 for Windows will require a 386 machine or better, at least 4M (preferably 6M) RAM and Microsoft Windows 3.1.

Environmental Sensing Notes

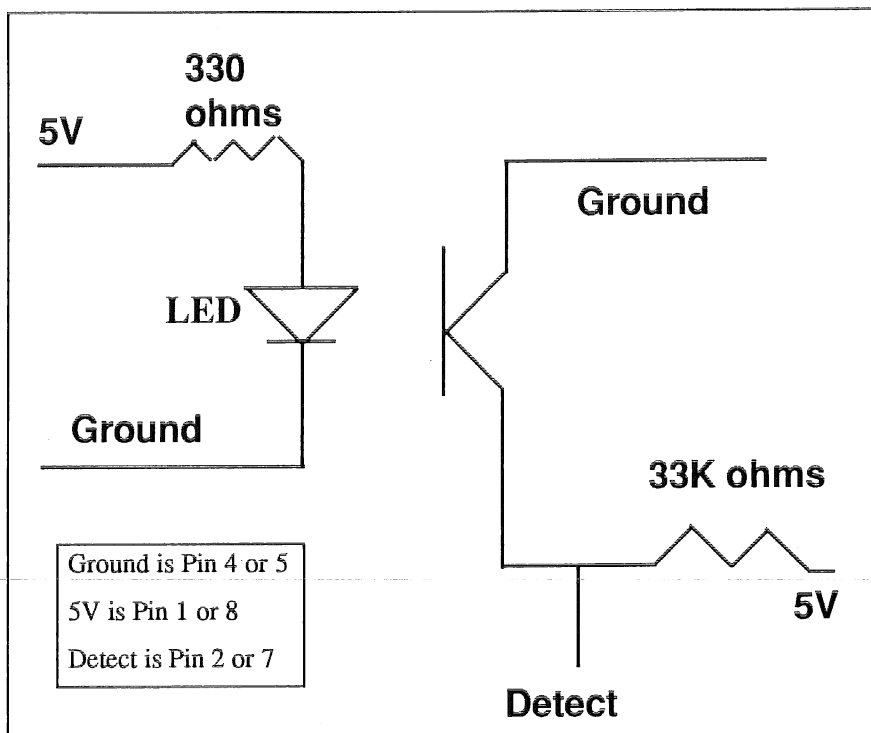
Reading a Photo-Interrupter Through the Games Port

by Peter Wyer

A photo-interrupter is a device containing an InfraRed LED and a photo-transistor either side of a small (3mm) gap. As an opaque object passes through the gap the light from the LED is interrupted and the photo-transistor ceases to conduct. This change can be detected by a digital part of the games port.

The two parts of the interrupter are also obtainable as separate parts, so could be used in applications requiring a bigger gap. An example is the Jaycar catalog number ZD1901. One possible application is a tachometer using a rotating disk with a gap in it, counting objects. The BASIC or PASCAL code shown in previous articles would record this at slow speed, but machine code would be required for high speed timing.

A circuit diagram showing connections and limiting resistors is shown below:



DR Don's Virus Clinic

A practical, introductory look at the software approach against viruses

by Donald E Gingrich

Risk Assessment

The first step is to determine the level of risk or exposure to virus attack. This is not a definite sort of thing but instead an attempt to place yourself somewhere in a range. I classify the risk levels as:

- 1 All software on the machine is user-written. No purchased programs at all. (Not really practical?)
- 2 All the software on the machine is produced by major software vendors and installed from unused, factory-wrapped, disks. (Not completely safe, factory-wrapped software can be infected.)
- 3 Some software was acquired through less verifiable means. As more people handle or use disks, the risk increases.
- 4 The machine has large quantities of questionable, copied, or pirate software.
- 5 The machine is publicly available for use.

The actual risk for your system is the highest risk level of any system that may share disks with your system. For example, if the system in your house is in class two, but one of the people who uses it is a student who carries disks back and forth between systems, your risk class is probably nearer to five. What does this all mean? The essential problem is that there is also a continuum of antivirus protection ranging from the absolute protection of never turning the system on to indiscriminate operation with no use of security products. The obvious problem is that it is impossible to accomplish any work at the extremes. Towards the middle we need to strike a balance between risk and the overheads imposed by the protection used.

Protection Methods

The simplest and most important antivirus protection is the making and keeping of regular backups. If you can reload all your software from virus-free install disks, a backup of data files only (including AUTOEXEC.BAT,

CONFIG.SYS and .INI and .GRP files in Windows) is adequate. The advantage of this method is that it also protects against a hard disk crash or other non-virus problems.

I recommend a series of backups over a period of six months—a tape system is best for a business machine and allows for a faster recovery if there is a problem. A recommended tape backup strategy is:

- Six “monthly backup” tapes. (Complete)
- Three “weekly backup” tapes. (Complete)
- Four “daily backup” tapes. (Incremental to previous weekly tape)

On a home system a series of six sets of floppy disks (one set per month) is probably adequate. The point is that some viruses wait a long time before doing damage. This backup strategy increases the chance of having an uninfected backup to restore from, in case of an attack by a new virus.

Antivirus Software

An automated approach to virus prevention is the best option, but this is difficult to achieve safely on stand-alone PC systems. Virus detection works best from a write-protected disk. This can be a floppy or a network drive with suitable access restrictions.

If the disk is not write-protected, running antivirus software could rapidly spread a virus to a large number of uninfected files.

Scanning software used for virus protection must be used regularly to be effective—it is a good idea to use an “add checksum” feature, if you are in a high risk group. Note that the option to choose is one that adds checksums in a separate hidden file on the disk, not to the programs—Lotus 1-2-3, for example, will not tolerate the addition of anything to its executable files. When used in this manner, a virus scanner calculates checksums on the files it tests and compares them with checksums in a hidden file. The checksum file should

be encrypted to stop viruses modifying it.

TSR Antivirus Products

I have mixed feelings about TSR (Terminate and Stay Resident) programs. (These programs load into memory, return control to DOS and wait for a call to do whatever they do.) Network administrators fight a continuing battle to maintain enough free memory for software to work correctly. This prejudices me somewhat against TSRs. I also have found numerous unpleasant interactions between systems and TSRs.

But, after a virus attack I generally recommend using a TSR to reduce the chances of a relapse. The other situation where a TSR is a good idea is for the higher risk groups. As TSR products continue to improve and PC power continues to increase the above comments will become less relevant.

The Key Points

- Regular backups
- Regular scan (with checksum?)
- TSR in high risk groups

News from the Internet

Roger Riordan from Melbourne reported a nasty interaction between the *Invisible* virus and DOS DoubleSpace. This virus seems to totally trash a DoubleSpace drive.

There have been numerous reports of interactions between Microsoft AntiVirus (MSAV) and other antivirus software. The apparent problem is that MSAV and its parent, Central Point AntiVirus (CPAV), don't encrypt the strings that they use to search for viruses. As a result, other programs see these strings and report a virus that is not there.

The *Tremor* virus had much net time recently. It uses extremely sophisticated

Continued on page 41

Borland Pascal 7 Under DOS

by Darryl Impey

Borland Pascal with Objects 7.0 (BP7) is nothing short of continuing excellence in the *Turbo Pascal* (TP) programming environment. When Borland released *Turbo Pascal 6.0* (TP6) it was a major upgrade—the inclusion of Turbo Vision heralded the implementation of Object Oriented Programming (OOP). Similarly, when Borland released *Turbo Pascal for Windows 1.0* (TP1) Pascal programmers finally could write Windows applications without having to learn another language, such as C/C++.

BP7 is a seamless combination of TP6 and TP1 with major refinements to the DOS & Windows Integrated Development Environment (IDE).

Borland Pascal 7 Features

- 85,000 lines per/minute compiler
- New DOS Protected Mode (DPMI) support
- New Dynamic Link Libraries created easily
- Full access to all Windows functions/messages
- Link C/C++ code as DLLs
- Built in Assembler support
- Math coprocessor and emulator support
- New 80386 instructions for 32-bit math operations
- Smart linker to remove unused objects and code
- New Open array and string parameters
- New Redundant pointer load suppression
- New Constant parameters
- New Optimised sets
- New Faster string and file I/O
- Source compatible with Turbo Pascal 5.x and later

Tools

- New High capacity DOS and Windows IDEs
- New Colour syntax highlighting
- New Unlimited undo/redo
- New Target DOS, Protected Mode or Windows platforms
- New Object Browser with reference
- On-line Turbo Help

- Command line compiler Turbo Debugger
- Turbo Profiler
- Turbo Assembler
- Resource Workshop
- New Winsight
- New Winspector
- Resource compiler
- Help compiler
- Windows CRT unit

Application Frameworks

- Turbo Vision
- Object Windows
- Complete source code
- Persistent objects
- High level objects
- New Validated data input
- New Easy Windows printing
- New Demonstration programs
- New Programming tutorials.

The Software

The main parts of the application come compressed on twelve disks. There is an additional disk that includes the *Applications Framework and Run-time Library*. The Application Frameworks & Runtime Library Source Code disk is really a double bonus, in that we get to see how the brains behind BP7 put this whole application together, how it works with assembler and Pascal code to optimise the speed, learn the Object Programming from a Pascal perspective and most importantly, how OOP, Pascal code and assembler is integrated together to form Turbo Vision for DOS, ObjectWindows for Windows—in a word brilliant!

Installation

Installation of BP7 is relatively simple in that you only have to follow the prompts and read the screen. Various install options are available depending on your computer configuration and the your desired programming application environment. 12 DSHD highly compressed disks make up the install program, and you will require 28 MB of disk space free plus another 5 MB for temporary files as they are decompressed, in any case read the README

file on the install disk (disk 1) before installing for last minute info from Borland.

To implement easier installation, Borland should implement a disk space free check, before installation and also enable the user to jump to the README file while inside the install program for last minute info. As I am sure less people would get lost or make less installation mistakes the first time, as the amount of files and associated utilities could be overwhelming for less experienced computer users. On the other hand computer users who have some experience may have no problem at all, suffice to say that this is powerful DOS/Windows programming package, that has a good install program that needs just a little more.

Turbo Vision

Turbo Vision (TV) is an event-driven, complete object-oriented application framework that includes:

- Multiple, resizeable overlapping windows
- Pull down menus
- Mouse support
- Dialog boxes
- Data validation
- Built in colour installation
- Buttons, scroll bars, input boxes, check boxes, and radio buttons
- Standard handling of keystrokes and mouse clicks Turbo Vision (TV) forms the basis of any DOS application, that is if you choose to use it, utilising the TV framework allows the programmer to concentrate on the meat of their application and display the results of the users actions in well designed screen displays, menus, dialogue boxes and scrollable windows.

Vision in essence is great stuff but, it does come at a cost and that is time. You have to come to terms with TV by retooling your habits and methods, extending your knowledge of TV and experimenting. Once you've come to understand the basics of TV, the

benefits will then become apparent, you will come to realise what a powerful programming package that you have at your disposal.

Learning Turbo Vision from the Borland manuals is easy and well documented, a 600-page manual covers, what's new in TV 2.0, a tutorial in 12 steps covering creating an application through to collecting data and custom views, a language guide that assists you to understand Pascal programming, and a detailed programmer's reference.

Online Help

Online help for BP7 is nothing short of excellent, 4 MB of online help which covers a User's Guide, Language Guide, Programmer's Guide, Turbo Vision and ObjectWindows Guide that are all cross referenced and in easy to follow.

If the user types nothing from the keyboard in response to the prompt, this simple program defaults to WORK.PAS.

Albeit that the explanation says that it uses only three components to read a filename and path from the keyboard, i.e. directory, filename and extension, these first three variables together make the fourth variable, the complete path.

Object Oriented Programming

Object-oriented programming (OOP) is a method of programming that closely mimics the way we get things done, in the real world.

Coupled with the Application Frameworks & Runtime Library Source Code, the object browser will become an indispensable tool for implementing and fine tuning Turbo Vision, also serve as a valuable aid in learning and comprehending Object Oriented Programming.

Borland Pascal 7.0 from a DOS Viewpoint

Borland has supplied not one but three IDE editors with BP7:

- The TURBO.EXE editor is specifically for DOS real mode applications
- The BP. EXE editor has been designed for DOS, Protected mode and Windows programs, also you can run Turbo Debugger, Turbo Profiler from within the BP editor
- The Windows editor BPW. EXE is

capable of generating code for all three modes and is run from Windows

Two versions of the Turbo Assembler come with BP7:

- TASM.EXE is used for DOS-based assembly language programs and is much faster than TASM.EXE
- TASM.EXE can run in protected mode under Windows using the Windows DOS box if you run Windows in enhanced mode, and is suitable for very large memory modules

The BP editor includes colour syntax highlighting, no it's not gimmicky, consider scrtineering or debugging a long program that has multiple units and the error is not apparent, colour syntax high-lighting different syntax statements, procedures and functions enables the programmer te identify what has and what hasn't been done faster with less eye-strain. Being able to *Undo/redo* a statement numerous times really makes writing minute alterations simple and easy.

It's possible to print your source code so that the syntax elements are highlighted when printed by the printer, and can be easily modifiable for any printer.

Borland Pascal lets you create massive DOS Protected Mode (DPMI) applications without overlays, thereby breaking the DOS 640 kB barrier. Also included is a Protected Mode DOS extender, which enables the user to create large applications above 640 kB without special licensing fees.

Turbo Debugger

Turbo Debugger is a extremely useful tool for those hard to find errors, I have seen earlier versions of TP debuggers work on large applications, and marvelled at their speed and diversity of information. Borland hasn't stood still, the debugger is now up to version 3.2, and like old wine it's got better. Once your application has been compiled, a wealth of features are at your disposal to investigate the applications inner secrets.

Turbo Debugger's (TD) animate function deserves some close attention, animate performs a continuous series of Trace Into commands, updating the screen each time (the effect is to run

your program in slow motion. You can watch the current location in your source code and see the value of the variables changing. Detailed information on arrays can be displayed by TD's Array Inspector window, if the value is a complex data item such as a record or an array, the values will be displayed in parentheses, these features and the countless others that come with TD are great for the serious programmer.

Turbo Assembler

Borland's Turbo Assembler version 3.2 (TA) provides the serious programmer with two manuals, Users Guide & Quick Reference chock full of information on how to improve and refine any application. Whether the application is written in pure assembly language or a Pascal program that implements in-line statements, TA's power and sophistication can improve the speed and performance of any program. So when do you use TA?, any application that works slower. than anticipated can be speeded up by using TA and the Turbo Profiler. How is this done? By using Borland's Turbo Profiler, see Turbo Profiler.

Turbo Profiler

Borland refers to the Turbo Profiler (TPf) as the "missing link", now that I've got my hands on one, I won't let go—it's an essential tool that basically is a performance analyser that measures your program's performance by finding where your program spends its time, how many times a line executes, what lines have been executed, how many times a routine is called and by which routine, what files your program accesses most and for how long—dream stuff a couple of years ago!

TPf also monitors critical computer resources, such as processor time, disk access, keyboard input, printer output, and interrupt activity. By monitoring these vital activities and providing statistical reports on your program, the programmer can fine tune their applications for optimum speed by incorporating improved algorithm design and/or assembly language into their code. Either way the programmer wins!

In a large program it's easy to display

Continued on Page 41

Scrolling Pick Lists in dBase

Geoff Harrod

When writing database systems I have often felt the need to be able to pop up a window showing the contents of a database table for the user to pick a record. This is useful for example, when in a manufacturing situation the operator defines a new assembly by picking components from those available. Another example is when entering addresses, to enable the operator to have the system automatically look up postcodes. Where there is more than one place of the same name they need to be able to pick the desired one.

I would have preferred to be able to write a totally generalised routine that could be called with parameters to suit each situation, but I could not find any way of parameterizing the list of fields to show in the window. That is necessary as most often there will be more fields than the screen width can accommodate. It requires a double-indirection which is easy enough in C but not supported here.

So I have written a procedure that has to be copied for each project and modified. To provide for the situation where the facility is used for several tables in the one program, I have allowed for a codeword parameter that selects from several predefined sets of field-names edited into the routine for each application. That at least avoids having to duplicate the bulk of the code for use with each table.

This was written for FoxBase-plus which is essentially the same as dBase-III-plus with a few extra features.

If anyone can suggest ways of overcoming the above constraints I'd be interested to hear. These routines are presented here for the interest of other dBase programmers mainly. They may not be sufficiently self-explanatory for those completely new to it.

```
* pick_db.prg
* G harrod 10-Jun-93
* For FoxBASE+, revision 2.10

** Pops up a window to browse current db table & select
** desired record by moving cursor & press enter or ESC to abort.
** Return with picked rec current or eof() if aborted.
** F1 key pops up panel explaining valid keys.
** Call with params to select records to show & other options as below.

PARAMETERS opt
** opt      = name of data display option, usually DBF filename.

** internal variables:
store 0 to lcol      ** - Col # of Left side of window (automatic)
store 4 to trow       ** - Row # of top frame of window
store 20 to brow      ** - Row # of bottom frame of window
store 16 to curs      ** - cursor character,
store 0 to row        ** - current display row #
store 0 to nrows      ** - number of useable data rows (auto)
store 0 to kp         ** - to get key presses
store 0 to crow       ** - cursor screen row #
store .F. to picked   ** - loop controller & return state flag
store .F. to scroll    ** - T=display needs to scroll
store 40 to wid       ** - window width incl frame. Reset by opt parameter
store "" to title     ** - window title set by opt
store .F. to idx      ** - T=use indexed jumps. Set by opt

** Key definitions for inkey **
store 5 to up_k
store 24 to dn_k
store 3 to pgdn_k
store 18 to pgup_k
store 1 to home_k     ** - go to top      (Not as in dBase4 book!)
store 6 to end_k      ** - go to bottom  (Not as in dBase4 book!)
store 27 to esc_k     ** - ESC        to abort & exit
store 13 to ret_k     ** - Return to select & exit
store 28 to fl_k      ** - F1 for help pop-up

dimension hlp(10)
hlp(1) = "Uparrow = cursor up 1 row"
hlp(2) = "Dnarrow = cursor down 1 row"
hlp(3) = "PgUp    = up 1 window-full"
hlp(4) = "PgDn    = down 1 window-full"
hlp(5) = "Home    = goto top of table"
hlp(6) = "End     = goto bottom"
hlp(7) = "Enter   = select row at cursor"
hlp(8) = "ESC     = exit without selecting"
hlp(9) = "Any other key: goto 1st row"
hlp(10) = "      with that sort initial."

if eof()
  go top
endif
store recno() to topln  ** - initial top of display
go top
if eof()
  do pop_msg with &text,"** Empty table! **"," Cannot browse."
  return
endif
store recno() to first
go bottom
store recno() to last
goto topln
nrows = brow - trow - 1

do case
```

```

*** NOTE: These cases are examples. Substit & add as reqd.***
case opt = "vendor"
  wid=60
  title="PICK VENDOR:"
  idx=.T.
case opt = "locality"
  wid=35
  title="PICK LOCALITY:"
  idx=.T.
otherwise
  do pop_msg with msg,"Program error: mc_brow","Invalid opt:
"+opt
  return
endcase

lcol = (80-wid)/2
set color to &border
@ trow,lcol to brow,lcol+wid double
@ trow,lcol+4 say title
@ brow,lcol+4 say "F1=help"
set color to &text
@ trow+1,lcol+1 clear to brow-1,lcol+wid-1
crow=trow+1
do while .not. picked
  @ trow+1,lcol+1 clear to brow-1,lcol+wid-1
  row = trow+1
  do case
*** NOTE: Following cases are just for example. Substitute & add
as reqd.***
    case opt = "vendor"
      do while row < brow .and..not. eof()
        @ row,lcol+3 say company+" "+locality+" "+state
        skip
        row=row+1
      enddo
      && - while row < brow
    case opt = "locality"
      do while row < brow .and..not. eof()
        @ row,lcol+3 say locality+" "+state
        skip
        row=row+1
      enddo
      && - while row < brow
    endcase
    crow=trow+1
    @ crow,lcol+2 say chr(curs)
    goto topn && - current file record & cursor always start
on top row.
  store .F. to scroll
  do while .not.scroll
    kp = inkey(0)
    do case
      case kp=up_k
        if crow > trow+1
          @ crow,lcol+2 say " "
          crow = crow-1
          skip -1
          @ crow,lcol+2 say chr(curs)
        else
          skip -(nrows-1)
          topln = recno()
          store .T. to scroll
        endif
      case kp=dn_k
        if recno() <> last
          if crow < brow-1
            @ .crow,lcol+2 say " "
            crow = crow+1
            skip
            @ crow,lcol+2 say chr(curs)
          else
            skip nrows-1
            if eof()
              go bottom
              skip -(nrows-1)
            endif
            topln = recno()
            store .T. to scroll
          endif
        endif
      endcase
    enddo
    && - while not scroll
  enddo
  && - while not picked
  return
** EOF PICK_DB.PRG **

```

```

endif
case kp=pgup_k
  skip -(nrows-1)
  topln = recno()
  store .T. to scroll
case kp=pgdn_k
  skip nrows-1
  if eof()
    go bottom
    skip -(nrows-2)
  endif
  topln = recno()
  store .T. to scroll
case kp=home_k
  go top
  topln = recno()
  store .T. to scroll
case kp=end_k
  go bottom
  skip -(nrows-2)
  topln = recno()
  store .T. to scroll
case kp=ret_k
  picked=.T.
  store .T. to scroll
case kp=esc_k
  picked=.T.
  store .T. to scroll
if idx
  seek chr(1) && force eof()
else
  go bottom
  skip
endif
case kp=f1_k
  save screen to pophlp
  i=1
  set color to &msg
  @ trow+3,lcol+5 clear to trow+14,lcol+42
  @ trow+3,lcol+5 to trow+nrows-1,lcol+42
  @ trow+14,lcol+7 say "(any key to clear)"
  do while i < 9
    @ trow+3+i,lcol+6 say hlp(i)
    i=i+1
  enddo
  if idx
    do while i < 11
      @ trow+3+i,lcol+6 say hlp(i)
      i=i+1
    enddo
  endif
  kp=inkey(0)
  set color to &text
  restore screen from pophlp
otherwise
  if idx .and. kp>31 && - indexed jump is allowed
    seek upper(chr(kp))
    if eof()
      goto topln
      ? chr(7)
      store .T. to scroll
    else
      topln=recno()
      store .T. to scroll
    endif
  endif
  && - if idx true
endcase
enddo
&& - while not scroll
enddo
&& - while not picked
return
** EOF PICK_DB.PRG **

```


The OS/2 Column

with Paul Marwick

Backup Software for OS/2

In the past, I've complained about lack of backup software for OS/2. This lack was the only thing which prevented me from moving away from a FAT file system and putting my entire system over to HPFS, and was also the only reason that I still needed to be able to boot to native DOS at some times.

That situation is now a lot better than it was. There are a number of backup packages available which offer data security to the OS/2 user.

Mountain

If you own a Mountain tape drive, the Mountain FileSafe software (in my opinion, one of the best commercial backup packages around) is available in an OS/2 version. I had no luck at all with it, but then I wasn't running a Mountain drive, so the problems I had may have been as a result of that alone. Though a few comments from others suggest that it would be best to be cautious in purchasing the package, even if you do own a Mountain tape drive.

Paul looks at commercial software for the common tape drives:

- * Mountain
- * Sytos
- * Fastback
- * Novastor
- * Irwin

and the Shareware option

*** TAR

Sytos

Sytos Plus for OS/2 seems to have improved considerably. I tried a copy of it some time ago, and found it unusable. Apart from a horrible interface, it used far too much CPU power to run, and suffered from reliability problems. While I've not tried the more recent versions, reports indicate that a number of these problems have now been solved. It also offers a fairly wide range of supported tape drives, and can backup to floppy disks if necessary. At the moment, it offers the only solution to owners of Colorado Jumbo tape drives, since a version is available from Colorado which has drivers for their tape units.

Fastback

Fastback for OS/2 has also been released (though I've not yet been able to find anyone in this country selling it). It supports floppy disk backups and has some tape support as well (I'm not sure what format drives are supported at this stage).

Novastor

Novastor is available, and supports the majority of SCSI drives and SCSI adaptors. In addition, it will shortly be adding support for QIC-80 drives such as the smaller Archive units, and the Colorado units.

DMS/IB

Sterling software has a backup package (DMS/IB) which is available in both DOS and OS/2 versions. It supports floppy disk backup and SCSI tape units (though I'm not sure how wide the support is in terms of either drives or SCSI host adaptors). It's a very good package, relatively unknown because of the unusual marketing practices that Sterling employ.

Irwin

In addition, Irwin offer an OS/2 backup package for their drives. This has been around for some time, and seems to be generally reliable. The only real disadvantage of the Irwin product is that it is usable only with their drives (which are

somewhat more expensive than the majority of QIC-80 drives), and the fact that their drives use a different format to that used by the majority of other QIC-80 class drives.

Shareware GTAK

As well as these commercial offerings, there is a backup "package" which is freely available. This is the GTAK package. It is based on a port of the GNU Tar, combined with a SCSI tape driver and a tape control program. If you possess the necessary hardware, it offers a cheap solution to backup problems.

Backup Hardware

A few months ago, I had a stroke of luck - I was able to pick up a second hand Archive ST2150S SCSI tape unit. I ended up having to send it to Sydney to be refurbished, which cost considerably more than the tape unit did in the first place, but it still worked out being considerably cheaper than purchasing a similar unit new. Since I already have a suitable SCSI host adaptor (a Buslogic BT542B), it was then simply a matter of getting a new cable and mounting the unit in the machine.

I've now finally been able to get all of that done, and have just finished setting up the backup software and learning how to use it. And finally have a working backup solution, which will allow me to convert the entire system to HPFS and throw away the last vestiges of DOS.

Learning to use TAR

The biggest problem I had was learning to use the software. Tar, like a lot of other Unix derived software, is a text mode application. Also like a lot of other Unix derived software, its command syntax is somewhat arcane (you should note that I'm practicing for the understatement of the year contest here...). It has numerous command line switches, many of which are case sensitive. In addition, the only full manual I have for Tar is in TeX format (which I have no easy way of reading or printing), and cannot be guaranteed to be exactly the same as the OS/2 version (some commands will work slightly differently under OS/2, and some will not be implemented at all, due to differences between the operating systems and their file system organisation).

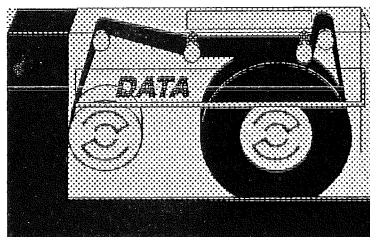
After a bit of a struggle, I now have enough understanding to make it all run. And I'm very happy with it. I still have to work up a regular backup schedule and integrate that with other system maintenance operations, but that is a relatively small problem, helped no end by the way in which GTAK performs.

In operation, the ported GNU Tar consumes very little CPU power, and will run happily in the background (during my initial testing, I was using the tape drive several times while both modem lines were active, with no visible performance penalty. Most of the time, the CPU load did not go above 30%. I was somewhat surprised at this, since streaming tapes usually have fairly stringent timing requirements, which made me expect that the overhead on the system would be fairly high.

Given its Unix origins, Tar seems to have no problems backing up files which are in use by other processes (it will not reset the archive bit on a file which is in use by another process, but seems to have no problem backing such files up). The only file it complained about was the EADATA.SF file that OS/2 uses as a pointer for EA's on FAT partitions. However, since it backs up the EA's directly, this shouldn't be a major problem. I'm not entirely sure what would happen doing a partial restore to a FAT drive which has such a file if the restored files also have EA's associated with them, but I may find out shortly...

It can be used for full backups, or for incremental backups. It can also be used for selectively backing up files (though working through the command line switches for this purpose may be frustrating...).

With a suitable tape drive (the Archive unit is suitable, others may not be) it is capable of using QFA (Quick File Access) to allow quick selective restores from a tape backup. To use this feature, an index of the backed up files must be created as they're backed up, which is another capability that Tar possesses.



In practice, this feature works well, allowing restores to be done on a single file, a complete directory structure and files, or a wildcard combination. When this type of command is given, Tar reads the index file created when it created the backup, then issues a "seeking to physical block xxx" message, finds the file (or files), restores them, and then stops. The tape must then be rewound, but it better than almost any other backup software I've used in its ability to quickly recover specific files from a backup volume.

"TAR can be used for:

full

incremental

selective

multiple volumes

backups, even

of files in use by other

processes"

An addition to the OS/2 version of tar is the ability to reset the archive bit on files after backing up. This offers an easy way to accomplish incremental backups. The fact that its selectable is also useful - in some situations, attempts to reset the archive bit on a file will cause problems (this is the case with some files under a Novell network, for instance).

As I've already mentioned, the command syntax for GTAK is a little arcane. To provide an example, here is one of the batch files that I've set up to perform backups:

```
cd\ & j:
tape -3 erase
tar -3 -c -pp -P -W -D d:/tar/jmap
-X d:/tar/exclude
—reset-archive

tape rew
```

What this batch file does is get to drive J:, clear the tape in the drive (by default, the OS/2 version of Tar will append to the end

of any data already on the tape), then perform a complete backup of the drive, excluding any files it finds listed in the d:/tar/exclude file. It will also create an index of the backed up files in the D:\TAR\JMAP file. Then it will rewind the tape. Using the erase command, as well as removing any data from the tape before starting, will also have the effect of retensioning the tape.

In a situation where you wanted to append data to the end of an existing backup, using 'tape retension' before starting would probably be a good idea.

To give you a bit of a rundown on the commands used:

- c tells Tar to create an archive.
- pp tells it to backup everything, including OS/2 extended attributes.
- P tells it to store absolute paths in the archive (though, since I'm starting the backup from the J: drive, it does not store the drive designation in the backup, which makes it easy to restore files to another drive).
- D indicates the index file it will create (or append to, if it already exists) of the files backed up.
- X specifies the list of files to exclude from the backup.
- W tells it to attempt to verify the integrity of the baked up files (though I've so far not quite worked out how to employ that switch - having a verification pass would be very useful, once I work out how to use it).
- 3 tells Tar that the tape drive is on SCSI ID 3.
- reset-archive tells the software to clear the archive bit on files that it has backed up, making incremental backups easy to perform.

While the command syntax takes a bit of getting used to, it offers a great deal of flexibility, and makes the package a very useful backup tool. In addition, Tar is capable of using a port of the Unix Compress to compress the data it is backing up. There are a few problems with Compress, which make its use questionable, but, since Tar, like many other Unix-derived programs, is capable of operating with pipes on both ends, it should be quite possible to pipe its output through the new GZIP (another port of a Unix program, which is rapidly replacing Compress in Unix) and gain data compression that

way. Since the majority of the data I need to backup is already heavily compressed, I've not yet experimented with this option.

A trap for non-Unix types

One thing which caught me the first time I tried this is the fact that Unix is a case-sensitive operating system. Not only in terms of its command syntax, but also in terms of its directories and files. The ported GNU Tar shares this case sensitivity. When I first built a list of files to exclude, I used wildcards to do so, but only specified them in one case. On an HPFS partition, OS/2 is partially case sensitive. While it does not enforce case conventions the same way that Unix does, it does preserve case in directory and file names. As a result, only some of the files I wanted excluded were excluded - I found that I had to specify the wildcard list in both upper and lower case. It could get even more complicated if mixed case is present in the file names...

Automated Backup

For most of my purposes, command line operation of the backup software is fine. Most of the time, backups will be happening while I'm (hopefully) asleep. However, for many people, using Tape/Tar interactively will be somewhat painful. There is a relatively easy way round this problem though. I'm part way through building a REXX command shell to insulate the user from the command line interface for Tar. This is partially a learning exercise (since I'm very interested in learning more REXX) and partially because in a short while, I will have forgotten the command syntax, and will have to relearn it every time I need to do something not covered by the batch files I've already built. When the shell is finished, I'll make it available for general use.

There is a significant advantage in the fact that Tape and Tar are text mode programs. Unlike several of the other backup packages available for OS/2 (to provide an example, Sytron have just released a command line restore utility for Sytos Plus - which they charge extra for...), there is no need to have PM running when using them. Given that they are not terribly large, they should be quite able to operate from a floppy disk. This should make it possible to do command line file restores without any problems, hopefully

allowing a restore of the operating system itself.

Another advantage of Tar is that it backs up everything. Many backup programs don't backup empty subdirectories, which can be a problem if a program expects to find the directory there, even if its empty. Tar will happily backup the directory structure as well as the files it contains, making complete restores a much easier task. A number of the programs that I run expect to find directories which may often be empty, and will choke if those directories aren't there. In the past, I've tried to build maps of the directory structure of the disks, to be sure of rebuilding it should I need to (rather than remembering that a directory should be there when I see a program fail). With Tar, I'll no longer have to do so.

Tar will handle multiple volume backups as well as single volume backups. In this area, its a little less than ideally flexible, since you have to specify the size of the media involved, which means selecting a size a little less than the total capacity of the tape in use. Not ideal, but for my purposes, not a great problem either, since I don't intend to make use of multi volume backups if possible - doing so requires me to be in front of the machine to change tapes, and I hope to have the process automated to the point where all I have to do is put the correct tape in the drive before I go to bed and take it out the next morning....

One other aspect of Tar's performance makes it (so far as I know) unique. Most of the backup programs I've used in the past use a proprietary format for the data they write. This applies just as much to floppy disk backup programs as it does to tape backup programs. As a result, a backup made with Mountain FileSafe will not be readable by Sytos, nor will a Sytos backup be readable by FileSafe. On the other hand, Tar is supported on every Unix system I've ever encountered, and a backup made by Tar under OS/2 should be readable under any Unix system which can handle the same type of tape drive. This provides a good medium for transferring data between multiple platforms.

In order to help keep clear records of when a backup was made, I've added a call to DATES into the batch files I'm building.

DATES is a utility (written by Graham Stair) which inserts the Julian day into a command. I've been able to combine it

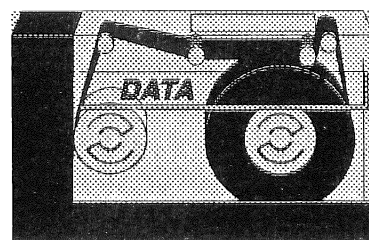
with Tar to create disk index files which reflect the drive being backed up, and also the Julian day on which the backup was made. I then mark the backup tapes with the same information. If I ever need to restore, all I need to do is look for the most recent Julian day number and the drive which I want to restore. Samples of two simple batch files that I'm using for command line backup purposes are shown in Figure 1.

Future directions

For the first time in a number of months, the system is completely backed up, which is a very reassuring feeling. Now that I have a backup solution for OS/2, the next step will be to repartition the drives (the tape can handle 250 megabytes of data per tape, so the partition size can be increased without too many problems), and gradually reformat all the partitions to HPFS. Once that is done, I should be able to concentrate the memory used for disk caching into HPFS cache (with consequent improvements in performance), and a remove the dual-boot option that I've been using, both to allow backups and also to allow the FAT formatted drives to be optimised. Which will mean that there is no longer any need to reboot to DOS to perform some maintenance operations.

Even if you don't possess a suitable SCSI tape drive, Tar can be useful, since it will backup to floppy media as well as to tapes. For floppy media, you need to specify multiple volumes and specify the size of the media, but, given that, you may find it quite useful for backing up to floppy as well as for use with a tape unit.

Current release is GTAK212B, available from line 3 or 4. There is also a replacement for TAPE.EXE, filename TAPE21B.ZIP. This was compiled in MSC instead of the EMX compiler, and worked more reliably under the last beta copies of OS/2 prior to the release of OS/2 2.1. I don't know if the problem with EMX affects the release version of 2.1 or not, but TAPE21B may be a safer version to use.



Brisbug SIG Report

A note to convenors: Your notes on SIG activities will be included with this report, **if you provide them**. If you want members to become interested, and participate in your activities, the best way to attract them, is to take advantage of this free publicity. A sentence about your future plans will do.

Compiled by Bernard
Speight

SIG Co-ordinator

Bernard Speight
Ph: 349 6677
6:00 pm to 9:00 pm

Accounting

Looking for a convenor
Ph: 349 6677

3rd Sunday of the month
3:00 pm
QUT, Kelvin Grove

Next meeting: 19 September

Genealogy

Bob Gurney
Ph: 355 4982

3rd Sunday of the month
3:00 pm
QUT, Kelvin Grove
and
Occasional meetings on
dates, and at venues to be
announced.

**Next meetings: 19
September**
Discussion session.

Gold Coast

Jo-anne Ellis
Ph: 075 71 0113

First Tuesday of the month
7:00 pm
Broadbeach Senior Citizens
Club, Gold Coast Highway,
(Near Jupiters Casino),
Broadbeach

Next meeting: 7 September

OS/2

Ryck Anderson
Ph: 268 1441

3rd Sunday of the month
3:00 pm
QUT, Kelvin Grove
and

**Wednesday after the 3rd
Sunday,**
7:00 pm
Room 312, Prentice Building,
University of Queensland

**Next meetings: 19 and 22
September**

Pascal

Steve Cann
Ph: 245 4453

3rd Sunday of the month
3:00 pm
QUT, Kelvin Grove

Next meeting: 19 September

Southside

Linton Holroyd
Ph: 343 3705

First Tuesday of the month
7:30 pm
Venues to be announced.

Next meeting: 5 October

Weekday

Dulcie Haydon
Ph: 273 7393

Fortnightly,
2nd and 4th Wednesdays
of the month
Except school holidays
1:00 pm
10 Lamond Close, Calamvale

Meeting topics are decided on
the day, by those attending.

**Next meetings: 8 and 22
September**

Windows

Brian Bere-Streeter
Ph: 349 4696

3rd Sunday of the month
3:00 pm
QUT, Kelvin Grove

Next meeting: 19 September
ABC Flowcharter (Peter
Troeger)

Library Files

Neil McPherson

The fundamental concept behind any library file in the computer is that it is a file which in turns contains other files. As a library contains many books, as a suitcase is a container for many items, so does a library file contain other files.

Library files have a variety of names - Archive (.ARC), PKZip (.ZIP), Library (.LBR), Squeeze (.SQ), LHArc (.LHZ) and many others. The most common types are now ZIP and LHZ. Previously common ones were LBR, SQ and ARC

which have fallen by the wayside in that order.

The contents of such files are not immediately obvious. There exists some general-purpose viewers of which the best appears to be FV.COM (version 1.41 or later). FV means "File Viewer".

FV is straightforward to use - go to the DOS prompt, change to the relevant subdirectory and type:

```
A:>FV *.* press <Enter>
```

A screen similar to that in Figure 1 (below) will be displayed:

Comment

This archive file contains 2 files JTCONFIG.CPY and RM.EXE. In their normal form they would occupy 16489 bytes but in this library form they are reduced in size to 10422 bytes - a saving in space of one third.

The program used was LHArc version 2 or later.

Figure 1

Archive: MISC.EXE							
Name	Length	Method	SF	Size now	Mod Date	Time	CRC
JTCONFIG.CPY	5602	-lzs-	64	2001	27 May 91	13:02:08	3208
RM.EXE	10887	-lzs-	38	6718	23 Aug 88	14:52:14	311C
*total 2							
	16489	LHA 2.xx	46%	10422	31 Mar 93	20:01:00	

Archive: AUSDOC.ZIP

Name	Length	Method	SF	Size now	Mod Date	Time	CRC
AUSDOC.LET	5120	Deflated	55	2303	08 Mar 92	15:37:14	92927FDD
FORM.100	21504	Deflated	80	4215	27 Apr 93	12:20:18	70A27A50
FORM.104	21632	Deflated	80	4244	28 Apr 93	08:22:18	4C86AB8D
FORM100.BJ	21504	Deflated	80	4241	17 Jul 92	22:24:10	B02961F8
FORM100.DW	23936	Deflated	81	4409	17 Jul 92	22:25:14	70D697B6
FORM100.L&A	22272	Deflated	76	5164	17 Mar 93	20:38:18	AD0CECF3
FORM100.WP4	17830	Deflated	78	3872	05 Apr 92	17:16:54	D04E1C99
FORM100.WS6	21632	Deflated	76	5029	17 Jul 92	22:17:38	79B50129
FORM104.WS6	24960	Deflated	77	5714	30 Apr 93	12:47:08	4CA59EB9
FORM104.WS7	24320	Deflated	76	5648	27 Apr 93	19:11:38	C1B8DB9B
README.WS	2688	Deflated	60	1053	13 Mar 92	16:43:42	40956DA4
README.WS4	1664	Deflated	44	929	07 Mar 92	14:16:52	D13FEED6
TRANSFER.DAT	7296	Deflated	64	2624	04 Jun 92	12:05:56	C6D649EB
TRANSFER.VAR	640	Deflated	47	338	20 Jun 92	15:03:36	9EB16DC6
*total 14							
	216998	ZIP 1.10	76%	51157	30 Apr 93	15:36:46	

Figure 2. In this case 14 files have been included and the program used was PKZip version 1.10.

Self-Extracting Archives

It is an added complication that this type of file can be made to be "self extracting" that is if you type the file name and press Enter, the individual files will be extracted and placed onto the disk. The first file above (MISC.EXE) is a self extracting file.

Library files (whether self extracting or not) cannot be accessed as a file for a word processor. Should you accidentally call up such a file, you should immediately quit without saving.

Each of the library programs mentioned above have their own particular commands and to discuss them all is well beyond the scope of these notes.

One easy way is to manage a variety of library programs is to use a 'shell program' or such as SHEZ but to be fair, even this

program requires some knowledge, at least for the purpose of installing it.

FV has the advantage that it works out for itself whether a file is a library file, whether self extracting or not and what type of library i.e. ZIP, LZH, ARJ, etc.

Viewing the contents of a library file may be done, either with FV or the library file program itself. Below is an example using both FV and PKZIP - other library programs such as LHA, ARJ are similar.

Go to DOS prompt

Change to correct subdirectory

View the library file by either -

FV zipfilename

(note can be: FV *.*)

PKZIP -vn zipfilename

To extract a specific from the library, example:

PKUNZIP

zipfilename filename.ext

where PKUNZIP is the program to extract from a ZIP file, "filename" is the name of the ZIP file (the full file name would be "filename.ZIP" but it is not necessary to spell out the extension) and "filename.ext" is the chosen file to extract.

Although the library file concept may seem complicated, it is not once the fundamental concept has been mastered. This type of file is used everywhere (ubiquitously). It has many advantages and the effort required to master the concept will be repaid in greater productivity many fold. ○

FORMATTING

One Keystroke per Disk

Those who format new boxes of disks from the command line have perhaps found that DOS's insistent "Press Enter when ready" and "Do you wish to format another disk?" quickly become tedious. Further, if your disks are being labelled sequentially, a lapse in concentration amid all those keystrokes and clutter on the screen can cause a break in the sequence. With the following four commands DOS becomes downright friendly:

```
cls
format d:/autotest      where d=drive
                        letter
label d:<yourlabel>
dir d:
```

Type these commands on one line using CTRL-T for separators, no spaces (having first logged on to the hard drive. After each disk, recall the last command (Up-arrow with DOSKEY) and edit (yourlabel> for the next disk.

As the previous label is displayed twice, what you entered and what you got, there is no confusion possible.

Geoff Cobham (member No. 2500)

REPEATING COMMANDS

Command errors can be rectified using the Function Keys

If an error has been made, such as

C:\> cipy

Then hit F3 and the faulty command cipy will repeat at the command line. Use the Backspace key to erase errors and then retype the command correctly.

F1 works more slowly, inserting one letter at a time.

F2 is sneaky, but more efficient. Press F2 then the first wrong letter of the command. The command shows as far as the error letter. Continue the command.

None of this is as good as DOSKEY which will remember a whole bunch (default 16) of commands, but DOSKEY only comes with DOS version 5 and later. If you don't have DOS 5 or 6, the Shareware utility, DOSEDIT, works much like DOSKEY

To create an ASCII file without using a word processor:

At the prompt, type "copy con TEST.TXT" <Enter>

Type your file, using <Enter> at the end of each line or where you want a new line. the system will NOT word-wrap.

Close the file with CTRL-Z (or F6) on the next line after finishing, then <enter>

DOS saves your text to file TEST.TXT

"Type TEST.TXT" <Enter> will display your text on the screen. Print it with "Copy TEST.TXT PRN" <Enter>

"Del TEST.TXT" <Enter> will erase the file from disk.

WHAT IS SHAREWARE?

How much do you know about the software you get from the library and BBS. Lloyd Smith looks at the origins and legalities of using software distributed by this marketing method.

When you get a new program from the Software Library, the chances are the program is referred to as "SHAREWARE".

Brisbug has, in its library of over 7500 disks, four categories of programs :

1. Public Domain
2. Freeware
3. Commercial Demo Programs
4. Shareware

The majority of programs available from the Brisbug Software Library are SHAREWARE.

Where did it start?

Shareware evolved during the early days of personal computer usage. These were the times when anyone who had a computer was referred to as a "Hacker". These Hackers were computer enthusiasts who wrote various small programs and utilities for their computers and provided them to others to use at no charge. These programs were called Freeware or Public Domain software and were generally distributed, in the beginning, by computer clubs. Later on when modems became available and Bulletin Boards evolved, the programs could be obtained simply by connecting a computer to a modem, dialling the Bulletin Board, and downloading the program.

Realising that interest in this type of software distribution was growing, enterprising businessmen became involved and commenced selling trial copies of programs on disks.

Development of the Shareware concept

The concept of SHAREWARE started in the USA when Jim Button, the author of PC-File, PC-Type, and many other programs and a friend, Andrew Fluegelman, thought people might be willing to foster Shareware authors' interest in improving and creating new programs. By adding a "Shareware notice" to program documentation these two programmers

explained to users that if they liked the program and wanted more, they could pay a fee to the author. A new method of marketing their software evolved. It would be hard to imagine IBM or Microsoft selling their software in this manner.

The SHAREWARE principle is that a program created and written by the author is made available to computer users for a trial or evaluation period at no charge to the user. These programs can be anything from a complicated game with many levels, a sophisticated accounting program to handle all the requirements of business, a powerful database or word processing program to a simple utility program.

How does a program become shareware?

Computer programs represent many hours of work, not just in the basic design or idea of the program, but in the time taken to

to press, and when to press them, how to get help, and finally how to quit from the program. These features and functions must be described carefully and clearly to avoid problems in future use. Too many of the early programs had little or no instructions supplied and provided no information as to how to quit the program. The only alternative was to reboot the computer.

Each computer program is a work of art, no matter how big or small it may be. The author must not only know how to write the program, what language to use - Pascal, C, Fortran, Assembler etc. but how to compile the program to provide an executable file for the user to try on their computer.

Once the author thinks the program is ready, then comes the testing by other people. These testers try to locate any problems with the program or even "break" the program so that it fails. The testers must inform the author of any problems and these must be remedied. And so the program may go back and forth a number of times before finalisation.

When the author is finally satisfied that the program is as good as he can get it and all the problems have been "ironed out", he then has another problem to solve - How can he sell it and maybe recover some of the costs involved in producing the program?

Producing programs

Most program authors get into producing programs because they wish to be self-employed, independent and make a comfortable living. To achieve these goals and supplement their income, their success means producing a program that people want to buy, so the more copies they sell, the more they make, and the more their interest in producing newer and better programs increases.

An author who writes a program for the simple joy of it may be satisfied with a single registration, but for others who make programming their livelihood, success is really achieved if they make a good living from it.

*"The concept of
SHAREWARE was started
in the USA by Jim Button,
the author of PC-File, PC-
Type, and many other
programs and a friend,
Andrew Fluegelman"*

actually write the source code to produce the program. Once the author has produced the program, it must be checked for faults, or debugged, as these faults could easily render the program unuseable or fall over at a critical time.

To describe the programs functions and use, the author must provide some form of program manual. This is very necessary if someone unfamiliar with the way the program was designed is to use it - what keys

Shareware is a marketing method

Contrary to popular belief, Shareware is not a type of software, but rather a method of marketing the software. The *try before you buy* idea is unique to software. No where else do you get this opportunity. You cannot go to a restaurant and eat a meal without paying for it, or take a book from a bookshop to read at home before buying it.

Shareware allows you to acquire a computer program, not a crippled teaser, but a fully operational program and try it out on your computer for a trial period before you buy it. There's no catch. Shareware software is as good as, or better than, software available through retail outlets. And, if you don't like it, or it doesn't live up to your requirements, you can delete it and not even bother to return it.

Authors allow users to try out their programs, trusting that if the user finds the program useful and that the user intends to continue using it, they'll pay the registration fee to legally continue using it. Most authors are smart enough to realise that if their program suits the users' needs and the user pays the requested registration fee, the author gets the incentive to improve the program and continue updating the work.

Marketing shareware

Imagine evaluating three different commercial spreadsheet programs. Firstly you would have to purchase each of the three programs. You cannot trust the advertising blurb supplied because the advertiser only promotes the best features of the product. The advertisement certainly will not elaborate on any feature which may cause the prospective purchaser to by-pass the product. Of the three programs one is superior in design, easy to use and has the operating power that you require. You cannot, under normal circumstances, return the other two programs for a refund. Some users may say that they can "borrow" copies of each program from someone else before selecting the program they decide on. This "borrowing" is nothing more than stealing, and can land the user in trouble.

With Shareware, you have the opportunity to try and compare each of the three programs, and then decide which one you will buy. Shareware software promotes copying and sharing programs without the penalty of piracy. The Business Software Association of Australia (BSAA) has been active in tracking "pirate" software and will prosecute anyone found using pirated software. Don't be misled,

*"Don't be misled, copying registered Shareware is
..... piracy"
Shareware is copyright
the same as programs
from commercial vendors*

copying registered Shareware is also piracy, so if anyone offers you a copy of the registered version, you should not accept it.

Successful programs

To make a product successful, the end user must find the product valuable. Authors must develop software that users want and provide assistance if a problem arises. Four basic factors have been suggested which will contribute to the success, or failure of a Shareware program.

QUALITY is the first factor. The product has to be of excellent quality and competitive with any established retail market product. Because of competition, and cut-price marketing strategies, price alone is no advantage.

DISTRIBUTION is second only to quality. Top quality products will not achieve success if no one ever finds out about them. Shareware programs have a unique advantage in that the programs are distributed through many different channels: computer clubs, bulletin boards, disk vendors, CD-ROMS and so on.

SUPPORT of the product is the third factor. To achieve support from buyers and loyalty, the program author must support customers. Users who receive little or no support are not likely to recommend a program to others.

USER FEEDBACK is a huge untapped resource for Shareware developers. If the user can easily approach the Shareware author with comments or criticisms and receive a hearing, the user is more likely to view with interest any new programs.

Trial periods

When programs are marketed as Shareware, the author expects the user to agree to the marketing terms. Some authors give users 30 days to evaluate the program, others give lesser periods. The documentation informs the user as to the trial period, but like most instructions, users are apt to skip over this part and continue to use the product past the evaluation date. Some authors go to elaborate lengths to place registration reminder screens in the program which will "annoy" the user until a registered version is obtained.

When you purchase a copy of a program from the Brisbug Software Library or for that matter any disk vendor, the fees you pay are only for the disk and the copying service. No charge is made for the program, and Software Library or the disk vendor's responsibility only extends to providing the purchaser with a useable copy.

As the purchaser, you must decide if:

- (a) You like the program;
- (b) You intend to continue using it;
- (c) You are going to purchase a registered version for continued use.

Obtaining registered versions

This can be the final step to satisfaction. Having made the decision to register your copy of the program you have evaluated, you should then obtain a registered version by payment of the required fee to the author at the address indicated in the documentation included with the program. Sometimes you can purchase a registered version from a local disk vendor which relieves you of the problem of writing directly to the author, especially if the author lives overseas.

If the program author lives overseas, the suggested approach would be to firstly

Continued on Page 41

Troubleshooting 386 Enhanced Mode Problems

Microsoft Corp

Introduction

Microsoft Windows version 3.1 has two modes of operation: standard and 386 enhanced modes. 386 enhanced is the highest-level mode of operation because it utilizes the virtual mode of the 80386i processor. However, you may experience the following problems when attempting to run Windows 3.1 in 386 enhanced mode:

Windows stopping or returning to the MS-DOS prompt

General protection faults (GPFs)

Windows defaulting to standard mode when you type win at the MS-DOS prompt

Troubleshooting Procedure

The following steps may correct or reduce these problems:

1. Ensure that the system has the minimum configuration required to run Windows 3.1 in 386 enhanced mode. These requirements are:

An 80386 or faster processor
200K of free conventional memory
1024K of free extended memory
2 MB of free disk space

1. Try to force Windows into 386 enhanced mode by typing win /3. If this is successful, the computer probably has available less than the 1024K of extended memory required for Windows to default to 386 enhanced mode on startup. Verify that you are running an extended memory manager (HIMEM.SYS is the extended memory manager that comes with Windows 3.1). If so, you should free up extended memory so that Windows can default to 386 enhanced mode. The best

way to accomplish this is to start your computer with minimal CONFIG.SYS and AUTOEXEC.BAT files. Using a text editor such as Notepad, comment out any lines that load extraneous device drivers, terminate-and-stay-resident (TSR) programs, and so forth, that are not required to run your machine. To comment out a line, type rem at the beginning of the line.

Caution:

If you do not know the purpose of a line in your CONFIG.SYS or AUTOEXEC.BAT file, leave that line as is.

Other things that might help free up extended memory include reducing the size of any disk cache, such as SMARTDRV.EXE, or RAM drive. Although you can force Windows into enhanced mode if there is less than 1024K of extended memory, this is not recommended because this condition can adversely affect the performance of Windows.

2. Try starting Windows by typing:
win /d:xvs

If this is successful, try each of the following switches individually to see which is required:

win /d:x

This switch excludes the entire upper memory block region from A000-FFFF. It is functionally equivalent to adding

EmmExclude=A000-EFFF

to the [386enh] section of the SYSTEM.INI file.

Note:

If any upper memory block (UMB) provider is installed in the CONFIG.SYS file, this switch has no effect in the region the UMB provider is using. The UMB provider has priority in the UMB area. For this reason, you should disable the UMB provider (such as EMM386.EXE), restart the system, and then try the win /d:x switch.

win /d:v

This switch is equivalent to adding the line

VirtualHDLrq=OFF

to the [386enh] section of the SYSTEM.INI file. For more information about the VirtualHDLrq= setting, consult the SYSINI.WRI file in the \WINDOWS directory.

win /d:s

This switch is equivalent to adding the line SystemROMBreakPoint=OFF to the [386enh] section of the SYSTEM.INI file.

After determining which switch, or combination of switches, allows Windows 3.1 to successfully start in 386 enhanced mode, use a text editor such as Notepad to add the corresponding line, or lines, to the [386enh] section of the SYSTEM.INI file.

3. Create a BOOTLOG.TXT file by typing win /b to start Windows. This switch will create a file called BOOTLOG.TXT in the \WINDOWS directory. Once this file has been created, you can view it using any text editor (such as Notepad). In this file, Windows creates a list of the basic Windows drivers as they are loaded. If there is a problem with one of these drivers loading, a statement will appear in the BOOTLOG.TXT file showing which driver could not load. This information is valuable in determining which component of Windows is not able to function properly.

Note:

This switch will append new information to the end of an existing BOOTLOG.TXT file. Therefore, you may want to rename or delete any existing BOOTLOG.TXT file in the \WINDOWS directory before using the /b switch.

/over

The following is a list of error codes that may appear in the BOOTLOG.TXT file:

4.	0	Out of memory
5.	1	File not found
6.	2	Path not found
7.	3	Attempt to dynamically link to a task
8.	4	Library requires separate data segments for each task
9.	5	Insufficient memory to start application
10.	6	Incorrect Windows version
11.	7	Invalid .EXE file (non-Windows .EXE file or error in .EXE file image)
12.	8	OS/2 application
13.	9	MS-DOS 4.0 application
14.	10	Unknown .EXE file type
15.	11	Attempt in protected (standard or 386 enhanced) mode to load an .EXE file created for an earlier version of Windows
16.	12	Attempt to load a second instance of an .EXE file containing multiple writeable data segments
17.	13	Attempt in a large-frame EMS mode to load a second instance of an application that links to certain nonshareable DLLs already in use
18.	14	Attempt in real mode to load an application marked for protected mode only

At the MS-DOS prompt, change to the \WINDOWS directory before starting Windows. When Windows starts, it reads the .INI files that specify the locations of many of the files that Windows needs in order to start. When Windows reads the .INI files, it looks for the specified files in the following locations:

- A. The current directory
- B. The \WINDOWS directory
- C. The \WINDOWS\SYSTEM subdirectory
- D. All of the directories listed in the PATH environment variable in the AUTOEXEC.BAT file
- E. All of the directories in the list of directories mapped on a network

For example, if there is an outdated MOUSE.DRV file (the Windows Microsoft Mouse driver) in the current directory, Windows may not be able to start.

Verify that Windows can run in standard mode by typing win /s at the MS-DOS prompt. If Windows can run in standard mode, you may have installed a mouse, keyboard, video, or printer driver designed for a previous version of Windows, or you may have made an incorrect selection for your hardware. To change the printer driver, start the Control Panel and choose the Printers icon. To change the mouse, keyboard, video, or network driver, from the Program Manager File menu, choose Run, type setup, and choose the OK button. This command brings up the System Information screen; from the Options menu, choose Change System Settings.

Also, check the "Microsoft Windows Version 3.1 Hardware Compatibility List" that ships with Windows to see if your computer requires special handling. If it does, exit Windows and then reinstall it, using only a minimum of drivers (use no mouse or network driver and use the lowest resolution video driver) and the setup /i switch.

Another option is to delete Windows and reinstall it using the setup /i switch, along with the minimal configuration described above. This may be necessary if it is not possible to determine which component of Windows is preventing proper operation.

Check your AUTOEXEC.BAT and CONFIG.SYS files for TSR programs, sufficient buffers, files, and environment space. Some TSR programs are not compatible with Windows 3.1 and may need to be commented out during Windows operation. Again, if you do not know the purpose of a line, do not comment it out.

Disable the autoswitching or autosensing feature on the video card if applicable. Verify that you are using the latest version of the BIOS (basic input/output system) for that video card (see step 13).

Disable system or video ROM shadowing if it is supported by the system.

Verify that you are using the correct version of MS-DOS for the system. You should be using a version of MS-DOS that is 3.1 or later and is designed for the machine. Do not use an original equipment manufacturer (OEM) version of MS-DOS on a computer that was not manufactured by that OEM (for example, do not use COMPAQ MS-DOS on an IBM computer).

Ensure that HIMEM.SYS loads successfully. If it does not, or if a problem is suspected, try all A20 handlers available to the version of HIMEM.SYS being used. The DEVICE=C:\HIMEM.SYS line in your CONFIG.SYS file should include the /m:x switch, where x denotes a handler number. For example, if you are using a PS/2, this line should read

DEVICE=C:\HIMEM.SYS/M:2.

For more information about the /m switch, see pages 543–547 of the version 3.1 Microsoft Windows User's Guide.

Note:

Some A20 handlers may lock up your computer, so it is important to have a system MS-DOS floppy disk available that contains an ASCII text editor (such as Edlin or Edit) should this problem occur.

Install Windows in an empty directory. Do not install Windows version 3.1 over a 2.x version, because some files and drivers may not be updated properly.

Confirm that you are using a system BIOS that is dated 1988 or later. If you are using a BIOS with a date earlier than 1988, you

may encounter problems when trying to run Windows 3.1 in 386 enhanced mode. The BIOS date will vary depending on the brand of your BIOS and the manufacturer of your machine. The BIOS version and date are typically displayed when you first start up the system. If the date is not displayed when the system is started, or if you have any questions about the compatibility of your BIOS with Windows 3.1, you should contact your hardware manufacturer.

Remove any additional hardware from the system (mouse, network card, fax board, modem, and so forth). After all the nonessential hardware has been removed, restart the system, and run Windows 3.1. If you can now run in 386 enhanced mode, it is likely that an interrupt request line (IRQ) conflict exists. Replace one piece of hardware at a time, restarting the machine after each new piece of hardware is replaced, and run Windows in 386 enhanced mode. Do this until the symptom reoccurs, at which point you've most likely found an IRQ conflict. For more information on how to deal with IRQ conflicts, contact the manufacturer of the piece of hardware in question.

If none of the above steps has corrected the problem, you may want to contact your hardware manufacturer for additional information.

MS TechNet CD

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NEW Amateur Radio Club SouthSide A.R.S.

based on Browns Plains/Sunnybank
areas

Members wanted

Contact:

Peter Harding (07) 800 3305

Ron Lewis (07) 2738946

Continued from page 38

write to the author, at the address shown in the documents, requesting details of the current version of the program, and the fee payable and wait for a reply, before rushing out to the bank to obtain a foreign bank cheque for what may be the incorrect registration fee. If you are lucky to receive a reply from the author, you will be able to complete registration without any further problems. However, people often change addresses, and sometimes your letter will be returned 'left address'. This will complicate registration until you get a new address.

Obtaining the author's new address may be a problem. You can firstly check dates on the files of the Shareware program you wish to register. If the dates indicate that the program is a few years old, the chances are that the author has moved and no forwarding address is available. Also, if the program version is out of date, a later version may be obtainable from a Bulletin Board or alternate source. This later version may have more up-to-date information as to the author's address. If the program author is a member of the Association of Shareware Professionals, this Association may be able to supply the current address.

SO WHAT REALLY IS SHAREWARE?

SHAREWARE is copyrighted software that is supplied to the user at a minimal cost - the cost of a disk and a small copying charge. Because you can "try the program before you buy it," it is an inexpensive method of finding programs which suit your requirements.

Shareware authors produce programs for trial on trust, expecting payment, if continued use of the program is intended by the user. By supporting Shareware and obtaining registered versions you save money by eliminating expensive marketing costs.

Dr Don's Virus Clinic

Continued from Page 26

encryption techniques and various methods to hide itself. F-PROT was the first product to claim to be able to detect this virus. I have little doubt that others will soon follow.

A note published on the Internet says there is a serious flaw in MSAV. The report states that after finding a virus on a floppy in A: drive MSAV says to reboot. This was without removing the virus or telling the user to remove the floppy disk from A: drive. The program also offered a push-button to start this re-boot. The problem with this is that, if there is a boot sector virus on the floppy, after the re-boot it will be in the memory of the machine and, most likely, on the hard disk of the machine. The key point is never reboot a machine with a floppy disk in A: drive, unless it is a known, tested free of viruses, write-protected DOS boot disk.

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Continued from page 28

Borland Pascal 7 under DOS

all the relevant statements, and to track down inefficient code, this is where Turbo Profiler comes into its own. A side benefit being, that this tool helps to improve the users programming prowess on subsequent work.

Conclusion

Borland Pascal 7.0 with Objects is an exceptionally well documented, easy to follow & learn programming language, the Turbo Pascal language has an extensive array of technical books available from bookstores and support groups to help the newcomer and the experienced programmer alike. Support from Borland in Sydney is very good, concise and accurate. Well done, Borland: a truly great package, that just got better!

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BRISBUG LIBRARY KITS

Way back in April 1990, the first Brisbug kit appeared in the library. This was the FIRST AID KIT containing a collection of anti-virus programs to remove and protect user's computers from all types of viruses.

Resplendent in a drab grey cover complete with a "BAND AID", the disks were copied and the kit assembled by Trevor Freiberg and myself on the Saturday afternoon preceeding the April Sunday meeting. The FIRST AID KIT proved to be an immediate success with members. Our initial stock of 30 kits went in little under an hour.

Since then more than 50 different kits have been released, most of which are still available from the library. Prices range from \$6.00 to \$20.00 and all are value for money, especially considering today's economic conditions.

From this simple beginning over a thousand of these "LIBRARIANS CHOICE KITS" have been produced by myself and other willing library helpers and available to all members and Associate Member Clubs. The BRISBUG KITS have gone to all parts of Australia and also to some overseas members.

KITS CURRENTLY AVAILABLE

4DOS - \$6.00

Replace the standard DOS command processor and give yourself a complete, compatible new interface right from the DOS prompt. 4DOS adds over 40 new commands to make the command line a friendly and powerful place to work.

ARCHIVE KIT for DOS - \$12.00

Set yourself up with the complete Archive Kit. No more problems when you download a program from a BBS - you can handle all types of archives. Back up your files by archiving - it's simple and safe. Kit contains archive shell program and all the archiving programs - LHARC, PKPAK, SDN, ARJ, PKZIP and ZOO as well as LIST and the powerful text editor QEDIT.

BROTHER'S KEEPER - \$12.00

In the hobby of Genealogy, you never know just who or what you'll find once you start tracing back your family tree! BROTHERS KEEPER allow you to gather and organise the tidbits of ancestral history you uncover and will print the information in a variety of helpful ways.

BBS USER'S KIT - \$10.00

A re-release of this kit containing three of the most popular communications programs from our library. TELIX is favoured by those who want fast, multi-transfers using Z-Modem protocol. The program has its own very powerful script language, which enables the user to automate most operations. PROCOMM is slightly less sophisticated but is ideal for use with main-frame communications BBS's.

COMMO is an easy to use and setup program for BBS users. A light-hearted booklet as an introduction to the BBS and how to set up your modem is included in this kit.

NOTE: Re-Release date - Early August.

COUNT BASIL - \$12.00

No longer will you need to wear many different hats to do your small business accounting. COUNT BASIL, the Business Accounting System with Integrated Ledgers, means that when you invoice a stock item to a debtor, your stock levels and sales figures are updated immediately and the debtors account is updated on completion of the invoice. COUNT BASIL will help your cash flow as you'll be able to better manage your stock levels and debtors.

CHEQUE-IT-OUT - \$6.00

Here, at last, is a complete personal bookkeeping system that doesn't expect you to be an accountant to use it. Keep track of your finances, balance the books and generate impressive statement of net worth, profit and loss, etc.

DAYO - BUSINESS APPLICATION PROGRAMS - \$20.00

DAYO is a collection of multiuser business applications that provide a means of managing inventory, purchasing, invoicing, customers, vendors, sales and more. DAYO applications include: Inventory, Quotes, Back Orders, Reports, Accounts receivable and payable and much more.

NOTE: Currently being upgraded - New version available August 93.

DOS NUTS - \$10.00

The DOS NUTS collection includes 3 training disks for new computer users. Programs selected include DOS HELP, PC-LEARN, PC-HELP and a Tutor.

DOS TUTORIAL - \$10.00

Learning how to handle your new computer and why you do certain things can be very daunting for a new user. The DOS TUTORIAL is a complete set of lessons which will teach you the How, When, Where, and Why of computing. Teach yourself at your own speed how your computer works.

FILE EXPRESS - \$10.00

FILE EXPRESS is an easy-to-use menu-driven database management system. A mailing list and report generator is included as well as an on-line comprehensive manual. You can

prepare customized form letters with FILE EXPRESS and merge names from the database with the letters.

FIRST AID KIT - \$10.00

Our first and most famous kit. Protect your computer from invasion of viruses which can damage your programs and possibly your hard disk drive.

MATHS KIT #1 - \$10.00

These kits are designed to make available to students computer programs to assist in their understanding of Calculus. MATHS KIT #1 contains programs "Are you ready for Calculus 1, 2 and 3", "Are you ready for Business Calculus" and "Are you ready for Ordinary Differential Equations"

MATHS KIT #2 - \$10.00

Kit 2 contains more calculus programs - "LINALG", "ITERATE", "FORTUNE" and "INTERPOL" all of which deal with surface plotting, graphs and interpolation.

MATHS KIT #3 - \$10.00

Kit 3 deals with "FINDPOLY" - information about selected polynomials. "TWIDDLE" - graphing curves and "twiddling" parameters, "PLOT" - plotting curves and "SURFACE" - a comprehensive linear algebraic package for matrix and vector manipulations.

MODEM COMMS - \$10.00

MODEM COMMS is a comprehensive modem tutorial which gives the user an on-screen tutorial of modems and BBS's. Also included is a popular communications program.

MOKE - \$20.00

MOKE, which stands for Mark's Own Kanji Editor, is a Japanese Language editor which allows input of English, Hiragana, Katakana and Kanji and enables the user to edit the input. A comprehensive Japanese/English dictionary is included.

PASCAL TUTORIAL - \$6.00

This is a collection of Pascal tutorials collected from some of the Brisbug Pascal courses.

PC-KEY DRAW - \$10.00

PC-KEY DRAW is a graphics program that can be used by anyone and everyone. It includes many features designed specifically for a mechanical engineer, such as calculate and measure. Also included are many features designed for artists.

NOTE: New Release version - now available.

PC-WRITE - \$10.00

Not sure of what word processor - writing program you should use. This recently upgraded version of one of the most popular word processors is a must for budding authors.

PC-FILE - \$10.00

This latest version (6.5) of the powerful shareware database program is extremely powerful and easy to use. If you want to set up your own data bases for business or private use, you should give PC-FILE a try.

SLUG KIT - \$20.00

S.L.U.G. stands for Starters and Learners User Group and this collection of software was assembled by Dan Bridges when he conducted the SLUG classes. Containing a useful set of utility programs, this kit is a must for new users.

STARTER KIT - \$40.00

Containing 9 disks of programs and the well known publication "Getting Started with Computers: by Dr. David Parker, this kit contains a Word Processor, a Spreadsheet, Database, and disk of utilities and more.

TELEMATE - \$10.00

TELEMATE is a multi-treading communications program featuring a terminal, an editor, a viewer, a backscroll buffer, a clipboard and many more functions. TELEMATE is a powerful communications program suitable for all power BBS users.

WORD FUGUE - \$10.00

When you are a beginner and you are searching for a word processing program, the list of programs available seems endless. Adn obtaining a registered version of a US program has its problems. WORD FUGUE is an Australian program written for Australians - easy to use, with installable keyboard commands, an Australian dictionary, point-and-shoot file loading list with descriptions, Autosave, and many more advanced features.

ESPECIALLY FOR WINDOWS - \$10.00

For Windows users a collection of Windows Utilities - Grabit, Hunter, Jaxcam, Magic and more... - Bigdesk and Reminder - and a collection of Windows Games -Blackout, Chess, Hextris, Lander and more...

LEARN WORDPERFECT - \$10.00

Want to learn WordPerfect 5.1? Well this tutorial kit surpasses WordPerfect's own tutorial. It makes learning WordPerfect a breeze.

GAMES KITS

HUGO TRILOGY - \$10.00

Containing the three shareware adventures of Hugo and Penelope, THE HAUNTEDHOUSE OF HORRORS, WHODUNIT? and JUNGLE OF DOOM! These fantastic adventures will keep you thinking for hours. (EGA/VGA required)

COMMANDER KEEN KIT \$20.00

Five shareware adventures of the 8 year old kid genius who defeats Vorticons, battles with Shikadi, tangles with the aliens of the planet Fribbulus Xax and overcomes the killer vegetables from the land of Tuberia.. Guaranteed to keep you occupied for hours! (EGA/VGA required)

ADVENTURE GAMES KIT NO. 1 - \$10.00

Containing 3 superb adventure games - CRUSHER, a game of skill; CAPTURE THE FLAG, a game of strategy, and VAMPYR, a supernatural quest. (EGA/VGA required)

ADVENTURE GAMES KIT NO.2 - \$10.00

ENGINEERING JONES AND THE TIME THIEVES OF DSPEA! is a modern day adventurer; STELCON 2469 - a space strategy/war game; TANK WARS - a game of warfare strategy. (VGA required).

ADVENTURE GAMES KIT NO. 3 - \$10.00

ALICE IN WONDERLAND - an adventure game based on the story; CAVE QUEST - a fantasy role-playing game; UNDER THE GULF - a naval warfare game. (EGA/VGA required).

ADVENTURE GAMES KIT NO. 4 - \$10.00

THE BOLO ADVENTURES PARTS 1 and 2 - problem solving adventures of Bolo; BOLO BALL - a game to set your brain a-working. (EGA/VGA required)

ARCADE GAME KIT NO 1 - \$10.00

JUMPMANLIVES - an ingenious arcade game; ALDO'S ADVENTURE - a graphics game of ladders, ramps, hazards etc.; MUNCHER - a Pac-Man style game. LAVA CAP and OIL CAP GAMES - Puzzle solving arcade games. (EGA/VGA required)

ARCADE GAME KIT NO 2 - \$10.00

NOTRUS - an intense arcade game of strategy; LADDER MAN - a problem solving puzzle game; SAND STORM - a game of war battles. (EGA/VGA required).

BOARD GAMES KIT NO 1 - \$10.00

MONOPOLY - the classic board game; LASSER CHESS - a variation of chess; COMBAT CHECKERS - a different style of checkers; FAIRY GODMOTHER - a puzzle to free your fellow godmothers. (EGA/VGA required)

CARD GAMES KIT NO. 1 - \$10.00

HI/LO POKER, CANASTA, EGA GAMMON, HEARTS, CRIBBAGE, PC/VEGAS, POKER SOLITAIRE, and BLACKJACK! - a great combination of NEW CARD GAMES. (EGA/VGA required).

CGA GAMES KIT NO 1 - \$10.00

VOLLEYBALL - a great arcade game for two players; BANYON WARS - a game of conquest; TURBO - practise your computer skills; CHEKKERS - a popular board game; PHARAOH'S TOMB - a game of discovery; TRON - ride the Light Cycles and avoid your opponent. (CGA/EGA/VGA required)

CHILDRENS GAMES KIT NO. 1 - \$10.00

ALPHABET, ANIMALS, CLOCK, HANGMAN and MOSIAC - Simple, but interesting games for all the younger computer enthusiasts. CONNECT4, HI-Q, QUIZZER and REFLEX - Games of skill for younger users. MATH GAMES - Test your child's ability to get their maths right. (CGA/EGA/VGA required)

CHILDRENS GAMES KIT NO. 2 - \$10.00

APPLES AND ORANGES - a strategy board game; DRESS ME UP - an imaginative paper doll game; IAN'S GAME - Designed specifically for the very young. PAPER-SCISSORS-

ROCK - well known to all. EATIT - a Pac-Man style game. (EGA/VGA required)

CGA VIDEO GAMES KIT #1 - \$10.00

ARCTIC, QUIZ, BATTLESHIP, NUMBER SQUARE, CHOPPER COMMANDO, DANGER, NUMDROPS, FUE, BRIDGE HOPPER, PANGO - a collection of adventure/arcade games. (CGA/EGA/VGA required.)

EGA/VGA GAMES KIT #2 - \$10.00

CD-MAN - a sophisticated Pac-Man game; PICTURE PUZZLE - match the pictures to win; STRATEGY - an early war game. (EGA/VGA required)

EGA/VGA GAMES KIT #3 - \$10.00

DRAWPOKER - a super card game; SOLITILE - a game of Solitaire, but with tiles (like Marjong); DANGEROUS DAVE - a game to test your keyboard dexterity; HUGO II - the second in the Hugo series. (EGA/VGA required)

OTHER BRISBUG KITS

DISK LABELS - \$2.00

100 Floppy Disk labels for either 3.5" or 5.25" disks.

DISK LABELS & TABS - \$3.00

100 Floppy Disk labels and write protect tabs for 5.25" disks.

WRITE PROTECT LABELS - \$1.00

100 Write Protect Tabs for 5.25" disks.

BRISBUG MOUSE MATS - \$8.00

Brisbug's own mouse mat.

BRISBUG MOUSE COVER - \$8.00

Keep your mouse warm this winter with his (or her) own cover.

BUY BRISBUG - SUPPORT YOUR CLUB!

INSPECTA KIT (DOS) - \$10.00

*CLASSIFICATION * File Management * Utilities * Hard Disk*

INSPECTA is a multi-purpose file management tool, but is primarily aimed at management of files on any system running a FidoNet Technology mailer and associated utilities. It incorporates the following functions:

General file management; copy, move, create delete directories & files, run other programs, view text files, determine file type, etc.

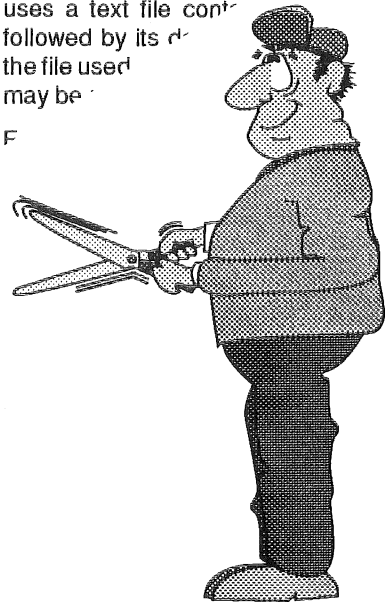
Archive management; allows viewing, adding to, deletion from, extraction and testing files in SEA ARC(tm) version 5.x, 6.x and 7.x, PKWARE's ZIP, Yoshi's LHARC/LHA, Robert Jung's ARJ, NoGate Consulting's PAK, Dhesi's ZOO format archives, and Peter Gutmann's HPAK compressed file libraries.

FidoNet common *.MSG format messages; when a .MSG file is selected for viewing from the file manager, InspectA provides the ability to read and interpret these files.

FidoNet (FTSC) type 2.X format packets; InspectA provides the ability to view raw .PKT format files, including diagnostics, some limited editing capability, allows individual messages to be exported to FTS-0001 *.MSG format, and provides "packet splitting" capability to enable more convenient handling of very large packets.

File descriptions support, as used by 4DOS (4OS2) "DESCRIPTION". BBS "@FILES" or BBS "FILE"

- any method of description uses a text file containing the file used may be



Your Editor stands ready to bring you tight accurate prose !!!

NEW LISTINGS

BBUG NO 9101 FIRE FIGHTER for WINDOWS Version 1.05

*CLASSIFICATION * Database * Windows * Hard/L/Floppy Disk * Printer*

FIRE FIGHTER is a Roster, Practice, and Incident Database For Volunteer Fire Departments.

FIRE FIGHTER has been designed to keep your Roster up to date as well as print out individual Records or whole Rosters, keep track of Practice Records (what you practiced and when), keep details of payments owed or wages owed for Practices and Emergency calls show all Practices or Emergency calls or only those of the current year, keep track of your Emergency Calls and print them out as required, keep Maintenance Records on your Equipment, keep all Records pertaining to Practices, Maintenance, Training, Fires and Firefighter Records at the press of a key, keep an appointments calendar, keep a dialing list of important numbers and dial them automatically, and will also keep an up to date log of when the call was made and much more.

See BBUG #8958 for Dos Version.

BBUG NO 9012 WINDOWS UTILITIES NO # 10

*CLASSIFICATION * Utilities * Windows*

DOCARC is a utility which permits the user to store data files for an application program compressed in an archive and provides an easy way to display and select files from the archive and launch the application program. It requires the DOS LHArc Utility.

WINLHA is a Windows 3 application. It can be launched by all the usual mechanisms provided in Windows eg a Program Manager Group or by double clicking on its executable file from File Manager. It can also take a single Command Line parameter which is the name of the Archive File that is to be loaded for use when WINLHA is started up.

EWEXEC is a utility which uses a feature of Windows 3.1+ to exit windows, run a DOS application and then automatically re-start

Windows. This program is useful for running DOS programs which are not compatible with Windows 3.1.

GEINI is an editor for text based .ini files (.ini files that most WINDOWS applications create, except for Winword and Quick-C.) GEINI separates out the "Application" names, "Keywords", and "Values" that are stored in .ini files.

TIPURA allows you to group together applications and/or data files and run them with one double-click on the Tipura icon.

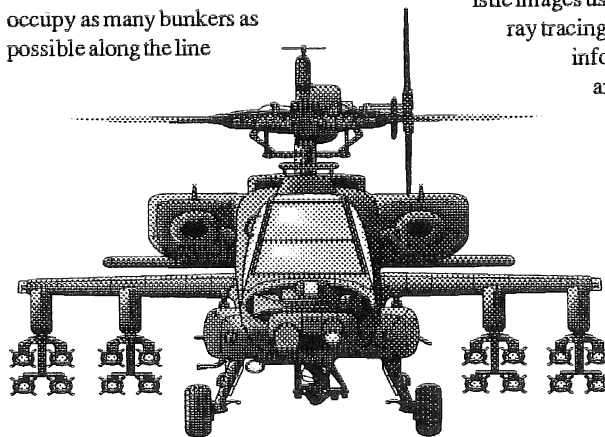
BBUG NO 9013 BATTLES IN A DISTANT DESERT Version 1.0

*CLASSIFICATION * Games * Windows * Hard Disk*

BATTLES IN A DISTANT DESERT is a Windows game based on the recent Gulf Wars.

"The CO said it would be a piece of cake! Sure, tell that to the @%#\$ Iraqis!"

Your company is charged with the mission of securing this sector of the berms and hold it until the oncoming units of Bear's "Hail Mary" push, arrive to pass thru you. The line of advance will be through the center fort and due north from there. You must occupy as many bunkers as possible along the line



of advance.

You will have the services of two Apache Assault Helicopters. "Which the CO wants returned in ONEPIECE each!" Use the Apaches to stand-off and destroy Iraqi armor and any dug in infantry!

Your M1A1s and M2s should provide the punch needed to assault and overrun the Iraqi positions. Since your orders are to secure and hold you had best be sure to take out any located armor and infantry!

WINDOWS
WINDOWS
WINDOWS

You should expect to meet elements of several Iraqi divisions, with possibly some mechanized reinforcements arriving as you try to hold.

BBUG NO 9104 WINPOV Version 1.43

*CLASSIFICATION * Graphics * Windows * Hard Disk*

*The ultimate graphics
program... now
available for Windows*

WINPOV is a front end processor for POV RAY in Windows!

POVRAY is a Persistence of Vision Raytracer which creates three-dimensional, photo-realistic images using a rendering technique called ray tracing. It reads in a text file containing information describing the objects and lighting in a scene and generates an image of that scene from the view point of a camera also described in the text file. Ray tracing is not a fast process by any means, but it produces very high quality images with realistic reflections, shading, perspective, and other effects.

WINPOV allows you to select pretty much all of the DOS POV options, as well as

letting you do things with POV that don't necessarily work. Such as resuming a trace with different display resolution, or using notepad to edit a target file!

WINPOV also has the ability to launch the Windows notepad to facilitate editing your POV datafiles. You can also print your POV from within WINPOV by the same method. The program keeps track of where the data files reside.

BBUG NO 9105 WINGRAPH Version 1.1

*CLASSIFICATION * Educational * Windows * Hard Disk*

WINGRAPH is an equation graphing program for Windows running in standard or enhanced mode. It's features include: Expression parsing; Cartesian coordinate graphs in two and three dimensions; Polar coordinate graphs; Simultaneous graphing of two equations (two-dimensional graphs only); Solutions to equations (two-dimensional graphs only); Variable solution ranges; Full rotational and zoom capability for graphs in three dimensions; Printing of graphs to devices supported in Microsoft Windows; Use of Microsoft Windows clipboard facility for transferring images created in WinGraph to other Windows programs; User configurable display features and colors.

INGRAPH is extremely easy to use.

BBUG NO 9106 RETIREA Version 1.0

*CLASSIFICATION * Financial * Windows * Hard Disk * Printer*

RETIREA for Windows, is a retirement planning tool. Data, consisting of income(s) and expenses, is supplied by the user. Each income and expense is assigned 4 characteristics by the user. The starting year, the \$ monthly amount, the forecasted Annual % change and the number of years in effect. Based on this information, the program offers line charts, bar graphs and other reports indicating the monthly cash flow situation over a selected 30 year time period.

For convenience, common financial tools, such as: future value of annuity, mortgage/loan, compound interest - are included.

BBUG NO 9107 INVOICE-IT Version 2.06

*CLASSIFICATION * Accounting * Windows * Hard Disk * Printer*

INVOICE-IT is ideally suited for someone who needs to create and track sales invoices without the overhead of a full blown accounting system. The program includes an on-line Window to Customer and Product files to allow you to quickly create invoices without typing addresses and product descriptions over and over again.

Use INVOICE-IT to keep track of sales figures. The program automatically produces reports of sales by customer and salesman, sales tax reports, and discount analysis by salesman, customer, and product line. Invoices created by INVOICE-IT may be imported into your spreadsheet or database manager for further



Virus Buster

from Leprechaun SOFTWARE



Virus Buster

from Leprechaun SOFTWARE

NOW AVAILABLE
From the Software Shop

\$120.00 (P & H - \$5.00)

SPECIAL UPGRADE OFFER

Brisbug Members who own earlier Versions of Virus Buster can now upgrade to Version 4 at a special price of \$50.00 plus P & H.
(Normal price \$65.00) Offer expires 30 November 1993

analysis. The program maintains its file in industry standard Dbase format for easy access by other programs.

BBUG NO 9108 WINGRAB Version 1.7

*CLASSIFICATION * Desktop Publishing * Windows * Hard Disk * Printer*

WINGRAB is a Windows version of GRAB Plus. WINGRAB aids in mail list management, envelope and label printing. Grab an address from your word processor and send it to envelope in printer. Use to dial phone and log calls, paste address into your word processor and more!

Also included is DOWNLOAD a utility program that manages the process of downloading soft fonts to a LaserJet, DeskJet, or compatible printers. DOWNLOAD can also select fonts as they are being sent. DOWNLOAD can send a font, or group of fonts, through the standard parallel printer MS-DOS devices to your LaserJet or DeskJet printer.

Interested in printing graphical logos on your envelopes? GRAB now supports printing logos created by Elfring Soft Fonts.

BBUG NO 9109 ARCHON Version 1.1

*CLASSIFICATION * Desktop Management * Windows * Hard Disk*

Welcome to the desktop information management revolution. If you want to manage many or large files, ARCHON is the product for you. ARCHON is a unique combination of features including:

Fulltext Retrieval with automatic keyword extraction out of text, spreadsheet and archive files. Locate your data by entering some keywords appearing anywhere in the file.

Object Database Long file names are just one of the many benefits of the underlying Object

Database, which forms the foundation for the hierarchical storage management of ARCHON.

Unlimited storage is offered by the Hierarchical Storage Management System by automatically distributing files over all assigned storage media, including removable disks. Have ARCHON handle the once tedious task of archiving files to floppy disks.

Ease of use was one of the primary development goals in the ARCHON project. Active files appear on a desktop and may be manipulated directly. Edit files by double-click, or delete files by dropping them into the trash can.

Proven reliability - The OBJSTORE (object storage and retrieval system) developed for ARCHON is used in another ErgoSoft product, Amadeus. Amadeus is an acoustic quality assurance system currently used by major german automobile companies like AUDI, GM-OPEL, VW.

BBUG NO 9110 WINSNAP Version 1.0

*CLASSIFICATION * Utilities * Windows * Hard Disk*

WINSNAP is a handy screen capture program. You can easily use WINSNAP to take pictures of screen images. Easily configured to suit your requirements, WINSNAP provides contact sensitive help at any time by simply pressing the F1 key. Capture your screens for later use with your desktop publishing program.

BBUG NO 9111 APPLICATION PAD Version 3.7 (Disk 1 of 2, also 9112)

*CLASSIFICATION * Utilities * Windows * Hard Disk*

APPLICATION PAD provides you with an alternative to Window's Program Manager. It is an application pad that stays only on one side

of your screen. You can launch your favorite programs from it. It comes with a digital clock, a calendar, an X-EYES, a screen blanker, and more!

The online help that comes with the software provides a detailed explanation of the functionality of the program.

**BBUG NO 9112
APPLICATION PAD
Version 3.7 (Disk 2 of 2,
also 9111)**

**BBUG NO 9113
VDT Version 1.1**

*CLASSIFICATION *
Utilities * Windows *
Hard Disk*

VDT is a toolset for use with the Microsoft Windows operating environment. The toolset provides enhancements and improvements to the Microsoft Windows environment.

VDT is comprised of three integrated applications that provide the following features: a screen expander (virtual Desktop), a hierarchical group manager (nice toolbar), and a graphical disk manager.

**BBUG NO 9114 WINFUEL
Version 1.2**

*CLASSIFICATION * Automotive *
Windows*

WINFUEL is a fuel consumption calculator for Windows. The program takes the amount of fuel consumed, the distance travelled and calculates the results. The results are displayed in miles per gallon in both imperial and US measurements, liters per 100 Km and liters per kilometer.

Requires VBRUN200.DLL - BBUG DISK # 9083

**BBUG NO 9115 HIT OR MISS
Version 2.2 (Disk 1 of 2,
also 9116)**

*CLASSIFICATION * Games * Windows *
Hard Disk * Sound Card*

HIT-OR-MISS is a multi-media arcade game for Windows featuring digitized sound and music. There are many levels of play in increasing difficulty and a surprise at the end!

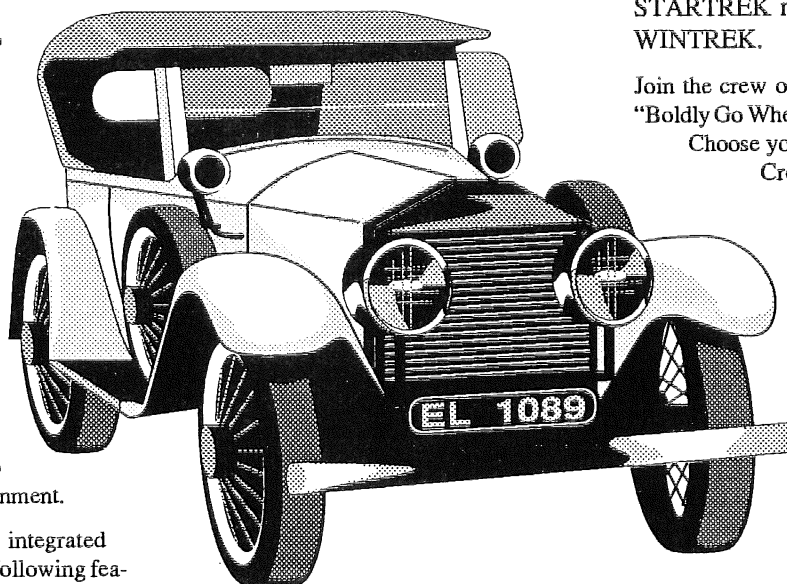
The object of Hit or Miss is to always keep the ball hitting the green bar.

**BBUG NO 9116 HIT OR MISS
Version 2.2 (Disk 2 of 2, also 9115)**

**BBUG NO 9117 SUPER VIDEO
POKER Version 1.0**

*CLASSIFICATION * Games * Windows *
VGA * Hard Disk*

SUPER VIDEO POKER for Windows (SVPOKER) is a shareware game based on the popular video poker machines found in many



casinos.

Features of SVPOKER: "Jacks or Better" and "Jokers Wild" variations of play, animation and sound effects, on-line context-sensitive help, best-play advice for any hand setup, save/restore, user-definable payoffs, and more. The on-line help gives a complete description

of features and how to play.

**BBUG NO 9118 WINTREK
Version 1.00**

*CLASSIFICATION * Games * Windows *
Hard Disk * VGA * Sound Card*

HIGH DENSITY DISK

STARTREK now comes to Windows in WINTREK.

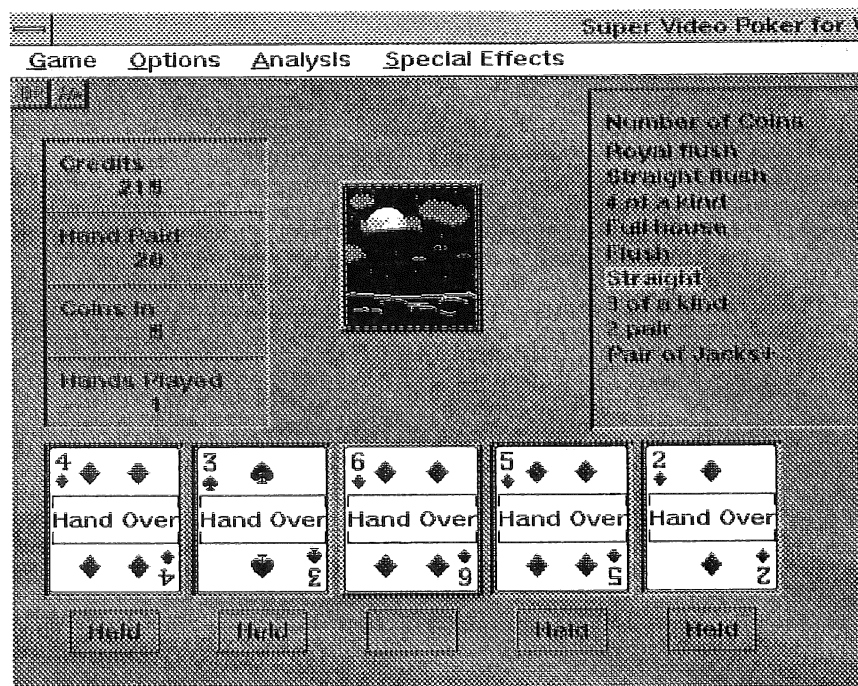
Join the crew of the USS Enterprise as they "Boldly Go Where No One Has Gone Before".

Choose your own rank from Admiral to Crewman and take command of this galaxy class starship - You will receive your orders from Starfleet Command at the commencement of your mission.

The object of WINTREK is to find all the aliens and destroy them. You have several weapons and operational systems to perform your task. The Photon Torpedoes (PHO) and Phasers (PHA) are used to destroy the aliens. Use the

Navigation (NAV) button to move around in the galaxy.

If you complete the mission on time, your score will be added to the "Top Star Fleet Officers" list.



Super Video Poker - BBUG9117- a Windows game for card enthusiasts

BBUG NO 9119 WINEBASE Version 2.0
(Disk 1 of 2, also 9120)

*CLASSIFICATION * Bar/Home * Windows * Hard Disk*

WINEBASE is a Windows based Wine Cellar DataBase. It stores information on up to 2000 different wines (per file). Provides graphical display on wine ageing, cellar value and total stock. Graphs the structure of your cellar. Search on most fields. Choice of sort options. Prints sorted reports. Easy to add wines or edit existing stock. Keeps a History file on each wine tracking comings and goings, and you get to use both Mouse buttons!

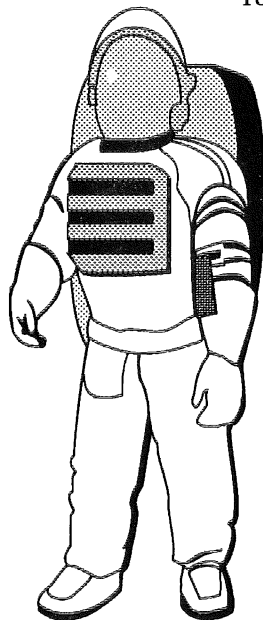
WINEBASE is intended as a tool for managing home wine cellars.

BBUG NO 9120 WINEBASE Version 2.0 (Disk 2 of 2, also 9119)

This Disk contains the WINEBASE manuals.

BBUG NO 9121 JETPACK Version 1.1

CLASSIFICATION * Games * VGA/SVGA * Hard Disk *
Sound Card supported



You are a daring adventurer in search of precious emerald gems! With your trusty jetpack strapped to your back, enter and explore a hundred levels full of treasures and peril.

Use your JETPACK model L1069-E to explore 100 treacherous levels of dungeons! Equipped with Jet Turbines and armed with a powerful Phase Shifter, you quest for precious gems through dungeons full of treasures and peril without getting killed. When you collect all the gems for each level, the portal to the next level will open. Collect treasure on the way to earn extra lives.

NOW BY POPULAR DEMAND, over TEN THOUSAND levels can be collected and created with the built-in Level Editor! Up to 8 players, joysticks supported. Fast arcade action with digitized Sound Blaster & 256 Color VGA graphics! - From Software Creations.

BBUG NO 9122 SPACE CHASE Version 2.02D

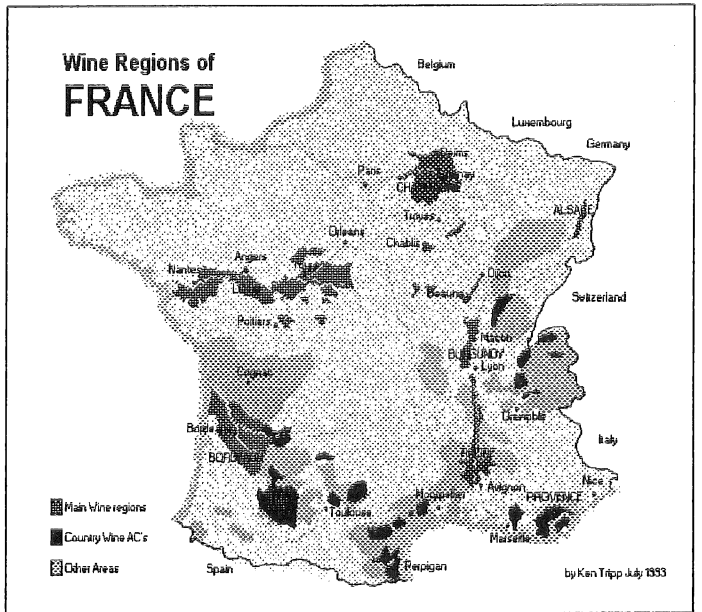
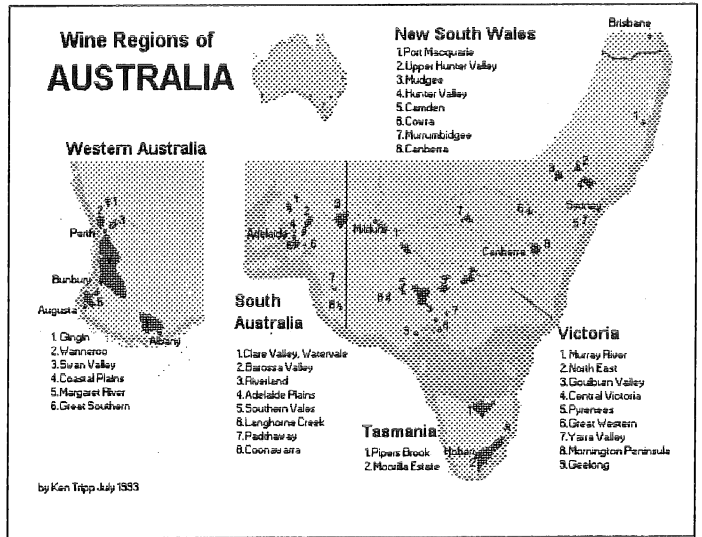
*CLASSIFICATION * Games * EGA/VGA * Hard Disk *
Sound Card Supported*

HIGH DENSITY DISK ONLY

You are Jason Storm. You've just been handed a tough assignment: Track down the leaders of Evil Guys Inc. and stop them from taking control of the planetary government.

After taking control of Capital City, Evil Guys have mobilized their forces against you in the hopes of eventually overthrowing the government and taking control of the Planet!! Your mission, should you choose to accept it, is to capture the leaders, destroy their forces, and end their reign of terror.

SPACE CHASE from SAFARI is HERE AT LAST! Jason Storm battles the forces of evil for control of a vast city! 10 MASSIVE levels, incredible EGA/VGA graphics, all original Adlib/SB music tracks!



Maps are new to WineBase, they are standard Windows .BMP files.

All maps are 640 X 460 Pixels, 16 Colour.

You can create them using the Windows PaintBrush program, which comes with Windows, by scanning a map that you have and editing it with PaintBrush.

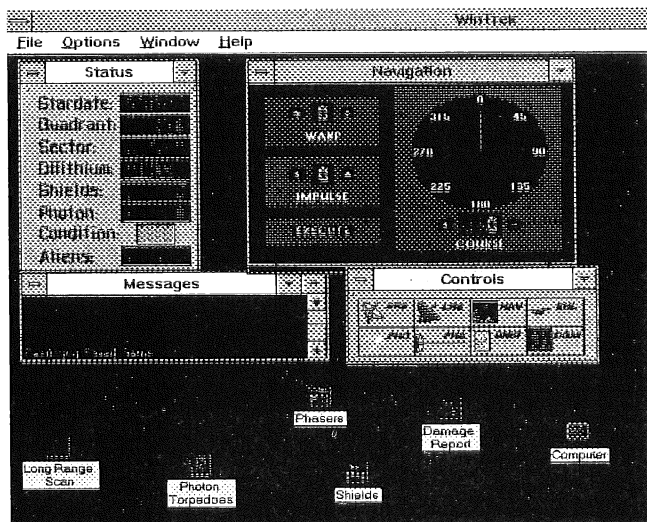
Windows and Paintbrush are trade marks of Microsoft Corporation.

BBUG NO 9123 FLUX Version 1.1

*CLASSIFICATION * Games * Hard/Floppy Disk * VGA * Mouse*

FLUX is a unique and addicting game. Unique because there isn't anything out there quite like it. Addicting because it challenges everyone that has played it, from 8 to 80.

You start with a simple 7x7 playing grid (49 squares). Inside the playing grid are 2 red flux pieces (human player) and 2 blue flux pieces (computer opponent). Also inside the grid are four or more blocks. These blocks



WINTREK - BBUG9118 - is the Windows version of the ever-popular Star Trek Game

serve no purpose, other than to limit movement and occupation by the flux pieces.

The object of the game is for your flux to multiply and strategically occupy as much of the playing grid as possible. Whichever side has the most points at the end of the game or occupies the entire grid is declared the winner.

BBUG NO 9124 DEFENDER

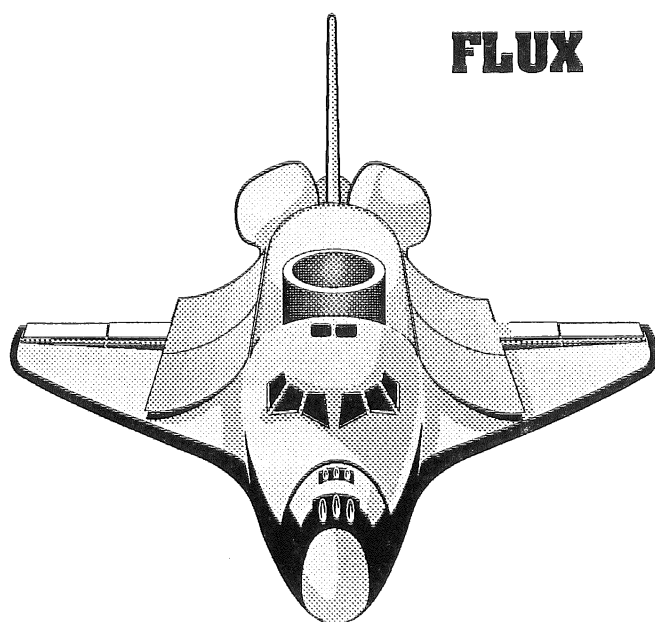
CLASSIFICATION * Games * VGA * L/Floppy * Mouse or Joystick supported

Aliens have invaded the earth in a bid to take control of all its natural resources. The aliens are currently destroying all intelligent lifeforms,

DEFENDER is an all time favourite of a coin operated arcade game. Your mission is to destroy the aliens and preserve the natural order of our planet.

Your fighter craft is equipped with lasers and smart bombs, and is capable of hyperspace. Use lasers to destroy enemies; use smart bombs to destroy all enemies on screen; use hyperspace to escape immediate danger (warning: your ship may be destroyed upon re-entry).

Bonus ship and bomb awarded every 10000 points.



Happy April 1st from Sam Miller

Book Review:

Computers & Sex

A computer newsletter doesn't often get a book on computer neuroses for review. So it was with some anticipation that I read *Computers as Sublimation for Sex* by Professor Vladimir I. Kugelmass (Beckman Press, \$29.95). Dr. Kugelmass is a psychiatrist and Freudian specialist at the Phipps Clinic of Johns Hopkins Hospital. He's also a dedicated computer enthusiast.

I called the author

I found his book utterly fascinating, but there was some background material I was curious to know more about, so I decided to call him up. Kugelmass seemed delighted to hear from a reader so soon after his book was published.

Disagrees with Freud

In a soft Viennese accent he told me how he had stumbled into his new ideas, which conflict radically with Freud's theories, when he bought a foot locker at a computer swap meet.

The locker contained software and books by Freud's present day computerwise disciples, among them: *Myths Perpetrated by Spreadsheet Deviants*, *Interpretations of Database Dreams*, *Primitive Analysis of the Soft Floppy*, and *Nightmares of a Hard Disk Crash: A Study in Perversity, Self Denial and Suicide*

Among his findings are...

Individuals who immerse themselves in computer work to the point where they lose interest in sexual activity will suffer from severe depression, low self-esteem, and nosebleeds.

People who are continually obsessed with the size of their hard disks are suffering from paranoid delusion, because actually their effective disk size has been doubled by *Stacker* software.

Major discovery

One of his most fascinating discoveries was that he himself almost lost interest in the sex act when he discovered that computer games last longer.

Kugelmass brilliantly exposes the fundamental differences of digital as contrasted with sexual dysfunction: "To compare the deterioration of the hard drive and the deterioration of the sex drive is entirely feasible, although this is an unwholesome ploy to use if all the digital and sexual connotations are not genuinely admitted and fittingly resolved."

His findings have led him to spend the remaining years of this life to study the unwanted and stifling inner fear of inadvertently formatting an active hard disk.

Recommendation

I would recommend this book. If you don't have a computer neurosis yourself, you could be the savior of someone who is obsessively buried in his computer.

Reprinted from Scroll - the W/PUG Newsletter

Spotted by Neil McPherson



BRISBUG PC USER GROUP INC.

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Phone (07) 274 4108

MEMBERSHIP APPLICATION FORM

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State: _____ Post Code: _____ Phone (Home): _____ (Work): _____

Type of User: Business ☐ Educational ☐ Hobby ☐ Other _____

Type of Computer: XT ☐ AT ☐ 386 ☐ 486 ☐ Other _____

Modem: Yes ☐ No ☐ Disk Size Preferred: 5/4 ☐ 3/2 ☐

Special Interests: _____

Membership Type: Individual / Family ☐ Corporate ☐

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I / We hereby apply for Membership of BRISBUG and agree to abide by its rules.

Signature: _____ Date: _____

OFFICE USE ONLY

Membership No.	Date Received	Receipt No.	Date Processed	Date Memb.Card/Catalogs Sent

BRISBUG HELP LINES

The following members have generously offered to give telephone assistance on the topics listed. Please be sure to observe the restrictions on times specified by each person. This service is not intended to serve as on-going training or a substitute for reading the manuals, or for

not having manuals. It is for assistance with particular difficulties and for general advice such as when considering becoming involved in that topic.

New offers of help are always welcome, and there are some topics absent from the list.

Subject	Name	Phone	Days & times
4DOS	Chris Raisin	379-1415	Any time
Accounting	Ian Haly	870-1463	After 5:30 & W/Ends
As-Easy-As	Dan Bridges Dan Emerson	345-9298 288-6070	Anytime
AutoCad	Geoff Harrod	378-8534	Evenings, W/E
Clanguage	Danny Thomas Ian Haly	371-7938 870-1463	Mon-Fri 6pm-9 & W/E After 5:30 & W/E
Clarion	Ray Creighton	354-1107	eve & W/E
Clipper	Chris Raisin Don Andersen Dan Emerson Mike Theocharous	379-1415 881-2432 288-6070 824-1450	Evenings after 7pm & W/E Anytime
CodeBase Communications	Ian Haly Ron Lewis	870-1463 273-8946	After 5:30 & W/E 8am-8pm
Dataflex	Tony Obermeit	2875534	Mon-Sat A/Hrs & Sun
dBase	Ian Haly Mike Theocharous Sylvia Willie Bob Boon Chris Raisin Dan Emerson	870-1463 824-1450 393-3388 209-1931 379-1415 288-6070	After 5:30 & W/E Anytime Evenings M-F 8am-5pm Any time Evenings
DBXL DisplayWrite 4 DOS	Ian Haly Mike Lester Ron Lewis	870-1463 275-1742 273-8946	After 5:30 & W/E (343-5703 a/hrs) 8am - 8pm
Forth Fortran	Danny Thomas Cec Chardon Rob Andamson	371-7938 870-1812 266-8353	M-F 5-9, W/E Evenings Evenings
Fox/Fox-Pro Genealogy	Leon Percy Rob Adamson Colin Cunningham Bob Gurney	808-1570 266-8353 263-3005 355-4982	Evenings Evenings 9-9 all days Mon-Sat 8-8
Hardware	Chris Ossowski Ron Lewis	274-4144 273-8946	9-9 all days 8-8 weekdays
Help!	Dan Bridges	345-9298	Anytime
Lantastic	Adrian Goldsworthy	345-5004	M-F 7pm, and W/E

Meta 5	David Shaw	870-3633	9-9 all days
MS Word	Chris Raisin	379-1415	Anytime
Multimate	Frank Mehr	397-3984	Anytime
Multi-user DOS	David Shaw	870-3633	9am-9pm
Novell Netware	Dan Emerson	288-6070	Evenings
Open Access 2	Cec Chardon	870-1812	Evenings
OS/2	Alan Gibson	207-2118	6:30-9:30pm
PostScript	Danny Thomas	371-7938	M-F 5-9 & W/E
PowerBase	Mike Lester	275-1742	(343-5703 A/hrs)
Project Manage- ment & planning	Brian Doyle	355-1328	9am - 9pm all days
Quick-BASIC 4.5	Harry Strybos	288-5145	4pm-7pm Weekdays
Quicksilver	Ian Haly	870-1463	M-F after 5:30 & W/E
R-Base	Tony Luck	279-3033	9-9 all days
Spreadsheets	Sylvia Willie	393-3388	Evenings
SQL	Cec Chardon	870-1812	Evenings
System Manager	David Shaw	870-3633	9-9 all days
True-Basic	Bob Gurney	355-4982	Mon-Sat 8-8
Unix	Paul Watts	892-2226	Mon-Sat a/hrs & Sun
Windows	Bernard Speight	349-6677	6pm-9pm
Wordstar (all ver)	Neil McPherson	075-971240	A/hrs
Wordstar-2000/4	Bob Boon	209-1931	Mon-Fri 8-5
Xenix	Paul Watts	892-2226	Mon-Sat a/hrs, Sun
	Mike Lester	275-1742	(343-5703 a/hrs)

MEETINGS

Meetings are held on the 3rd Sunday of every month, except under unusual circumstances, at

QUT KELVINGROVE CAMPUS
Victoria Park Road
Kelvin Grove, Brisbane 10am to 5pm.

Brisbug occupies the main lecture theatre and several other lecture rooms in "B" Block. Please note that other groups are usually using the campus at the same time, and that parking is permitted only in the designated areas. Disabled access is available

Food and refreshments are available 11:30-2:00. Alcohol is not permitted.

Members and visitors must wear an identity badge available from the Membership desk.

Program for Sunday, 19th September, 1993

10:00am	CLASSES		
	Introduction to DOS	John Tacey	R315
	Introduction to dBase IV	Dan Emerson	R302
	Hardware	Ron Lewis	Theatre
	BASIC Languages	Rex Ramsey	R309
	C++	Geoff Baker	R312
	xBase	Leon Percy	R310
12:00	Windows NT on a DEC Alpha		Theatre
12:00	JUNIOR GROUP	Les Cathcart	R301
12:00	NEW MEMBERS ORIENTATION		R310
1:00	CLUB MEETING		Theatre
1:30	Q&A for Windows		Theatre
3:00	Environment Monitoring	Dan Emerson	R302
	New Users Course	Chris Raisin	R309
	SIGs	<i>(Check noticeboard for locations)</i>	

ASSOCIATED CLUBS DIRECTORY

Club Name	Centred in	Telephone	Contact
Coffs Harbour Computer User Group	COFFSHARBOUR	066-538283	Janell Rose
Gold Coast SIG (of Brisbug)	BURLEIGH WATERS	075-710113	Joanne Ellis
Dalby PC Users Group	DALBY	076-621381	Peter Allen
Beaudesert Computer Club	BEAUDESERT	075-411050	Bernie Williams
Pine Rivers IBM Compatibles C C	STRATHPINE	07-8881452	B Schultz
Sunshine Coast Computer Users Group	MOOLOOLABA	074-442711	Daz Picton
Landsborough Computer Club	LANDSBOROUGH	074-923205	
Noosa Hinterland PC User Group	COOROY	074-852052	Colin Sheehan
Kenilworth Computer Users Group	KENILWORTH	074-460328	Peter Webb
Cooloola District Computer Club	GYMPIE	074-833881	Dorothy Ross
Fraser Coast Computer Club	HERVEY BAY	071-212394	Steve Bottom
Bundaberg PC User Goup	BUNDABERG	071-531449	Bob Wright
Gladstone QRI Computer Club	GLADSTONE	079- 723083	Dave Franklin
Gladstone Computer Users Group	GLADSTONE	079-783941	Cec Wilmott
Rockhampton Group	ROCKHAMPTON	079-282554	Nick Quigley
Mackay Computer Users Group	MACKAY	079-573998	Gabriel Barbare
Burdekin Computer Club	AYR	077-834630	Rod McRae
Townsville Computer Users Group	TOWNSVILLE		
Johnstone PC User Group	INNISFAIL		Lyndelle Coianiz
Cairns PC User Group	CAIRNS	070-577997	John Hampson

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101 Keyboard, M'Twr,
SVGA Monitor - \$2273

OS/2 V2.1

2.1 Upgrade CD-Rom \$110
2.1 Upgrade 3.5 Disk \$136

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486DX-40V 3 x Vesa Slots \$849
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486DX2-66V 3 x Vesa Slots \$1289

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* (Paradox® for Windows V1.0) P.C. Magazine's Editors' Choice Award '92

* (Quattro Pro® for Windows V1.0) InfoWorld's 1992 Product of the Year

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