

Significant Bits

Journal of Brisbane PC User Group Inc

Vol 9 No 10
September 1994
\$4.00

Next Meeting

Sunday, 18th September

Remember the
MEMBERSHIP DRIVE
finishes
SOON!

Main Event

Lotus SmartSuite - 1:30 pm

Lunchtime Special Duet

Uninterruptible Power Supplies

Lumbar Support Seating - 12 noon

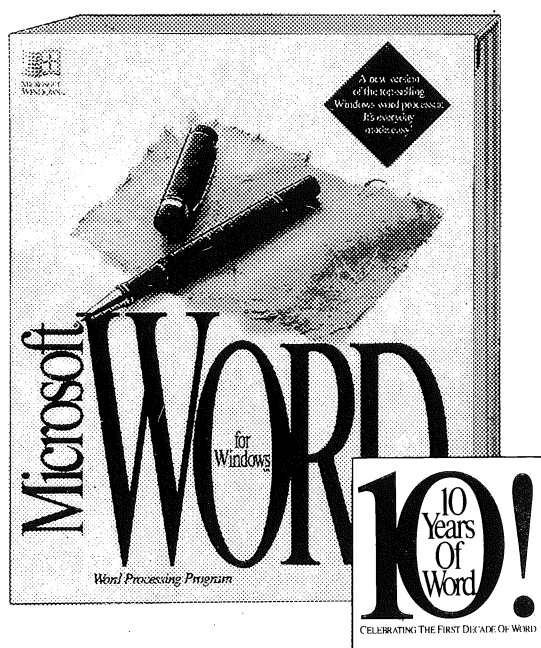
In this issue

Geoff Harrod's Review of 2D CAD Packages

Mic Collis' The MediaVision MultiMedia Kit

OS2 - WARP β 2 *reviewed by Paul Marwick*

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Significant Bits

Journal of Brisbug PC User Group Inc.

Contents

Volume 9 No 10
September 1994

SPECIAL Features

- 12 **Dr. Debug**
Slow boat to Cuba
Part 4
- 27 **2D Cad**
Geoff Harrod
- 34 **Learning Assembler**
using DEBUG
Dan Bridges
Part 6: Interfacing with a
HLL
- 46 **The OS/2 Column**
OS/2 WARP BETA II
Paul Marwick

Program for Sunday, September 18

- 9:00 am CLASSES
9:30 am Junior Club
10:00 am CLASSES
12:00 pm Vital Concepts
12:30 pm Precision Power
12:15 pm New Members
Orientation
1:00 pm Brisbug Club Meeting
1:30 pm Lotus - SmartSuite 3
3.15 pm New Members' Chat
3.15 pm SIGS
3.30 pm Magazine Meeting

Club News

- 2 From the Engine Room Lloyd Smith
3 From the Assistant Stoker Graeme Darroch
4 Editorial Lloyd Smith
5 SIG News Dulcie Haydon
6 Junior Group News
8 Education News Mark Mullins
10 Minutes Neil Krause
14 BBS News and Information Paul Marwick

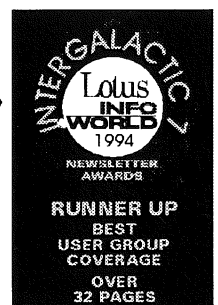
Articles

- 41 Media Vision Multimedia Kit Mic Collis
44 Snippets Corner Rita Copeland
52 Logos Bible Software David Parker
54 Windows: An irreverent introduction for "Dummies" Alan Weeks
47 Games Reviews - "METAL & LACE" Corpsegrinder

Regular Features

- 15 Windows Watch Ralph De Vries
20 Lindsay's Letter Lindsay Bates
55 New Library Additions Lloyd Smith
61 BBS-Internet Application Form
64 Brisbug Help Lines Rita Copeland

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of our regular supporters:*
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BRISBUG PC USER GROUP INC

*A Computer Club for users of
PC-type computers.*

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Info line **841 5511**

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SOFTWARE LIBRARY SERVICE AND SHOP

Post Prepaid requests to:
Brisbug Software Library,
95 South Station Road,
Booval 4304

or phone: (07) 281-6503
MONDAY-FRIDAY, 9am to 1
and 2 to 4pm ONLY!!

HELP LINES

Brisbug operates a system of help
lines for members only.
The telephone numbers for each
topic are listed at the back of this
magazine

FROM THE ENGINE ROOM

Lloyd Smith

VOLUNTEERS

Brisbug exists only because of the generosity of volunteers. Without the continued support of a small, dedicated band of workers, we would eventually grind to a halt. When we loose a helper for any reason whatsoever, the remainder of our team have to reshuffle their duties and attempt to fill in the gap.

Many of our workers, myself included, take on additional jobs because of the lack of replacement volunteers. We fit these additional tasks into our usually busy schedule, generally at the expense of our personal, family or business lives. Sometimes some of these tasks have to take a back seat and often get postponed until they can be slotted in to our schedules.

In my own case, I currently handle three very time consuming tasks - the Presidency of our club, the magazine, which I inherited from Ron Lewis and the Library, which I have attended to for quite a number of years.

The Software library has been built up over the years to be a very important part of Brisbug. We have one of the most extensive libraries of Shareware programs in Australia, and in the past have offered a good service to members. Fortunately for me, I have had a terrific team to support me during this time. Brian Sanborn and Terry Tuttle have supervised the operation of both the Software Library and Shop at meetings, and Ron Kelly has looked after many behind-the-scenes requirements - transporting the library disks to and from the meetings and often preparing the many orders from you, the members.

Unfortunately, Ron is not as young as he feels, and because of his health has had to relinquish his duties to the library. With my own very busy schedule I realise that I cannot find sufficient time to again absorb these tasks, apart from the fact that my own vehicle is usually crammed full of gear to be transported to and from the meeting.

Finding the time to prepare and dispatch mail and phone orders is also a problem, and many orders have had to be held up until I can find sufficient time to attend to them. The bottom line is, Brisbug needs a volunteer (or volunteers) to look after transportation of the library disks on meeting days and preparation and dispatch of orders during the month.

MEMBERSHIP DRIVE

The membership drive has only one more month to go, so your chances of being the proud owner of the Compaq 486 laptop or the Microsoft software are running out. If every member of Brisbug makes an effort to introduce a new member to our club the drive can still be a success.

LAST MONTHS WINNERS

The lucky members from last months draw were:

Lynn Dawe - AMI Pro

Sunshine Coast Computer Group -
Paradox for Windows

Ken Dunne - Q & A

Carl Nielsen - Paradox for Dos

Tom Ross - Paradox for Windows

Norm Holliman - Paradox for Dos

and the winner of the new member prize

Peter Browning - Paradox for Dos.

My congratulations to all these winners.

FROM THE

ASSISTANT STOKER

Graeme Darroch

Hi Again! Its strange the things that happen to you sometimes when you are on the help list for Brisbug.

Tonight I had a call from one of our members who used his computer to keep up with his share portfolio. He uses a modem to link into an information service and get the latest on what is happening in the world of the stock exchange, and this system operates fine. But being a retired person he goes on the road a lot travelling around the state, as is his want, Lucky sod! When on the road he likes to keep up with the same information, and to do this he uses a 1200 baud modem connected to a mobile phone, through a proprietary interface.

This works well in good reception areas but when in fringe areas he has problems. What he was phoning me for was to see if I could suggest a high gain antennae to boost his signal strength. He had already bought what was meant to be a high gain antennae but it did not seem to make any difference.

Well he reached the limit of my knowledge on the subject very quickly, and I had to admit that I could not help, but it was an interesting subject and we had quite a discussion on the subject.

If anyone reading this has any information please let me know and I will make sure that the information gets passed on. Probably in this page.

The management BBS is working well and is being used for its intended purpose. Remember if you have any contributions to the Magazine or want to have a look around a board as a new user this is the place to call.

What's on this month..

This month sees the return of Lotus to our meeting. They will be presenting their latest release SmartSuite Version 3. This had a showing in the city at the end of August. There was an invitation to each member included in last months magazine. I was glad to see quite a few of our members take this offer up and attend this show. We were given a good demo of the capabilities of the new release, and there is no doubt that the software shapes up in the market place.

One thing that took my eye was the ability to take a named range from 123 and drop it on the smartbar icon from Approach and it immediately creates a database with the titles as fields and the data as field contents. Neat !

Mini Presentations

We have two Mini Presentations this month for the lunch time special.

The first will be Vital Concepts presented by Manny Gerasimou. Manny will give a talk on the importance of correct seating when spending long (or even Short) Periods of time in front of a computer. This is the subject of much text in courses these days and when you attend a course you will find that to get accreditation nowadays the instructors must address correct posture for computer operators, and how it is achieved.

This device that Manny will demonstrate ensures that you sit in the correct posture, it was even the subject of a report on Queensland Extra recently. One not to be missed if you are one of

Continued on page 5

MAGAZINE

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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 may 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 first 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 rates for full, ½, ¼ page and single column, 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 2500 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.

Editorial

Lloyd Smith

MAGAZINE CONTRIBUTIONS

Not too long ago, one of the major problems in editing our magazine was the lack of suitable material for inclusion. And now, thanks to the efforts of a few of our members, I am starting to receive extra articles each month. These items certainly make it just a little easier when it comes to putting the magazine together as I now have a choice of what to include to present a balanced selection.

Choosing what is, and is not, included in the magazine is now a matter of how much space is available. It doesn't take long to fill up 64 pages, especially with the quality of articles being submitted. For the last two months I could have quite easily produced a much larger magazine (80 pages at least) and still had some stories left over.

Don't give up with your contributions. If you have recently submitted in an article, and it has not yet appeared in print, don't assume that I have rejected it, but rather, that it has gone into the queue, waiting for the appropriate time and place.

FINANCIAL CONSIDERATIONS

Keeping in mind the financial position of the club and the costs of printing and distributing each month's edition, I decided that, for the time being, the size of each issue should not exceed 64 pages. Whilst this number of pages is not "set in stone" the possibility exists, in the future, for a much larger magazine.

To consider this, I would need to be assured that we had secured additional advertising revenue to cover

the additional cost of printing. Presently each page costs just over \$80 to print, so if the number of pages were to increase, we would need at least one half-page advertisement for every two pages to cover the additional costs. The solution appears, on the face of it, easy - just get more advertisements, but I can assure you that getting advertisers to support our magazine is not easy.

ADVERTISING UNIT

The Significant Bits Magazine team is in need of volunteers to get out and sell advertising for our publication. With this in mind, I should like to put together a team of volunteers to form an advertising unit to take control of all advertising in the magazine.

Somewhere in our ranks there are a few members who have the time, ability and contacts to assist with this problem. If you would like to help, please contact me either at the meeting or by phone and I will only be too happy to welcome you to the team.

MAGAZINE FRONT COVER

For quite some time Ron Lewis has produced the design for the front cover every month. His creative ability is quite unique, and he always seems to come up with something different to make each issue attractive. Ron assures me that he enjoys doing the cover, and even though he will be away for the next issue, he will provide me with a layout for completion before he leaves.

However this should not stop other creative members in submitting their own designs for consideration for future issues. If you feel that you would like to submit a design for the front cover, please do not hesitate to get in touch with me.

SIG NEWS

Dulcie Haydon

Our Sig co-ordinators give of their time to run a meeting and I commend them for their dedication and work. The group members who participate are what make an informative, educational and friendly atmosphere. The problems or ideas are tossed around to lead to solutions and advances for everyone. A shared problem is a divided problem (niece quote).

Being an inexperienced BBS user, I logged on to the Management BBS and have been trying to get the hang of it. This occupation has been very interesting. Graeme breaks in on my call the other day and types in "have a look around". I feel as though I step out of his PC and walk around his office for a looksee.

Someone suggested a Communications SIG, which is a great idea. Next step is to formulate one. Anyone who is interested please specify place, time and items of discussion.

Another suggestion is a Network SIG. I'm hopeful the person to co-ordinate it will be available shortly. Any other special interest to try out? Please send me a message.

Visual Basic Sig

Last month we decided on a simple project to start on. Acting on advice from Peter Grimes an experienced dataBase programmer, we decided on a data definition for a small Address Book type project. One feature, to be included, is a Birthday reminder for those hard to remember dates that get us all into so much trouble.

Members agreed to bring along their work to the next meeting for review.

Graeme Darroch and Alan Bridges.

SouthSide SIG Meets on the 4th Tuesday at Rex Ramsey's home, 114 Forestdale Dr, Forestdale. Sept 27th, 7.30, everyone welcome, from any area. Bring along software, ideas or problems. Contact Rex 8004827.

Windows, O/S2, VB, Business & Finance, Mag, and Genealogy will meet after 3.00pm as usual

Assistant Stoker - Continued from page 3

the many people who suffer from back problems.

Presentation number two is from Precision Power a local supplier of power conditioning equipment. Paul Thomas will tell us about Uninterruptible Power Supplies and how they can save your bacon if you are in the middle of an important document when the lights go out, or perish the thought if you are in the middle of doing a Backup when the power drops out!!

Comms Lectures return

Next meeting sees the return of my "Introduction to Comms" lectures. Once again at the ungodly hour of 9:00AM (how do I get the good time slots) in the main lecture theatre. This time we should be able to actually get some interaction going on a phone line. Yes we now have access to a phone line from the theatre, and this will open up a whole new series of presentations that we will be able to have. If you have an interest in comms and would like to find out some of the basics, or even if you came to the last series and need some revision, come along you will be more than welcome.

See you at the meeting at (Yawn)
9:00am

Graeme

ADVERTISING DETAILS (cont'd)

FULL PAGESIZE DETAILS

Normal article text (3 col)
260x178
Page trim
295x208
Max assured print area
280x190
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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,
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Inserts are subject to prior arrangement.

The charge is 1.5 time 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.

To meet Post Office requirements, they must have been printed in Australia or New Zealand.

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
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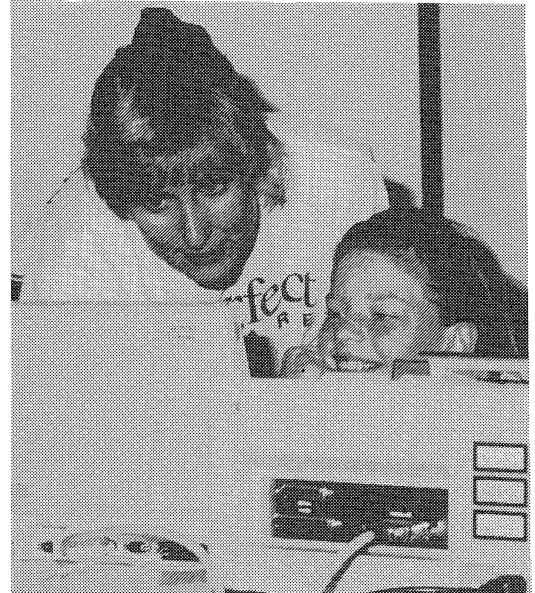
***We welcome your
decision to support your
club by advertising in the
magazine.***

JUNIOR CLUB NEWS

Last months meeting of the Junior Club proved to be a very full day and was enjoyed by all.

The first Presenter, Paul Marwick gave a very interesting talk on using the BBS and provided a working model of how the BBS operates. Paul explained to Junior members present how to log on to the system, what, and what not, to do and explained how to use the system to download files.

The next Presenter was Wendy Bell from WordPerfect who spent quite a lot of time explaining to the Juniors how to use WordPerfect on their computers and also at school. Some of the short cuts in using the program were explained and also how to get the best out of the program.



NOTE

In future, all computers brought to the Junior Club Meeting **MUST** be turned off during the presentations. No Junior members will be permitted to use these computers at that time.

COMPETITION

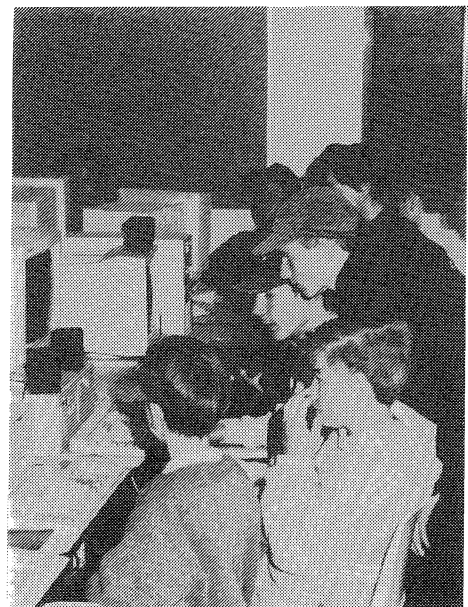
The Junior Group competition for a logo has now closed, and all the submissions have been passed on to the Management Committee for their consideration and judging. The winner will be announced at the next meeting.

NEXT MEETING

Wendy Bell will be returning again this month to further explain WordPerfect and in particular WordPerfect for Windows. This presentation will commence at 11.00 am.

Prior to this, the Junior Club will be having a discussion on using Windows.

The third speaker for the day will be Jeremy Gough, who will briefly discuss using Visual Basic.



New OS/2 To Come With Applications Bundle

AUSTIN, TEXAS, U.S.A., AUG 19 — IBM (NY:IBM) said its next release of the OS/2 operating system will ship with a bundle of more than 10 applications. The BonusPak will include a suite of the most-used PC applications, plus several other products developed by IBM and others.

Not all the details have been worked out yet, OS/2 Brand Manager Gary Smith told Newsbytes. "I haven't even seen all the applications myself." Negotiations are still going on with third-party vendors whose products might be included in the BonusPak bundle, Smith said.

IBM has announced some specific packages and some generic categories that will be included in the bundle, however. One feature will be IBM Works, a suite of standard applications including word processing, database, spreadsheet, graphics, and report writing. This will probably be a suite developed by a third party but possibly carrying IBM's name, Smith said. It is to be made up of 32-bit OS/2 applications.

The new release of OS/2, due to ship in October and often referred to as Warp, will be able to run in four megabytes (MB) of memory, and will let applications written for all current versions of Microsoft Windows run on the same desktop, according to IBM.

Corel Ships CorelFlow For Windows

OTTAWA, ONTARIO, CANADA, AUG 8 — Slightly behind schedule, Corel Corp. has begun shipping CorelFlow, its business graphics program for Windows.

Announced in March, CorelFlow was originally due to begin shipping in June. It has a list price of US\$99 or C\$US129 and is now available from Corel distributors around the world, the company said.

The software is intended for business users who need to create diagrams and flowcharts quickly, the company said. Users can drag-and-drop shapes, lines, and curves to create organization charts, floor plans, schematics, flowcharts, technical drawings, and other such graphics.

The package's features include: a library of style palettes; hundreds of drag-and-drop symbols; support for Microsoft Corp.'s object linking and embedding (OLE) 2.0 standard, which allows applications to call other applications; hierarchical diagrams; automatic shape connectors that let a user connect a new object to an existing one by selecting the new object from a library and clicking and dragging on the existing object on the screen; on-screen text and line editing; 100 TrueType fonts; and 10 drawing layers.

NEWSBYTES

Is There A Microsoft Keyboard In Your Future?

REDMOND, WASHINGTON, U.S.A., AUG 19 — Microsoft Corporation (NASDAQ: MSFT) has confirmed that it will introduce a personal computer keyboard by the end of the year.

The company isn't releasing any details about its keyboard, but industry watchers believe it will include a special wrist rest and slanted keys designed to be more comfortable. Other unconfirmed reports say the device will include three additional keys that will allow the user to execute commands in the Windows operating system without the use of a mouse.

According to PC Week magazine, the keyboard will be designed specifically for use with the upcoming release of Windows, code-named "Chicago" internally at Microsoft and expected to be released as Windows 4.0. Microsoft had earlier said "Chicago" would ship by the end of the year, but recently said that date might slip to early 1995.

deltaComm Ships Telix For Windows Comms Software

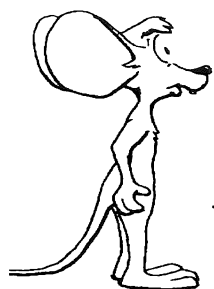
CARY, NORTH CAROLINA, U.S.A., AUG 15 — DeltaComm Development, publisher of Telix for DOS communications software, is now shipping Telix for Windows.

However, the Windows graphical user environment may have caused the delays in bringing the program to market. Senior software engineer, Sean Palmer told Newsbytes, "We came up against compatibility issues during our development and testing, such as video drivers, but our engineers were up to the challenge. Telix for Windows is now ready to be released into the channel."

3M Offers Screen Filters For PCs

ST. PAUL, MINNESOTA, U.S.A., AUG 15 — 3M Corporation (NYSE: MMM) has announced several new screen filters for computer users that reduce glare and also provide privacy.

3M Optical System is offering a universal-fit wrap-around frame for desktop systems that is available as an anti-glare filter (model AF250), or as a privacy filter to keep people nearby from seeing what is on the screen (model PF450).



EDUCACHEON NEWS

Mark Mullins — Education Director

CLASSES..

Note the
NEW
CLASSES
and starting
times

One would think that as I now have a gold molar that I would be more sage like in my rantings. Despite numerous buffings with Brasso of said tooth NET (computer talk for non enamel type), I have gained no new insights into the meaning of life, why we are on a spinning ball of dirt or in fact Dan's assembler language articles.

Dan never ceases to amaze me. He seems to be able to absorb and retain enormous amounts of information mostly regarding computing. He fearlessly attacks any subject and usually manages to tackle it. Despite all of this I remember Dan mostly for his party tricks.

On our recent trip to Bundaberg to 'fly the yellow and black flag' (with optional skull and crossbones), Dan gave a very illuminating talk on viruses. As part of the act Dan loaded a deactivated version of the Michaelangelo virus on to a Bundaberg Club member's computer to demonstrate the damage that the virus could do. This proved to be very interesting and gave a real insight into how viruses work but it proved to be of great concern to the PC's owner ! In the end all was well and did anyone ever doubt that it would. ..well yes.

At the end of the day however Dan put on an even more spectacular exhibition. Following El Presidente's (Lloyd Smith's) example Dan proceeded to replace light bulbs in live sockets. This resulted in a light extravaganza equivalent in spectacle to the laser light show at the '88 Expo and was as daring as a tumble over the Niagara Falls in a wooden barrel. As Dan tried to extinguish the still smoldering drops of solder burning holes in his shirt he received a thunderous round of applause. One member from Bundaberg was heard to say "Dan is everything we have heard about and then more." I think that statement sums it all up. Onya Dan !!

With the drive up to Bundaberg, after a day at their computer show and a couple of early mornings I was beginning to feel a bit jaded. We went out for dinner at the Bundaberg Rower's Club after the computer show and I expected that everyone would have had enough of matters technical. Not so !! Barely had we sat down and I heard someone to my left say

something about a gas chromatograph. What in noddyland is that you may quite rightly ask. Well I don't know and I really have no intention of finding out. However what do you think the odds would be that you would find three people from three different places meeting only once and all knowing what a gas chromatograph was ? Once again, I don't know, but you guessed it... the lads began an exhaustive dialogue on the pros and cons of this device. As I rubbed my forehead with annoyance I turned to the gentleman seated across from me and voiced my opinion about the guys having enough of this sort of stuff, etcetera. He lifted his left eyebrow ever so slightly and said " Gas chromatograph ! Why I used to work on a gas chromatograph !!", and began to get into the conversation. I played the pokies.

Back to Business

On matters educational, **Graeme Darroch will be giving his very informative treatise on Introductory Communications commencing at 9.00am.** Those who have seen his presentation before will attest to the high quality of this talk. It is a must attend for newer users.

At 10.30am there will be the first of the Classic Confabulation series conducted by yours truly for the benefit of mainly new users. All others are of course welcome to attend and I will conduct interactive education in my usual unorganised manner. This will be held in the theatre.

Note that the commencement times for BASIC conducted by Rex Ramsey will be 10.00 rather than 10.30 am henceforth. This capable group are finding that they need a little more time to cover this most interesting topic.

Introduction to DOS and dBase will continue as usual and of course the Junior Group grows ever more popular with the passing of each meeting. My thanks to all who assist in that area.

Clarence Stock will again be conducting his New Users Technical Chat which draws a solid crowd.

New members please note that the New Members Orientation is held each month at 12.15 pm in Room 309 in B Block. If you are a first timer this is essential attendance because of the amount of information that you will gain about the club and what it has to offer.

Paul Marwick, of Sysop fame, will be recommencing his popular course in IBM's O/S 2 at 10.30am. It is an alternative to Windows and DOS that many will find very interesting and informative even if you have no intention of changing operating systems. Who knows...you may become a convert !

For those that can't attend meetings because of distance the club is offering something new in the way of assistance when those unavoidable computer problems arise. **As from the time of receipt of this magazine you may forward any written questions or requests for problem solving to Mr. Rex Ramsey c/- P.O. Box 100, Rochedale South Qld 4123.**

This has been suggested by Rex to assist those who, because of the cost of long distance phone calls, may be a little reticent to seek assistance on the help line numbers which are nearly all based in and around Brisbane. Rex's volunteering to help in this way is much appreciated and I trust that those who need help will not be backward in corresponding with him. It at the least gives you a reason to use your word processor.

I just had a worrying thought. When all of the astronomers were watching Jupiter cop a caning from those big goolies who was watching behind to see if anything was coming Earth's way ? I will let you know the result of my intense investigations into this matter of international concern in the next education article.

Watch this space...
or just watch space !

BETA TESTERS REQUIRED

Following an approach from Lindsay Whipp of Manaccomm, Brisbug members are invited to submit their names as Beta Testers for a wide range of new software.

This new software being developed locally requires extensive testing in order to locate all or any "bugs" in the programming. No experience is necessary, in fact the less experience you have the more the possibility that you will find problems with the software.

Programs will include a range of computer games for both young and not-so-young users as well as various business and other software.

Each beta tester will have to sign a non-disclosure agreement before receiving the program to be tested and each program will be encrypted with the testers name and will require a specific password before access to the program is allowed. These requirements are to protect the programmers rights and prevent unauthorised copying and circulation of the program before it is publicly released.

If you are interested, please telephone **LINDSAY WHIPP** at Manaccomm on **368 2366** (business hours only) to register your name for inclusion on their list of beta testers.

CLASS TIMES

CLASS
TIMES
HAVE
CHANGED
- PLEASE
NOTE

9.00am	Introductory Communications Junior Group	Graeme Darroc Les Cathcart	Theatre B301
10.00am	BASIC Languages	Rex Ramsey	B309
10.30am	Introduction to DOS OS/2 dBase Classic Confabulation	John Tacey Paul Marwick Leon Percy Mark Mullins	B315 B310 B312 Theatre
12.15pm	New members Orientation	Rex Ramsey	B309
3.00pm	New Users Technical Chat	Clarence Stock	B309

Minutes

Neil Krause — Secretary

Meeting on 21st August 1994

President Lloyd Smith opened the meeting at 1.07 pm

Membership Drive

The President reported that results of the membership drive had been disappointing. He reminded members that the drive had only two months to go and he urged everyone to get behind the drive and support the club by introducing new members.

Lloyd confirmed that 100 new members were introduced to Brisbug last month

PRIZE DRAWING

The August prize drawing was then conducted with prizes going to members at the Gold Coast, Beaudesert, the Sunshine Coast as well as Brisbane. Major software prizes were awarded so if you are in need of some good software get behind the membership drive and win some of these prizes.

The President reported he had received a letter from one lucky country winner thanking the club for his prize.

Software development

The President then introduced Lindsay Whipp of Manacomm Pty. Ltd.

Lindsay advised members present that he was presently developing software and was looking for volunteers interested in beta testing three programs which are in the pipeline. It was agreed that details would be provided in this magazine for those members interested in this project. The programs to be tested include two games and "Music Works for Windows" obviously suitable for members interested in music.

Appointment to Management Committee

The President reported that the vacancy on the management committee had been filled by the appointed of Paul Marwick. Paul was introduced to the meeting.

REPORTS

VICE PRESIDENT

Graeme reminded members present that the PCShow will be held on 28th, 29th and 30th September and 1st October. He invited members to assist with the Club's display at the show. Intending volunteers should add their names to the list of helpers in the members registration area.

The President reminded members that to-day was the last day people could volunteer to assist at the show because time was needed to arrange supply of the Club shirts.

TREASURER

Max reported that the opening balance was \$15,200; income was \$8,833, expenditure was \$15,595 (including \$4692 for computer). Max said that the club had spent more for the month than we received in income and we need to increase memberships to keep well ahead. He confirmed that the closing balance was \$8,437.

DEVELOPMENT DIRECTOR

Carl told the meeting that he had secured a data base of schools so the club should be able to generate new memberships. He reported that the club had two volunteers in the Graphic Design field to present a unified professional image and we should be able to improve on what we are doing.

He said there were volunteers willing to help with club development. Carl confirmed that had had partly designed the questionnaire and planned to do a full membership survey. He said he was looking for someone with public relations connections and with awareness of the media who could offer assistance in the area. He asked members to advise him if they knew of some who could assist.

Carl urged members to support the survey..

MAGAZINE

President reported that Ron Lewis has been presented with the the plaque from Intergalactic Newsletter Awards, the Club having been declared the winner of the Award for the best feature articles.

Lloyd said that one article was left out of the current magazine but it had to be restricted to 64 pages. He thanked members for their contributions and said it was pleasing to note that there were articles left over for the next magazine.

Lloyd reported that the cost of the magazine was \$5,200 for the month and postage \$1,200.

OS2

Dan Bridges reported that he has been asked to distribute a magazine for OS2 users. He said the magazine seemed to be worthwhile and the cost was \$2.00. The OS2 Sig would have some magazines available.

The President closed the meeting at 1.40 pm.

TAGLINES

Gooday,

Following on from the taglines I collected earlier this year, here are a few more...

Is Agrophobia fear of puppets?

My Computer Is Totally Blind So I See No Need For Windows At All.

When I were a lad, we had to carve our CPU's out of wood!

Dry dock: A thirsty physician.

Butcher who back into meat grinder get a little behind in his orders

I am having an out of money experience.

I haven't lost my mind; it's backed up on tape somewhere!

Eagles soar, but weasels don't get sucked into jet engines.

Talk is cheap, until you hire a lawyer.

If I wanted it tomorrow I'd have ORDERED it tomorrow...

A seminar on Time Travel will be held 2 weeks ago.

Don't underestimate intelligence - or brute force.

Warning: Moderator is a horse gelder by trade and needs practice.

USER ERROR: Replace user and press any key to continue.

Karaoke is a Japanese word meaning "tone deaf."

Practice safe eating. Use condiments.

\$4000 for a Pentium? I paid that for my XT!

Psychic wanted..Qualified person knows where to apply

Stupidity is NOT a handicap! Park elsewhere!

Sometimes the majority just means all the fools are on the same side.

OS/2: Windows with bullet-proof glass.

BLUEWAVE : What smurfs do at the football.

Windows — the only XT emulator for a Pentium

87.49765% of statistics aren't as accurate as you think.

If at first you don't succeed - keep hitting Enter.

Sects, sects, sects! Is that all monks ever think about?

Why risk a hangover? Stay Drunk!!

Dogs come when you call. Cats have answering machines.

If at first you don't menage, trois, trois again.

A closed mouth gathers no feet.

Turn your 486 into a Gameboy, type WIN at the C:\>

I'm not illiterate, my parent's were married

The trouble with life is the lack of cool background music.

Women are like programs. A smart man keeps backups.

Victoria bordering on the truly amazing.....New South Wales

In a nuclear war all men are cremated equal.

"42?! 7 and a half million years and all you can come up with is 42?!"

Windows 3.1 - From the people who brought you EDLIN.

NSW...Monday one day...Tuesday the next....

Press any key to continue or any other key to quit



The final part of a short story that was presented in the Dr. Debug echomail area on 20th May 1994. It was posted by John Kristoff who claims that it was "written by the Legend of the Lab himself, Doctor Debug."

Doctor *DEBUG*

Slow boat to Cuba

As the cutter made its way south over calm water, I began searching the inside of the crate which was my prison.

As it was nearly pitch black I had to do this exploring by hand, hoping to find something I could use to open the crate.

When I got to one of the corners, my hand touched something very soft underneath the packing material. Very soft indeed. More exploration revealed the unconscious body of a young woman. Obviously she was meant to share my fate. I shook her roughly, and she began to come around. In a few moments she was talking.

To my surprise, she identified herself as Daphne Chanel, daughter of my now-deceased former partner. I hadn't seen her since she was five years old. It was apparent that she had done some growing up since then. She indicated that she had been working with her father to track down the missing computer parts. Quickly I filled her in regarding the plot to smuggle a Cray behind the Iron Curtain.

"We've got to stop them," she said. "For Daddy."

But there was nothing we could do but wait as the hours passed and Daphne got violently seasick all over the Doctor's lime colored lab coat. (What else did you expect the Doctor to wear?) As the boat moored at our unknown destination, she began weeping in despair, and I pulled her close to me, cradling her head on my shoulder. As we sat there I heard



Daphne began to cry....

scraping noises from the top of the crate and I began feeling a bit desperate myself. We were getting visitors.

The sunlight streamed in the top hatch of the crate, momentarily blinding me.

"All right, whoever you are," I said weakly. "What do you intend to do with us?"

"I was going to rescue you, you clod, but on second thought I think the Russians can have you."

The female voice was most familiar, and as my eyes adjusted I was astounded to see none other than the Lady, looking resplendent in a tight-fitting Navy Seal wetsuit. I realised that she was looking at Daphne, and quickly I let go of her.

"It's not what you think, dear..." I began but the sound of Daphne's head hitting the bottom of the crate interrupted me.

The Lady threw a rope into the crate. "Oh, you could find a pretty girl in a Greek bath-house. Get up here."

I helped the semiconscious Daphne to her feet, and soon we were standing on top of the crate.

"When you didn't come back from the 7-11, I knew something was up," the Lady explained. "I called that Colonel Mutt you used to work with and talked him into looking for you."

She surveyed the crate and my wretched appearance. "Good thing, from the looks of it. Mutt's men saw MalDeMere pick you up, and they knew he had turned bad. They followed you, and they let me come with them to our base in Guantanamo."

She smiled briefly. "I think I know why you like doing this stuff. Anyway, the Colonel, three men and I snuck onto the boat just before it docked and overpowered the two crewmen."

I shook my head in wonder. The Lady is always surprising me with new talents.

We quickly went to the bridge of the cutter, where Mutt was waiting for me.

"Colonel," I began, taking charge, "it's only a matter of time before some very unfriendly individuals arrive. You get everyone off the boat. I've got to make sure this Cray never falls into the wrong hands."

He didn't like it, but he knew I was determined. The Lady gave me a kiss for luck, and they were on their way. I dashed for the small engine room, and once there located the diesel tanks. One of them was still full, and I opened the valve causing fuel to begin splashing all over the metal floor. As I headed back topside, I heard angry shouts and gunfire. The Cuban police had arrived.

The smell of fuel was now nearly overpowering, and I knew I had to get off the boat now. One of the Cubans saw me and fired, the bullet zinging on the bulkhead right beside my ear. I ducked into the empty control room and locked the door. I was for the moment secure - nobody had spotted me go in. But it was a matter of time until they found me - unless the ship blew up first.

Suddenly the door to the control room splintered and crashed open. Two burly Cubans burst in, each carrying a machine gun. They parted, and a third, much smaller man walked between them. I knew his disfigured face and cane-assisted limp well. The man who stood before me was the Iron Curtain's most formidable computer expert, a man so despicable that he had been kicked out of the V. I. Lenin school for boys for being too nasty, a man I thought I had killed. **Dr. Ilyich Sonovabich.**

I slumped in disappointment. "You survived the Mind Sucker," I intoned. "Give it up. You cannot win."

His hideous grin assailed me. "Hello to you, too Doctor. You forget that I designed the Mind Sucker. It could not destroy me. And as far as winning goes, I have already won. I have you, and I have the Cray. I will present both as gifts to the Presidium, and they will accept me back in the Soviet Union with open arms."

He gestured to his henchmen. "Go below and help the others get rid of that diesel fuel. I can handle the Doctor."

They left, and Sonovabich leveled a pistol at me. "The best thing is that you I can present dead. I wish I could improvise something more painful, but the knowledge that I have outsmarted you so totally will have to suffice."

He pulled the hammer back on the pistol. "Goodbye, Doctor. Too bad you didn't join me back when you had the chance. Together we could have ruled the world."

Clang.

My eyes pressed shut, I waited in silence. Nothing happened. Clang?

I opened my eyes to see the loveliest sight ever - the Lady standing over the crumpled Russian, the dented frying pan still in her hand. "I knew this would come in handy," she said cheerfully. "Quite a boring fellow, isn't he?"

"He has his moments," I answered, grinning. "Let's get out of here."

We ran out of the control room, and to the side railing of the boat. Stairs going down were right in front of us, and I knew we could be recaptured at any moment. To my astonishment, the Lady calmly puffed away on a cigarette. "What are you doing?" I whispered. "You don't smoke!"

She smiled and coughed. "You're right, dear. I'll give it up." And she tossed the still burning cigarette down the stairway opening. Realizing what she had done, I grabbed her and we both jumped overboard.

The explosion was horrific, and for a moment I didn't think we would make it. But in the end we dragged ourselves back onto the pier and escaped in the confusion surrounding the burning ship.

We met up with the Colonel and his men, and in time we were back on friendly soil. The adventure was finished, the murder of a friend avenged, the Cray kept out of evil hands. The Lady has agreed to give up espionage work if I do, and I accepted her offer. I go back to playing with computers and she goes back to... well, whatever it is she does all day.

But there are loose ends. MalDeMere was never caught, and who knows what mischief he may still cause. The original source of the Cray was never found, much to the chagrin of the government.

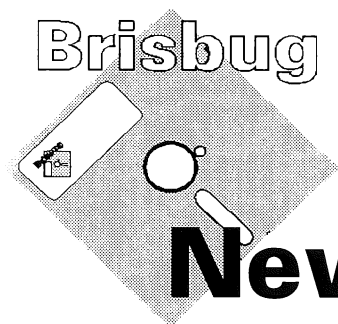
And what of Sonovabich? He had to have perished in the explosion, but he has escaped death too many times to count out without seeing a body. If he is alive, who knows what deadly menace he will cook up next time?

I must endeavour to keep the Lady (and her frying pan) around. Just in case.

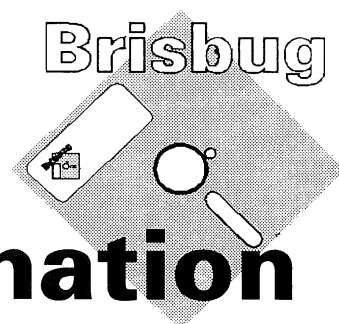
The End



Hello to you, too Doctor!



BBS



News and Information

An arrangement has been made with IBM Australia to make the latest OS/2 beta available for download. Because of space limitations, this is only available from Lines 3 and 4. It will be available until the license to use the beta expires (which will be at the end of October, or on the release of the final version).

This arrangement allows us to offer Brisbug members an increased service (it is the first time that IBM has allowed download from systems other than their own) and also serves to attract a number of new users to Brisbug.

Given the size of the beta, some of the restrictions regarding time and download limits have been removed for this package. Given the level of interest, I have tried to make it as easy as possible to download.

However, this easing of restrictions means that it is possible for people to hog the system while downloading the beta. I will not be very kind to people who show no consideration for others (who may be just as eager to download the package) and hog the system. Anyone who uses more than 2 hours of online time per day for this purpose will find that they no longer have download access to it at all.

A change is being made to the system from which Brisbug picks up mail in the US. There was very little warning of the impending change, so mail in some areas may be affected for a few days.

Since this change involves some considerable work, I am also taking the opportunity to change the pickup system to either line 3 or line 4. This will mean that availability of lines 1 and 2 should improve a bit, and lines 3 and 4 will become slightly less available. It should also help reduce the Brisbug phone bills, since a higher speed pickup should be available. Testing for 28.8 connections to the US is being done now.

Once the change has been fully effected, revised availability times will be posted.

Some final testing of Internet access from Lines 3 and 4 is being done. Full access for all those who have elected to have Internet access should begin shortly.

Line 1: Phone Number 871-0298

Availability:

No human use permitted between 00:00 and 00:15 am
(maintenance).

No human use permitted between 04:00 and 05:00 am
(Fidonet Zone Mail Hour)

Supports PEP, V32, 2400 and 1200

Line 2: Phone Number 871-0304

Availability:

No human use permitted between 00:00 and 00:15 am
(maintenance).

No human use permitted between 04:00 and 05:00 am
(Fidonet Zone Mail Hour)

Supports PEP, 2400 and 1200

Line 3: Phone Number 870-2972

Availability:

No human use permitted between 00:00 and 00:30 am
(outgoing mail calls)

No human use permitted between 04:00 and 06:30 am
(Fidonet Zone Mail Hour plus incoming mail calls)

Supports V.Fc, V32bis, V32, 2400 and 1200

Line 4: Phone Number 870-0653

Availability:

No human use permitted between 00:00 and 00:30 am
(outgoing mail calls)

No human use permitted between 04:00 and 05:00 am
(Fidonet Zone Mail Hour).

Supports V.Fc, V32bis, V32, 2400 and 1200

Line 5: Phone Number 209-4980

Availability:

No human use permitted between 00:00 and 01:00 am
(incoming mail calls).

No human use permitted between 02:30 and 03:00 am
(incoming mail calls).

No human use permitted between 04:00 and 05:00 am
(Fidonet Zone Mail Hour).

Supports V32bis, V32, 2400 and 1200

Note: All of the systems have a short period for maintenance which starts at midnight. Since co-ordination between lines is important, this overrides any human access.

Paul Marwick - Brisbug Sysop

Windows Watch

An Occasional Column, compiled by Ralph De Vries

Chicago

Brisbug's July meeting proved once more the increasing interest in Windows. For the very first time this year the theatre was packed to the rafters with members who wanted to see for themselves what the next version of Windows will look like.

Craig Spender from Microsoft's Brisbane Office was our guide and mentor, and he most ably showed off some of the new features of this version of Windows. However, because so many aspects of this Beta version are still 'under wraps', Craig was unable to show off some of the more unusual (!?) aspects of this version. As an example, he showed us the replacement for *Notepad* and *Write*, which is really a cut down version of Word, and which appears to be quite powerful. However, when members in the audience asked about a scripting language for this new version of Windows, Craig was unable to give us any details at present.

Since this meeting we have heard that Microsoft's time table for this new version of Windows has now been further put back to some time early '95 so who is surprised? Commonsense tells us that a later release means fewer bugs, thus perhaps we should count our blessings!

All in all, I like the look of this new version of Windows, but the in-depth reviews can wait till we get the real thing in our hot little hands. In the meantime, I shall happily go on using my Windows for Workgroups 3.11.

Optical Character Recognition

If you own a scanner or a fax modem, you may either own, or at the very least *know* about OCR software. As little as two years ago, Optical Character Recognition software was very hard to come by, as the

demand for this type of software came only from a small band of scanner owners (usually the flatbed variety of scanners). A package such as *Omnipage Professional* used to cost some \$1800.00, which meant that it was definitely not for the budget-conscious computer owner.



In due course, cut-down versions of OCR software were supplied with some scanners, as well as with fax-modem software. By all accounts, the performance of some of these software packages left something to be desired. As an aside, it should be pointed out that most OCR software works under Windows only.

When I bought my HP Scanjet IIP scanner some years ago, it came with a 'crippled' version of *Omnipage*, which didn't impress me very much. Some time later I had an opportunity to use *Omnipage Professional*, and found it useful, but far from perfect. In particular, I was disappointed with the scanning of text in small point sizes. However several newer versions have been released since, and it may now well be very good in recognising small point sizes.

Optical Character Recognition Software does what it says, i.e. it looks at the shapes of characters, *recognises* them and then translates those shapes in either ASCII text symbols, or does a further translation

into a word processor format. It either does a direct translation, or it reads in a TIFF file, such as most Fax files, which are subsequently translated into a text format which the computer can understand. When this translation has been saved to disk, you then can load it into a word processor.

How well it does recognise the various letter shapes depends on the complexity of the OCR program. Most OCR programs have a so-called 'learning mode', which means that they are taught to remember the shapes of some (or most) of the characters in a given font. Given a good sharp and black 12 point 'standard' type font, such as a Helvetica (Sans Serif) or a Times Roman (Serif) font, you will find very few recognition problems. However, go to a 6 point equivalent, and you will find that some shapes are no longer recognised. Use coloured text (or washed out looking text, such as text printed by a dot matrix printer with a worn out ribbon) in place of solid black text, and again problems start to multiply. Ditto ditto for 'funny fonts', such as Brush Script, etc. Mixed fonts in a block of text, are also a no-go area. This should make it clear that OCR is still a relatively primitive science, which depends on its success on the capability of remembering the maximum amount of letter shapes in a variety of sizes.

In a program's learning mode, it will learn to distinguish between similar looking characters such as a 1 and an l, or a D and an O. However this learning is limited to a given font and point size. If you have just taught the program to recognise text in 12 point Book Antiqua, it will probably fail partially on a 10 point Century Schoolbook font.

Last November I wrote in this column about the review of a new low priced OCR package which had just been released in the States. This package, *TextBridge*, was made by Xerox Imaging Systems, and sold in the USA for \$99.00 - quite a change from *Omnipage*! Initially it was offered here for \$345.00, which seemed a tad high to me. However the new local distributors are selling it for \$199, or \$99 if you upgrade from another OCR package.

I received my copy in less than a week after ordering it from Mitsui Computer Ltd, which must be some kind of a record, compared with other distributors, who shall remain nameless.

It came on five High Density 3.5" disks, which made me fear the worst. However only three disks were needed for the

installation. The other two disks contained French Italian, German and Spanish, and other European language versions. There is support for the Twain standard for scanners which work under Windows, as well as support for a so-called ISIS standard, for which the drivers are supplied by a company called Pixel Translations Inc. - this appears to be a non-Windows standard of scanner drivers. A 100 odd page manual and a Quick Start information card complete the package. Fortunately there is no spelling checker or thesaurus - I have at least three of these in other packages!

System requirements are for a minimum of 4 Mb of Ram, with an 8Mb Permanent swap file, but the manual suggests doubling this for multiple column- or landscape pages of text.

After the installation is complete you run the Scanner Setup program, to configure your scanner. This was simplicity itself and presented no problems.

To start using the OCR program, there are two modes. The first one, the direct mode, is accessed by clicking on the TextBridge Icon, which starts the program (Illustration 1).

If you press the Preferences option, another screen appears, which offers several additional options which you can set. Most of them are fairly obvious, but the more interesting one is *Auto Page Segmentation*. This determines if, on a multiple column document, the scanner reads across the page (Auto Page Segmentation off), or if it will follow the columns of text down the page (the On option). This is an excellent option, and appears to work quite well.

After your preferences are set, it's time to begin the scan. You will find the interface familiar, as the software now accesses your normal scanning software which is supplied with your scanner. I am thus able to select either the whole page to be scanned in, or select a section of text for scanning purposes. If you have turned off

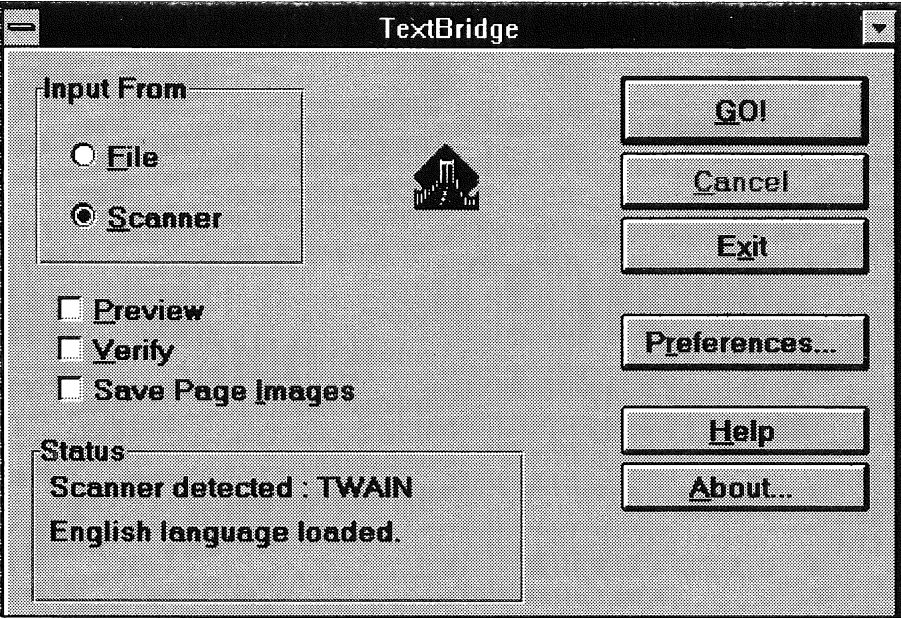


Illustration 1

the Preview or Verification mode, TextBridge stores the scanned in file in a temporary file, and then asks the user if more pages are to be scanned in. When you are finished scanning the document, you are then asked where, and in which format, you want to save the scanned file.

The Preview mode gives you the capability of re-organising the text to be scanned in, i.e. you may want to re-organise certain paragraphs, or even delete some. When you have done this, the text to be scanned in is re-organised according to your instructions.

More useful is the *Verification* mode (see Illustration 2), because it allows you to correct scanned in text, which may have been wrongly interpreted. If you make corrections to scanned in text, the program remembers this, and consequently makes fewer mistakes during the next pass. This is very handy, when you find that the program has problems recognising certain fonts.

Last but not least, there's the *Textbridge Application Server*. By running this program, it becomes possible to integrate TextBridge with word processors, DTP programs etc. When this program is run (it works in the background, by either clicking on the icon, or adding it to your Startup group), it gives you the opportunity to add your word processor, or some other program, to the program's

impressive

Considering the new low price of TextBridge, I can cordially recommend this product.

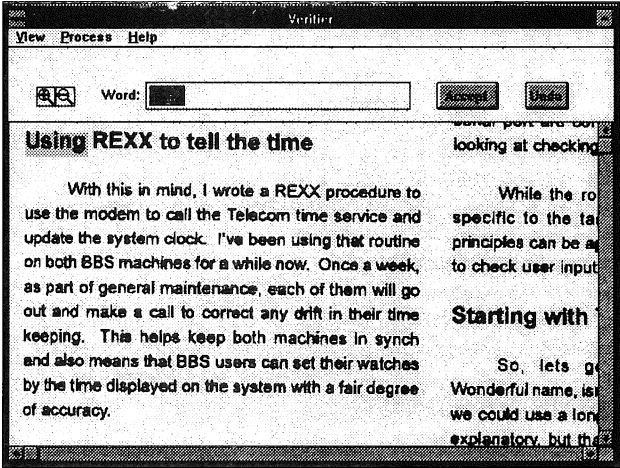


Illustration 2

Monitors

If you are a Windows user, you will most likely be the owner of a colour monitor, unless you happen to own a monochrome portable computer. We can also be reasonably certain that it will be a 14" monitor, as this has become the default standard. How good your monitor is depends on the monitor itself and, to some extent, on the video card which came with your computer.

As my own background is photography, I have always been interested in the *quality* of the screen image, by which I mean factors such as sharpness, distortion, brightness, contrast, etc. (When I see a TV

menu. From now on there appears another option to your File menu, namely *Textbridge OCR*. By running this option, you start your scanning and OCR software, and all pages scanned in are automatically added to your word processor.

Although I cannot honestly say that I have used the program very extensively as yet, I find that the overall success rates of all the scanned examples has been very

set at a friend's- or relative's place, I always have that urge to make the necessary adjustments if the set is not properly adjusted.)

While on the subject of monitor sizes, a lot of people are unaware that the stated size (i.e. 14") is based on the *diagonal* of the screen. However, if you measure the actual diagonal of the full screen *image*, you will discover that it's nowhere near 14" or 35 cms. In fact you will be lucky to find that it's more than 31 or 32 cms. So much for truth in advertising!

While the majority of Windows users are probably perfectly happy to use their monitor in the so-called standard VGA configuration of 640x480 pixels and 16 colours, there is an ever increasing interest in higher resolutions and more colours. Up till fairly recently these esoteric video modes were mainly required by graphics, CAD, and desktop publishing professionals, but the buzz word of the nineties - *MultiMedia* - is changing all this.

A typical multimedia program requires a minimum of 640x480 resolution, but with 256 colours. This brings us to Video Cards. To get 256 colours in either 640x480, or 800x600 resolution you need a minimum of a 512kbyte card, but a 1 Mbyte card is better. Below you will find a chart which will give you an idea of video resolution, colour depth, and video card memory requirements.

For some time now I have been using my standard 14" monitor in 800x600 mode, using 256 colours. Let me assure you that the quality of video clips in a program such as Cinemania is truly awful! To get better quality one requires at least the next standard in video resolution, which is 800x600 and 32768 colours. This, however, requires a better video card and/or a better monitor, and this is where it gets expensive, although prices of better quality video cards are dropping.

Although some people claim that they work all the time in a resolution of 1024x768 on their 14" monitors, I find this

size too small for comfort, hence my preference for 800x600, which I find useful for my limited graphics and DTP applications. However the sharpness of my monitor left a fair bit to be desired, so I decided that it was time for an upgrade.

As we all know, 14" monitors sell for about \$500 or even less, but 17" and 21" monitors are slightly more expensive, to say the least. As my dealer said: "When



you talk about 17" or 21" monitors, price works out roughly at \$100 per inch", and that's not such a crazy thing to say, as they vary between \$1500 to \$2500, which is probably more than most of us are prepared to spend on a monitor. Which left me with 15", the so-called 'flat screen' monitors. Theoretically they are hardly any bigger than 14" monitors, but in most cases their specifications are better and higher, and prices range from about \$600 to \$1000.

Having a very obliging dealer, I asked him for a 15" monitor, but I specified that it had to be *sharp*!

Being a nice guy, he offered me the loan of one, in conjunction with a Tseng ET 4000/W321 VESA accelerated video card with 2 Mbytes of memory (this is the card

mentioned by Dan Bridges in last February's issue of *SigBits*). The 15" multiscan, low radiation monitor is a Taiwanese clone, and was quite easy to set up. Initially I used Microsoft's SVGA driver, which gave very good results, but was only a tad faster than my previous (non-accelerated) Tseng video card. However, after changing over to the new Tseng video driver supplied with the card, speeds increased by about 40%.

When I re-booted in 800 x 600 x 65535 colour mode, I found that the speed had only decreased marginally from that obtained with 256 colours, and the same thing applied to the even higher resolution of 1024 x 768 and 65535 colours, which proves that this accelerated video card is doing its job.

As an aside, it always amazes me how colour response can change with different video drivers. The MS SVGA driver produces colours which are decidedly 'warmer' than those produced by the Tseng drivers.

Overall, I am very happy with my new monitor. It's sharp from corner to corner, without any obvious distortion, and it's great to use in the SVGA mode of 800x600 with 256 colours. I think it's pointless to quote names and models of monitors, as I have found that even with some of the big name brand (= *expensive*) monitors I have seen both brilliant and appalling examples.

If you are thinking of purchasing a new monitor, I would suggest that the only sensible course to follow is to take your own computer to your dealer and have a demonstration on the spot to see how well it performs with **your existing video card**. Remember to look for a fall-off in sharpness on the sides and corners, and look for curvature in both horizontal and vertical lines.

If your video card is too small or too old to support the higher resolution modes of your new monitor, then it's time to look at a new video card as well. However, it has to be stressed that some of the more esoteric cards are primarily designed for high-end graphics applications, and are often more trouble than they are worth for normal day to day computing requirements.

The biggest headaches are usually found with the video driver software, which often presents problems, with certain programs working very well, and others falling over.

Resolutio	16 Colours	256 Colours	64.100 Colours	16.7 Mil Colours
640 x 480	150K	300K	600K	900K
800 x 600	234K	469K	938K	1.4MB
1024 x 768	384K	768K	1.5MB	2.3MB
1280 x 1024	640K	1.3MB	2.6MB	3.8MB

Video Card Memory Requirements

If you find this hard to believe, I'll be very pleased to put you in touch with some of our members who have learnt the hard way, which video cards not to buy!

To upgrade to a better monitor and video display card combination, such as I have described above, will cost you around \$1000, although you should get some money back from selling or trading in your existing monitor and video card.

I repeat, that this type of upgrade is only of limited value if you only use your computer for word processing or stock control. However, if you do dabble in graphics or desktop publishing, or intend to have a go at this MultiMedia thingy, then you may well find a better monitor (and usually a new video card) a wise investment.



Every Year the US *Windows Magazine* has an annual Reader's Award Choice, of both Software and Hardware. This year it appears in the June Issue, and I thought that it might be instructive to see what American Windows users buy with their software dollar. Following are a few excerpts of this article:

Word Processing : Close to 50% voted for *Word for Windows*, followed by *WordPerfect*, and *Ami Pro* was a respectable third. These big three accounted for 90% of the word processor votes casted.

Spread Sheet: Again 50% voted for *Excel*, with *Lotus 1-2-3* and *Quattro Pro* tying for second place. Once again the big three accounted for 90% of all spreadsheet users.

DataBase: Access clocked up a third of the votes, with *Paradox* coming in as a solid second. The rest trailed well behind.

Desktop Publishing: *Pagemaker* is still in front with *MS Publisher* a close second. They accounted for more than 50% of votes cast in this category.

Suite Software: Microsoft's *Office* got nearly 50% of the votes, with others way behind.

Integrated Software: Microsoft's *Works* is the winner, with 37% of the votes.

Development Tools: *Borland's C++* and *Visual Basic* were the leaders.

E-Mail: Microsoft's *Mail* was the winner, with Lotus' *cc:Mail* close behind.

Communication Software: *Procomm Plus* was an outright winner.

Fax Software: *WinFax Pro* accounted for more than 50% of votes cast.

Accounting/Finance: *Quicken* got five times as many votes as its nearest rival.

Presentation Software: MicroSoft's *PowerPoint* was the leader, with *Harvard Graphics* and Lotus *Freelance* tying for second place.

Paint and Draw: *CorelDraw!* got close to 50%, which was more than four times as much as its nearest rival.

Alternative Desktop: *Norton's Desktop* is the favourite with *PC Tools* in second place.

Personal Information Manager: Lotus *Organizer* was the winner, getting twice as many votes as Symantec's *Act!* and Polaris' *Packrat*.

If anything the above shows a polarisation of the software market, which isn't necessarily a good thing, although Microsoft probably won't agree with me, as they appear to be doing rather nicely, thank you.

If a similar survey was carried out amongst Australian Windows users, I suspect that the results would be remarkably similar to their USA counterpart.

In the meantime, if you happen to be using a product which isn't listed amongst this lot, don't despair. It proves that you

are an individual with a mind of your own, and that in itself is not a bad thing in these days of conformity.

Graphics - Again

Surely the biggest mess PC users have to endure is that mish-mash called graphics formats. Not only is there a lot of incompatibility, but we also find that moving graphics file information from one program to another program can give totally different results.

Thus we have the bitmap (or *paint*) graphics formats, such as PCX, and then there are vector (or *draw*) formats such as CGM. Thirdly there's a group that can cover either vector and bitmap formats, such as WMF or WPG - just to confuse you even more! Of course we also have companies that keep on *changing* their graphic file formats, such as Corel with their CDR format, Micrografix with their DRW format, and, last but not least, Adobe's EPS format.


Now EPS (Encapsulated Postscript) is a file format which is different, because it contains vector information, which, however, can only be sent to a Postscript compatible printer. To view them on screen, you get a low-resolution bitmap image, and if you try to print it to a non-postscript printer, it's equivalent to printing a bitmap image, which means the *jaggies*, as can be seen on the following illustration:



Hence, if you are after the **best** output on a non-Postscript printer, you'd better stick with vector formats such as CGM, CDR, DRW etc.

Ralph

TWELVE YEARS SETTING THE HIGHEST STANDARDS AND LOOK WHAT WE GET STUCK WITH.

A black and white photograph showing a hand holding a Compaq product box. A sticker on the box features a series of four downward-pointing chevrons, the text 'Quality Endorsed Company', and the license number 'AS 3902 Lic 2828'.

The fact that Compaq has received Quality Endorsed Company certification from Standards Australia will come as no surprise to our customers.

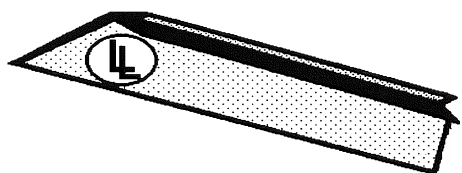
You see, we've always put the needs of our customers first. That's why we subject all our products to the most stringent quality testing. Why we design our computers to be easy to set up and use. Why we offer a full three year limited warranty. And why we consistently deliver the very latest in technology, from the first PC server to the first Pentium-based PC.

Our customers also benefit from our company-wide environmental policies, such as the elimination of CFCs in manufacturing, as well as our total commitment to energy efficient products.

Mind you, our efforts haven't exactly gone unrewarded.

Since our inception in 1982, we have become the world's leading supplier of portable PCs and PC servers (source: Dataquest, IDC). The sticker on the box is simply the icing on the cake. You don't want a compromise.

You want a Compaq. **COMPAQ**



Lindsay's Letter

Lindsay Bates

Practical Computing for Established and New Computer Users

Welcome to all new and established computer users!

Pricing of 486DX2-66 systems has dropped markedly in recent time, making them excellent value for the new buyer.

The market is moving up to 400 and even 500Mb hard-drives as standard (many of us seem to need them these days!)

Multi-media continues its forward rush, and triple-spin CDs are coming on to the market.

More and more new computers are being fitted with the new 72-pin RAM, making it more difficult to upgrade your old main-board.

Chicago/Windows 4 is still "coming to come" as my Mum would have said, but we can expect a lot of new software to start moving from our present SLOW 16-bit up to 32-bit.

All of which still does make the 64-bit Pentium a bit ahead of its time, doesn't it.

Considering all of the above, I suppose things are currently about "normal" for a fast-moving PC world...

Hope you enjoy LL again this month.



◆ As far as the local computer market is concerned the 386 is just about dead and buried. Many of the larger computer distributors no longer have any 386 systems or main-boards in their catalogs at all - so you can't buy a 386 from them even if you wanted to!

Speaking of the 80386 CPU, Microsoft is making quite a bit of the fact that when Chicago/Windows 4 is released, it will run on such a system - even if you only have 4Mb RAM. To be realistic, I'd reckon you'd want to be looking at a high-end 386 though, and have 8 meg on-board to boot.

Mind you, even better would be to upgrade your 386 to a low-end 486 main-board while they're cheap and still available.

◆ It just seems to keep on happening. This time it was a London 16-year old who managed to hack into the Pentagon's secret weapons research computer! Apparently they thought it was a super-spy who did it, until the teenager was tracked down!

So what are the Pentagon officials now doing? Spending multi-millions on an overhaul of the computer's defence procedures, what else!

Good grief. Talk about shutting the door after the horse has bolted!

What always staggers me regarding this sort of story, is that we're talking top U.S. Government secrets here!

Before too long we'll all be able to do things like accessing our private bank account - supposedly with full inbuilt security - from our home computer.

If the mighty U.S. with all its resources is utterly unable to secure *its* computer systems, then what hope is there for us?

Food for thought, isn't it?

◆ The Internet continues to get a lot of media attention.

The biggest concern re. Internet still seems to be the question of security.

Will anyone who wants to, be able to tap into whatever we send to someone else via our PC? Or is there some way to stop/regulate this?

Clearly, we don't want everything in government, business, and private that's sent via computer to be open to be read by hackers. But nor, I would have thought, do most of us relish the thought of even more regulation.

It *is* part of the brave new world, sure - but maybe there's still something to be said for good ole Aussie Post. At least there the postie would have to have ripped the letter apart to read what we said!

◆ The so called Information SuperHighway also continues to get much media attention.

To be frank, many of us are

getting heartily sick and tired of talk and more talk about the I S-H.

Kind of makes you wonder if it will end up a bit like the paperless office - something that sounded like a great idea at the time, but never quite got to happen.

◆ At least one major (quality) supplier has quietly dropped the PCI bus from its 486 range, while I notice another quality supplier never had it in their catalog to start with.

PCI was, of course, designed specifically with the Pentium in mind.

Does this perhaps mean that PCI doesn't work with 486s as well as we may have expected?



The Market

BUYER'S GUIDE

THE QUESTION OF WARRANTY

At times I get people quoting to me the name of one of the computer firms I tend to call the cheap 'n' nasties.

Then they say: "But they'll give a 2 year warranty, so their quality *must* be all right, mustn't it?"

Okay. Let's take a close look at this. The truth is that no matter who you buy a PC from, it's on the cards you'll need to make a warranty claim at some time.

Probably the best way to approach this as you buy your new system, is to *expect* you'll have at least one warranty claim at some point.

Then if it happens, you won't be too upset. And if it does *not* occur, then you're laughing!

But the point is, you really *do* need to know your warranty is going to be properly and effectively honoured. Would you like to have to shell out hundreds for a totally new main-board or monitor, for example?

One thing to consider here is that basically a warranty is not worth the paper it's written on.

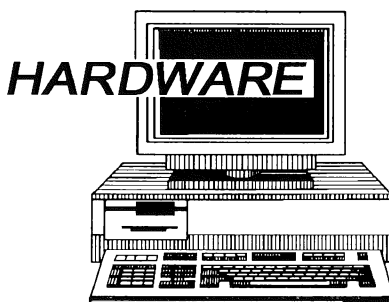
It works something like this: if the computer firm honours warranties, then they'll honour them! So you don't *need* the bit of paper - and it really is as simple as that.

But if the computer firm is more than a bit sus. and they don't always honour warranties, then take it from me, the bit of paper is likely to help you not one tiny jot!

Why is this so? It's probably because it's so very, very easy to get out of fixing a PC under warranty.

Let's face it, computers are the most complex electronic gizmos imaginable, and mostly you're simply not going to know for sure what's wrong - or be certain it is a hardware problem.. So there are a hundred ways the non-ethical firms can get out of fixing it. The sad news is that they do this all the time - 2 year warranty notwithstanding!

So you need to look for a brand that supplies decent quality, and a firm who **WILL** be there for you after sale. You should *NOT* use the quoted warranty period as a basis of your decision to buy. As far as warranties go, you'll do well to give full weight to the "let the buyer beware" axiom.



Currently there are a lot of moves within the PC world towards true plug-and-play.

This is a situation where you can easily remove, say, a modem from one computer and plug it into the other, without interrupting the operation of either computer, and without having to reconfigure.

When Chicago is released we'll have much more idea of how this whole scene is going to pan out in practice.

Meanwhile, a local computer manufacturer has announced something I've wanted for years.

Source Technology is noted for their emphasis on quality and they reckon they've got the goods with their quality, *removable* hard-drives. These are now fitted as standard equipment to all new computers in their range, and they believe other manufacturers are going to have to follow suit.

Whether or no, the advantages of such a setup are obvious. To start with you could take the HD home with you from the office. Now that's a real bonus.

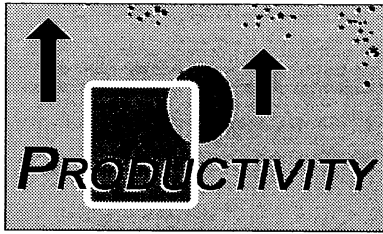
It would achieve two aims: you could plug it into the unit at home if you're a workaholic, plus you've taken all programs and data off-site for security. As to security, at any time you simply take the HD with you so no unauthorised person can gain access to sensitive material on disk.

Source also supply disk-mirroring, a procedure where the controller card always writes to two HDs, so that each is a backup of the other at all times.

Combine this with the removable HD and you just take one of the HDs with you as your backup! With this setup, tape backups could soon be a thing of the past!

Rounding out its complement of features, the heavy-duty removable HD assembly comes with key locks that also turn power on/off for "hot-swap" flexibility.

As far as I'm concerned, this is exactly the sort of thing I'm always looking for in my own systems.



FORGET XCOPY - TRY MCP!

Copying files from one disk to another is fraught with danger if you use DOS's own utilities.

COPY ignores zero-length files (which can be quite dangerous if a program uses/needs them), while XCOPY suffers from even worse zero-length file problems.

You would definitely use them at your peril. But now there's no need to take any risks.

Enter MCP - Master Copy.

It doesn't balk at zero-length files - or at trying to over-write them.

This beautifully compact program appears to have none of DOS's vices and has a number of added attractions as well.

Here are some possible MCP scenarios to illustrate how it may be used.

1. You wish to copy the data files from your C Drive into a directory on Drive D each day, so you have a record/backup of yesterday's files at all times. No problem. A command like:

```
mcp c:\wp\*.doc d:\bak\ /a
```

would do the trick. This would copy all .DOC files that have been changed/modified, but *only* if they are later than the destination file.

2. You wish to copy files from one computer to another computer - via a network, or Laplink, or whatever - ensuring that they end up THE SAME on both computers.

Again no problem. A command similar to the above from Computer A to Computer B would again do the trick. When you've done that, do the same from Computer B to Computer A, and then you can KNOW both are the same.

(In case you're worried about this, check the logic, and you'll see that it *does* work - you will end up with the LATEST version of the file on BOTH computers.

(Having said that, if the file was modified today on BOTH computers, then that's another story, for in this case the changes to the earliest file would be lost.)

(But if you work on one computer at work and another at home, MCP is great for keeping the latest file on both computers.)

(Just set up a simple batchfile to do the copying in both directions.)

Here are just a few of the wonderful switches the writer of MCP put into his program:

/J Just copy files that already exist in the destination (what a beauty!)

/F and /H enable you to copy System, Hidden and Read-only files.

/S Copy sub-directory files and sub-directories - including EMPTY ones!

You get some very helpful messages when needed, also, such as telling you there's not enough room on disk for that file, and giving you the chance to copy it to another disk - later if desired (I like it!)

This program has other nice features that could meet some specific need you have. Check the docco.

Definitely a good utility for your collection.

RATING: 9 out of 10.

AVAILABILITY: I've put MCP on Brisbug 8609 available from the library.

BACKUP JUST ONE IMPORTANT FILE? - SURE!

PART 1

Do you hate the thought of backing up? Then this first of a two-part tutorial is for you!

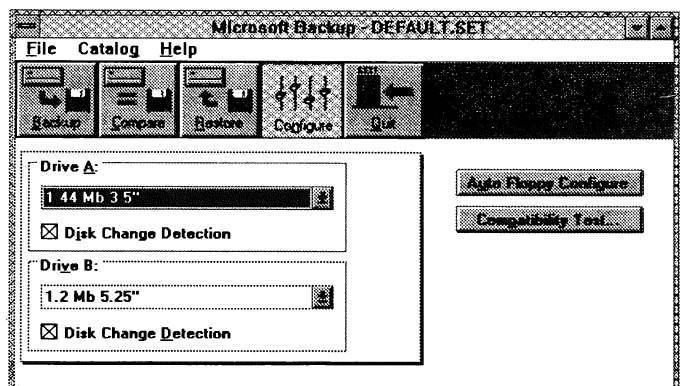
Backups can be easier than you think, because I'm going to tell you exactly HOW to do this task - and I'm going to show you how to ensure it's NEVER a bore!

Let's get right to it, shall we?
Practical Hint #1: *when you backup, you MUST have a magazine handy!*

Read it while waiting for the disk to fill. Bung in the next disk - *while you keep reading*. That way backing up is NEVER boring, and it's never a chore! Trust me, it works!

Let's do things step by step here - and we'll aim to keep it simple.

Practical Hint #2: you do not have to backup your whole HD each time! You can do as little or as much as you need: in fact you can backup just one file per day if you wish!



Click on Configure to do the Compatibility test.

When we've finished you should be able to set your computer to automatically backup exactly what you want to!

Now you're going to need DOS 6.x, because it has backup programs in it for both DOS and Windows. DOS 6.2 is very cheap at the moment, and the backup programs come with it FREE.

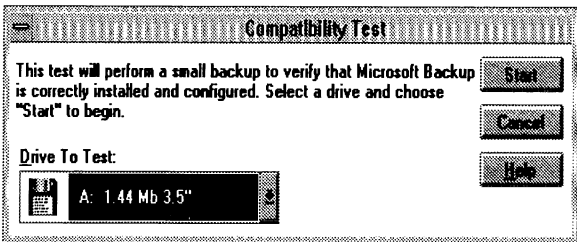
We'll do the tutorial for Windows, but you could adapt most of what's below to use with the DOS version.

Presuming you already have MSBackup in Windows (you can install it from the DOS 6.x disks if you don't), double-click on its icon. Because it will probably ask if you want to automatically *configure* it, that's what we'll do this time, then go on to backups proper next time. Answer yes. Backup will then perform a disk change test - just follow the instructions.

Next comes the compatibility test. Select A Drive by clicking on it, or if you want, click on the little down arrow with the line under it to choose a different drive to backup to. Then click Start and read the next dialog box's messages.

Get two diskettes ready for the compatibility test. They can be new or used, but make sure there's nothing important on them as they will both be overwritten. Click OK and once again just follow instructions. Once backup starts, you can watch progress via the two red lines.

The top one shows how much of the diskette has been used, the bottom how much of the total backup has been done. You'll probably be asked to put the 2nd disk in. Just follow the instructions.

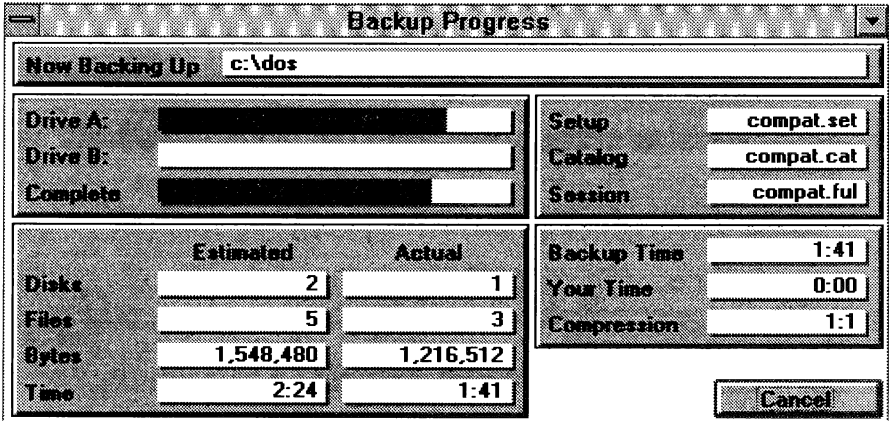


You can choose which drive to backup from.

Now to Practical Hint #3. Start this procedure and ALWAYS follow it - you should then never have an accident with putting the wrong disk into the FD.

Put the disks you're going to backup to in a pile to the *right* of your PC. When you remove a disk from the FD, put it *FACE DOWN*, making a pile to the *left* of the PC.

So it's: take from the right, then remove, *face down*, to the left.



Follow backup progress via the two red lines.

And here's the big bonus: after a few times doing that, you'll be able to go on reading your mag. without even having to think about the blankedy backup! Okay?

When the backup is completed, take the second diskette out and lie it face down on the left pile.

The backup is now *completed*, so you can pick them up, turn them over, and (normally) label them, and put them away for safe keeping.

For the moment, put them to the right again, right side up, for you'll now be asked to put Disk 1 back in. Don't worry if you have got them mixed, as backup is pretty good at giving you

w a r n i n g messages if you mess up. Backup is now doing a Compare, to check that what you backed up *did* arrive correctly on the diskette.

Follow instructions. Eventually you should be told that the compatibility test is a-okay (and it's something you'll never need to do again).

The two diskettes, by the way, are now free to be used again for your next real backup.

Practical Hint #4. If ever you choose to use backup disks for something else, first you'll need to remove the Read-only flag on the big backup file filling the whole disk.

You could use ATTRIB -R to do this job. But a better solution is to do a quick reformat of the disk (which removes the disk label at the same time).

To do this, open File Manager, click on Disk, then Format Disk. Click on Quick Format down at the bottom, and OK. You can do this on any disk you want to "clean up".

Fileman will quickly return your disk to pristine condition, clear of all files, and ready to go again.

Next time we'll learn about the three kinds of backup, and how to automate this. Backups really can be easier than you thought!

ENVIRONMENT SIZE

Beware the "Out of Environment Space" error!

In your CONFIG.SYS file in C:\ you may well have an entry something like this:

```
SHELL=C:\DOS\COMMAND.COM  
C:\DOS\E:512/P
```

(that's all one line there and there are spaces where you'd probably expect them).

The /E:512 bit is to set the environment to 512 bytes.

I'm sure you've read of the importance of keeping these bytes used as few as possible, to not use up essential base memory.

For most of us, losing 0.2K, or even 0.5K, of base memory is of little account. But if an installation fails because you *didn't* have enough environmental space, then being so pinch-penny is quite foolish.

Some other programs could fail too, so please ensure you set environmental space to a reasonable amount. If you wish to increase env. space just to be on the safe side, you'll need to alter CONFIG.SYS via a program that can read, then save in ASCII (most wordprocessors have this facility, as does Windows Notepad).

You can use any new number for the /E: bit - DOS will round off to a multiple of 16. But BEFORE you do anything, ensure that you make a backup of CONFIG.SYS and a bootdisk (see LL in August Sig. Bits) to enable you to get back into the computer should something go amiss.

It's not that this is a dangerous task. Far from it: for those used to it it's perfectly easy.

But if you're a newcomer or relative newcomer, it's amazing the things that folk can get wrong.

So have a go at it by all means; just make sure you take the precautions above.

FOOTNOTE: the environment specifically concerns DOS, not Windows as such.



THE OTHER HALF

Ralph in his *Windows Watch* last month queried which of the genders design computers, and whether microwave ovens have a feminine design.

On the latter, Nettie has a clear answer. In truth, they are designed by males, she assures me - especially the door on our microwave. It has a narrow, narrow groove right around the inside of it - to *ensure* that all the gunk will congregate there, and then be quite *impossible* to clean. Each time she tries to clean it she can be heard mumbling extremely rude things about the designers.

To date, I haven't been game to ask her who it is that she thinks designs computers . . .

THOSE MANUALS

- Have you noticed how Windows Manuals are getting better?

One of the first Nettie commented on was MS Works for Windows 2.0 (and she should know - Nettie is the consummate manual reader!)

This manual treated you as being *stupid*, i.e., it did NOT assume you knew this and that and the other, thus making what you read utterly intelligible.

She's commented that MS Publisher 2.0 is also a good manual, assuming nothing and working really hard to get you up and running.

In the past you virtually NEVER got a manual that you could read and understand. It appears that most programmers and programming houses do not know how to actually *communicate*.

But these days they're turning over the task of writing the manual to professional firms who DO have communication skills.

The result? We're getting some manuals these days that are actually of some value to the end user.

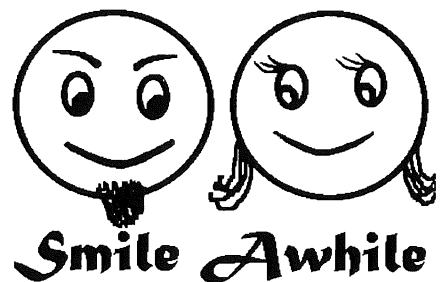
But . . .

- Have you noticed how Help in Windows programs is still about as useful as the gift or a 4 litre can of petrol to an Arab sheik.

It works something like this: If it's obvious, or you can work it out, or you already know it - then it will be in Help for absolute certain.

But if you've just wasted the last hour and a half trying to figure it out and get it going, and you are utterly at the end of your tether - don't bother to look in Help, 'cause it ain't gonna be there!

Help doesn't work on a "*Need to know*" basis; instead it seems to work on a "*DON'T need to know*" basis. What the software houses have against giving us help via Help remains a perfect mystery to me.



LINDSAY'S COMPUTER DEFINITIONS

(Continued from last time)

chips - what you eat with fish

SIMM Chips - buy these at Joe and Pat Simm's Fish Joint down near the pier

chipset - sorry, but there's only a piece of fish left

128K cache - fast money!

256K cache - very fast money!

64K cache - slow enough for you to watch this money disappear out of your wallet

16K cache - I think it was easier when I didn't see it go!

local bus - leaves promptly from the stop on the corner at 9.15am daily

VESA local bus - driver will accept payment by credit card

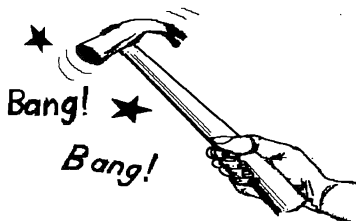
megabyte - biggest set of choppers you ever saw!

setup - you got taken for a ride again!

modem - what you do to fast-growing lawns

expansion memory - you can recall every kilo you put on!

(More next time)



IN THE WORKSHOP

1. MSDOS.SYS AND IO.SYS

Most folk know to stay right away from those essential system files IO.SYS and MSDOS.SYS. You'll find them in the root of Drive C (C:\). Without them, the computer will not function as a computer.

I had occasion to have to help a customer who'd had a dreadful accident and wiped out these important files (it does happen!) He was also running DOS 6.0 DoubleSpace.

In this instance it means that you'll find the important system files in the root of Drive C (C:\) and also in the root of Drive H (H:\). But please do NOT think this is some sort of redundant duplication and be tempted to remove them from one or the other place.

Because if you do, you'll likely find yourself with a malfunctioning computer that may take a great deal of work to reinstate.

2. SECURING THOSE CABLES

I never seem to get to screw up all those cables plugged into the back of the computer. I'm always having to change this or that, and unscrewing them each time would drive me bonkers.

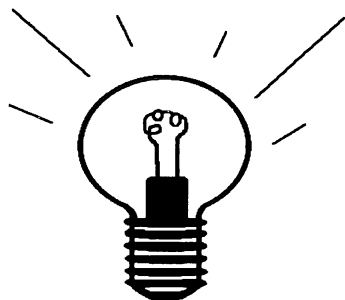
But many a new computer user has got trapped by not doing the screws up. Someone only has to bump the monitor cable, for example, and next time you bootup - oh dear, no monitor display!

It can be pretty embarrassing ringing your supplier about your "bung" monitor and having him tell you to check this - only to find him right!

But a word of warning about doing them up too tightly. Many these days don't need a screwdriver: you simply tighten them by hand. Do this too hard, and next time you have to remove the cables, lo and behold, a piece comes off with the cable!

This is not usually a bother, unless, that is, a nut should fall off the other end into the back of the computer (metal floating round inside a PC is a definite no-no!)

The best is not to have it happen in the first place: just do the things up LIGHTLY. After all, mostly they're just needed to stop that accidental bump.



HINTS & TIPS

1. SPEEDIER WINDOWS

It seems that a lot of folk *still* haven't caught on to the fact that moving from 4Mb to 8Mb RAM is the easiest and most effective way to speed up windows operations. With prices of RAM moving downward again, now is a good time to do that upgrade.

And the good news is that for most main-boards the extra RAM will just plug in.

2. GETTING INTO SETUP

Many computers these days use Ami Bios, and those of us with this bios know that it's definitely possible to accidentally end up in SETUP.

All you intended was a single Ctrl-Alt-Del command, but somehow an extra Del crept in. If this happens to you, don't panic. In fact you may like to press Del sometime at bootup just to have a look-see at this very eventuality.

But in this case, please, DO NOT MESS WITH SETUP - unless, of course, you're quite sure of what you're doing.

SETUP is there to set up (surprise!) a lot of important bits and pieces to turn the computer into a functional, working whole.

Like implementing the floppy-drives and the hard-drive, as well as lots of much more technical stuff.

To exit SETUP is easy: just tap Esc and tell the computer you wish to exit without saving.

3. A COPY OF YOUR CMOS

While you're in SETUP there's an important job to do.

Have you got a leaflet/booklet giving details of your hard-drive? If you haven't, then find the line in SETUP that gives the figures for your hard-drive.

Copy this, verbatim, to a piece of paper AND PUT THIS AWAY CAREFULLY WITH YOUR COMPUTER MANUALS.

Why? Well, if you lose your CMOS settings out of SETUP (dealers will tell you how *common* this is) then these figures will help you to get your computer up and running again.

I can assure you that WITHOUT the figures this can be quite a task!

Lindsay's . . .



USER FRIENDLY? - 1

In a world that trots out the term "User-friendly" with gay abandon, many computer operations are about as friendly as sharing your blanket with a taipan or swimming with a grey nurse!

Friendliness shows itself least when you need *friendliness* most: when you're setting something up or starting to learn/use it.

Let's say you've endured a lot of the pain of getting the *&^#@ thing going. By then, EITHER you've given up and consigned it to the bin, OR you've figured out enough things and got enough of them to work, OR you've worked your way round those that don't work or you can't figure out.

Rather pathetic, isn't it!

But by this stage you're getting to feel a lot more comfortable and the thing is working, and maybe - just maybe - it is even a bit friendly.

The point is, we shouldn't have to go through this drama and pain to get the rotten things going in the first place.

Amongst some of the worst offenders one could name setting up a Modem and installing and configuring

Multimedia Upgrade Kits (and then installing new CDs).

Just as bad would be setting up a simple network to connect two computers.

Oh, yes, I acknowledge that all of the above are improving, but they still have a way to go.

Similar can be setting up a new printer from go to woe; while maybe on a slightly lesser scale these days would be installing a major application.

Depending on how you wish to use that application, you may experience weeks of frustration, or you may even get it working that day.

All this is not considering the utter frustrations you may experience whilst installing something as "simple" as a new or second printer (parallel) card or serial card.

Or putting in a Sound Card, or installing the hardware and software for a Scanner.

Okay, I acknowledge that these days some effort IS being made to assist that hard-doneby animal: the end-user.

Nonetheless: user-friendly? Largely you can forget it! In mid-1994 the PC world has barely even gotten itself to first base.

USER FRIENDLY? - 2

I was installing a new printer driver in Windows and was suddenly confronted with:

"The currently installed UNIDRV.DLL is newer than the one you are attempting to install. Do you still want to install the file?"

Now in one way I guess it's a fair enough question. In another, it most certainly is NOT.

For how many users would even know what the UNIDRV.DLL file is, let

alone be able to guess the right/best answer.

More to the point why should they ever have to?

I can only think that most software houses never *expect* an end-user to ever install their own printer driver!

No, the computer world has a long way to go towards its quest for user-friendliness.

And another million miles after that to a computer that will ever operate without our intervention or understanding.



"If you want to really win in life, you first need to learn how to lose."

The first time you give a quotation, you do it something like this:
"As Joe Bloggs says: ""

The second time you give the quotation it's become:

"As someone once said: ""

After that you give the quotation thus:

"As I always say: ""

"You change the world one person at a time."

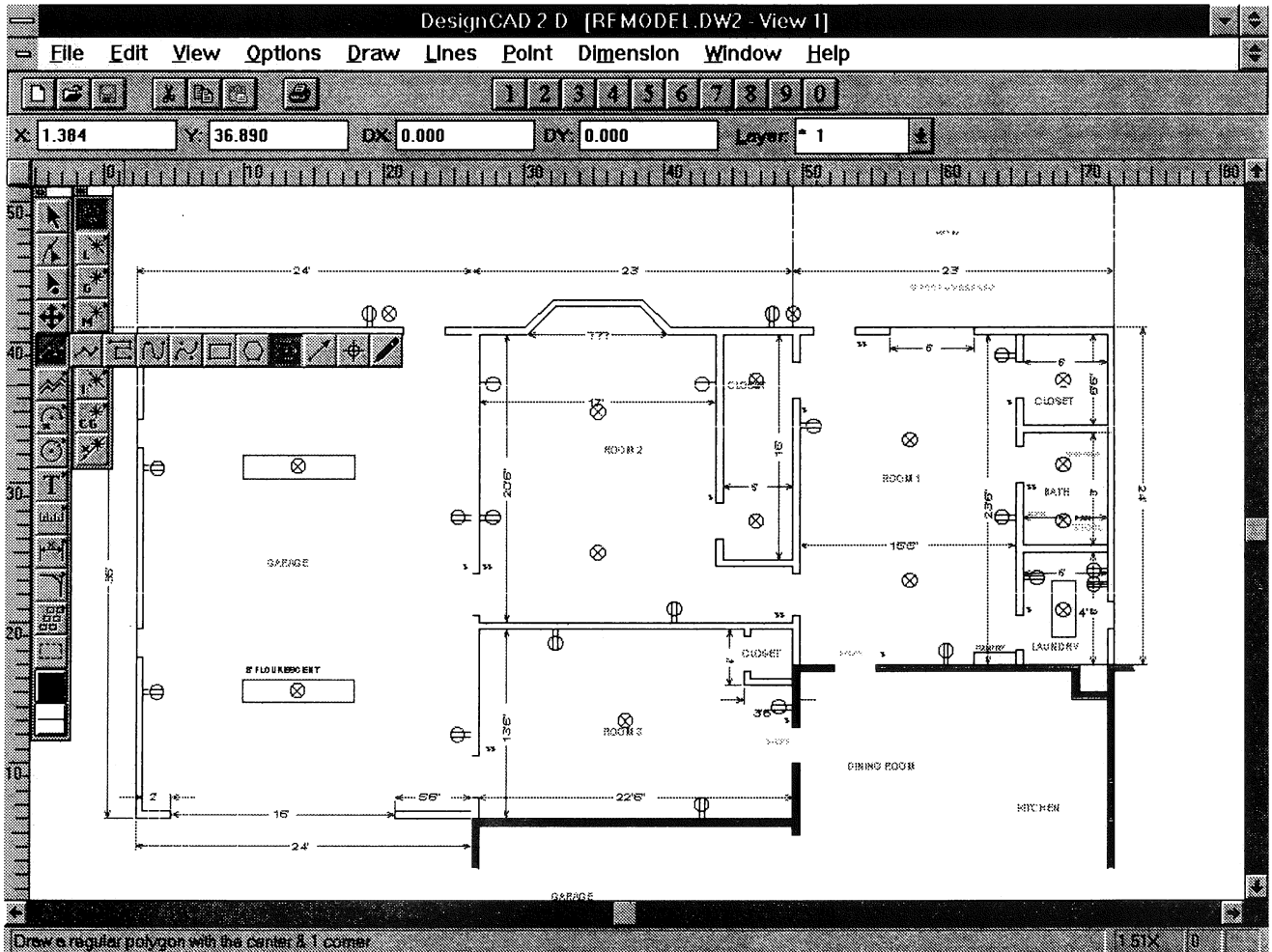
'Bye till next time. Hope it's a great month for you!

Lindsay K. Bates Ph: 808 9441
after 10am

2D CAD

Geoff Harrod

An overview of CAD generally and what is available and useful in the popular price range.



DesignCAD 2D A very capable 2D CAD system on Windows

AT one time CAD was solely the province of costly software running on costly computers. CAD began on mainframe systems with graphic terminals. Because of the computation intensive nature of interactive CAD it was easy to overload even quite massive host computers if several terminals were in use, and stand-alone mini-computers became more common for CAD. They developed into technical or engineering graphic workstations and the basic mini-computer design evolved to add specialised graphic processing and display sub-systems. Display systems

were designed to allow overlapping resizeable windows for concurrent tasks and these became the models for the now familiar GUI environments found on Macintoshes and Windows. The Mac (or even the Lisa) was not the first with the idea, whatever Apple might say!

Those graphic workstations generally ran Unix which was the only readily available operating system that could adequately support the memory hungry graphic operations, and also had the advantage of supporting multi-tasking and networking very well and had reasonably good access security systems. In comparison with other usable

operating systems like DEC's VMS, which was also used, Unix was a small system that worked very efficiently and sacrificed some degree of access security to be more compact. Its main problem was, and still is, its obtuse and dangerously powerful user command system that was designed originally just for the use of computer science professionals and programmers. Even though their windowed display system used mouse operated controls for most things, basic system tasks like file copying and deletion usually had to be done by opening a command text window and typing Unix commands. This is still largely true.

Although Unix is a fairly standardised system, each workstation maker added the graphic sub-systems in their own way with the result that each make of system (or even model) could only run software specifically made for it. When PCs grew up to the 386 stage they began to be capable of supporting professional-level CAD and several systems were adapted to PC versions. AutoCAD was the exception; it started out on the PC and grew from there. AutoCAD began on the XT and was not at first a really viable proposition for professional use except in certain less demanding fields. It still carries some restricting inheritance from its humble beginnings, particularly in its limited 3D capabilities. Rel-13 is set to make a full break with its past.

Now the PC is the most widely used platform for CAD by far, although the really top level systems such as Catia, ComputerVision, Ideas, Pro/Engineer, and Unigraphics still require a Unix workstation, preferably an advanced one. Such computers cost around \$25,000 or

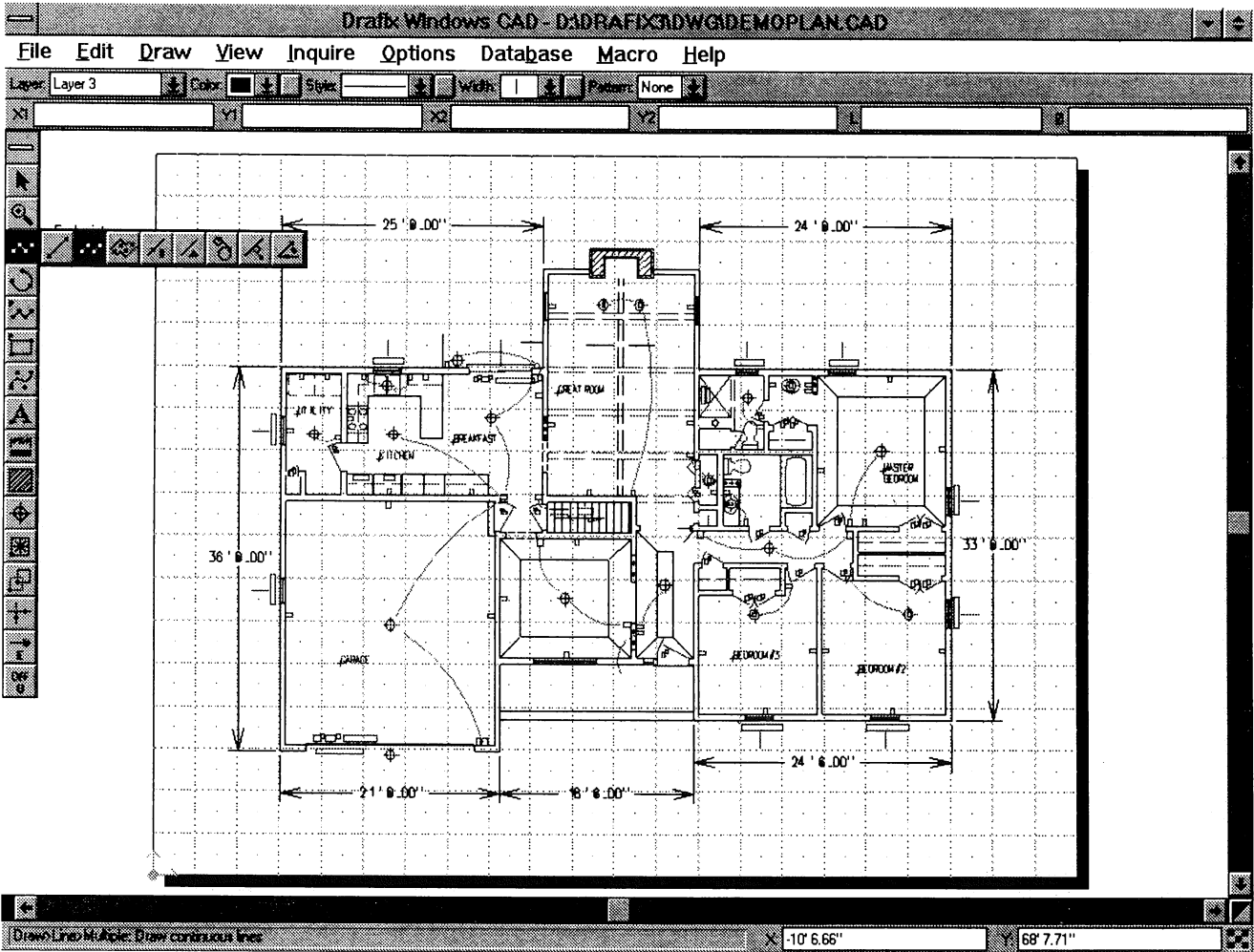
\$40,000 and up to hundreds of thousands.

Those top-level systems are inherently 3D modelling systems. 2D CAD makes much less demand on system resources, and most of the very large amount of CAD work done on PCs is in 2D. The widely used professional PC CAD systems, such as AutoCAD and MicroStation cost around the \$5,000 mark. They provide for virtually unlimited size and complexity of data and incorporate complete customisation and programming facilities to enable them to serve as basic CAD engines for extensive add-on software. Those add-on packages adapt the generalised CAD system to specialised fields of work and provide very streamlined and efficient operation for the particular application.

In recent years several quite low cost 2D CAD systems have appeared and CAD has become of much more interest among the general computing public. Some of the low cost systems have been very deficient or clumsy and enough to put anyone off the whole idea of CAD.

But there have also been some very capable systems. In fact, business users have often continued to use the more expensive systems more because of not being sure about whether they might come up against some limitation in a cheaper system and have to discard it, and also because of a likely need to interchange drawing data with users of the established systems.

More recently, the success of Windows has made it easier to develop easy to use and powerful CAD systems. Before Windows, DOS based CAD needed various sorts of behind the scenes trickery to get enough work space with DOS's crippling 640k memory barrier. Also each DOS program needed special video drivers for every possible make and type of high-res video board. With the widespread availability of 386 machines running Windows with at least 4Mb of memory, it became possible to produce quite good CAD systems at reasonable cost. Now, 32-bit Windows and NT, with 16 or 32 Mb memory and 486 or Pentium CPUs, are extending the



DRAFIX Windows CAD version 2.1 An excellent general pupose professional grade 2D CAD system

PC's ability to further encroach on the Unix CAD arena.

There are CAD systems now even under \$100. Generally those, and others up to about \$200 are not in the business-use league as may be expected. They can provide a useful introduction to the techniques however. Some of those around \$300 are capable of serious work for purposes of low complexity. AutoSketch is the most well known in that category. Version 3 for Windows can do useful work on a small scale, such as drawing house plans.

The \$500 to \$1000 price range includes several really powerful business-like 2D systems, and this is the range that business users should consider. Some of the products in this range began quite some time ago on DOS. Others have been introduced with the Windows boom. I will outline three systems.

DesignCAD

The most well-known and long-lived low cost CAD system is undoubtedly that made by American Small Business

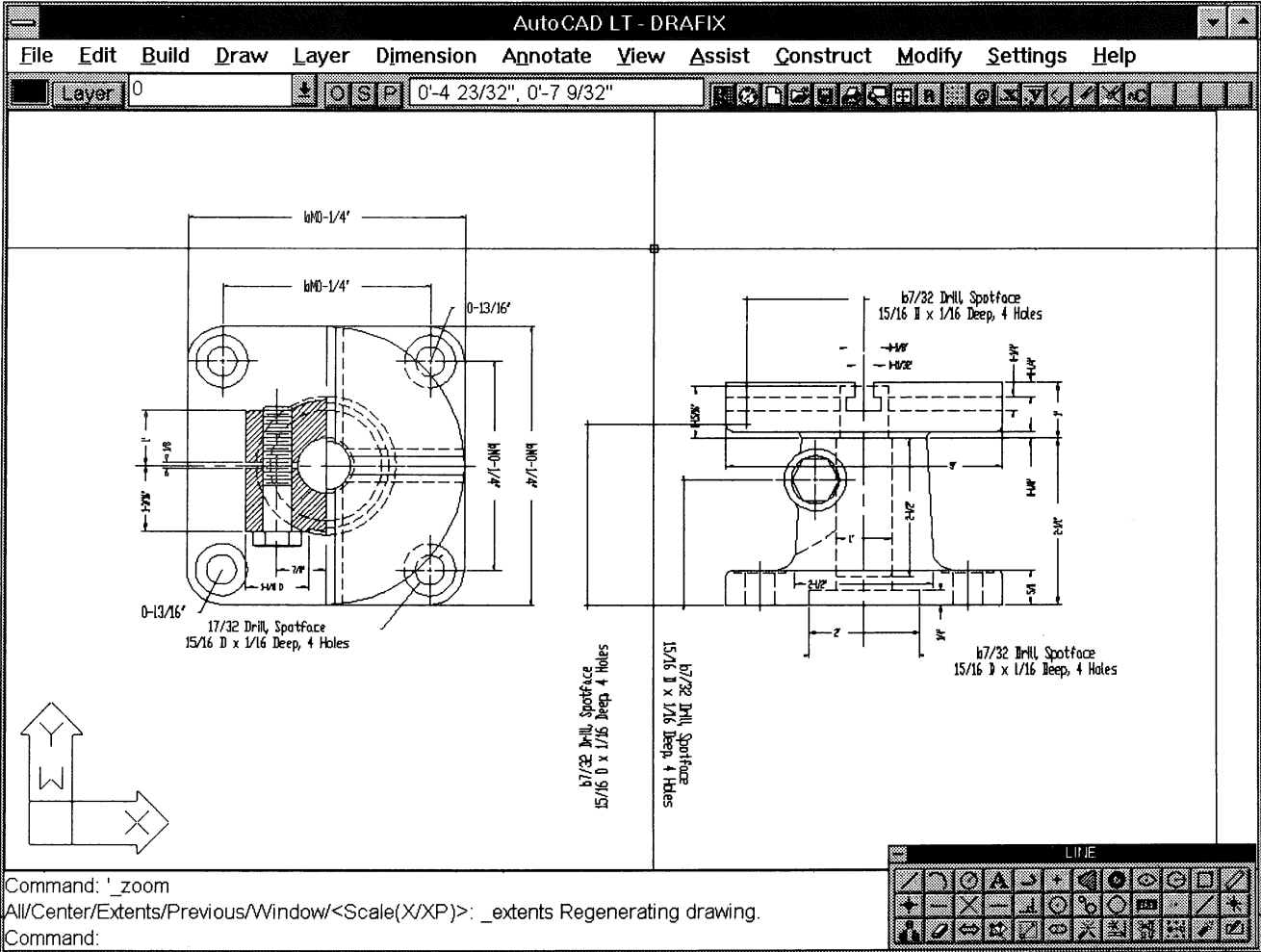
Computers Inc. It was originally called Pro-Design and gained a big following and an excellent reputation. After Pro-Design-II it changed its name to DesignCAD and is now a Windows product. Thousands of businesses worldwide rely on DesignCAD and find it serves them well. Most of them began using Pro-Design. Its operating rationale differs slightly from most others, notably in its concept of placing points and then joining them up with lines or arcs etc. Most systems place lines directly. DesignCAD inherits that technique from Pro-Design but also allows the more common technique to be used as well. It places the points as part of the line drawing to preserve compatibility with the original system.

DesignCAD has a fairly extensive programming and macro system, using the widely known BASIC language with extensions. The extensions are rather awkwardly added, relying a lot on the SYS function with a host of cryptic numbered sub-functions. But the system does allow quite powerful programming.

Its weakness is lack of ability to redefine the pull down menus. DesignCAD 2D is currently selling for about \$540.

DRAFIX Windows CAD

DRAFIX also began on DOS but was never all that popular, probably due to marketing more than any lack of quality. Its move to Windows brought a vastly more popular product as well as more capability. Drafix Windows CAD version 2.1 is my favourite in this range. It can do virtually any common professional 2D drafting task very well, and is exceptionally easy to use. It was designed to conform totally to Windows operating conventions, rather than being adapted from the DOS version to run under Windows. Consequently, unlike most CAD systems, it uses the same techniques for object selection, moving and shape changing as is well known in programs like Paintbrush, Corel Draw, Micrografx Windows Draw and Aldus Freehand. Yet unlike those artistic drawing programs, Drafix includes the usual precise CAD features and



AutoCAD LT A reduced version of the widely used AutoCAD.

automatic dimensioning etc. It also uses the Windows text font system, so any TrueType fonts already installed are usable in Drafix drawings. That applies to DesignCAD also. Both Drafix and DesignCAD use icon toolbars extensively for normal operation. DesignCAD provides very easy custom redefinition of the buttons.

Drafix Windows CAD 2.1 was originally priced at about \$800, but during a promotional period dropped to \$184. It is currently priced at \$299, and a more powerful version called Drafix Professional ver 3 is now released at about \$700 I think.

AutoCAD LT

AutoCAD LT is a quite new product in this price range, from the makers of the well established \$5,000 product, AutoCAD. It is right near the top of the price range in Australia, at about \$900, but does not offer anything significant not found in the other two mentioned, except guaranteed compatibility with drawing files done in AutoCAD Rel-12.

Its other asset for some users, is the fact that its command system is almost exactly the same as the "big" AutoCAD. Therefore those who use R12 at the boss's office can use the same learned skills on LT at home. Conversely, people can buy LT and learn how to use AutoCAD so they can get work in an AutoCAD based drawing office.

LT retains almost all of AutoCAD R12's 2D facilities, with a few silly omissions. In essence, LT will do everything earlier versions of AutoCAD used to do such as ver 2.5, and in fact, usually everything most users of R12 actually use R12 for! It has the ability to display quite a lot of 3D work in files done on AutoCAD R12, but not alter those aspects.

Its text fonts are restricted to the line fonts used in all other AutoCAD versions and most CAD systems other than some Windows ones and most Mac ones. These mimic the typical engineering drawing text done by draftsmen with single pen strokes or using stencils. They are quite OK for engineering workshop drawings but not good enough for architectural presentation drawings or illustrations for brochures.

Although LT's command system follows the long established and well known AutoCAD system, the newer systems are often easier to learn and use. This is particularly so where "object snap" is concerned. That is snapping the ends of lines as they are drawn onto existing drawing features — a very important part of CAD working.

The well-known AutoLISP programming system used in AutoCAD is totally absent in LT, which has caused a lot of annoyance. Presumably Autodesk were concerned that it would harm sales of their \$5,000 product. In fact, it is having the effect of making people look at the alternatives!

You can customise the menus completely in LT, and some ingenious techniques have been devised by some AutoCAD add-on producers to enable them to make cut-down LT versions of their products. One of the few is a local product from CAD Partners in Brisbane, a firm with which I was very closely involved before I started up Multi-CAD Magazine. Their AutoSYS Lite for LT is a very worthwhile add-on, and makes LT vastly easier to use.

Generic CADD

Another product in this price range is Generic CADD. Generic is a DOS product that gained an excellent reputation and is capable of anything in the 2D field. It is highly customisable and programmable, fast to use (once learned) and reliable. Like many DOS CAD products, it lacks any pull down menus and is best run from the two-letter typed command system, which takes a bit of learning. The side menu system is rather clumsy.

Generic CADD was taken over by Autodesk, and they seem to consider that AutoCAD LT replaces it. There has been a lot of grumbling about this among the established Generic CADD user community. Generic CADD 6.1 for DOS continues to be available but largely without support and with no upgrade future.

A new entrant will appear next month: **Visual CAD**. This Windows product has been written by the original Generic CADD producers and is being marketed quite independently. It may be considered to be the successor to

Generic CADD 6.1 and incorporates several enhancements. I will review it as soon as I can.

At this price range and profit margin you cannot expect any free support or training or much time spent demonstrating, just as with normal office software.

There are also a few Shareware CAD systems, but most are quite pathetic. Among the more worthwhile ones are TommysCAD, MegaCAD and Draft Choice. Often, shareware systems require EMS memory which is an obsolete system, an anachronism on a modern PC, and usually a problem for coexistence with other more modern software.

All CAD needs some form of extended memory; those systems that run in 640k are not really serious. All the good DOS ones use XMS memory or a DOS-extender, and Windows provides its own memory management.

3D

Most people using CAD use it like an electronic drawing board. They use the same techniques they learned on the drawing board, but achieve speed and efficiency gains because of CAD's ability to change things so easily, replicate repeated details and re-use previously drawn material.

But apart from diagrams, virtually everything that gets drawn is a representation of 3D objects, and a large part of drafting technique is concerned with ways of representing 3D things on flat paper. However, to take full advantage of the computer's ability to get right away from the limitations of a 2D drawing board needs a major shift in user conceptualisation and technique, and also a higher order of both software and computer hardware. I will write about this another time as it is a big topic.

I hope the above may help people wondering how to move into CAD or whether to trust the lower price systems. DesignCAD and AutoCAD LT are being widely sold by many general software dealers. Drafix doesn't seem to be so widely available, but I can obtain it if you can't find an off-the-shelf source.



BRISBUG PC USER GROUP INC.

P.O. BOX 5000 BRASSALL QLD 4305

Phone (07) 841 5511

MEMBERSHIP APPLICATION FORM

Name: _____
Please Print

Address: _____

Suburb/City: _____

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 1/4 ☐ 3 1/2 ☐

Special Interests: _____

Membership Type: Individual / Family ☐ Educational ☐ Corporate/Associate Club ☐

Individual/Family/Educational Fees Joining: \$ 45.00 Renewal: \$ 40.00

Corporate/Associate Club Fees Joining: \$110.00 Renewal: \$100.00

Introduced by: _____ Membership No.: _____
Please Print Members Name

If payment of Membership Fees are to be made by Credit Card please complete details.

Tick Box



Expiry Date: ____ / ____

CARD NUMBER				
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CARDHOLDERS NAME: _____
Please Print

CARDHOLDER'S SIGNATURE _____

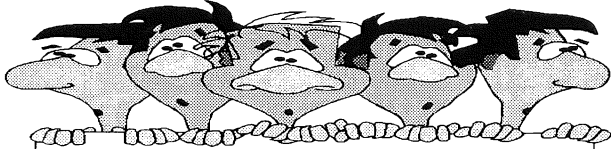
I / We hereby apply for Membership of BRISBUG and agree to abide by its rules.

Signature: _____ Date: _____

OFFICE USE ONLY

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

Membership Drive Competition



All members of Brisbug are invited to participate in a Membership Drive promotion to be conducted over the 6 months from 17th April until 13th October 1994. Thousands of dollars worth of prizes can be yours for simply introducing a new member to Brisbug.

What you can win

Thousands of dollars worth of prizes can be yours simply introducing a new member to Brisbug.

The major prize you can win is a Compaq 486 Laptop Computer valued at \$5050. Other prizes including Microsoft Office Professional, Lotus 1-2-3, AMI-Pro, Q & A for Windows, Nortons Utilities, Borland C++, Paradox, Wordperfect and many others will be won by lucky members each month.

The new members introduced by you are not forgotten. The major prize for new members is a BytePro 486 Desktop computer complete with Multi-Media facilities valued at \$5000. Also new members will be eligible to win valuable software prizes.

When do I win?

Each month during the competition, the names of both lucky members and new members will be chosen to receive a prize from the great range of software available.

To enter, simply introduce a new member to Brisbug using the membership form provided in this magazine, or obtain a form from the Membership Secretary or Librarian and you will become eligible to win a prize in the month the new member joins our club.

The new member will also be eligible to win a prize in the same month.

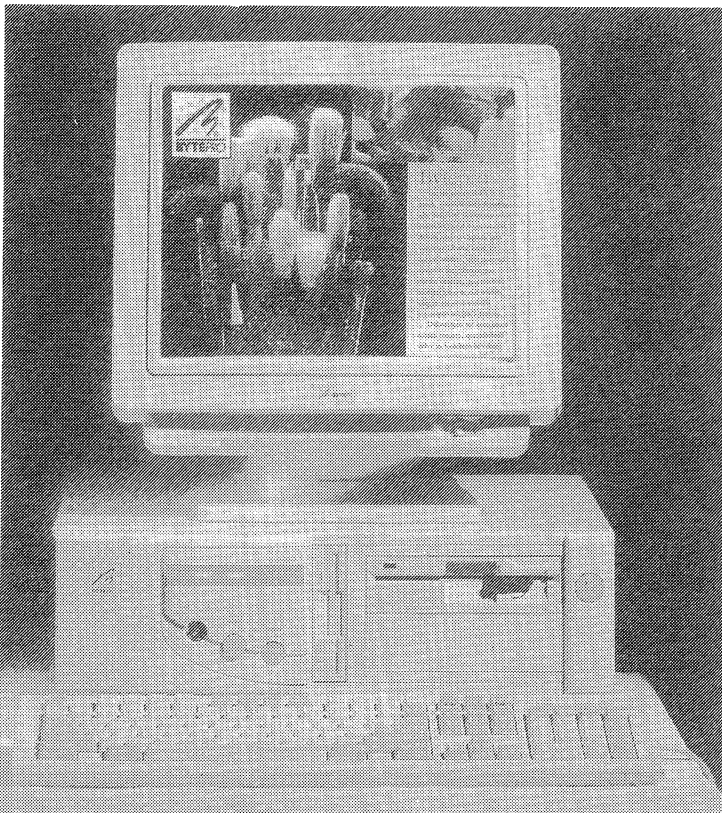
The Grand Finale...

At the General Meeting on the 16th October, all the names of members who have introduced new members will be placed in the draw for the Compaq 486 Laptop Computer, and the Microsoft software.

And Gand Finale 2

The following month at the General Meeting on the 20th November, the names of all the new members who have been introduced to and joined Brisbug will be placed in the draw for the BytePro 486 desktop computer.

There is no limit to the number of times you can enter - for each new member you introduce you receive an additional chance. So if you introduce 10 members, you get 10 chances, 30 members - 30 chances, and so on.



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and with the
generous
assistance of

Borland
Microsoft

SYMANTEC™

WordPerfect

Lotus
Working Together®

b
BYTEPOWER

Each month, at the General meeting, a draw for lucky winners will take place for the entries submitted in that month, for both existing and new members. If you can't get to the meeting, your prize will be forwarded to you. The names of the winners will be published in the succeeding months edition of Significant Bits.

The closing dates are:

Intermediate Win Competitions:

15th September 1994.

Main Competition -

13th October 1994.

The rules of the competition are:

You must be a financial member of Brisbug to be eligible to participate. (*Associated Clubs, and Corporate Members are also eligible*).

The introduced member must join Brisbug and must not have been a financial member of Brisbug for the previous 12 months.

You must use the special membership application form (or a good photocopy) to be eligible. (Additional forms are obtainable from the Membership Secretary or Librarian.)

The membership application must be in the hands of the Membership Secretary by 5pm on the closing dates

listed. Applications received after the closing date will be carried forward to the next month, but applications received after the expiration of the contest (13th October 1994) will not be considered.

The Judges' decision is final and no correspondence will be entered into.

The aim of the Competition is to expand our membership and by so doing, we can expand our services and benefits to all.

BRISBUG MEMBERSHIP DRIVE PROMOTION

CONDITIONS OF ENTRY

1. Information on how to enter and prizes form part of these conditions of entry.

2. Employees of L. & L. Electronics, the Brisbug Software Librarian, the Brisbug Membership Secretary, the agencies or suppliers of prizes associated with this promotion and their immediate families are ineligible to enter.

3. Entries close 5pm 13th October, 1994.

The draw for the 486 Laptop Computer valued at \$5050 and subsequent draws for Software including Microsoft Office Professional valued at \$1210; Microsoft Office Standard valued at \$1095; Microsoft Works valued at \$199 will take place during the Brisbug General Meeting to be held on Sunday 16th October 1994 at QUT Kelvin Grove Campus, Victoria Park Road Kelvin Grove.

The draw for the 486 Benchtop Computer with Multi-media equipment valued at \$5000 will take place during the Brisbug General Meeting to be held on Sunday 20th November 1994 at QUT Kelvin Grove Campus, Victoria Park Road Kelvin Grove. Winners in each draw will be notified by mail and their names published in the Brisbug monthly magazine Significant Bits in the month following each draw.

Judges' decision is final and no correspondence will be entered into.

4. Each month during the promotion, intermediate draws for

prizes will be conducted. The closing dates for each intermediate draw will be 5pm on the following dates:

12th May 1994, 16th June 1994, 14th July 1994, 18th August 1994 and 15th September 1994.

The draw for each intermediate prize will be held at the Brisbug General Meeting on the Sunday following the closing date for each intermediate draw.

Judges' decision is final and no correspondence will be entered into.

Intermediate win prizes and their values are as follows: 1 copy Lotus 1-2-3 valued at \$735; 1 copy AMI-Pro valued at \$735; 1 copy cc:Mail valued at \$375; 1 copy Freelance valued at \$737; 1 copy Organizer valued at \$195; 2 copies Q & A for Windows valued at \$399 each; 2 copies of Nortons Utilities Volume 7 valued at \$299 each; 1 copy Borland C++ with A/F valued at \$795; 12 copies of Paradox 4.0 for DOS valued at \$795 each; 16 copies of Paradox 1.0 for Windows valued at \$795 each; 2 copies of DR DOS valued at \$135 each; 1 copy WordPerfect 6 for Windows valued at \$695. Total Value of intermediate win prizes \$28293. Intermediate win prizes are not transferable or exchangeable and cannot be taken as cash

5. During the period of the Membership Drive Promotion, all financial members of Brisbug with the exceptions as listed in condition 2, as above shall be eligible to enter the competition.

6. The following shall be the conditions of entry to the Membership Drive Promotion:

(a) During the continuance of this promotion, every financial

member of Brisbug who introduces a new member who joins Brisbug shall be eligible to participate in the monthly draw for intermediate win prizes for that month.

(b) The new members so introduced who join Brisbug shall also be eligible to participate in the monthly draw for intermediate win prizes for that month.

(c) The new member must not have been a financial member of Brisbug during the 12 months previous to the commencement of this competition.

(d) All entries shall be on the Membership Application Form available for the duration of this promotion.

(e) At the conclusion of the Membership Promotion, the winners of the major prizes shall be selected from the names of all introducing members in the draw for the major prizes to be conducted on the 16th October 1994.

(f) On the 20th November 1994 the winners of the major prizes for all the new members who have been introduced and have joined Brisbug shall be drawn.

(g) The prizes allocated for each intermediate win draw shall be decided by the Management Committee of Brisbug and such prizes cannot be exchanged for alternate prizes.

(h) The winners of each intermediate draw for prizes shall be eligible for the major prize in each category.

7. The promoter is L. & L. Electronics of 95 Station Road, Booval, QLD 4304.

Learning Assembler using DEBUG

Dan Bridges

Part 6: Interfacing with a HLL

Stack is shown as 50 hex. This also happens to be the ASCII code for the "P" character. Whether the CPU interprets this as an instruction to be executed or as a data byte depends on context and is not our concern here.

In assembly language programming we use text mnemonics to represent the machine language instructions e.g. "PUSH AX". With MASM/TASM we can be a little more abstract and also use labels, procedures, functions and macros. When MASM/TASM assembles (translates) source code it produces a binary-format object file (.OBJ). An object file is partway between the source code and the final, executable file. It is in a format that enables it to be compiled with other .OBJ files to produce an executable file. Often groups of .OBJ files will be combined into a library file (.LIB). The process of combining .OBJ and/or .LIB files and converting the combination into an loadable, executable file (.EXE) is called Linking.

With a HLL the process of the translation of source code to object code is called Compilation. Say you want to print a string constant. The BASIC instruction PRINT "TEST" is converted to a large number of instructions by the QuickBASIC compiler (BC.EXE). Sometimes, the instructions are fairly direct translations, such as simple integer maths. Other instructions call routines that were originally stored in the main library (BCOM45.LIB). When a QuickBASIC program is compiled, the routines that are required to implement the operations are extracted from the main library and incorporated into the new .OBJ file. So, for example, floating-point (FP) routines are not incorporated unless the source code uses FP variables or operations. (Some seemingly non-FP operations, however, will also result in the FP routines being included.) The degree to which the linker can select just the routines it absolutely needs, and nothing more, is a measure of a product's granularity. Inside a library, routines can be grouped further into different modules and the linker can only extract a whole module. QuickBASIC is relatively weak in this aspect so even a simple QB program can be 20Kb or more. (But only one copy of a routine will be added to the object file, even if the routine is used many times.) In the 216Kb BCOM45.LIB file there are 1,483 routines organised into 197 modules. (If you have QuickBASIC you can create a list of routines and modules with "LIB BCOM45, LIBRARY.DMP;".) But as mentioned, the compiler does all the

This month we look at interfacing an assembler routine with a program written in a high-level language (HLL). The assembly language routine will speed up the filename/extension sorting in the QDIR program (see "Learning QBASIC - Part 10, SigBits May 93"). Take a look at Figure 1. This should stir up some interest. In the QDIR article I said that the QDIR sort routine, that was to be presented at a later date, would use the Quicksort algorithm. Well Quicksort turned out to be unsuitable for this particular application so I ended up using the Shell sorting algorithm. For a thorough explanation of these sorting methods refer to "Sorting - Bubble, Shell & Quicksort methods. Learning QBASIC - Part 11", SigBits Aug 93.) The programs and the full source code mentioned this month will be available on our BBS in the "LASM0994.xxx" archive. First off we'll look at the relationship between QuickBASIC and assembly language.

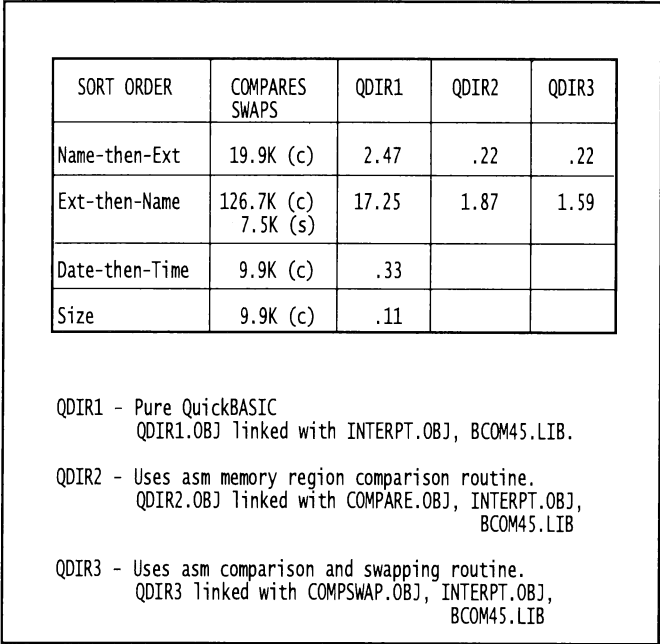


Figure 1. Timings in seconds for the SORT Subprogram to process 1,200 zero-length files with unique filenames derived from date/time. Blank entries indicate same value as QDIR1. Test machine: 386/25. Note: INTERPT.OBJ is a module that provides InterruptX support and was created by extracting it from QB.LIB.

Source Code, Compilation & Linking

At the business end, the CPU executes machine language. This is presented to it in binary format. In a hexadecimal representation of this (so it can be printed), the command to push the contents of the AX register on to the

picking and choosing for you. This goes some way to explaining why a HLL is relatively easy to use, yet powerful. However, in certain situations it is worth the effort to include your own custom-built asm routine (assembled as an .OBJ) to produce a better performing program. The reason why you can improve on the work of the many skilled programmers that wrote QB's routines is that often the routines must be generic in nature to cover a large range of possible situations, whereas a custom-built routine can be both smaller and quicker in performing a specific task.

prnval	Offset: 000215B0h Code and data size: 209h		
b\$FInput	b\$GetOneVal	B\$InpReset	B\$OutBlanks
B\$PCI2	B\$PCI4	B\$PCSD	B\$PEI2
B\$PEI4	B\$PEOS	B\$PESD	b\$pFLUSH
b\$pGetValDefault	B\$PRINT	B\$PRTCHK	B\$PSI2
B\$PSI4	B\$PSSD	b\$PUSG	b\$StkBottom
b\$VECS	B\$WCHSET	B\$WRIT	

Fig 2. Routines inside the BCOM45.LIB PRNVAL module.

Figure 2 shows the routines stored in the prnval module inside QuickBASIC's BCOM45.LIB. As far as I'm aware these are undocumented but if you use Microsoft's CodeView to examine what the compiler creates in response to BASIC instructions you can work out what many of these routines do. (You can also use CodeView to trace inside them, but they often call other routines and things can get very complex.) B\$PCI2/4 prints out a 2/4 byte integer that is followed by a trailing comma (i.e. move to next tab stop). B\$PSI2/4 handles the printing if a semicolon follows instead, while P\$EI2/4 is used when the integer is at the end of the instruction (i.e. followed by a CR/LF). B\$CSD, B\$SSD and B\$ESD are used to handle string printing. Finally, B\$PEOS is invoked when a PRINT instruction without parameters (a blank line) is requested.

The executable files we've dealt with so far in this series have been straightforward binary "image" files i.e. the file's contents is a direct image of the file loaded in memory. In the case of the boot-sector's code, if this was a separately supplied file it would probably have a .BIN extension. Another type of binary image file is a .COM file which is designed to be run from the command-line. It is limited in size to 64Kb and is loaded directly into memory in the current segment at offset 100h. The data segment (DS) is the same in these binary-image files as the code (CS), stack (SS) and extra (ES) segments. Stack space is automatically provided from space at the top of the current segment and grows downwards towards the combined code and data. Since everything must fit within 64KB, if a lot of stack space is required the code and data must be made smaller so they and the stack never collide. This is the "tiny" memory model.

In the case of an .EXE file the situation is much more complex. The file has a "header" structure that contains details of which segments are used for the stack, data and code. Since these structures have to be established and various parts of

the programs have to be loaded in the correct locations, an .EXE file takes a little longer to load. The payoff is the potential for much larger programs. Compiled QuickBASIC programs are always .EXEs and follow a "medium" memory model. This means these programs can have more than one CS but only have one, combined DS and SS.

When a BASIC text source file is compiled, the compiler has no idea where routines will end up in the final executable file. So the Seg:Off part of routine calls is left blank. The linker then inserts segment and offset references based on how many .OBJ files and modules from libraries are included and in what order they are combined. However it still does not have the final say because DOS itself modifies the absolute segment references, when the .EXE is loaded, to account for the load position. (This will vary depending on what TSRs and device drivers are loaded first and on memory management options.)

The Passing of Parameters to/from Internal Functions & Subprograms

In the following example I first created a QuickBASIC text source file ("QB TEST"). See Figure 3. I then compiled it to a stand-alone .OBJ (QB also supports exes that require a run-time library) that included CodeView information ("BC /O /ZI TEST;"). Next, the file was linked with the requested routines from BCOM45.LIB ("LINK /CO TEST;"), preserving the CodeView information and creating TEST.EXE. (I had previously set a LIB environmental variable to the directory where BCOM45.LIB resides so I did not need to specify where this default library was located.). This file was then loaded into CodeView with "CV TEST". Figure 4 shows a cleaned-up version of CV's interpretation of relationship between the source and the resultant code and data.

The segment address on the left is the CS while the offsets in the MOV etc. are relative to DS. You can see in line 5 how a

```
DEFINT A-Z
DECLARE FUNCTION Function1% (Parm1, Parm2)
DECLARE SUB Subprogram1 (Parm1, Parm2, Parm3)

x = 7
y = 3
a = Function1(y, 5)
CALL Subprogram1(x, y, 10)
PRINT a; x; y
END

FUNCTION Function1% (Parm1, Parm2)
    Function1 = (Parm1 * Parm2) + 10
END FUNCTION

SUB Subprogram1 (Parm1, Parm2, Parm3)
    Parm1 = Parm1 * Parm3
    Parm2 = Parm2 * Parm3
    x = 48
END SUB
```

Fig 3. TEST.BAS - used to investigate the passing of parameters to/from a function and a subprogram.

```

1:      DEFINT A-Z
2:      DECLARE FUNCTION Function1% (Parm1, Parm2)
3:      DECLARE SUB Subprogram1 (Parm1, Parm2, Parm3)
4:
5:      x = 7
0803:0030 MOV     Word Ptr [0036],0007
6:      y = 3
0803:0036 MOV     Word Ptr [0038],0003
7:      a = Function1(y, 5)
0803:003C MOV     Word Ptr [003A],0005 ;Assign 5 to this address
0803:0042 MOV     AX,0038 ;Offset of y%
0803:0045 PUSH     AX
0803:0046 MOV     AX,003A ;Offset of 5's assignment location
0803:0049 PUSH     AX
0803:004A CALL     FUNCTION1% (0803:0092)
0803:004F MOV     Word Ptr [003C],AX ;Time to play silly buggers
0803:0052 MOV     AX,Word Ptr [003C] ;More of the same
0803:0055 MOV     Word Ptr [003E],AX ;a%=25
8:      CALL     Subprogram1(x, y, 10)
0803:0058 MOV     Word Ptr [0040],000A ;Assign 10 to this address
0803:005E MOV     AX,0036 ;Offset of x%
0803:0061 PUSH     AX
0803:0062 MOV     AX,0038 ;Offset of y%
0803:0065 PUSH     AX
0803:0066 MOV     AX,0040 ;Offset of 10's assignment
0803:0069 PUSH     AX
0803:006A CALL     SUBPROGRAM1 (0803:00B8)
9:      PRINT a; x; y
0803:006F PUSH     Word Ptr [003E] ;Push a%
0803:0073 CALL     B$PSI2 (0811:1DA9) ;Semicolon-terminated integer
0803:0078 PUSH     Word Ptr [0036] ;Push x%
0803:007C CALL     B$PSI2 (0811:1DA9) ;Semicolon-terminated integer
0803:0081 PUSH     Word Ptr [0038] ;Push y%
0803:0085 CALL     B$PEI2 (0811:1DAE) ;End-of-line integer
10:     END
0803:008A CALL     B$CEND (0811:12CD);Program ending routine
0803:008F JMP      00B5 ;Bypass code. Never executed.
11:
12:
FUNCTION1%:
13:     FUNCTION Function1% (Parm1, Parm2)
0803:0092 MOV     CX,0002 ;Stack space for 1 local variable
0803:0095 CALL     B$ENRA (0811:1FDF) ;Prepare local stack space
; 3 5
14:     Function1 = (Parm1 * Parm2) + 10
; [0038h] [003Ah]
0803:009A MOV     SI,Word Ptr [PARM1%] ;SI=0038h
0803:009D MOV     AX,Word Ptr [SI] ;AX=[0038h]=3
0803:009F MOV     DI,Word Ptr [PARM2%] ;DI=003Ah
0803:00A2 IMUL     Word Ptr [DI] ;AX = AX * [DI] = 3 *
0803:00A4 ADD     AX,000A
0803:00A7 MOV     Word Ptr [BP-0C],AX ;Loony code
15:     END FUNCTION
0803:00AA MOV     AX,Word Ptr [BP-0C] ;More of the same
0803:00AD CALL     B$EXSA (0811:1FB4) ;Local stack cleanup
0803:00B2 RETF     0004 ;2 parameters were supplied
0803:00B5 JMP      00E3 ;Bypass code. Never executed.
16:
17:
SUBPROGRAM1:
; x% y% 10
18:     SUB Subprogram1 (Parm1, Parm2, Parm3)
; [0036h] [0038h] [0040h]
0803:00B8 MOV     CX,0002 ;Space for 1 local variable
0803:00BB CALL     B$ENRA (0811:1FDF)
19:     Parm1 = Parm1 * Parm3
0803:00C0 MOV     SI,Word Ptr [PARM1%] ;SI=0036h. [SI]=7
0803:00C3 MOV     DI,Word Ptr [PARM3%] ;DI=0040h [DI]=10
0803:00C6 MOV     AX,Word Ptr [DI] ;AX=10
0803:00C8 MOV     BX,AX ;BX=10
0803:00CA IMUL     Word Ptr [SI] ;AX = AX * [SI] = 10 * 7
0803:00CC MOV     Word Ptr [SI],AX ;70 goes to [0036h] i.e. x%
20:     Parm2 = Parm2 * Parm3
0803:00CE MOV     SI,Word Ptr [PARM2%] ;SI=0038h. [SI]=3
0803:00D1 XCHG     AX,BX ;AX=10. BX=70.
0803:00D2 IMUL     Word Ptr [SI] ;AX = AX * [SI] = 10 * 3
0803:00D4 MOV     Word Ptr [SI],AX ;30 goes to [0038] i.e. y%
21:     x = 48 ;An example of local variable. Not used.
0803:00D6 MOV     Word Ptr [x%],0030 ;x=48
22:     END SUB
0803:00DB CALL     B$EXSA (0811:1FB4) ;Clean up local stack.
0803:00E0 RETF     0006 ;2 parameters were supplied

```

Figure 4. Cleaned-up CodeView interpretation of TEST.EXE.
Numbered lines refer to original source file, TEST.BAS.

variable (X%) is nothing more than a named memory location of a known size and that the minimum variable size used in BASIC is a word. Since all BASIC numeric variables are signed, the integer range is thus -32,768 to +32,767.

Line 7 shows that parameters are normally passed to a function as addresses ("passing by reference"). Even the number "5" is loaded into a memory address and then this address is passed, not the number itself.

Move now to line 13. B\$ENRA creates a stack frame prior to entry into the procedure. (See Figure 16 in last month's issue for an example of a stack frame.) The value in CX determines how much stack space to put aside for variables that will be local to the function. Typical local variable uses would be for loop counting or for other temporary variables. The only local variable I can see in this particular function has an address of [BP-0Ch] but I can see no good reason why the compiler creates it. Compare this with line 18 where again 2 bytes are set aside because of the local variable (X%) in line 21. This variable serves no purposes in the subprogram but was included for demonstration purposes. Notice how variable X% inside the function has no relationship to variable X% in the main program. (If they were the same variable then they would have the same address.) B\$EXSA clears up the local stack area on exit from the procedure.

A function returns a value. If an integer is returned it is communicated in AX; if it's a long integer that's returned then DX:AX is the repository. The local variable messing around at IP=00A7h & 00AAh seems superfluous, in fact I'd go so far to describe it as "junk code". In my opinion it's an example of where a human would do a much better job. The function's value is transferred to variable A% at IP=0055h. This is preceded by what appears to be more junk code shuffling from AX to offset 003Ch (corresponding to no named variable) and then back again.

A subprogram returns any altered values, if it's designed to return anything at all, by altering the stacked parameters that were passed to it. Parameters 1 & 2 are changed in Subprogram1 and their new values are passed in the instructions at IP=00CCh & 00D4h.

In Figure 4, CV is showing symbolic names. If you turn this option off then the memory offsets are shown as offsets from a fixed BP i.e. [BP+08h]. Figure 5 shows the stack frames for Function1% and Subprogram1. Points to note: BASIC passes the parameters in the order they are presented as arguments. So, for example, Parm1 is pushed on the stack first. This is in contrast with the "C" programming language where Parm3 would be in the [BP+Ah] position. BASIC always uses far calls to invoke its procedures since its medium code model assumes that the code will span more than one segment. "C" is more flexible in this respect and you can pick from the full range of memory models. B\$ENRA saves a number of registers on the stack. SI & DI are restored to their original values inside B\$EXSA. However the saved AX & CX values

Function1%	Subprogram1
BP+08h Parm1%	BP+0Ah Parm1%
BP+06h Parm2%	BP+08h Parm2%
BP+04h Ret Seg	BP+06h Parm3%
BP+02h Ret Off	BP+04h Ret Seg
BP Saved BP	BP+02h Ret Off
BP-02h Unknown [0558h]	BP Saved BP
BP-04h Saved SI	BP-02h Unknown [0558h]
BP-06h Saved DI	BP-04h Saved SI
BP-08h Saved CX	BP-06h Saved DI
BP-0Ah Saved AX	BP-08h Saved CX
BP-0Ch Local Var	BP-0Ah Saved AX
	BP-0Ch XX (Local Var)

Figure 5. Stack frames created by B\$ENRA routine.

are not referred to again and are thrown away inside B\$EXSA. This is another example of where the compiler is not as smart as a human would be. The far return operator (RETF) is followed by a value. This is the number of parameter bytes that were passed (2 bytes per parameter). RETF will pop these off the stack (SP will increase since the stack grows downwards as words are pushed) and also pops another 4 bytes containing the return Seg:Off address. So "RETF 0004h" would increase SP by 8.

```

TYPE DTatype
  FExt AS STRING * 3
  FName AS STRING * 8
  FAttrib AS INTEGER
  FDate AS INTEGER
  FTime AS LONG
  FSize AS LONG
END TYPE

DIM File(1 TO 2000) AS DTatype
'Space for 2000 records (files).

IF File(Upper).FName + File(Upper).FExt >
  File(Lower).FName + File(Lower).FExt THEN
  SWAP File(Upper), File(Lower)
END IF

'Example:

File(Upper).FName = "TEST"
File(Upper).FExt = "BAT"

File(Lower).FName = "TEST"
File(Lower).FExt = "BAK"

'Sort in Filename-then-Extension order:
IF "TEST BAT" > "TEST BAK" THEN ....

'By Extension-then-Filename order:
IF "BATTEST" > "BAKTEST" THEN ...

```

Figure 6. BASIC data-typing, creation & dimensioning of the File() array and examples of how 2-key sorting comparisons can be performed using string contension. (Long IF line wrapped to save mag space.)

```

SUB Sort (SortOrder%, NumOffFiles%)
  ' A Shell sort for speed.

  Special$ = CHR$(5)
  ' A special char chosen to ensure that dirs come first.
  IF SortOrder = 100 OR NumOffFiles < 2 THEN EXIT SUB
  ' Leave unsorted.

  Jump = 1
  ' Keep doubling Jump until it is as least as big as the number of
  ' files. This way it is a power of 2 so the halving process will
  ' be most efficient.
  DO WHILE Jump <= NumOffFiles
    Jump = Jump * 2
  LOOP

  DO WHILE Jump > 1
    Jump = (Jump - 1) \ 2
    DO
      Done = True
      FOR Upper = 1 TO NumOffFiles - Jump
        Lower = Upper + Jump
        SELECT CASE SortOrder
          CASE 1 ' By Name
            IF File(Upper).FAttrib AND 16 THEN
              ' If file has a Directory attribute place ASCII 5
              ' temporarily in front of it. When it is sorted,
              ' reading from left to right, this filename will
              ' be placed ahead of any normal filenames.
              Temp1$ = Special$
                + File(Upper).FName + File(Upper).FExt
            ELSE
              Temp1$ = File(Upper).FName + File(Upper).FExt
            END IF
            IF File(Lower).FAttrib AND 16 THEN
              Temp2$ = Special$
                + File(Lower).FName + File(Lower).FExt
            ELSE
              Temp2$ = File(Lower).FName + File(Lower).FExt
            END IF
            IF Temp1$ > Temp2$ THEN
              SWAP File(Upper), File(Lower)
              Done = False
            END IF
          CASE 2 ' By Extension
            IF File(Upper).FAttrib AND 16 THEN
              ' I haven't bothered about sorting the extension
              ' part of dirs with extensions since they are rare.
              Temp1$ = Special$ + File(Upper).FName
            ELSE
              Temp1$ = File(Upper).FExt + File(Upper).FName
            END IF
            IF File(Lower).FAttrib AND 16 THEN
              Temp2$ = Special$ + File(Lower).FName
            ELSE
              Temp2$ = File(Lower).FExt + File(Lower).FName
            END IF
            IF Temp1$ > Temp2$ THEN
              SWAP File(Upper), File(Lower)
              Done = False
            END IF
          CASE 3 ' By Date
            ' 100,000 will be good until about 2023 AD.
            ' Directories are intermixed with files.
            IF File(Upper).FDate * 100000 + File(Upper).FTime >
              File(Lower).FDate * 100000 + File(Lower).FTime THEN
              SWAP File(Upper), File(Lower)
              Done = False
            END IF
          CASE 4 ' By Size
            ' Directories, being zero-length, will be at the top.
            IF File(Upper).FSize > File(Lower).FSize THEN
              SWAP File(Upper), File(Lower)
              Done = False
            END IF
          'CASE !0-14 are reverse direction sorts and are not
          'shown here.
        END SELECT
      NEXT Upper
    LOOP UNTIL Done
  LOOP

```

Fig 7. A Sort subprogram, based on the Shell algorithm, implemented in pure QuickBASIC.


```

;COMPARE.ASM - compares two strings in memory and returns 1 if
;the first string is greater than the second string. Returns 0
;if they are equal or the first string is less than the second.

;Loosely based on the COMPARE3.ASM routine in Ethan Winer's "PC
;Magazine BASIC Techniques and Utilities".

;Usage in QuickBASIC:
;DECLARE FUNCTION Compare%(BYVAL Seg1%, BYVAL Off1%,
;                           BYVAL Seg2%, BYVAL Off2%,
;                           BYVAL NumBytes%)
;
;Result% = Compare%(Seg1%, Off1%, Seg2%, Off2%, NumBytes%)

.MODEL Medium, Basic ;BASIC calls use the Medium Memory model.

.CODE ;MASM places the following in the Code Segment (CS).

Compare Proc Uses DI SI, SegAddr1:DWord, SegAddr2:DWord,
               NumBytes:Word

;Informs MASM about which registers will be altered (original
;contents need to be saved) and the order, format & number of
;parms to expect and to be removed from the stack afterwards.

Cld ;Compare in the forward direction.
Xor AX,AX ;Default result is "0".
Mov CX,NumBytes ;Max # of bytes to be compared.
Les DI,SegAddr1 ;Load ES:DI with the first segmented address
Lds SI,SegAddr2 ;Load DS:SI with the second segmented address

Repe Cmpsb ;What is the result of the temp subtraction ES:[SI]
; - DS:[DI] ie. byte2 - byte1?
;In medium memory model programs, DS = ES = SS.
;In an ascending sort, byte2 >= byte1.
;REPE will repeat while there are still something in
;CX (each CMPSB operation will decrement CX by 1 and
;increment DI & SI) and while the bytes are still
;equal (REPEAT string operation while Equal).
;After the comparison if the zero flag is NZ
;then the bytes being compared in the fixed-length
;strings in the array are out of order.

Jae Exit ;Exit if the result of the temporary subtraction is
;greater than or equal to zero. This result is
;indicated by the carry flag (CF) = 1 (CY).
;This means that the strings are either equal or
;byte 1 is less than byte 2 (as they should be in
;an ascending sort). Note: in this application the
;strings will never be equal since you can't have
;duplicate filenames.

Inc AX ;Otherwise the two strings are out of order.

Exit:
Ret ;Return to BASIC. MASM will automatically
;generate the correct stack cleanup code
;based on the "Uses" list in the Proc line.

Compare Endp ;End the Compare procedure.
End

```

Figure 10. An asm routine to compare two memory regions.

that used in the ascending section, except that the IF test is for "less than" rather than "greater than". Also no special treatment is given to directories. With a Date-then-Time 2-key sort it is necessary to multiply the date value by 100,000 first before adding it to the time value so that date will take precedence over time.

Now, the Shell sorting algorithm is a good performer. But implementing it in pure QuickBASIC to carry out a "2-key" filename sort produces poor performance. This is due to heavy use of string concatenation (combining two strings to form one, longer string) which, while easy to do in BASIC, is also a relatively slow process.

```

BP+0Eh Seg1% ;These 4 bytes are handled inside
BP+0Ch Off1% ; the routine as the dword SegOff1.
BP+0Ah Seg2% ;And these 4 bytes are handled as
BP+08h Off2% ; the dword SegOff2.
BP+06h NumBytes%
BP+04h Ret Seg
BP+02h Ret Off
BP Saved BP
BP-02h Saved DI
BP-04h Saved SI

```

Fig 11. Stack frame structure created by MASM for the COMPARE% external function.

```

;COMPSWAP.ASM - compares similar parts of 2 records in an
;array and swaps the records if the first string is greater than
;the second string. Returns 1 if a swap occurs.
;Since QuickBASIC uses the medium memory model data will be in
;the DS so only the File(1) offset need be specified.
;Also, the NumBytes & RecSize values are hard-wired to suit QDIR.

;QuickBASIC Usage:
;DECLARE Function CompSwap%(BYVAL Off1%, BYVAL Off2%)
;
;Result% = CompSwap%(Off1%, Off2%)

.MODEL Medium, Basic

.CODE

CompSwap Proc Uses DI SI, Off1:Word, Off2:Word

Xor AX,AX ;Default result is "0".
Cld ;Compare in the forward direction.
Mov CX,000Bh ;Keysize hard-wired to 11 bytes.

Mov DI,Off1 ;load DI with the first offset
Mov SI,Off2 ;load SI with the second offset
Repe Cmpsb ;Repeatedly compare [SI] - [DI]
Jae Exit ;Don't swap.

Swap_Them:
Mov CX,001Ah ;RecSize is hard-wired to 26 bytes.
Mov DI,Off1 ;Reload DI with first offset.
Mov SI,Off2 ;Reload SI with second offset.
SHR CX,1 ;Divide RecSize by 2 (for # of words to swap).
Jnc SwapWordElements ;If carry then RecSize was an odd num.

SwapByteElement: ;Deal with the odd byte.
Mov AL,Byte Ptr [DI] ;Load a byte at [DI] into AL.
Xchg AL,Byte Ptr [SI] ;Exchange this byte with the one at [SI].
Stosb ;Store the current byte in AL at [DI].
;STOSB also increments DI.
Inc SI ;Point to next byte.

SwapWordElements: ;Do the same but use swaps words.
Mov AX,Word Ptr [DI]
Xchg AX,Word Ptr [SI]
Stosw
Inc SI ;Inc SI twice because we're dealing
Inc SI ; with words.
Loop SwapWordElements ;Keep looping until CX reaches 0.

Xor AX,AX ;AX=0.
Inc AX ;AX=1. This is more efficient than "MOV AX,1".

Exit:
Ret ; Return to BASIC

CompSwap Endp
End

```

Fig 12. A combined comparison and swap routine.

The Compare Asm Routine

What we really need to do is to create a suitable datatype structure and then directly compare the contents of two memory regions, namely contiguous regions holding the FName + FExt array elements for the Upper and Lower array records. Examine Figures 8, 9 & 10. When the Compare% function is declared notice that its parameters are passed "BYVAL" to the external routine. This means that the value rather than the memory address is being passed. This is possible if the parameters are numeric and altered parameters do not need to be returned, and it is more efficient. Take the case of the NumBytes variable. If BYVAL was not specified you would need to use the "MOV SI,Numbytes" then "MOV CX,[SI]" sequence to obtain the value of NumBytes rather than its address. Figure 11 shows the stack frame in use while operating inside the Compare% routine.

The CompSwap Asm Routine

The BASIC SWAP command is quite efficient but since this is a assembly language series we'll integrate the swapping of the array records into the asm routine as well. See Figure 12. Reducing the number of parameters that need to be passed will also improve performance slightly. This demonstrates one of the advantages of creating your own asm routine: you have the flexibility of doing exactly what you want.

We need to swap records that are 26 bytes in length. Using instructions that exchange words rather than bytes is a good idea. In this example, we'll always have 26 bytes to swap, so it would be possible to simplify COMPSWAP.ASM a little more. However I want to demonstrate how to handle an unknown record size so I've included a SwapByteElement section. Now you may be thinking: "If using words, where possible, is more efficient, then why not compare using words as well?" This is true if you want to check whether or not two strings are the same. But if you need to know if one string is greater than another (for sorting) then DON'T COMPARE WORDS. The reason is that in the string "32", the "2" is the higher byte in memory and it, rather than the "3" is the most significant byte in a word-based comparison. Check this out by working through the DEBUG session in Figure 13.

Due to the way the 1,200 file sequence was created they are already in an ascending Name-then-Ext as well as in a Date-then-Time sequence. And since they were all zero-length there was no swapping when a Size sort was requested. Only the Ext-then-Name sort involved swapping. Referring back to Figure 1 you can see that the 7,500 swaps that were performed using BASIC's SWAP command (QDIR2) are almost as quick as the version doing this in the external asm routine (QDIR3). So in some areas QuickBASIC is a very good performer. However it is the ability to quickly compare two memory ranges (something that BASIC can't do efficiently - it only has the rudimentary PEEK and POKE commands) that produces the dramatic performance improvement. You can also see from Figure 1 that the Size and the more complex Date-then-Time array element comparisons are currently being performed relatively efficiently. Using an asm routine for these comparisons would be a low-priority enhancement.

```
C:\> DEBUG

-E130 "12345"      ;String1 (S1)
-E140 "13245"      ;String2 (S2) is greater.
-A100              ;Enter code for comparing by bytes.
xxxx:0100 MOV DI,130 ;S1.
xxxx:0103 MOV SI,140 ;S2.
xxxx:0106 MOV CX,5   ;5 bytes to compare.
xxxx:0109 REPE CMPSB ;Repeat while CX > 0 & strings are equal.
xxxx:010B JAE 180    ;Jump to Exit if in correct sort order.
xxxx:010D           ;Swap routine would start here.

-G=100 10B         ;Execute this part.
CX=0003 NC         ;2nd byte was different. "NC" means that
xxxx:010B JNB 0180 ; [SI] - [DI] was not negative ie. S1 < S2.

-P               ;Proceed.
xxxx:0180         ;Jumped to Exit. No swap would occur.
                ;This is the correct action for an ascending order sort.

-A109             ;Alter code for word & byte compares.
xxxx:0109 SHR CX,1  ;How many words have we got?
xxxx:010B JNC 110   ;If an even #, bypass the byte comparison.
xxxx:010D CMPSB     ;Compare the odd bytes.
xxxx:010E JB 114    ;If S1 > S2 then jump to Swap section.
xxxx:0110 REPE CMPSW ;Compare by words.
xxxx:0112 JAE 180   ;Jump to Exit if in correct sort order.
xxxx:0114           ;Swap routine would start here.

-G=100 10B         ;Execute this part.
CX=0002 CY         ;2 words and 1 byte were supplied.
xxxx:010B JNB 0110

-P               ;Proceed.
SI=0140 DI=0130    ;There was a carry because of the odd byte.
xxxx:010D CMPSB

-P               ;Proceed
SI=0141 DI=0131 NC ;The odd bytes were the same.
xxxx:010E JB 0114

-P               ;Proceed.
CX=0002 SI=0141 DI=0131 ;Compare the words.
xxxx:0110 REPZ
xxxx:0111 CMPSW

-P               ;Proceed.
CX=0001 SI=0143 DI=0133 CY ;1st word was different with
xxxx:0112 JNB 0180 ; S1 > S2. This is incorrect.

-P               ;Proceed.
xxxx:0114         ;Execution arrives at Swap section.
```

Fig 13. You can't compare strings by words, because in a word sized comparison of "23" & "32", the right hand character in each string is in the high-byte position of the words being compared and the "3" of "23" is greater than the "2" of "32".

Conclusion

With QDIR3 you get the best of both worlds: an easy to use language for most of the program; the use of a fairly simple asm routine in a section that was causing a performance bottleneck.

Hopefully you've gained an insight into the incorporation of an asm routine into a QuickBASIC program. Other HLLs may pass the parameters in reverse order, use a different memory model or require you to manually clean up the stack after you return from the external routine, but the basics remain the same. Next month, we'll take a look at the CMOS.



Media Vision Multimedia Kit

Mic Collis and family treat themselves to the wonderful world of sound on their computer

It was the family's usual Thursday night shopping spree, but this time it was a little different to the usual trolley pushing. That afternoon I had received the Harvey Norman Super Computer Store catalogue along with the usual junk mail. I had been considering a CD-ROM drive and sound card for my computer for some time, and the prices in the catalogue seemed pretty good.

So here we were mum, dad and son and daughter, deluged in a shower of choice, the likes of which the catalogue had not hinted at. Following the deluge we were flooded by eager sales persons, ever friendly, ever helpful and ever watchful of us that we may make a purchasing decision and leave to go to the checkout with one of their compatriots.

One such sales person eventually sold us on the Family Deluxe Media Vision Multimedia Kit for \$599. This kit included a double speed Sony CD-ROM, a 16 bit Sound Blaster compatible sound card and "9 of today's hottest CD-ROM titles". I must admit that I had some misgivings at the time. The same Media Vision kit without the titles was available for \$499, and a true Sound Blaster kit was also available with limited titles for \$599. But my wife was convinced by the sales person and I was in turn convinced by her.

My first question was, how hard is it all to install. "Dead easy" was the answer, "if you can use a screw driver you can have it together in no time". With that my 7 year old son, pointed out to the sales person what a whiz I was with tools, and I was done like a dinner. After all what father is going to plead incapability in front of his son. I did have a couple more questions however about IRQs and other things I had read about but never fully understood. "The software takes care of all that." was the reply. "Besides, if you have any problems, just give our techs a call, and they will sort it out over the phone for you or you can bring in your computer and they will, fix everything up". Apparently this service is free of charge.

So home we went with our new possession. As soon as we got in the door, my son placed a philips head screwdriver in my hand. My fate was sealed. I got the packaging open easy enough. There was a package right on top with a large sticker saying "Start Here". Inside were the usual registration cards and manual, two packing lists, presumably one US and one OZ. (I couldn't work out which was which) There was a notice apologising that the installation video was not included in Australia. The most important item in this package as it turned out was the Quick Steps Installation Guide. This little booklet turned out to be an absolute God send.

I managed to open the computer as easily as I had the packaging. It appeared that I would have to move an 8 bit card to an 8 bit slot, in order to get enough room for all the cables required. This was painless enough. With a bit of pushing and grunting, eventually the 16 bit sound card found its way into the 16 bit slot.

I had to remove the existing 5½" floppy drive to get enough room to install the CD-ROM drive. All the cables connected easily and the SCSI interface was connected back to the sound card. Four screws located the drive and the floppy was back in and reconnected in a few minutes. It was all going too easily, something must be wrong.

Finally I connected the speakers to the sound card and sure enough the cable was too short. I would have to buy an extension from Tandy or Dick Smiths the following day. But at least the speakers were connected so we could test it all out.

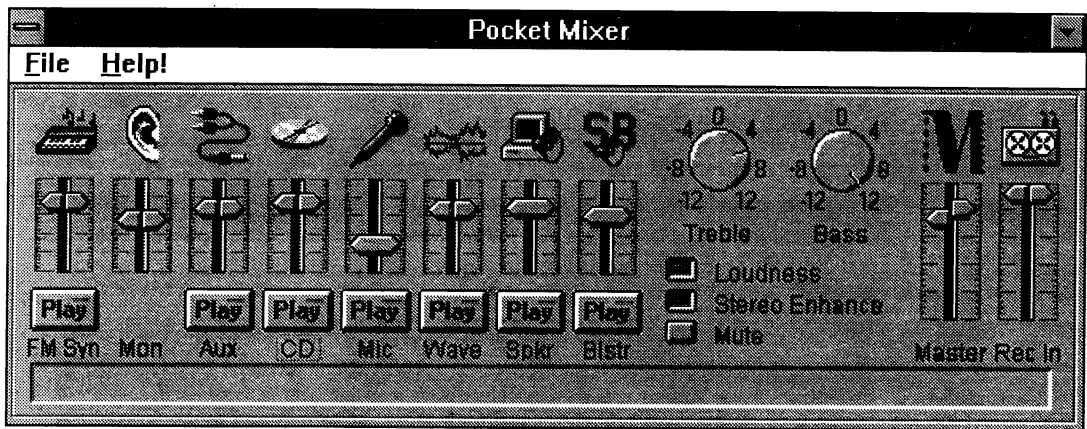
The next step was to install the software. The install program ran like a dream. The instructions in the Installation and Users Guide were very easy to follow. Not only that, the guide shows you exactly the changes made to CONFIG.SYS, AUTOEXEC.BAT, WIN.INI and SYSTEM.INI.

It was now time to reboot and try things out. I was desperate to try Doom with the sound card. This involved running Doom's setup and telling it we now had a Pro AudioSpectrum 16 card. Yes it was on the list. I ran Doom, but the sounds were very soft. This was covered by a single sheet of paper in the "Start Here" packet. I would need to exit Doom and run sound mixer software. I did this and returned to Doom, the whole family were gathered around the computer in awe at the amazing sounds.

At this point mum realised how violent Doom was and decided at that moment, that it was time for the kids to go to bed. Amazingly we had played Doom many times through the PCs speaker and never really thought it all that violent or scary. With this amazing stereo sound it entered an entirely new realm.

This multimedia kit comes with a range of software for both DOS and Windows for controlling the sound card and the CD-ROM. These are the PAS mixer for DOS which I mentioned above, as well as Playfile and Recfile for playing and recording wave files in DOS. There is also Music Box which allows you to play Audio CDs on the computer under DOS.

In Windows there is Pocket Mixer for mixing audio, Pocket Recorder for handling the same functions as Playfile and Recfile, and finally Pocket CD.



After the kids were in bed, we decided to play. First of all we used Pocket CD to play Pink Floyds "Dark Side of the Moon" CD. It played beautifully, and sounded great even through the 3" speakers. Next we wanted to try out some CD titles.

Compton's Interactive Encyclopedia was the first we went for. The sales person at Harvey Norman had told us that they sold this CD off the shelf for \$135 and we were getting it included for "free" with our purchase. C.I.E. runs in the Windows environment and installs around 4 meg worth of files in a directory on your hard disk. It is what I call button driven. That is, there are buttons for you to click on, down the right hand side and along the bottom of the screen. The buttons on the right hand side are your paths for searching for your topic. For example "Articles" brings up a list of all the articles in the encyclopedia. If your not sure what any button means there is a description on a status bar at the bottom. Pretty standard modern windows stuff really, but very easy to use. The videos are typical of multimedia without a specific video board installed, small and jerky. The sound is good. Overall the content of the encyclopedia is only just okay, but of course it is 90% American. Even world events are from a very American perspective. I don't think it was double spin capable as it took a long time to access anything. By the way it couldn't find some GIF files at one point and ended up crashing Windows. I wouldn't like to pay \$135 for it.

The next CD title we tried was Mad Dog McCree, an arcade style shooting game, boasting real motion picture action. This installed only two files on the hard disk, a batch file for running the program and a configuration file, total 74 bytes. Now this is my kind of program. We soon discovered that this game only runs from DOS and you must have your mouse installed. You are the new stranger in town and you have to shoot it out with the baddies who are terrorizing the town. You shoot with your left mouse button, and reload your six shooter by bringing the mouse to the bottom of the screen and pressing the right mouse button. The idea obviously is to shoot the villains before they shoot you. Don't shoot the

innocent bystanders in your gunfight or you'll find yourself at their funeral, receiving a lecture from the undertaker on what a fine person you killed and how many are left in the town. The story is explained by the characters as you go. This game recommends a double speed CD-ROM and the video action is smooth, although the images can be a bit hard to see in the wide shots. On the whole though not a bad game.

Iron Helix was a completely different kettle of fish. This Windows game deposited 16 megabytes of files on the hard disk. One has to wonder what the CD was for, other than to store these files. Doom only takes up 5 megabytes for the entire installation, and this game is no Doom. The premise of the game is this. You must use your probe to search a renegade space ship for the dead crew's DNA in order to access the ship's computers and stop a doomsday weapon. All the while a defender robot which you seemingly have no defense against is trying to track down your probe and destroy it. This is all fairly complicated stuff. Yes the animations, videos and the sound effects are great, but the game is dreadfully slow to play and victory appears impossible even at beginners level. Perhaps I should read the 32 page "Command Operations Manual"?

We both went off to bed after the disappointment of Iron Helix. The next evening we checked out the rest of our collection.

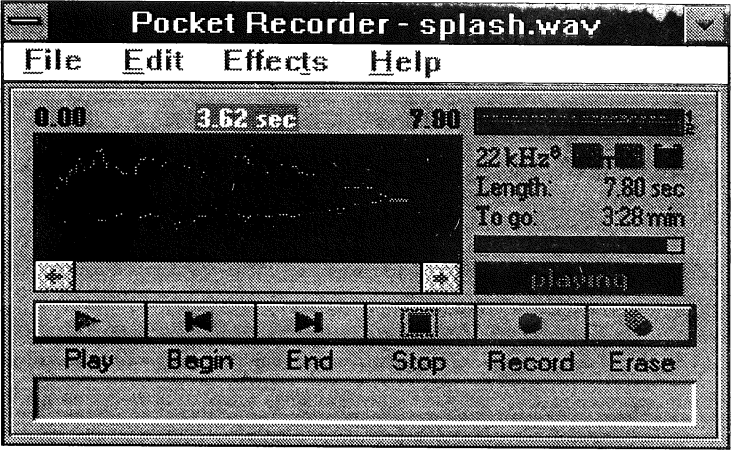
Two more CDs were included in the kit. Each containing 3 separate software offerings. Lenny's Music Toons is a children's game/educational package and takes up around 1.5 megabytes of your hard disk. Lenny sits in his lounge room and waits for you to click on items around the room resulting in different things happening. For example a mouse click on one of the door knobs, has Lenny off to the toilet with all the appropriate sound effects. Some items in the room take you to other games. As an example a click on the theatre takes you to Lenny's Theatre where you can create your own musical, complete with star, co-star, band, backgrounds and props. It just goes on and on and the children love it. It has a lot in common with the Grandma and Me series that Ramware have demonstrated at Brisbug.

Next on this CD is Mega Rock Rap 'n Roll. Here you can create your own songs by combining different styles, rhythms etc. I was bored after about 2 minutes. The best part of this one was that it didn't install anything on the hard disk.

Busy Town is another children's educational/game

package. This one runs under DOS but will run from Windows. It puts only a batch file and a config file on your hard disk. The kids can visit different parts of busy town and using the mouse play out the roles of the characters, my daughter who is 5, absolutely loves this one. It has a heavy educational bent, and is great fun at the same time.

The final CD also contained 3 programs. All are from the Knowledge Adventure Series, where you discover things about the topic. The first two went down very well with the kids but mum and dad found them pretty disappointing. They were Undersea Adventure and Kid's Zoo. The third one, America Adventure wasn't much liked by anyone. At installation of each of these programs you are given a choice on how much hard disk territory you would like to give up. To start with I gave each of them the maximum amount around 7 megabytes each. They all seemed to run okay although there was some waiting between sections. So I deleted their directories and reinstalled them with the minimum amounts of around 3 megabytes each. There was a slight slowing down in the change between sections but nothing to make me want to give up more disk space. One thing worth noting is that the audio quality was pretty poor on all these programs. I tried different settings in their sound card installation setups but none of it made any difference. I think that the quality of the audio in these programs is just poor.



So was this purchase worth it? No I don't think so. The final package we bought with these CD titles was a waste of money. The Media Vision Sound Card and Sony CD were certainly worth it, but then we could have got those without the CDs for \$100 less.

We have also had a couple of hiccups with the system. We were getting loud clicks at the start and finish of each wave file that was played. Then eventually we could not play wave files at all. Reinstallation of the software has solved this problem and everything is running well at this point. Lets hope it stays that way or I will be returning it to Harvey Norman and swapping it for the Sound Blaster kit.

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43

SNIPPETS CORNER...

Rita Copeland

DOS TUTORIAL

Are any new computer users bothered about DOS commands? Used to be a real bug bear in the early days. It is essential, though, to know your way round DOS even if you are into Windows or any of the new programs installed with hardware these days.

The Brisbug library has a shareware disk of tutorial instruction in DOS. Do get it. There are more than just the most immediate half dozen commands which you will find invaluable. Work through this tutorial and you will be well equipped to handle anything else you tackle later.

DUPLICATE NAMES SEARCH IN DBASE III+

When you are entering a lot of names into a data base there is always the possibility of entering someone more than once when you didn't want to. In a data base I keep for the hospital each patient has a file number. I can run a check program on this data base from time to time to check for duplicates. Here is the little program I use:

```
SET TALK OFF USE <filename>
INDEX ON <fieldname> TO <indexname>
USE <filename>
INDEX <indexname>

GOTOTOP
*****

DO WHILE .NOT. EOF()
  NM = NAME
  UR = FILENO
  NMUR = NM+UR
  SKIP
  IF NAME+FILENO=NMUR
    BROW FIELDS NAME,FILENO,<field3>,<field4>...etc
  ENDIF
ENDDO
*****
```

Now to explain. In the first line I inhibit the program instructions typing on the screen. Then I call up the database by its file name (with dBASE you don't have to add the .extension when you mention the filename). Now you index on one of the fields, in this case the NAME field since that is what I want to check. By indexing, I am placing similar names sequential to each other in the database. I then call up this

indexed database by using the filename and naming the index file to be used with it. Next we go to the top of this file to get started.

Now the routing. Here I am using fieldnames, "NAME" and "FILENO" which are in my database. I go on to create memory variables to which I give abbreviated names, "NM" (for NAME), "FN" (for FILENO) and "NMFN" which will hold a combination of the previous two memory variables together.

In the first line of the database to be read, the NAME field will be stored in the NM memory variable and the FILENO field will be stored in the FN memory variable. The NMFN memory variable will then take the contents of the first two memory variables and store them both together.

We skip a line and the program now looks at these next NAME and FILENAME fields and compares them with what is stored in the NMFN memory variable. If they are identical, it will follow whatever command I have written in the following line, in this case I ask it to show me the relevant fields so I can look at them and make a decision which one to delete or whatever.

This program will work on identical duplicates. Unfortunately, if you have a misspelling, it won't pick it up. I resort to indexing and going through the file visually to pick up those likelihoods. Does anyone know a routine that would help me in the not-quite-identical duplications?

SHORTER COMMAND LINES

Typing long command lines, path lines, etc, can become onerous if you have to do it too often and too frequently. I find a simple .BAT file can save me lots of frustrating mistakes typing long lines. For instance, to start my favourite directory program, I used to type "HDIR<cr>". Now I have it in a .BAT file with a short name like "H". Use the file editor program you are used to - Edlin or QEDIT or whatever. Using QEDIT, my .BAT file goes like this:

```
Q H.BAT<cr>  (Calls up QEDIT, names .BAT file I want to
              write)
HDIR         (The context of my .BAT file)
<ctrl>KD y<cr> (Commands to close my .BAT file)
```

Thereafter, when I want to call up a directory, I only have to type "H<cr>".

When I have really long lists of instructions, placing them in a .BAT file really does save a lot of time.

Contributed by EARLE GRAY

Black Hole

Inside my computer is an earthly form of a black hole. I'm sure of it.

When I purchased it I thought I bought the best machine I could afford at the time - the best that my money could buy. I weighed the options carefully. Do I buy an SX or a DX? Should I order the one with the larger cache? Do I get a 3.5" or 5.25" drive, or both? Should I have a tower or desktop case? After weeks of consideration and meditation upon the fax quote I had received from my dealer, I finally ordered my machine.

It arrived home nice and new and a joy to behold. I carefully fed it only the best programs, and a few old favourites - Windows, Word 2.0, Wordperfect 5.1, FlightSim 4, and maybe a little Hack (left over from my student days where we would spend hours chewing up mainframe CPU time on trivial games).

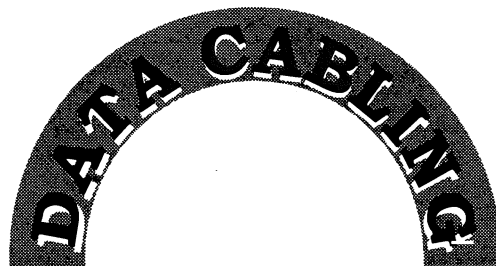
The days (and nights) were wonderful. Oh to be able to play a game or two, type up those minutes for that meeting, publish that booklet. I could fly, those bytes made me as free as a bird, soaring to places which stretched my imagination and skills.

But like a junkie hooked on a needle, the urge for the bigger and the better just grew and grew. The new version of Word came out, FlightSim 5 was released and together with Excel, they all found a place amongst the clusters on my disk. It wasn't long before I discovered my disk space eaten, almost to the point of oblivion and my RAM shot to pieces, wounded trying to cope with the programs' demands. Where had they gone? Why did they shrivel up and die a horrible death? Must be that black hole that exists inside my computer.

Contributed by Susan Cokley

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Send your snippets in so others can benefit from your breakthroughs. The July 1994 Significant Bits "Snippets Corner" explains how to write for the magazine by saving your document as a DOS or TEXT file before sending it via modem or on disk through the mail to the editor.



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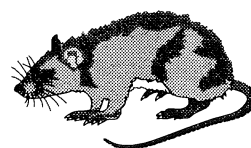
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The OS/2 Column

Paul Marwick

This month, I'm going to give REXX a bit of a break, and provide an overview of the new OS/2 beta instead. We'll get back to REXX next month...

The install has been improved considerably. The addition of a number of messages at the bottom of the screen during the initial installation process makes for less boredom while waiting to change floppy disks. Once past the initial installation, choices are more easily made and the degree of choice offered to the user is greater. There is also an express installation which will reduce the number of choices that the user needs to make during install. I have not tried that option, since I was not sure that I had sufficient disk space to allow OS/2 to install all its code on the C: drive.

New features of install.

There are two noteworthy changes to installation. First,

other than very good quality disks could easily cause problems. On the first copy I made, two disks failed during the dump process used to create the disks. Two more disks proved to be unusable after the dump process had been completed.

At the moment, it would appear that IBM are not making full use of this facility, since a number of the 1.8 megabyte image files can be quite significantly compressed using Zip. Presumably, they will use this extended packing method to reduce the number of diskettes required, which should hopefully reduce the costs in the long term.

Anyone who is going to install the new beta would be well advised to take a long look at the readme file that is located on the install disk. This covers a wide range of topics, from the CD-ROM drives supported through to the

OS/2 Warp Beta II

installation of multi-media support is now an integral part of the main installation, instead of a separate installation. This means that installation can be completed in a single step, instead of having to install OS/2, then go back and install multi-media support if it is wanted.

Second, configuration of video drivers is now done as part of the installation, instead of having to run a separate routine after the installation is complete. While the system will initially start up in standard VGA resolution, all configuration for high resolution modes is done during the initial installation.

One other "feature" of install that bears mentioning is the disk format that is now being used by IBM to distribute code on floppy disks. All but two of the 28 disks involved in the new beta use a new archival format which allows 1.8 megabytes of data to be stored on a 1.44 megabyte floppy disk. This has some interesting side effects. For one thing, the disks are not readable by earlier versions of OS/2. For another, it puts a premium on the quality of the disks required. In making a few copies of the beta for distribution, I discovered that anything

requirements for making the new image format disks.

A very wide range of non-SCSI CD-ROM drives is now supported. In fact, I didn't know that there were that many different CD-ROM drives available. I don't know whether it covers the entire industry, but it certainly gives a very broad coverage of common drives.

In addition to the number of new CD-ROM drives supported, the number of video cards (especially accelerated ones) that is supported has increased dramatically. In addition to supporting a number of new cards, this beta of OS/2 provides a big increase in the level of support provided for the more common accelerated cards, both in terms of resolution and in terms of colour depth available.

For instance, with the Tseng ET4000/W32i card that I'm using in this machine, I now have resolutions up to 1280 x 1024, and colour depths up to 16 million available (though at a lower resolution). For some of the other cards available, resolutions go up as high as 1600 x 1200.

Installation.

Two options are offered for installation. One is an express option, the other an advanced option. The express option will install OS/2 with minimal user intervention, while the advanced option will give users a chance to set a number of defaults used for the installation.

Installation was quite uneventful. I took the advanced option and selected the components that I wanted included, and then sat and fed the machine floppy disks. I don't have any hard evidence, but it seemed to me that the installation was quicker than it has been in the past when installing from floppy disk. Possibly this has something to do with the new compressed disk format.

Configuring the video card during the installation is a completely new feature. In the past, OS/2 has been running in Protect-Only mode during the install, so using the card supplied utility to set video card parameters has not been possible until after the installation is complete. The fact that it is possible to run the manufacturer supplied utility during the install indicates that, at least during the second phase of the installation, OS/2 must be running in Protect_Only=No mode, allowing real mode programs to run. This offers a big advantage to people who run OS/2 without DOS support.

In the past, in order to get high resolution video drivers installed, you have had to have DOS support installed, and there are a number of people who have no need of DOS support at all. For them, getting high resolution drivers installed has always been even more of a pain than it has been for those who do have DOS support installed. This new approach should remove much of the inconvenience for users who run OS/2 without DOS support.

First look

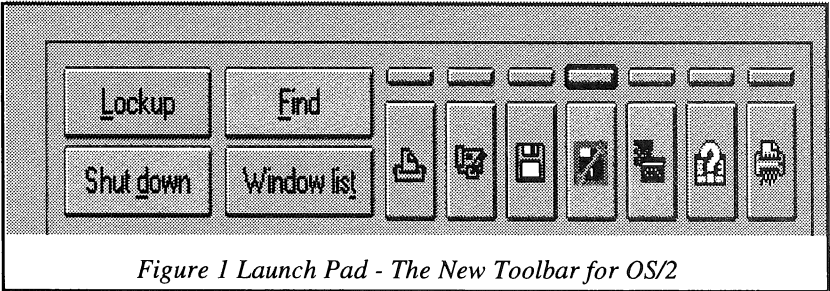
Once the installation is complete and the system restarts, the first visible change is a large white blob at the left top of the screen. Not very pretty. But, it has some advantages, which we'll get to later...

When the desktop comes up, the tutorial is started. This has been standard for OS/2 since the first release of version 2.0. However, this beta has a completely new and much expanded tutorial. Not only is it easier to use, it also offers the ability to try suggested operations live. See Figure 8 for a view of the new tutorial.

This beta seemed to take a long time to first bring up the desktop. The first start is always fairly slow, since a lot of final configuration is done during that period, but this seemed slower than normal.

Once the hard drive finishes working and the desktop appears in full, one of the first things that will be visible is a new object, which IBM are calling the Launch Pad. This provides a toolbar, allowing often used programs to be launched quickly and easily, without having to open folders to find them. It also provides a number of commonly used utilities such as system shut down, window list, lockup and find. It is very configurable, though the documentation with the beta doesn't really help much in this instance, since there is almost no information about it included.

Figure 1 shows the Launch Pad in its native state. It is possible to add extra objects both to increase its length and also to add extra objects to the "drawers" that are provided above each primary icon. It can also be set to display either



standard icons or small icons, and to display text as well as icons. Addition of new program objects is effected by dragging an object and dropping it, either between existing primary objects already on the Launch Pad, or on the "drawer" buttons.

Launch Pad is not an executable program. It appears to be a new class of desktop object.

In my early experiments, I managed to destroy part of the Launch Pad, but discovered that it was very easy to re-create, by simply deleting the object and letting OS/2 re-create it on the next system startup.

There are many other new features, some of them subtle, some of them very obvious. One that I was very glad to see is the ability to set video resolution and colour depth without having to go through the process of reinstalling the video drivers. While it may not apply to all video cards, many of the supported cards now come with a notebook settings page which allows selection of resolution and colour depth. Changes made to this notebook page will take effect the next time the system is restarted.

The Scheme Palette has grown an enormous range of new colour schemes for the desktop. I can't say that I really like any of the ones I've tried so far, but the selection is certainly much greater than it has been in the past.

More subtle additions

These are almost too numerous to mention. One which

could easily escape notice is that there is a new option on the context menu which applies to folder objects. While the familiar (and potentially unfortunate) "Arrange" function is still there, once an arrange has been performed, a new option appears on the context menu for a folder - Unarrange. Which at least means that if you accidentally arrange a carefully setup desktop, you can recover from the process quite easily.

In addition, there are now settings which allow you to set folder behaviour. It is possible to set folders so that, once you have used a folder to open another folder, or to launch an application, the folder will be automatically closed behind you.

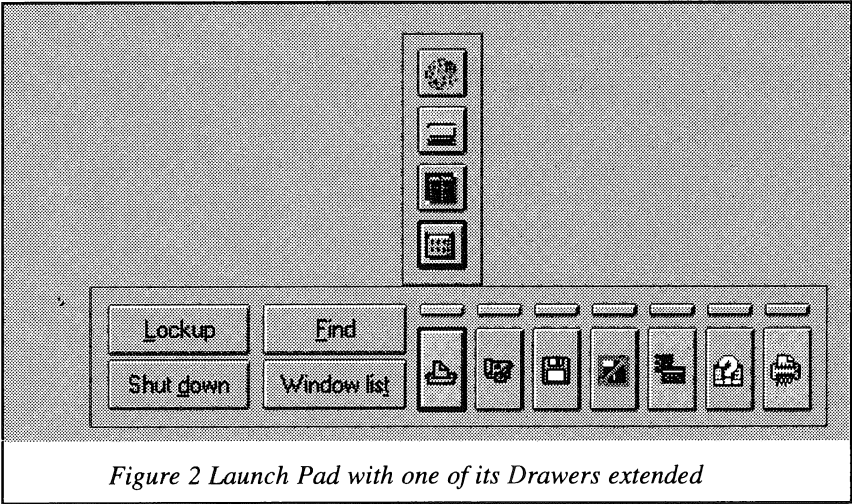


Figure 2 Launch Pad with one of its Drawers extended

The effect of this is a bit startling at first, but it does tend to reduce the level of clutter that can be generated on the desktop.

Almost all of the icons used for OS/2 have changed. Folder icons are now three dimensional, and change state depending on whether they are open or not. In some instances, I don't really find the new icons visually more attractive than the older ones, but I guess that is a matter of personal taste. If you don't like the new icons, they can always be changed...

Another well-concealed new feature is the ability to load different sets of mouse pointers. When the mouse settings notebook is opened, it has a new page, which shows the mouse pointers in a window. A load option allows a new set of pointers to be loaded. There are 4 sets of pointers included, and it should be possible to create new sets as well as edit existing mouse pointers. See Figure 7.

In operation.

The new beta is significantly faster in operation than any earlier version of OS/2 has been. While the boot process is no faster (at least not on my machine its not), opening desktop objects is much faster than it was. Even with animation on (which also turns on system sounds if multimedia is installed), folders snap open much more rapidly than they have ever done before. Application load times are also quicker than they have been in previous versions of OS/2.

Of all the applications that I normally run, only two have exhibited problems under the new beta. One which has a problem is the screen saver that I use. While it still works, the ability to position the mouse cursor to a specific corner to blank the screen immediately no longer works.

The communications program that I normally use is also suffering from a strange problem. PMcomm is a Presentation Manager application, and for some reason, it is suffering from a degree of screen corruption during screen scrolling. This has the effect of breaking up ANSI sequences in BBS screens, which is a bit annoying. Oddly enough, another PM communications package that I've tried does not seem to be suffering from this problem, so I'm not sure why PMcomm should be.

Windows Support

In the past, for anyone who makes extensive use of Windows applications, I have always suggested that they buy the full OS/2 product, rather than OS/2 for Windows, since the IBM WIN-OS2 code has always run better than native Windows run under OS/2. I'm not sure whether this is really applicable any more...

Since this beta does not include any Windows support, if you need Windows support, you will need to load a native copy of Windows before installation.

I dug out my original copy of Windows, blew the dust off it, and installed it before I loaded the new OS/2 beta. While I haven't yet got much in the way of Windows applications loaded, the base level Windows support seems to work well.

The beta offers a new feature called Fastload. This pre-loads the Windows kernel on system start, and allows Windows or Windows applications to load much faster. The cost of using this option is to slow down initial boot, and also a bit of memory consumed by preloading the Windows kernel. However, if you use a lot of Windows applications, it is probably worth considering this option.

New with this beta is support for Win32s applications. I can't yet comment on how effective this support is, since I've yet to find any Win32s applications. I'll be seeing if I can find something of this sort to try, though general reports so far indicate that the support is functional.

The beta also supports Win 3.11 and Windows for Workgroups 3.11 (without the networking components).

Priority settings

There is also a new option for both DOS and Windows settings. This allows you some degree of control over the

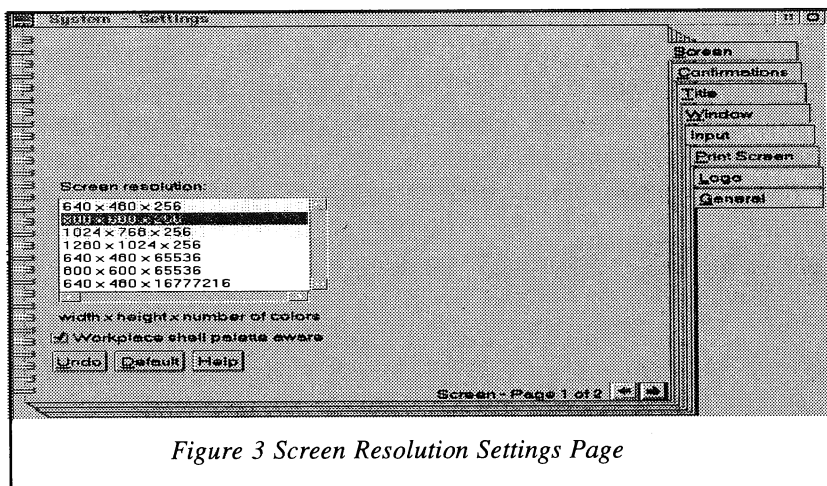


Figure 3 Screen Resolution Settings Page

priority that the system will give to executing the DOS or Windows application. I've not experimented with it to any great degree yet, but it should allow for a greater degree of fine-tuning of the system.

Other changes have also been made to the settings for DOS and Windows applications. Instead of being presented with a huge list of possible settings to change, the Settings dialog now presents the user with a choice of different types of settings to modify, which should make setting up a number of DOS or Windows applications a lot faster, since you only need check a sub-group rather than all of the settings available.

I don't run a great many DOS applications, but those that I do have been running without problems since I installed the new beta.

Disaster Recovery

Earlier, I mentioned the large blob which appears in the upper left hand corner of the screen when the system is first started. While I don't find this an attractive item, it has a real purpose behind it.

While the "blob" is displayed, if you press ALT-F1, the system will come up with a full-screen menu. The menu offers you a number of options.

At this stage, pressing the ESC key will continue the boot process uninterrupted. Pressing C will provide a full-screen command line, pressing V will allow video resolution to be put back to standard VGA resolution.

In addition, pressing a number will allow restoring one of three generations of saved desktop that OS/2 can now automatically save when booting. This feature has to be enabled to work, but, if it is enabled, you are provided with a means of restoring a previously created desktop layout.

While OS/2 is generally quite stable and reliable, this inbuilt disaster recovery option could well prove to be valuable, and provides a means of undoing damage that may occur. A potentially very useful addition to the system.

Play at Will

This is a feature I've not been able to test. Its currently aimed exclusively at PCMCIA support, and will allow automatic detection and configuration of PCMCIA components, without needing to shut down the system. I've seen it demonstrated, but, not having any PCMCIA components, I've not been able to try it for myself.

Bonus Pack.

The next release of OS/2 will contain a number of bundled applications, to give a user some software to run as soon as they complete installation. While the components of this Bonus Pack are probably not fully finalised, some components are included with the beta.

These currently include a Compuserve Information Manager, FAXWorks, a System Information tool and IBMs Person to Person software (a workgroup style conference system which can operate over a network or using modem connections). Release additions are supposed to include an integrated Word Processor, Spreadsheet and Database package, plus "internet connectivity" software.

The Bonus Pack installation is a separate operation from the main OS/2 installation, at least at this stage. Its probably just as well, since the total disk space consumed by installing all options is likely to be quite high...

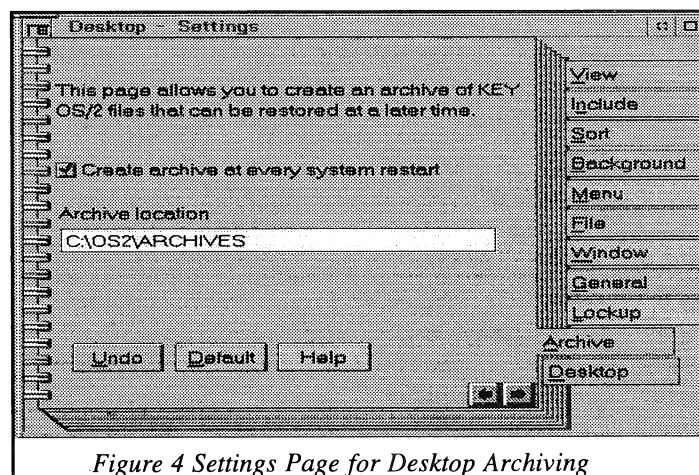


Figure 4 Settings Page for Desktop Archiving

In order to install the Bonus Pack components supplied with the beta, OS/2 REXX must be installed.

Each component is installed separately. I've installed all of the supplied components, mainly to have a look at them, and had no problems during the installation.

FAXWorks as supplied with the beta is a cut-down version of Softnet's FAXWorks/PM. The restrictions disable

FAX editing functions and seem to disallow automatically starting the software in receive mode. All other functions appear to work. For general use, this is excellent FAX software, and should provide all the casual user needs. In a

for OS/2, which is currently available as a separate package. This provides a good word processor, spreadsheet and flat-file database, plus report generating capabilities. For many people, it is likely to provide all they need in terms of applications software. While I'm not likely to change from DeScribe to Works for word processing, if I had not already bought DeScribe, I'd have difficulty justifying doing so for my word processing needs.

In addition, a PIM (Personal Information Management) package will be supplied with the full release. Details of this are currently not announced.

One item which always worries me a bit about "bundled" software is that I cannot see how it can really be free. The end user will pay for it in one way or another. How much the addition of the Bonus Pack will affect pricing of OS/2 remains to be seen.

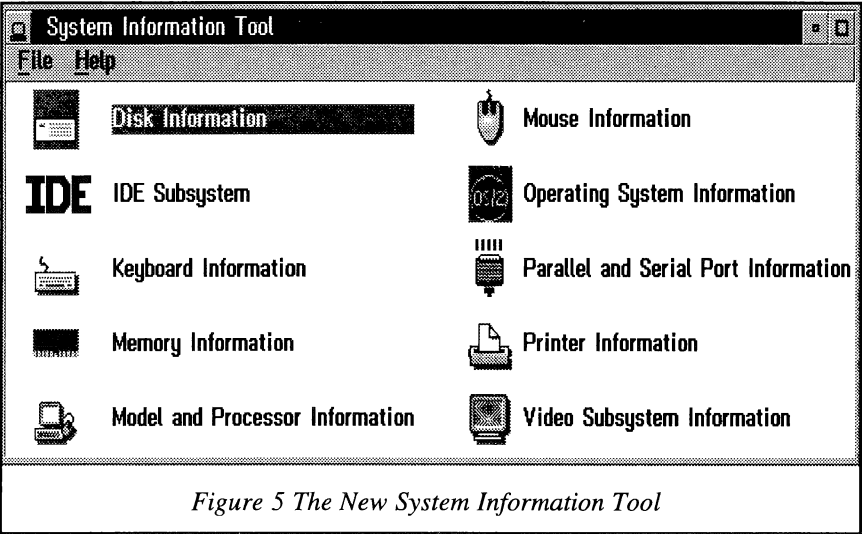


Figure 5 The New System Information Tool

business situation, upgrading to the full version would obviously be preferable.

I can't really comment much on the Compuserve Information Manager. I don't have Compuserve access, so I've only been able look at it. It appears very similar to the Windows Compuserve Information Manager which is produced by the Compuserve people themselves. It has many functions, but I can't comment on their effectiveness.

The System Information Tool provides a good deal of information about the system, both at a hardware and a software level. It appears to be an excellent diagnostic tool.

Person to Person is another package I can't really comment on. While it appears to offer a wide range of facilities for sharing information amongst a number of people, I currently have no real way of testing it. Its usefulness to a normal home user would appear somewhat limited.

At the moment, the Productivity folder is fairly empty. This is presumably because the items in the Bonus Pack will replace most of the items previously found in the Productivity folder.

The integrated package that will be supplied with the release version is rumored to be IBM Works

This is test software. As such, it would be unrealistic not to expect some problems with it. And there are a few.

I've already mentioned the minor problems with some of the application software I use regularly. In addition, the beta seems to be using more memory than it should be. While the system reporting utility I use may not be fully functional under the beta, it reports less free memory than I had available under OS/2 2.11. In addition, the beta is making much more use of the swap file than 2.11 ever did.

The beta found and installed my Panasonic AT-interface CD-ROM drive without problems. However, it did not

Bugs!

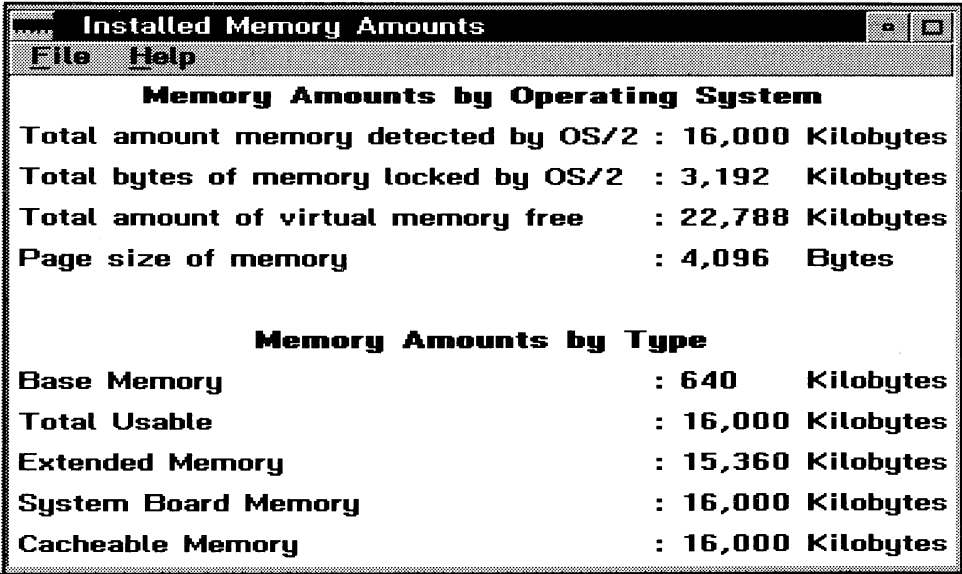


Figure 6 Memory Reporting for the System Information Tool

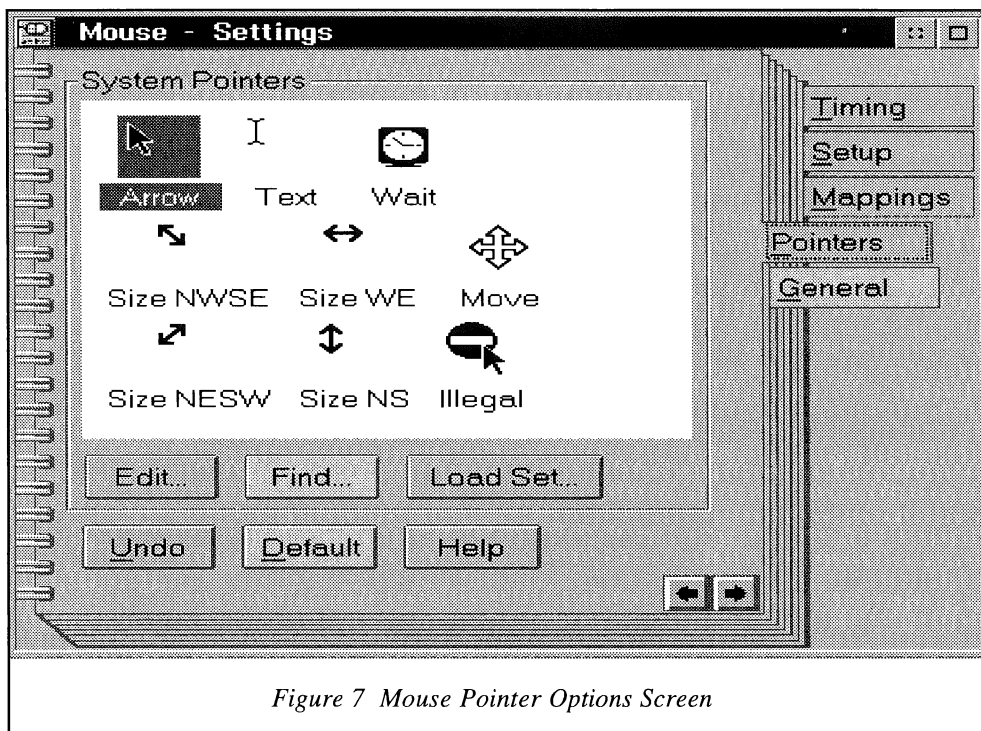


Figure 7 Mouse Pointer Options Screen

install the CD audio player, and attempting to run this software results in an error.

I've encountered a few minor problems with screen corruption while using the Launch Pad. These are easy enough to clear, but annoying all the same.

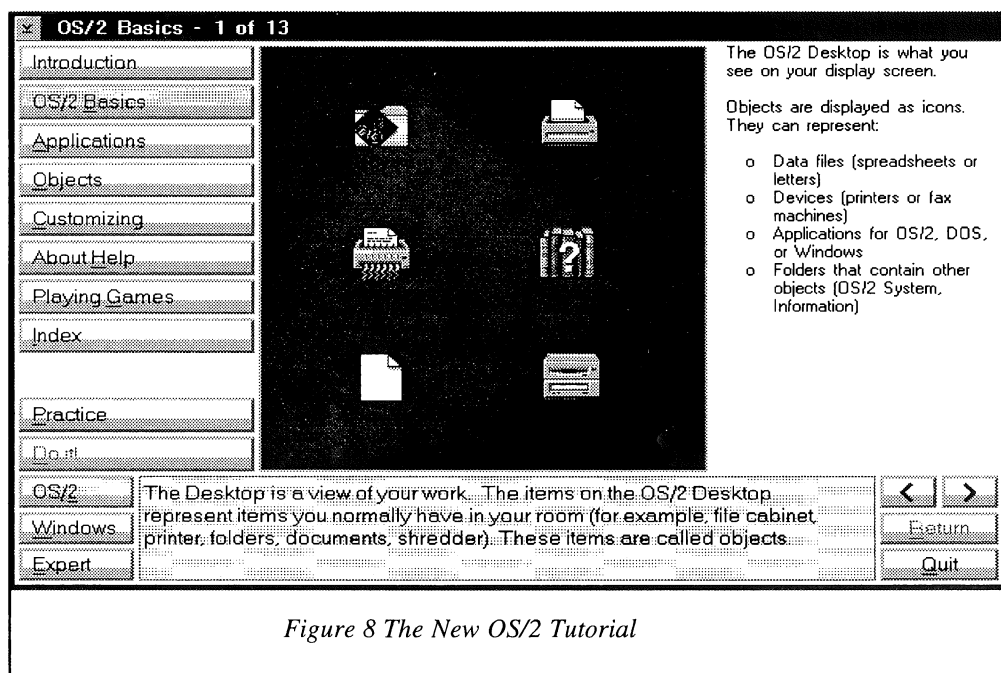


Figure 8 The New OS/2 Tutorial

no problems with either FAX or data communications under it, which is a relief.

There are a few other minor glitches in using the current beta, but none of them have been serious enough for me to consider going back to OS/2 2.11. Which says a great deal about just how good the current beta code is.

In general, this beta is an extremely encouraging product. For a beta copy, it appears extremely stable. The improvements in the user interface and in the facilities provided are substantial. Improvements in speed of operation are more than just

substantial. The Bonus Pack, while incomplete, provides some very useful additions to the product.


IBM have made the beta widely available, and have included a reporting form with it. I would encourage anyone who uses the beta code to be sure to send back reports, both on bugs encountered, and also with any suggestions for further improvements.

From the development of this beta, it's obviously that IBM are taking note of user comments, so this is your chance to suggest features or changes you would like to see.

Projected release date for the full product is October. Judging by the performance of this beta, I would be surprised if that target is not met.

At one stage, all the items in my startup folder disappeared. Since these were all "shadows" rather than original program objects, this wasn't a major problem. It was a bit strange though...

The first beta was almost unusable for me, since I had severe problems with high speed modem use under it. This problem has been completely cleared in the new beta. I've had



MAGAZINE

**DEADLINE FOR OCTOBER
ISSUE**

Sunday September 25

Logos Bible Software

Review by David Parker

Students of the Bible now have many electronic aids to assist them. One of the most common is the Bible concordance program which enables them to locate and work with any piece of text, selected on the basis of either a specific chapter and verse or because it contains particular words or phrases. As a large but specific text base, the Bible is well suited to electronic searching. The availability today of several machine readable translations and versions of the Bible, both modern and ancient, is an extra benefit which can be exploited to advantage.

DOS based versions of Bible software have reached a high standard of features and functionality, but many are now available to run under Windows, opening up some new possibilities. One of the most recent of these is Logos Bible Software version 1.6f, and the Logos Bible Atlas version 1.0, which may be linked together or used separately.

Logos Bible Software, coming from Logos Research Systems Inc., Oak Harbor Washington, USA (but with agents around the world) aims to be as comprehensive as possible and boasts a large number of extra modules which can be added to the base package.

Of particular interest are the various translations, including most of the leading contemporary English versions, some modern foreign languages, four ancient Greek and the Hebrew. These include the major scholarly versions, and they come with TrueType and Postscript Greek and Hebrew fonts. The Apocrypha is available with the New Revised Standard Version only.

In the highly competitive world of Bible software, Logos weighs in with several further features and add-ons to enable topical study and more detailed word studies, including Strong's numbering system enhanced with extra definition from Kittel's word-study dictionaries, Nave's Topical Bible, Treasury of Scripture Knowledge and a module that shows the parsing of all the verbs in the Bible.

Of course, there is a cost in all these extra features, both in terms of disk space and dollars. A variety of packages is available, but a typical basic package comes with the King James Version (KJV), Revised Standard Version (RSV),

Strong's numbers (enhanced) and the Treasury; this occupies about 11 mb and costs US \$150. All the rest are extras, each version occupying about 3mb for the full Bible and about 1mb for the Greek; costs vary from US \$40 to \$60.

Searching facilities in LBS, the main heart of any Bible software, are more than acceptable, including Boolean word and phrase with wildcard, thesaurus/word-finder, together with approximate, case-sensitive and Strong's number; cross references can also be used to jump to a new place in the text. However, one severe limitation is that some of the extra features only work with the KJV, which in most circumstance today would be a minority choice at both the popular and the scholarly levels. (A somewhat clumsy and more expensive

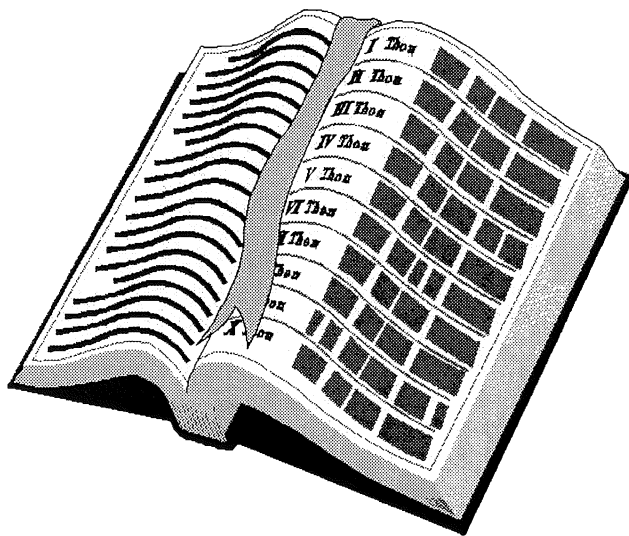
work-around is always to display the preferred version alongside the KJV.) Searching on the Greek and Hebrew texts is limited to the exact forms, not the roots.

There is a further minor problem with the RSV in that many of the proper names have an apostrophe added somewhere in the middle of the word. This effects searching which means that even a simple name like "Joab"

cannot be searched without first checking its form in the thesaurus. (This additional apostrophe has been noted in some other packages and seems to come from the original machine-readable text.)

As might be expected from software created by former employees of Microsoft, Logos makes good use of the Windows environment, including icon-button bars, tile/cascade displays, selective linking of translations and keyboard shortcuts cuts. However, when a window is closed, the remaining windows do not automatically re-size, but it is easy to do this from the icon-bar. Multiple-windows can be opened to display different types of information and various texts, but there is a limit to the amount of data that can be displayed on the screen before it becomes too cluttered to be usable.

One of the most useful functions of computer Bibles is



the ability to transfer text into other documents. Logos works quite well in this area. Material appearing on the screen can be either printed out or transferred in DOS text or RTF format. Alternatively, it can be transferred via the Windows clipboard to DOS and Windows-based applications. When working in a word processor, it is also possible to insert verses using DDE (Dynamic Data Exchange) where this feature is supported, or if Logos is set up appropriately and run first, via its own version of DDE called DVI (Dynamic Verse Insertion). The latter seemed easy to use and quite reliable.

However, one serious limitation when working in a word processor is that text for insertion can only be selected by chapter and verse references; if a topical or phrase search is required, as is frequently the case, this must be done first from within Logos itself with associated loss of convenience. Scrolling through the text is easy, but the book and chapter advance buttons are upside down compared with the usual Windows arrangement; i.e., pushing the button pointing down takes you further into the book or chapter rather than the opposite.

Installation was smooth. The printed documentation is adequate, with quite a few illustrations and examples, but the long lists of features at the beginning is rather forbidding to the first-time user. There is good on-line help available in typical Windows style.

While there is undoubtedly considerable power in this package, the question must be asked, can it all be used conveniently in practice? Of course, casual devotional reading is not the intention of computerised Bibles. On the other hand, Logos does not lend itself to scholarly study as well as some other specialised packages, with their full lemmatised morphological search and analysis, extra texts of interest to scholars and different insertion features; however, Logos compensates to some extent in its ability to search on verb parsing, and its enhancement of the Strong's numbering system and its four Greek texts which may be studied conveniently in parallel.

Logos documentation claims that one of its most useful features is the topical study system, where passages on a particular topic can be selected and arranged using word and phrase searches, cross references, parsing and notemaking features. This would suit the serious lay student and those preparing sermons, lesson outlines and the like. The ability to add extra cross references is also handy in this context, as are the bookmark facility and various text viewing options, including the choice of paragraphs or verses.

Another highly useful function of computerised Bibles is the ability to compare translations and versions by displaying them in linked parallel windows. Logos's extensive support of foreign and original languages makes this easy, while the Windows display lends flexibility and convenience.

But perhaps the most attractive feature of this package

is found in linking the Bible software with the newly released Logos Bible Atlas (LBA). This is not an add-on, but is designed to work as a separate program or linked.

With the biblical text displayed, selecting any place name and invoking the atlas option calls up LBA with the list of maps it supports for the current verse or for the selected site. After choosing the desired option, the map is displayed and all of the many features of LBA run as a stand-alone program become available.

There are two kinds of maps - topical and site. Topical maps are taken from Bible Map Book (by Simon Jenkins, Lion Publishing 1985) and consist of 90 maps, some of them in 3D format, illustrating major biblical incidents; they come complete with explanatory notes detailing the order of events and listing the relevant biblical passages. (The original maps were computer generated.)

The site maps, which are based on satellite data, are far more extensive and flexible and fall into two groups. The first group covers the whole area from Rome to the Persian Gulf, or only Palestine (in vertical and horizontal projection). Menu selections allow for the display of major and minor geographical and political sites from any biblical time period and the modern period, elevation contours (colours selectable), rivers and modern national boundaries. The latitude and longitude of the cursor position are continuously shown at the bottom of the screen, and it is possible to pan across areas and to zoom in on any location, (One further feature that would be helpful here is the ability to continue zooming in on a city to a display its layout in the form of a city map.) Point to point, cumulative and radial distances can also be calculated. A weights and measures converter is also available.

One of the most useful features of LBA is found by clicking on any site name. This brings up in a window an article on the history and significance of the site. The information consists usually of the relevant article in the standard authoritative reference work, New Bible Dictionary (InterVarsity Press, 1982), supplemented frequently by other authorities of similar quality. Clicking on references to the biblical text in these articles invokes Logos Bible Software to display the passage mentioned or to perform a topical search. The meaning of abbreviations, author information and other highlighted items in the site descriptions may also be displayed, hyper-text fashion, by clicking.

The other site maps are even more spectacular. They are realistic 3D maps of Palestine which may be oriented in any direction and angle under mouse control; they may also be zoomed to suit viewing requirements, although at maximum zoom, realism can suffer due to decreased definition. Biblical sites may be marked on these maps from a classified display list; however, it is possible to bring on a error message by selecting a site from the list that lies outside the map area.

Continued on next page...

Windows:

An irreverent introduction “for Dummies”

Review by Alan Weeks

If you have only recently decided to join the rush to Microsoft Windows, you will enjoy reading an introduction to Windows that is both helpful and irreverent—amusing even.

Such a book is “**Windows for Dummies**”, an introductory guide in the “for Dummies” range. The original “**DOS for Dummies**” by Dan Gookin was so successful that it spawned many successors, including this one written by Andy Rathbone.

Continued from Page 53

Overall, the map module is highly instructive, especially its dynamic links with the biblical text and its hyper-text links to authoritative reference works. (It can even be linked with the text of Bible software produced by one of Logos’ rivals!) Maps and notes may be printed out and exported (bitmap and vector), with some copyright restrictions on the topical maps. Customised maps may be saved for later re-use.

While its database contains no information that is not already available in printed sources, the convenience and realism of its information, the ability to search for maps relating to any biblical person, site or incident and the flexible exporting, printing and customization features make it very useful for educational purposes. Logos Research Systems Inc. have a positive program of site licensing for educational institutions, and they intend to add further modules, including other Bible versions as well as other ancient and contemporary theological works.

Logos Bible software, which was made available by the publishers, was tested on a 486-33 computer with 4 mb RAM running Windows 3.1 (specifications a little higher than the recommended minimum), which proved satisfactory, although more speed could have been used when working with maps; furthermore, LBA lost itself sometimes by not displaying some map levels or indicating it was building a map when no activity was taking place. Modules used were the basic KJV and RSV with verb parsing, Scrivener’s and UBS Greek together with the Atlas.

Note: Product names mentioned are trademarks of their respective companies.

from Logos Research Systems Inc., 2117 200th Avenue West, Oak Harbour, WA 98277

This book aims to explain Windows in everyday informal language and a light-hearted style. As a bonus, it also includes some comments on relevant bits of MS-DOS 6 and MS-DOS 6.2.

The object is to get you up and running with Windows, rather than turn you into a computer science graduate.

New users will be informed by the chapter on things that “everybody thinks you already know”.

You’ll also be enlightened about Ten Atrocious Acronyms and amazed at Ten Expensive Things You Can Do To Make Windows Better.

Very many everyday features of Windows are covered. Many things that Windows won’t do are there as well.

I was gratified to read about things that Windows does (but shouldn’t) that “aren’t your fault”. The book is well organised in logical chapters and has a good index. There is room to write in your own reminder notes.

However, one needs to be ever-vigilant. The title doesn’t say “**Windows for Workgroups for Dummies**”.

So if you have just bought WFW, then those questions about Mail, Fax and Networks will remain as sweet mysteries of life.

Overall, there are 300 pages of amusing reading, many of your questions answered, and with no need to ever feel foolish.

If you really enjoy this, perhaps you’ll be tempted by the sequel, “**More Windows for Dummies**” (What else?).

Windows for Dummies. Rathbone, Andy. IDG Books.

My copy from Barker Conlan & Ferret (BCF), who give BRISBUG members 10% discount on \$35.



New Library Additions

New Listings for September

BBUG NO 3381 SWORD QUEST 2 - TALE OF THE TALISMAN Version 1.0

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

SWORD QUEST 2 is a fantasy role playing game. You become a character charged with

CLASSIFICATION * Games * Floppy/Hard
Disk

And, now for something really different. If playing games on your computer has become "the same old thing" and you're about to die of boredom, then you need to get your hands on a copy of P.E.G.S. This game is innovative, fun, challenging, and, best of all, very, very different from anything you've ever attempted to play.

P.E.G.S. stands for "Practically Everything Goes Somewhere" and that is basically the idea of the game. You're faced with a series of

and don't involve many shapes or complex mazes in which to navigate. However, as you move along to different puzzles, things definitely get tougher. You not only have more shapes to eliminate, but you have to be very crafty in terms of which direction in the maze you travel to push the shapes into each other. Oh, and by the way, if you push, say a triangle shape into a round or square shape, you lose. The plus shapes are interesting, because when you push two of those together, you get another shape, one the game lets you choose (and picking the right shape is where more strategy comes into play).

P.E.G.S. is a great game. It even gives you hints as to how to solve the puzzle (i.e., which direction to come from when moving the shapes). If your system has a mouse, you will get a little hammer image for a mouse pointer to select menu items, as well as another way to move the little tank for pushing shapes. This game will keep you enchanted for hours on end.

BBUG NO 3383 LLAMATRON: 2112 Version 1.0

CLASSIFICATION * Games * Hard Disk *
EGA * 286+ * Sound Card * Joysticks

The year is 2112, and earth has been invaded by the Zzyaxian hordes, an army of cybernetic robots who have begun to destroy every last sheep, goat, camel and llama in sight. Luckily earth has a secret furry weapon: Llamatron, a laser spitting llama. Just like the game "Robotron" but with more variety, LLAMATRON has been a popular game on Ataris and Amigas and has recently been made into a PC version. Up to two players can play if you happen to have two joysticks, or you can use both joysticks for one llama to have alternate directions for moving and firing.

The objective is to rescue all the little beasties and destroy everything else. This arcade



Challenges Galore in Sword Quest - BBUG 3381

riding a world of plagued by evil monsters. As the main character you will encounter a wide variety of monsters and demons which you must fight or outsmart. There are towns and caves to enter along the way, and, as is the norm for this type of game, make one false move and you're dead!

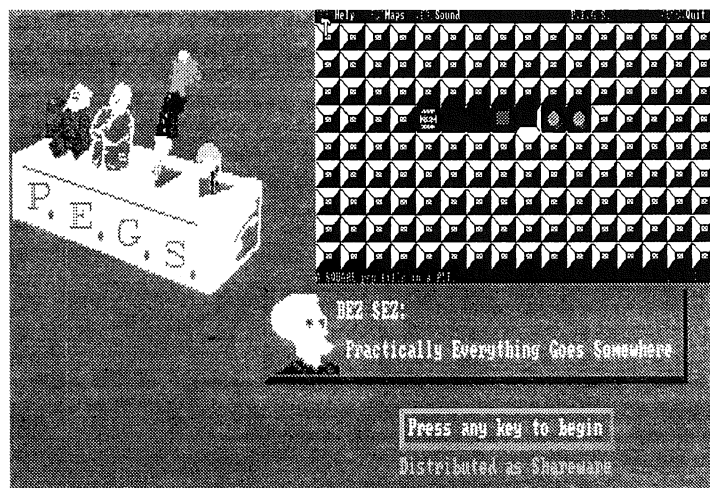
While this game is pretty much standard for this genre, there are unique twists and fun challenges as you chance upon people and puzzles. The reason for talking to people (in case you haven't done this before) is to get hints and clues as to what to do next along the way. Be ready for magic spells and look for hidden items, because everything isn't always right in front of your nose (or in view on the screen). Overlook such things and you are doomed to forever fail at successfully completing this game.

Overall, SWORD QUEST 2 is interesting and formidable enough to keep you busy for hours on end.

BBUG NO 3382 P.E.G.S. Version 1.1

puzzles where you move shapes around mazes. Actually, what you really do is move those shapes into each other to make them disappear. Once you've gotten rid of all the shapes you then move on the next puzzle. The part of this game that makes the base of your skull ache (on the inside!) is in figuring out which way to move the shapes.

The shapes are moved with something called a "pusher" which looks more like a tiny tank. You control this tank by using the arrow keys. The initial puzzles are a breeze to solve



Test your skill with P.E.G.S. - BBUG 3382

game is fast-paced and can get hectic, and it has a host of strange sounds if you have a Sound Blaster card. If your llama happens to grab a "Floyd Bonus" bubble you can guess what the effect will be. Other bonuses include reflective shots, three-way firing, hot bullets, extra llamas, invincibility, and smart bombs. If you happen to come across a heart all animals will immediately fall in love with you and follow you in single file.

There are many levels to this game which is sure to give hours of entertainment, and you will face a host of strange robots and aliens. Spikers will explode into spike fragments when shot, and fire hydrants will drown your llama in a jet stream of water. Then there are aliens called bibblers which split up into wibblers and foobers. Watch out for any brains, for they will mutate beasts into green zombeasts, who will then come after you. Sometimes you may see a set of false teeth flying across the screen spitting animals at you. Lasers are to be avoided, as they shoot a laser beam across the entire screen which can not be crossed.

Keep an eye out for a large arrow, for it will point to an "alien in sheep's clothing," a deadly alien which imitates one of the sheep you must rescue. Perhaps the most dangerous alien is the "screaming maddy." And if you think all of this is a bit crazy, imagine being chased across the screen by a mob of hopping hamburgers. More surprises come in later levels.

BBUG NO 3384 KUNG FU LOUIE VS. THE MARTIAL ARTS POSSE
Version 7/89

*CLASSIFICATION * Games * Hard Disk * EGA/VGA * 286+ * Sound Card supported*

As Kung Fu Louie, you must rescue your master who has been kidnapped by the Martial Art Posse by fighting against his gang of renegades and vigilantes. Kung Fu Louie has one type of punch and three different kinds of kicks, all requiring a different amount of time to execute and doing a different amount of damage.

The strategy of this game is to develop a timing for your moves so that you can defeat your opponent. The amount of energy each person has is shown by two bars on the sides of the screen. This game is for one player only, and there are four levels to complete, each with different scenery and opponents.

BBUG NO 3386 BARRACUDA: SECRET MISSION 1
Version 1.0

*CLASSIFICATION * Games * Hard Disk * VGA*

An American F117A has intercepted four Iraqi ships transporting pieces of a nuclear device and successfully destroyed each one. However, the Iraqis have sent a few ships to recover the necessary parts from the wrecks. You are in command of a submarine, code named "Barracuda," and your secret mission is to find the wrecks and recover the parts before the Iraqis do.

In the first part of the game a grid map of the ocean is displayed, and you must navigate your submarine towards any wrecks while avoiding hurricanes. Once at a wreck location the game will zoom in to display a two-dimensional depth view of the sea. You must then maneuver your submarine to the ocean

floor while avoiding contact with various sea creatures, similar to the game VGA SHARKS.

Once you find the wreckage on the ocean floor, the game zooms in again as you send a diver to explore the inside passage ways of the sunken ship. This is where the game gets real exciting. In addition to avoiding the hazards of the wrecked ship there are denizens of the sea to deal with. With only a flashlight you must go along narrow passages to find and recover the nuclear device. Once all four nuclear pieces are recovered you have successfully accomplished your mission and saved the world.

BBUG NO 3387 REDHOOK'S REVENGE
Version 1.1

*CLASSIFICATION * Games * Hard Disk * VGA * Mouse * Sound Card supported (HIGH DENSITY DISK)*

REDHOOK'S REVENGE is a board game for 1-3 players that is a combination of Trivial Pursuit and Risk, where each player assumes the role of a pirate character and must navigate his ship across a map to collect the largest amount of gold.

In each space several events can happen: you can be asked a question and receive a reward for the correct answer, find treasure, encounter a disaster and lose a turn, ransom hostages, and buy supplies.

The questions revolve around ships, pirates, history, sailing and geography. If you land on a space occupied by another pirate ship you may engage battle, and the player that loses must give up half his gold. There is little strategy to this game - the computer rolls the dice to determine movement and battle outcomes.

The recommended age is from 8 to adult. The graphics are well done and the pirate characters will occasionally have a word or



Challenges galore in Barracuda - BBUG 3386

two to say in their turn, often borrowed from phrases in "Treasure Island."

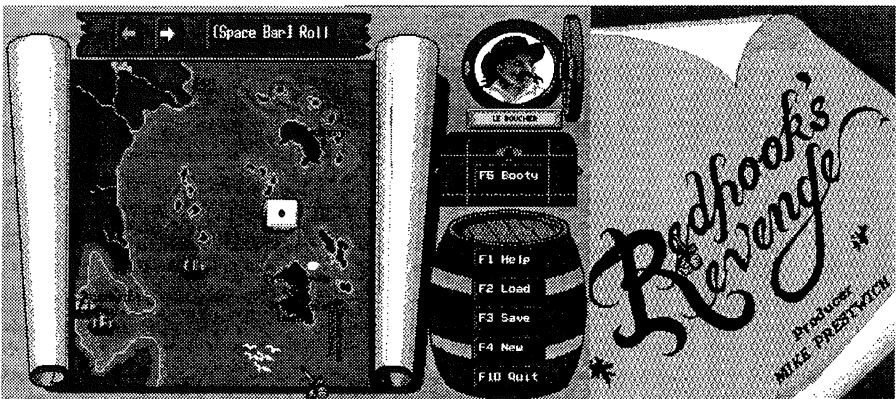
BBUG NO 3388 TOWERS
Version 1.03

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

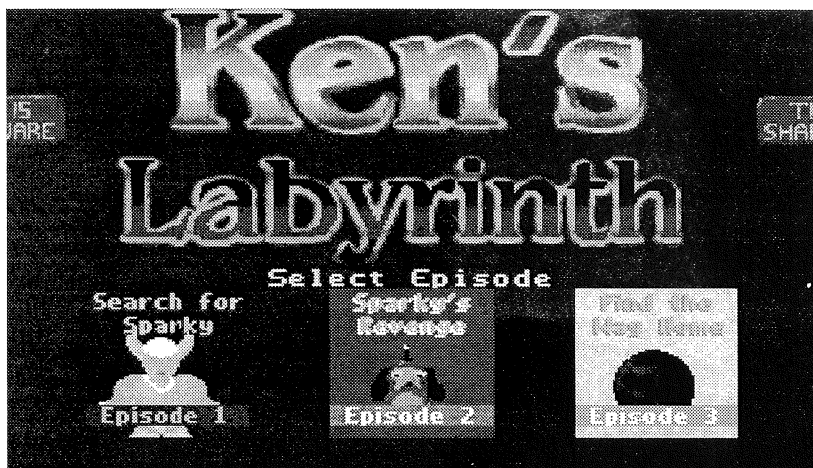
TOWERS is a three dimensional twist on the popular arcade game of Tetris - instead of destroying levels of blocks the objective is to build them up. The result is a three dimensional tower.

In TOWERS you place blocks together to fill in a foundation area, which in turn becomes the foundation level for the next set of blocks. As the levels and the height of your tower increases, the foundation area you have to work with becomes smaller and smaller. You must place blocks of random shape with your mouse as fast as possible, since you are under a time limit. In each new level the required number of blocks that must be placed increases, depending upon the level of difficulty you have chosen. As you place a block you may rotate it, or you may rotate the entire foundation for a different view.

A unique feature of this game is that at any time you can view the entire tower in three dimensions. Your view can be close up or far away, and you have a choice of four different angles. Your challenge in TOWERS is to build the highest tower, or better yet create geometric shapes such as a pyramid.



Redhooks Revenge - A Trivial Pursuit type game BBUG 3387



BBUG NO 3389 KEN'S LABRYNTH I - THE SEARCH FOR SPARKY Version 3/93

CLASSIFICATION * Games *
Hard Disk * VGA * Mouse/Sound
Card Support (H I G H
DENSITY DISK ONLY)

Here you explore a three-dimensional labyrinth of the planet Zogar, which the Zogarians have filled with robots and specimens from across the universe. The fate of the planet earth lies in your hands, for any race that is not smart enough to escape the labyrinth is converted into jelly which the Zogarians put on their toast and bagels. In their search for intelligent life on earth, they kidnapped your dog Sparky.

After interrogating Sparky they determined he was too smart for the labyrinth, so they have kept him captive and have decided to test his master instead. Your objective it to first escape from the labyrinth of 10 levels and try to find your dog Sparky along the way.

Once you begin in KEN'S LABYRINTH, you will immediately notice that the scrolling three-dimensional graphics is of the same quality and detail as WOLFENSTEIN 3-D. However in KEN'S LABYRINTH there are many improvements and a greater variety of game features. In addition to turning and moving forward or backward you can creep low to the ground, stand up high near the ceiling, and slide left and right without turning. Whereas in WOLFENSTEIN 3-D you mainly fight against Nazi soldiers, in KEN'S LABYRINTH you will encounter giant spiders, flying bats, frozen ghosts, robots, floating blue heads that spit out purple balls, and other creatures. Your weaponry is more extensive and can consist of jelly bombs, starbursts, and heat-seeking missiles. You can collect six of each to increase your firing speed, and lightning bolts will increase the range of each of your weapons. Not only do you collect coins and gems for the game score, but also for purchasing items once you find a cola machine. Items can include potions for more power, cloaks for protection, food for increased health, and more weaponry. You may even come across a slot machine in the maze to gamble, or perhaps a doorway that will require a number of coins before it will

open. There are also secret doors, false walls, pits, fans, drinking fountains, maps and other objects you will find in your way through the labyrinth.

If you don't have a sound card for KEN'S LABYRINTH you will not completely miss out, for the game can make use of the PC speaker for background music and digitized voices. Every time you are hit you will hear an "Ouch!" and occasionally the Zogarians will yell out insults at you. Even your dog Sparky has his own unique voice. There are many realistic sound effects, such as the sound of a door opening a door or a coin dropping into a slot machine.

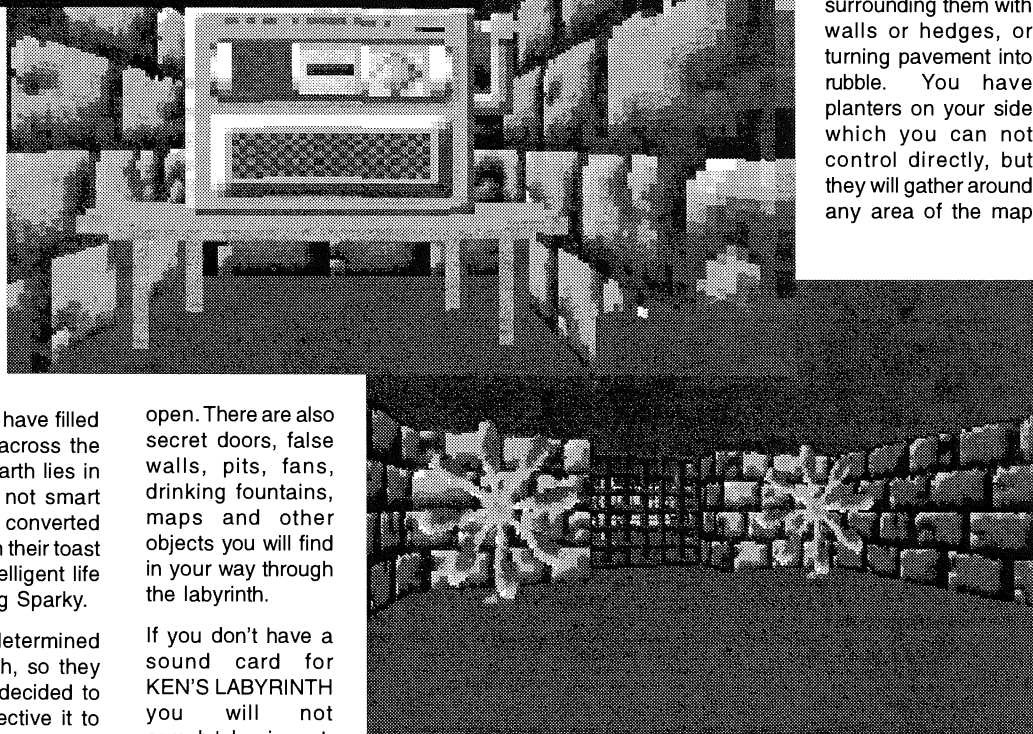
Although this game will work on a 286 it may be too slow, so a 386 or f a s t e r computer is recommended. If a keyboard is used you will need one that has arrow keys to the left of t h e numberpad;

otherwise you will need to use it in conjunction with a mouse or a joystick. KEN'S LABYRINTH has two levels of difficulty, and is sure to be just as popular and entertaining as WOLFENSTEIN 3-D.

BBUG NO 3390 GREEN Version 1.06

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

GREEN is an unusual strategy game in which you must try to preserve a plot of land from being converted into a parking lot. Men in blue business suits will begin to walk on your land creating pavement wherever they go, and your objective is to inhibit them by surrounding them with walls or hedges, or turning pavement into rubble. You have planters on your side which you can not control directly, but they will gather around any area of the map

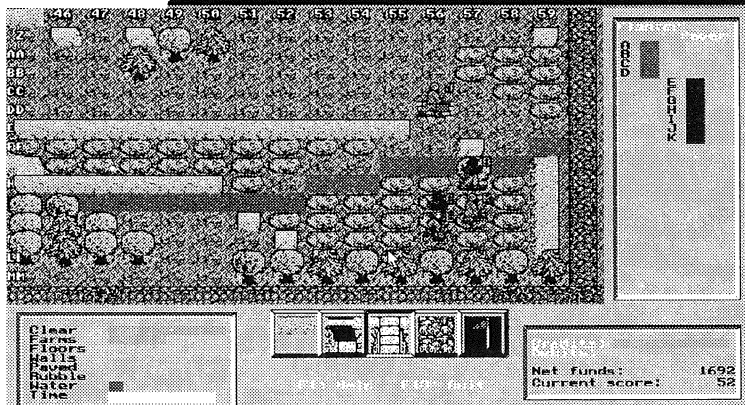


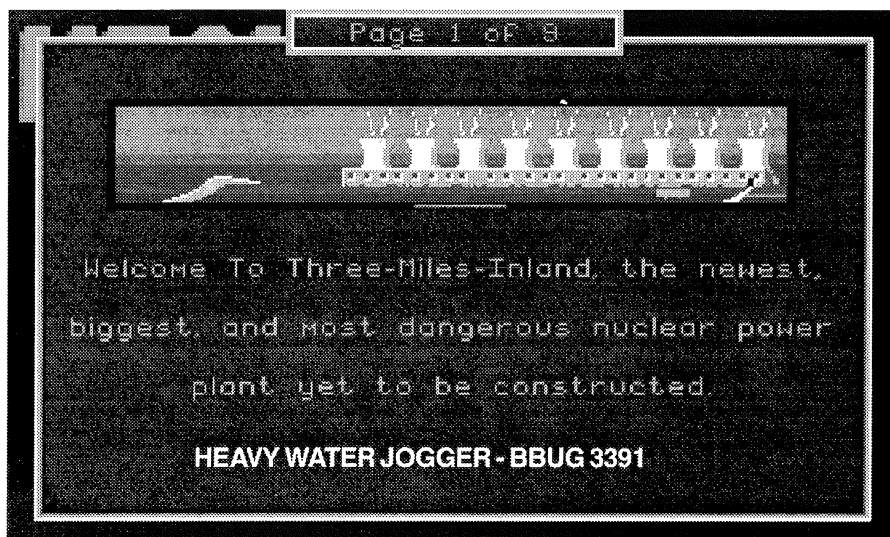
Ken's Labrynth - A Wolfenstein Type Game - BBUG 3389

GREEN

Version 1.06

Programmed Steve Estuanik
Graphics by Ken Birdwell & Bea Sodero
Copyright 1991, Cascooly Software
All Rights Reserved.





where you place a flag. Each move you make has a cost, and you derive income from the amount of green land that is still available.

There are maintenance costs for walls you build. The game ends when you have acquired a certain amount of savings and have caused all pavers to leave your plot of land. A portion of your plot of land is displayed on the screen, and you may move to other areas by scrolling your view or by quickly clicking on a point on the map with a mouse. There are several maps to choose from when playing GREEN, and you can even create maps of your own with an ASCII editor.

BBUG NO 3391 HEAVY WATER JOGGER Version 1.0

CLASSIFICATION * Games * Hard Disk * VGA * 286+

You knew there might be a problem with the new Three-Miles-Inland Nuclear Plant that opened recently in your town. What you didn't know was that when the trouble happened only you would be around to prevent a total meltdown!

You are Fred Fluke, jogger extraordinaire, and you've GOTTA find your way through the huge maze that is the plant - avoid the courtesy robots, jump the pits, avoid radiation sickness, keep from getting your ReeBuks wet, find the keycards, AND MORE - all in order to get to the control room where you can halt the disaster of the century! All this in half an hour?

Stunning 256-Color VGA graphics, more great sound, and hours of exciting game play.

BBUG NO 3392 XERIX Version 1.2

GLASSIFICATION * Games * Hard Disk * VGA * Sound Card supported

Some time in the near future...

A massive, alien structure hurtles from deep space towards the earth. Several days after first being discovered by a space-tracking station in the desert of Egypt, two-thirds of the population of Los Angeles and its surrounding area are killed by a strange radiation. The radiation's source is tracked to the alien structure.

Panic sets in on the earth in the hours that follow. People don't know what to do or where to go. The governments of the world, combined through the United World Council, try desperately to find a solution to this problem.

The World Council sent up one small unmanned space-craft to examine the alien structure at close range. Upon approaching the structure, a large panel in its otherwise impenetrable wall opened.

The space-craft entered and reported a strange environment, an open space, but nothing like the world of Earth. A fast-moving object destroyed the space-craft shortly after it had entered, but the object's speed was estimated to be at a rate which a human might be able to respond to - either destroying with weapons or dodging.

You have been chosen to pilot a second earth-sent space-craft. The project has been codenamed XERIX: the eXtended Enemy Response and Infiltration eXperiment. Your mission is to destroy the alien structure. How you will do so is not known.

Your mission is a difficult one, indeed seemingly impossible, but is of the greatest importance.

The earth's fate is in your hands. You must succeed.

XERIX is an arcade-style "shoot 'em up" game set in the future. You must guide a space ship through a strange world of two different levels and destroy or avoid the many enemy obstacles in this place.

BBUG NO 3393 CRUSHER CASTLE II Version 1.1

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

CRUSHER CASTLE II is and adventure, strategy, and arcade game all in one. Your objective is to escape from a haunted castle of 25 rooms filled with ghosts, bombs, candles, maps, and much more.

Packed with features and with animated graphics, no two adventures are ever the same! Very few have escaped the Castle. Can you ?

Crusher II is fun for ALL ages!

BBUG NO 3394 WALL PIPE GAME Version 1.1

CLASSIFICATION * Games * Hard/Floppy Disk * EGA/VGA * MOUSE

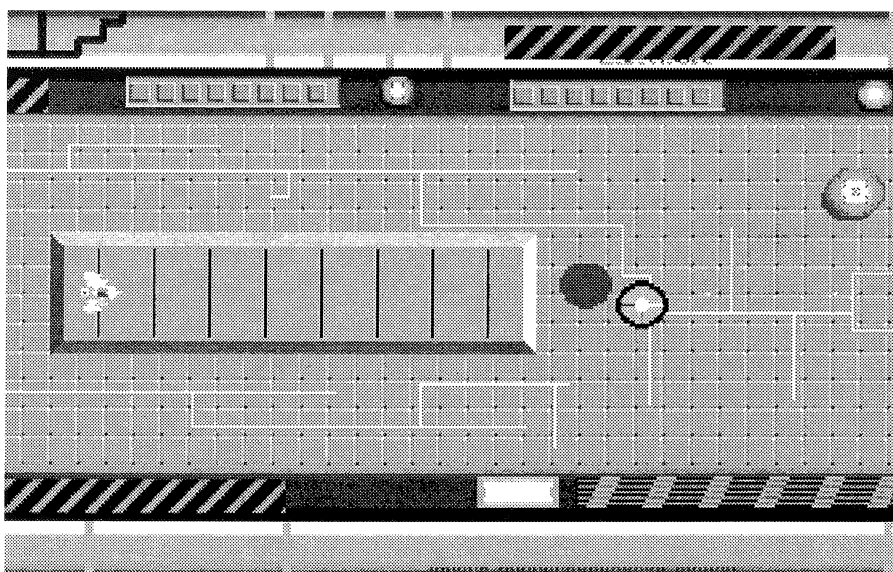
WALL PIPE pits you against the clock as you try to keep water flowing from a Well, by creating a series of pipe links to control its flow. Quick thinking and fast reflexes are essential in order to stay ahead of the onrushing water.

Strategy is required to correctly place pipes in order to keep the water flowing as long as possible. Fill up Sinks and Tubs and other objects for extra points.

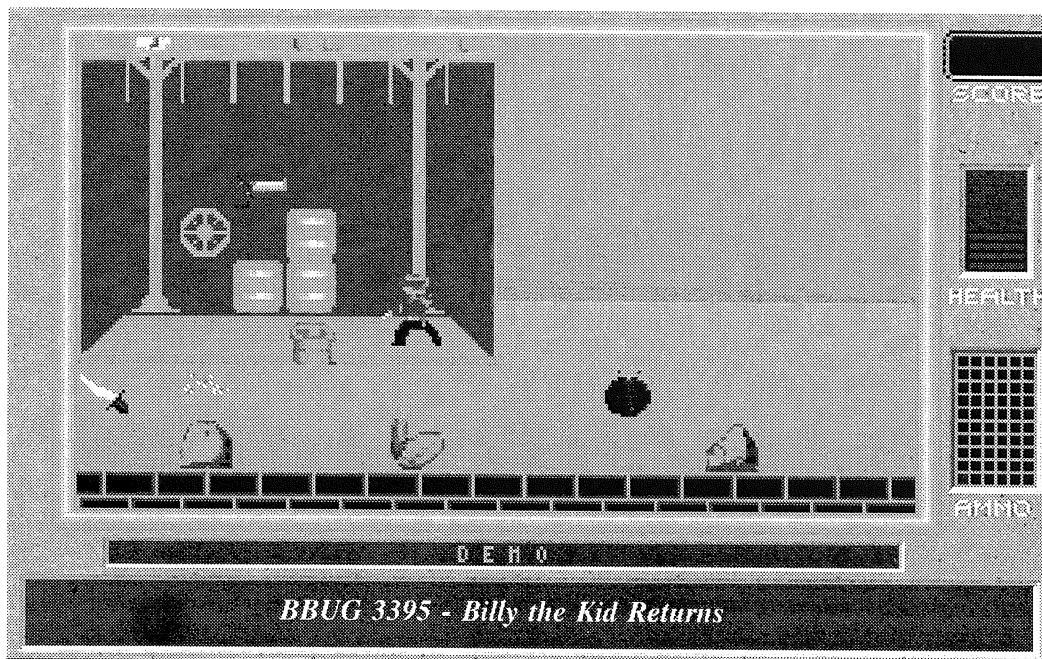
Very Addictive and fun for all ages.

BBUG NO 3395 BILLY THE KID RETURNS Version 1.0

CLASSIFICATION * Games * Hard Disk * VGA * Sound Card Supported (HIGH DENSITY DISK)



A Battle in the Future - XERIX - BBUG 3392



Welcome, you are about to experience the wild west as Billy The Kid. Your goal is to stay alive.

Escape from prison, survive the New Mexico desert, rattle snakes, buffaloes, bombs, gunmen and other surprises. Explore the old man's mine and his army of mice, fight with gangs, cross Ghost- towns, find treasures, face deadly enemies, Apache warriors and Sheriff Pat Garrett's lethal six shooter.

You must collect at least ten keys and then try to find the exit to the next level. Pick up valuable items such as guns, money bags, gold, food, water, bottles etc. Avoid your enemies and shoot at bombs for extra points.

BILLY THE KID is a Western action arcade Game with many levels. It features VGA horizontal, vertical and diagonal scrolling action and 3D overlapping objects. Each episode looks and feels completely different and is full of surprises. If you like the old west but you hate guns, there is a no-gun option. This game has plenty of action and conflict but no violence against human opponents.

BILLY THE KID, best game west of Pecos!

BBUG NO 3396 ULTIMATE BLACKJACK Version 1.2

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

Enter the Ultimate Zone. Relax and play blackjack by yourself with any one of the three dealers supplied, or play with up to 4 other players at the table. If other players are selected, each will use a predetermined strategy (which can be monitored from game play).

You will be able to set up and change many aspects of game play to suit yourself. Two card counting systems are available. You can keep track of how you are doing by selecting STATISTICS.

Many more features make this game easy to play for the novice and powerful for advanced players. 12 different players (characters) are included as well as a powerful SIMULATIONS

feature.

A TUTOR is provided and may be customized.

This is the ULTIMATE BLACKJACK simulation.

BBUG NO 3397 YAB

*CLASSIFICATION * Games * Hard Disk * VGA * Mouse * Sound Card supported*

So you like to play baseball? YAB is baseball

for the PC. YAB includes high quality graphics and lets you create a true to life baseball simulation.

You have control of both teams. The field team is controlled using the mouse, and the keyboard makes the batting team do what you want. The fielders will always go and get the ball automatically. If the fielders can't catch the ball while in flight, they will take it from the ground and if necessary run to it.

In the batters window, you see the batter's back and the pitchers front. A swing-bar is displayed and disappears after a while, after which the pitcher executes the selected pitch. All this happens automatically.

You have two teams available for your use, the Blue Jays and the Red Sox.

BBUG NO 3398 ONE MUST FALL Version 1.0

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

If you like Street Fighter, Mortal Combat, or Time Killers, welcome to the new generation of Fight games.

ONE MUST FALL is a contest of skills, a test of your abilities to overcome your enemy, because while one will stand. ONE MUST

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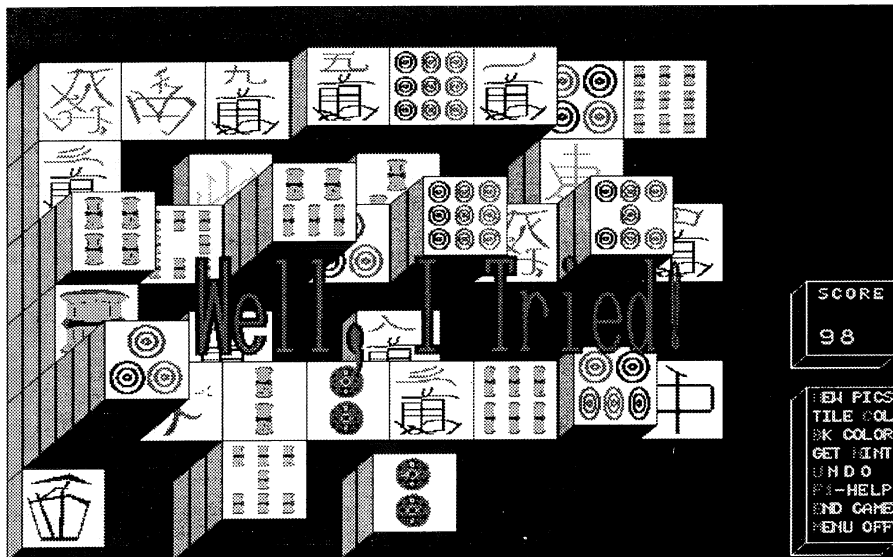
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BBUG 3399 - Moraff's Mega Morejongg

FALL.

This game can be played by keyboard or joystick. To access the main menu, press the ESC key. Keyboard preferences can be set from within the program by choosing keyboard and pressing ENTER for the move to change.

Have fun figuring this out. The moves should be pretty evident and self-explanatory.

This is a preview of a game system in development. Arcade animation and realistic sounds. Two player, or fight the computer.

BBUG NO 3399 MORAFF'S MEGA MOREJONGG

CLASSIFICATION * Games * Hard Disk * CGA/EGA/VGA

MORAFF'S MEGA MOREJONGG is the best implementation yet of the 'Mahjongg/Shanghai' concept.

Has full mouse and keyboard support, and has stunning Super-VGA 1024x768 graphics, as well as Hercules, CGA, EGA, and regular VGA. Contains several incredible tile sets,

including the incredible Moraff's World monsters.

For those with 256 colors, it has an animated rainbow tile set that can be used independently or as background for any other set of images.

This may well be Moraff's best game yet, if you like relaxing but challenging games!

MORAFF'S MEGA MOREJONGG, THE ULTIMATE MOUNTAINOUS MAHJONGG LAYOUT!

BBUG NO 3400 THE QUIZ GAME Version 2.1

CLASSIFICATION * Games * Hard/Floppy Disk

A serious quiz game for the quiz enthusiast. Players make own selection of topics for each game, from 12 categories available. These include History, Geography, Science, Nature, Sport, World Cities, Famous People, Food & Drink and more.

Program has extensive use of menus and pop-up windows - all responses by key-press to avoid parsing discrepancies. Australian authors but questions in International Edition specifically directed to world-wide topics.

More Listings Next Month



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Food and refreshments are available from the Canteen from 11.00 am to 2.00 pm. Alcohol is not permitted on campus.

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I hereby apply for Internet access and the provision of an account from the Brisbug PC User Group Incorporated.

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METAL & LACE

Games Review by Corpsegrinder

Requires : 386+, VGA, approx 20 meg hard disk space, 640 K ram.

Possibly the nicest thing to be said about this game is that it's the closest thing to an original idea I've seen for a long time - a sort of cross between StreetFighter II and Covergirl Strip Poker.

The blurb on the back of the box leads you to expect some sort of all-action arcade-style combat sensation chock-a-block full of red-hot lewdy bits. The reality is that Metal & Lace is a bog-standard low-res beat-'em-up with some Anime thrown in as a reward for successful players. Anime has been described as a modern form of computerised Japanese animation, though I would describe it as brightly-coloured cartoon-style still-life graphic images with blinking eyes and twitching fingers. Come to think of it, that also describes the target audience of this game.

It's a simple game for simple people. Combat consists of two anthropomorphic robots (called mechs) jumping around and trying to kick and punch each other into submission. One mech is controlled by the player, the other by either the computer or another player, which is strange, as games like this aren't aimed at people with friends.

After winning a few bouts, you then have the opportunity to see the young ladies from inside the mech suits in varying states of undress. During the first round of fights the Robo-Babes (I'm not making this up) are seen fully dressed, then clad in lingerie during the second round, and topless in the third round. To see the third level of the animations you have to send away to Sydney for the free not-recommended-for-under-eighteens upgrade disk. This takes about a week to arrive in the mail, by which time you will be sick of the game and will probably have joined a monastery. The animations, frankly, are about as arousing as sitting nude in a bucket of iced water watching reruns of old Japanese cartoons on the tele.

There's seven mech suits for you and your seven opponents to choose from, but only one has enough moves to make it worth playing. According to the manual your character can be controlled by either the keyboard or a joystick. This is a bit of an exaggeration actually. Control is difficult with the keyboard and very difficult with a typical analogue joystick. Either way, most of the special moves are impossible to pull off.

The soundtrack is fast, loud, and pounding. It tries hard to set the mood, and achieves this by giving you a headache. Fortunately, the music can be turned off.

There's plenty of digitised speech, which, like the music, goes to extremes. Even the furniture talks to you. The young ladies who are the focus of your attentions in the game have a lot to say, whether they win, lose, or simply tog-off for your viewing delectation. The problem is the content of the speech itself - the sheer banality of the dialogue is enough to put you off sex entirely. Amusing, at first, but eventually embarrassing. The accents are a nightmare too, sounding like a Salvatore Dali painting looks. This is one of the few games around that is actually more enjoyable if you don't have a sound card.

It's hard to pinpoint exactly where this game went wrong. Metal & Lace tries hard to be professional but never succeeds in any one area. It's hopeless as a beat-'em-up and the anime isn't worth paying to see.

Good points : an entertaining, original concept ...

Bad points : ... totally buggered up in execution.

In a word : poor.

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New offers of help are always welcome, and there are some topics absent from the list. If you would like your name listed for a particular topic, please ring Lloyd Smith on 281 6503 (9am-1pm, 2-4pm Mon-Fri.)

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Quicksilver	Ian Haly	870 1463	After 5.30pm & W/E
R-Base	Tony Luck	818 4060	9am-5pm All days
Spreadsheets	Sylvia Willie	393 3388	Evenings
SQL	Cec Chardon	870 1812	Evenings
SW Radio	Drake Drakeford	(075) 37 1993	
	Bill Harder	(075) 96 3562	Anytime
	Frank Norris	(075) 35 5241	6-7.30pm All days
System Manager	David Shaw	870 3633	9am-9pm All days
True Basic	Bob Gurney	355 4982	8am-8pm Mon-Fri.
Turbo Pascal	Bill Harder	(075) 96 3562	Anytime
	Neil McPherson	(075) 97 1240	After 6pm
Utilities	Neil McPherson	(075) 97 1240	After 6pm
Viruses	Dan Bridges	345 9298	7.30-10.30pm & W/E
Windows	Bernard Speight	349 6677	6-9pm
	Graeme Darroch	209 1999	6-9pm & Weekends
WordPerfect	Margaret Burton	300 3987	Eve. except Thursday
Wordstar	Neil McPherson	(075) 97 1240	After 6pm
Wordstar 2000/4	Bob Boon	209 1931	8am-5pm Mon-Fri.
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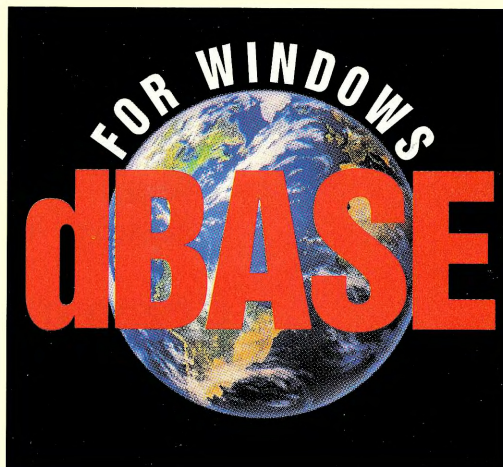
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