

Significant Bits

Journal of Brisbug PC User Group inc

Vol 9 Nos 1&2

Dec/January 1994

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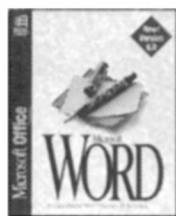


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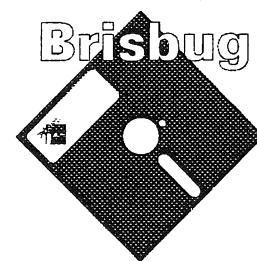
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BRISBUG PC USER GROUP Inc.

NOTICE OF ANNUAL GENERAL MEETING

The Annual General Meeting of BRISBUG will be held on Sunday 16th January 1994 at QUT, Kelvin Grove Campus at approximately 1.30 pm.

Agenda:

1. Presentation of Reports from the retiring Management Committee Members.
2. Presentation of Auditors Report.
3. Appointment of Auditor for 1994.
4. Presentation of nomination for LIFE MEMBERSHIP.
5. Election of Management Committee for 1994.

By order of the Secretary.

BRISBUG PC USER GROUP INC

*The Brisbane group for users of
PC-type computers.*

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Brisbug Software Library,
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Booval 4304

or phone: (07)281-6503

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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

Why is it that when we are forced to queue for anything our worst behaviour surfaces?

Just 5 years ago many of us had the pleasure of visiting Expo and with the huge numbers of people who attended this spectacle we were forced to queue, sometimes for hours, to visit the many pavilions and displays at Expo.

Last meeting, I was appalled at the behaviour of many Brisbug members, who, when forced to wait for registration at the membership area, complained most vocally at the minor inconvenience of the delay for a few minutes before they were registered.

One of the requirements of our use of the QUT Campus is that members and visitors are correctly identified by wearing a Brisbug badge and also that for security purposes that we have a record of who is attending our meetings.

I am fully aware that this registration is inconvenient, especially when such a large number of members turn up at the same time their patience is tested and in the case of some was completely exhausted.

The Membership Secretary and her helpers did their best to register all members as quickly as possible, give each attendee a lucky number ticket for the valuable prizes that were available to be won on the day, attend to visitors, issue replacement name badges to those who either forgot them or left them at home, deal with membership renewals and new member registrations and answer numerous questions so that all who attended could proceed either to their classes or to the presentation of Corel Draw in the main auditorium with the minimum of delays possible.

Unfortunately, that particular

morning, some of the helpers were a little late in arriving, and many members came early. None of us could foretell that this problem of registration would occur, and such a large number of members would arrive simultaneously. Possibly the situation could have been alleviated if some of the members had offered their help to Jan and assisted in the registration of others. The passing of uncomplimentary remarks and the exhibition of bad manners did nothing to relieve the situation other than to convince others of their immaturity.

Our volunteer workers are the lifeblood of Brisbug. None of us, including myself, gets one red cent for any of the work that we do for Brisbug. Some of us spend many hours both at meetings and between meetings working for the benefit of Brisbug members. Our only payment is the satisfaction of doing something for others and hopefully receiving their thanks for our efforts. There is always room for extra volunteers, especially at the meetings, the Software Library, the Junior Group, Education, SIG's and especially Membership Registration. Why not volunteer your services to help; who knows, maybe your efforts may earn you special recognition in our club.

Enough of my complaining - after all it is Christmas - the season of Goodwill to all.

Due to no fault of the Editor, this magazine will not reach you before the December meeting - editorial deadlines were too short, and although Ron Lewis tried very hard to get the magazine together in time, advertising copy could not be ready for the printer to complete the magazine for postage to all before the meeting. Hopefully, copies will be available for distribution to those who attend the December meeting, and the balance will be posted out immediately afterwards.

continued on page 6

From the Assistant Stoker

Graeme Darroch

Well this is the first time I have ventured into print as the assistant stoker, and I would like to take this opportunity to thank President Lloyd and the rest of the committee for their vote of confidence in me in appointing me the Vice president. Up until now I have been the Meeting Co-Ordinator, and have enjoyed the job immensely. I will be keeping the now renamed portfolio of Meeting Director and look forward to enjoying the job next year, provided I am re-elected.

On the subject of meetings I have a few things I would like to share with you. The recent events with two very large companies not "showing" for their previously confirmed speaking slots, I believe is inexcusable. Twice we have had to re-shuffle our schedule, once actually on the day, and once with four days notice (which was not all that noticeable due to a late addition from an overseas visitor). There seems to be no way of actually predicting how well a booked speaker will honour their commitments, all you can do is book the people and then go by your instincts. This method has performed well over the time we have been booking speakers, but I am endeavouring to improve all the time the way booking dates are confirmed, and the commitment from the presenters. Fortunately once a presenter has been once you can then build up to a position of mutual trust. We can then relax and settle down to a mutual respect.

Autodesk is a strange case in point. In an attempt to bring some new blood to our list of presenters I contacted Autodesk in July. They asked me to send a copy of our Magazine to them and they would then look at doing a presentation. I contacted the representative again in a couple of weeks, only to find that our

communications had gone astray. I repeated the exercise and after another couple of weeks called again only to find the representative no longer worked for them. I was put through to the new representative who handled user group liaison, my communication had again gone astray. After another magazine we eventually arrived at the November meeting for their presentation, this being August they had plenty time to make any arrangements.

A phone call was made to confirm that they would be presenting and after a discussion all was said to be well and a presenters name was given. I then did what is now my norm and sent a confirming fax stating time, date and presenter, they called back to confirm that the date was in fact a Sunday, and all was fine.

On the week before the presentation on the Tuesday I received a phone call to say that Autodesk would not be presenting at our meeting.

I don't know what we have to do to get improve the situation, perhaps we need to just say that twice out of the twenty-four times we book presenters in a year is pretty good odds, but I disagree. I will be trying to make the presentations as professional as possible, and trying to weed out the presenters who are not professional enough to keep previously made commitments.

At this point I will praise the people who have lived up to their commitments and given us a year of excellent presentations. I am sure you will agree that the years shows have been excellent, and I would like to publicly thank all those companies who have made the job of Meeting Director an enjoyable one.

Continued on page 6

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 must be requested. Advertiser printed inserts can also be arranged.

DEADLINES

Normal deadlines are the third Friday of the month preceding publication. Space reservation deadline: 3rd Friday of month preceding publication.

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

TERMS

Payment must accompany bookings unless an account has been established. Discounts are offered for multiple insertions when advance payment is made.

Members may advertise at half rate, but member payment must accompany ads (Classified ads not exceeding three lines are run free of charge. More than three lines attract a minimum charge of \$5.)

FORMAT

The magazine is A4 size, offset printed and saddle stitched. More than 2300 copies are printed of each issue and distributed throughout Australia and overseas. Artwork should be full size, paper bromide, film (right-reading emulsion down) or laser print. Postscript print or EPS files can be accepted by arrangement via modem. Brisbug does not typeset ads other than classifieds.

Text only ads 1/6 or 1/12 page can be FAXED. The layout for these must be at the editor's discretion and are accepted without proofs. All sizes are given as height x width in mm. Artwork must not exceed stated

Editorial

A Question of Emphasis

This month's issue of Significant Bits is our biggest ever (although as I write this, the size is not finalised, so I'm not sure by how much).

Long-term readers will have noticed a gradual "creeping in" of a greater proportion of Club News during this year... with many more photos of meeting activities, the people who manage Brisbug, and the "ordinary" members enjoying their club facilities. This is no accident. As president, and later as Editor, I believed that this magazine is the main cement for the diversity of people who comprise Brisbug, particularly those members who for whatever reason do not come to meetings. It also represents tangible evidence of value for membership fees for all members ... that is not to denigrate the fine contribution of the educators, help line personnel, library services.

Perhaps less obviously, it also represents the team spirit that is the best characteristic of Brisbug.

This is not my magazine. It represents the efforts of a team of authors, both regular and occasional, typesetters, printers and baggers. I guess not many people would recognise John Hamalainen's name (he's a quiet, unassuming chap), but he is typical of the eleven baggers team members who make sure you get your "SigBits" every month by addressing, bagging and mailing them. (On the team, John is known as "the Fastest Sticker in the East" - he sticks down the bags to stop the mags falling out again. If we have less than six people putting books in bags, he complains of being under-worked).

I would also like to pay tribute to the service we get from our Printer, Geoff Lehong and his team of Dianne and Andrew. This would have to be the shortest lead time magazine ever. Last minute changes, editorial stuff-ups, advertising problems, have all been met with cheerful, obliging service. I doubt I would still be sane without the help we get from

the Marlin Printing team. Thanks Geoff!

So lets all enjoy our holiday, because next year we're going to be even better... meaning we'll work harder and use the talents of those who've generously volunteered to help, but have not yet, due to me, become fully involved.

There are plenty of challenges for "SigBits" next year:

Firstly to be better than last year... Chip Karmatz left several ideas which we've yet to implement, and the rest of the team have a few. Being better also means reducing our nett costs to the club. Australia Post will implement their massive price hike for Registered Publications (that's us) in January 1994. Our costs of postage will rise from about \$1200 per month to a budgetted \$1800 per month. This is a straight impost, it represents no extra value to our members.

We have always competed (in a friendly fashion - despite throwing the odd insult at them ... isn't that what Melbourne's for?) with Melbourne PC User Group to try to produce the best magazine in Australia. They have just "upped the ante" by greatly increasing their proportion of colour. The challenge to "SigBits" management is to increase revenue (none of us see increasing nett cost as an option) to fund extra colour.

At the moment, our production team badly needs a photographer. Lloyd and I, with our Canon "box brownies", try hard, but sometimes it shows that we are not professionals.

It would also be nice to have access to a 1200dpi film typesetter (or even a 1200dpi laser printer), but my MD will not allow me to buy one.

Anyway, I'm off (as usual) to have a quiet Xmas beer, and make up for some lost family time. Have a happy and safe Xmas, and enjoy the New Year.

I hope Santa brings you all a Pentium speed-star... *Ren*



Minutes, November meeting

Chris Raisin

Another Brisbug General Meeting swung into action at 1-02 p.m. on an overcast (yet still warm) third Sunday of the month of November.

The non-appearing speakers

President Lloyd first passed on apologies from the Management team for the non-appearance of AutoDesk for their scheduled 1.30 presentation on AutoCad. The club was only notified on the Tuesday before this General meeting that the "AutoDesk" crew could not make it - too late to withdraw from print (oh well!)

But a bonus...

Fortunately an excellent presentation by Michelle Paradis from Corel Corp, Canada, on CorelDraw V4 saved the day and made it all worthwhile - a top class job, Michelle!

Changes to management

They're dropping off like flies! Well not really (though the Management team has been liked to these insects at times). Ron Kelly has had to hang up his tappers for health reasons. His resignation from both the position of Vice-President and various highly respected roles on the Committee has saddened everyone - but your health comes first! Enjoy your retirement Ron - I'm sure we will still see your face around the traps (and thanks for all your hard work over the years).

Your Management team has appointed Graham Darroch as Vice-President to replace Ron (so now Graham is both Meeting Coordinator and V.P.)

Speaking of appointments, filling the job of Development Coordinator after the resignation of Chris Ossowski last month is Carl Planting. Plans are already underway to resurrect the "Brisbug Towards 2000" 7-year-plan for solid Membership growth and improvements

in all facets of your beloved club.

The 1994 AGM

Now that all these people are entrenched in these newly acquired positions, come 16/1/94 they "have to go!" Yes, Lloyd reminded us that the AGM is on that date and members may nominate for one of the following positions:

- * President
- * Vice-President
- * Secretary
- * Treasurer
- * Membership Secretary
- * Magazine Director
- * Education Director
- * SIG Director
- * Development Director

(You may have noticed that the word "coordinator" has disappeared from the scene in favour of "Director" - sounds more important, true, but Treasurer Kunzelmann asked whether he could rename his position "Director of Finance"! (Sounds TOO important, Max!)

The Rewards Scheme

Lloyd brought some order back to the scene by making a special presentation from Brisbug's "Rewards" Committee to Joanne Ellis, a tireless worker for our group (and also the Secretary of Gold Coast SIG). Joanne gladly accepted WordPerfect 6.0 for Windows and gave Mr President a great big smooch. (We hope this is not expected from ALL successful "rewardees" Lloyd!)

We want some more suggestions from "normal" members - are there any out there? (Suggestions, that is). Please drop a note into the club's Suggestion Box which normally is within arms reach of the Membership Secretary and the "signing-in" desk.

ADVERTISING DETAILS (cont'd)

FULL PAGE SIZE DETAILS

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Page trim
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Optional bleed extent
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1/4 page \$70
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Special positions:

Full page RH side,
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Inside covers,
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INSERTS

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 Ron Lewis (07)273-8946, FAX (07)273-8954.

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

continued on page 6

The Annual General Meeting and election of 1994 Management Committee will be held on Sunday 16th January. A nomination form for committee aspirants is contained in this issue and if you intend to nominate for a position this form must be in the hand of the secretary by the 2nd January 1994. Also a proxy form for non-attendees, who wish to vote at the AGM, is provided and this proxy can be given to any other member who will be attending that meeting with your voting instructions.

The Management Committee will again consist of 9 members - President, Vice President, Secretary, Treasurer, Membership Secretary, Development Director, Education Director, Magazine Director, and SIG Director. All positions will be declared vacant at the elections and any financial member may nominate for any position on the committee. In accordance Management Committee rules, a member may only nominate for two (2) declared positions, and if elected to one will be automatically ineligible for the the second position. Full details are published elsewhere in this magazine.

To all members, I wish you a very Merry Christmas and a Happy New Year, and I look forward to seeing you in the New Year.

Lloyd

I would say to those who were not so professional (only two) that if they get their act together then we can think about using them again, but it will take some very convincing talking to feel confident in them again.

The Brisbug Meeting is a gathering of up to four hundred and twenty people who have been through a preselection of making the effort to join a club that specialises in computers. An audience of people who are guaranteed to be interested in computing, in some way, waiting for a presenter to tell them how good their product is. To get the equivalent by letter drops or advertising would cost a lot of money, but some choose to instead show to the two thousand readers of our magazine that they either don't give a damn, or can't honour their commitments. Brave companies indeed if they can afford that sort of bad publicity.

Anyway lets look forward to a successful 1994 and some great presentations. I already have booking through to April so things are looking good.

See you at the meeting!

Graeme

Minutes of our busiest

CMOS Time Service

There is a new file available from the BBS or the Software Shop called "SCLOCK.LZH" (Eastern Standard Clock). Using this file while phoning in to Telecom Australia's "Computime" service will guarantee that your computer's clock in CMOS is updated to the second.....ensuring you are never late for work again. (Sure!!)

Worker's Xmas Party

Graham Darroch took the reins briefly, giving details of the upcoming "Workers Xmas Party" to be held on 30/11/93 at Trawlers Restaurant, Mt. Gravatt. The newly-appointed Vice-President also gave details of Brisbug's newest BBS line. (07) 209-4980 is the Brisbug Management BBS, available for message use only for SIG members, the Management team and others involved in club organisation. It is also the place to leave articles for SigBits or "letters to the Editor". Don't expect to download or upload program files, though - the board was not created for that purpose. (Our thanks to the John Massey, of Brisbane Windows Users Group for their donation of a Hard Drive for this BBS).

Treasurer's report

The Treasurer made gurgling noises from the crowd, so Lloyd asked him to give us the good news on our finances (if any). The result? As at 30/9/93 Brisbug had \$5,976. It acquired \$9,268 for the month and expended \$10,778. This left a total of approx. \$4,465.

The large expense figure each month is for the Magazine. Someone asked: "Would cutting down to a single A4 page improve our financial situation? (perhaps the front cover plus the normal closing ad on the reverse - tumble-turn? Ron Lewis said he would welcome the reduction in work load, but reminded members that high costs resulted from us only being able to raise advertising revenue equal to one-third of production costs. It costs roughly \$5,700 per month for the mag to "hit the streets" (plus postage) and we only raise approx. \$1900 from advertisers. We are ALWAYS looking for advertisers in our high quality/high penetration magazine. (Postage normally runs at \$1200 for the mail out to 2,322 addresses.

SIG report

Bernard Speight is back, recovered from his op. Another informative SIG report ensued, with the good news that the Accounting SIG may be starting again

meeting ever, with four major presentations (continued)

with Graham Gardner organising its revival. If you enjoy accounting and its interaction with the PC would, contact Graham on (07) 354-3237 (Home) or (07) 891-5644 (Work).

BBS report

Paul Marwick was not in a good mood! He once again stated that he has been subject to "attack-dialling" from certain persons using the BBS. He has identified one such abuser of the system and has taken steps for the authorities to prosecute.

You are all reminded that such actions are ILLEGAL. If your modem is connecting to the board but keeps disconnecting (possibly due to modem incompatibilities) you must:

1. Wait for at least 1 minute before redialling
2. Not ring the same telephone number more than 3 times in any half-hour period.

If you transgress either of these rules, you are guilty of "attack-dialling". It should be noted that these includes those times when THE PHONE NUMBER IS BUSY. Certainly set your telecommunications package to redial, but ensure that any one number will not be called more often than once every 10 minutes.

Paul also expressed his dismay with the report in the Courier Mail recently on "R-rated" and anarchy software supposedly doing the rounds of many BBS boards in Queensland. The "facts" outlined in that report are certainly open to question, but rest assured, folks, that nothing even approaching those standards ever appears on Brisbug's boards - we have too much integrity for that and are proud of the club's high PC standards in the community (including moral).....Let's face it!....we're the best and, boy, are we humble!

Software shop report

Lloyd Smith jumped back on stage and gave a rollicking software shop report. New Kits for "Brother's Keeper v. 5.1" have been prepared and Lloyd thanked Terry Tuttle, Bob Gurney and Rita Copeland for their hard work in getting them together.

Another world shattering program "Cemetery Recording Program" is available for \$20 (death tax included) for those with the grave undertaking of wondering through the dead centre of any town, recording details of phantasms phantasmogorical (huh?) There were mass misgivings at this news, especially when it was revealed the password to gain entry to the program is "666". A Dead Loss, but if you have a spare \$20-00??



Jo-Anne Ellis accepts her copy of WordPerfect 6.0 from President Lloyd on behalf of the Rewards Committee

GeoWorks request for help

A certain member has contacted Ron Lewis asking if any member uses Geo-Works System for PC's. He apparently needs to reinstall it but has a defective original disk and needs help! Call Ron Lewis if you can assist and Ron will arrange a "get-together".

AGM

DONT FORGET! The next General Meeting is the SECOND Sunday in December (12/12/93) It will be a normal day in the morning but there will be a Christmas Party in the Refectory at 3.00 p.m. so there will be NO SIGS and NO AFTERNOON CLASSES.

Jan Ausburn, the Membership Secretary, is still in need of help!) She needs people to help man (oops, "person") the Membership area for 1½ hours between 9.00 a.m. and 10.30 a.m. on the Sunday Mornings of our General Meetings.

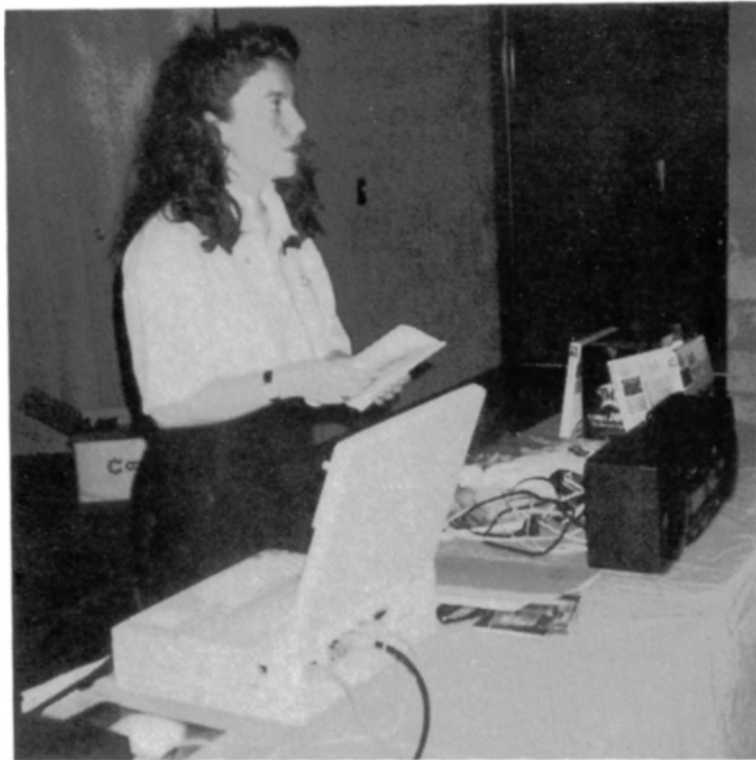
Once again we were reminded that the AGM in January means nomination forms and proxy forms will be issued with the December SigBits.

1-33 p.m. came and went, and Lloyd closed the meeting. Graeme Darroch then welcomed Bill Singleton (Manager of Total Peripherals in Queensland) and Ray Pace from Academic Computer Services Pty. Ltd. They gave a very entertaining presentation on MultiMedia for the PC. (I just LOVED those singing biscuits!.....don't worry! You had to be there...)

A.G.M. - 16th January, 1994 at 1:30 pm

November's Super Sunday

Reported by Ron Lewis



Above. Michelle Paradis, of Corel Corp, Canada, presents CorelDRAW and CorelVENTURA to a full-house of 430 Brisbug members in the main theatre.

Below. One lucky member won a copy of the Corel PhotoCD-ROM, and the BIG ONE, Right, a full copy of CorelDRAW



Despite a last-minute pull-out by AutoDesk, authors of AutoCAD, Sunday 21st November was a super Sunday, with continuous presentations in the theatre from 10 in the morning till 5 in the afternoon. One member complained to Meeting Co-ordinator, Graeme Darroch, that he was going to have to miss lunch to hear all the speakers he wanted to ... and he'd still have to fit in a visit to BCF Bookshop who were "first showing" their new container of the latest PC books. It's perhaps just as well you can't eat in the lecture theatre, otherwise you'd never hear anything for the rustling of lunch wrappers.

Our first presenter was Michelle Paradis, of Corel Corp, Canada, who was visiting Australia for the first time since her appointment as Sales Supervisor for Australasia. (Michelle's predecessor, now boss, Susan Engelhutt, known to many members, still intends visiting. She had wisely advised Michelle not to drive - on the wrong side of the road - whilst in Oz).

Despite a minor case of jet-lag, and an overdose of COMDEX (Las Vegas), Michelle spoke eloquently about CorelDRAW version 4, and briefly about CorelVentura (some members may have missed the press announcements that Corel had bought Ventura Publisher. Although it is expected the first release under the Corel banner will contain just a "tidied up" version, those of us brought up on Ventura look

forward to the next release with the real Corel stamp on it).

Michelle generously distributed free copies of the update to CorelDRAW 4 (some major authors note... the version number remains the same, only the bugs are fixed, FREE), and donated copies of CorelDraw and Corel Photo CD-ROM to Brisbug (see this month's cover). Then a number of free raffles, and a lucky nuber contest saw lucky members win copies of CorelDRAW, the PhotCD-ROM, T-shirts, mousemats etc. This author would like a serious talk with the raffle drawer who pulled ticket A6 instead of my A1 out of the hat for the copy of CorelDRAW.

For any member interested what was in the small gift of appreciation I presented to Michelle at the close of her lecture it was a gold charm (as in bracelet) of a koala.

Local expert, Hi Lee, then took over and kept the theatre crowd facinated (and away from their lunch) with a demonstration of the latest morphing techniques.

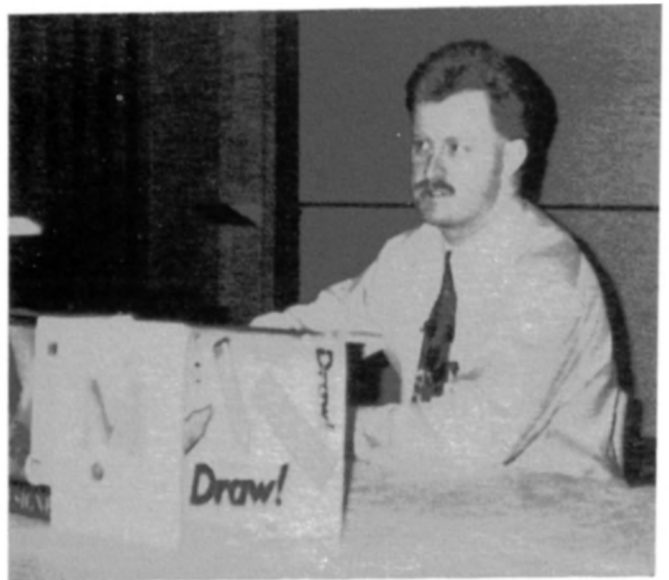
Then followed a brief Brisbug club meeting, and it was noticeable that many members were more interested in the refrectory than Max's Treasurer's report (not to mention the magazine report).

Then Bill Singleton of Total Peripherals Pty Ltd and Ray Pace of Academic Computer Services, introduced the topic of MultiMedia. An excellent explanation of the various "Standards" applicable to sound cards and the different types of CD-ROMs available was interspersed with demonstartions of the latest MultiMedia equipment available from TPs. Despite problems interfacing the sound card with the theatre sound system (myself, I avoid the problem when presenting in the theatre by bringing in a ghetto-blaster), Bill was able to demonstrate the not inconsiderable output of the speakers supplied with his kits, and later to hook into the CD input of my "boom-box". When we were discussing the re-arranged program with Bill, he had commented that there was no way a discussion of multimedia would take 1-1/2 hours: However, the session chairman (person?) had to curtail an enthusiastic question time at 3pm to run to time-table.

Still the quality presenters kept coming! For their last meeting of the year, the Windows SIG's Brian Beere-Streeter had arranged for Glenn Stubbs of MicroGrafx in Sydney to present MicroGrafx Draw and their top-of-the-line "Designer". The enthusiastic discussion period following his presentation was forcibly curtailed at 5pm by a president puffed out by the days activities.

Above Right. Graeme Darroch chairs an enthusiastic discussion time for Bill Singleton, Manager Qld, Total Peripherals, following his presentation on multimedia.

Right. Ray Pace, of Academic Computer Services (a TP dealer) assists in the multimedia presentation.



Glenn Stubbs of MicroGrafx, Sydney, presents MicroGrafx "DRAW" and "Designer" to the largest-ever meeting of the Windows SIG



Junior Group News

Letters to the Editor

Congratulations to the Juniors for writing three times as many letters to the editor as the "Senior" club members.

Hello readers,

My name is Matthew Bulmer.

I am 8 years old. When my family started at Brisbug we went to Junior SIG. We met Les Cathcart who has made computing easier and enjoyable to learn. We have been going there for two years. In those two years we have learnt a lot about computers. We bring our computers so we can have fun and play shareware games. We also get to try other programs.

I have made friends and I look forward to see them every month. I like playing Keen most of all. Come and join us now and see how much fun we have.

Matthew Bulmer

Dear Editor,

I have attached three suggested names for the "Kids Korner" section in "Significant Bits".

I think my best name is "Minor Brisbuger's View"

Little Brisbugers
Junior Brisbugers
Minor Brisbuger's View

Chris Kelly

Thanks everyone..

The Junior Group would like to take this opportunity to thank those who have helped during 1993, especially Lloyd Smith and Ron Kelly for their help in sorting out a few problems early in the year and for their on-going support. For those people donating their time as tutors, and the gentleman (not often Peter Harding is described as a gentleman :-)) Ed who donated a program and a screen filter... thank you. An extra special thanks to Les for his time and effort for another year as Junior



Two of our correspondents, Cassandra Bulmer, and Gordon Bulmer, are pictured below

Continued next page

Gamers Column

HINTS AND TIPS

These are the cheats for some popular games for the IBM.

Bart Simpson vs the Space Mutants

At the title screen, when the Simpsons are watching TV, type in COWABUNGA for infinite lives.

Might And Magic III

Here are some codes for the transporters in the towns. The last four dump you in the middle of a place, so you can't make it back to a town easily.

| | |
|---------|--------------------|
| Home | Fountainhead |
| Seadog | Baywatch |
| Freeman | Wildabar |
| Doomed | Swamp Town |
| Red Hot | Blistering Heights |
| Arena | The Arena |

The Arena is a place for you to gain extra experience points for your men. The creatures there are mostly ones you have already met.

Operation Wolf

Hit F10 when you see the word <HIGH SCORE> written on the top (just before you start playing) and it will change to <FIRM HELP>. Then, while you are playing the game, press F7 for extra health and ammo, F8 to skip levels, and F9 to become invincible.

Ultima VII

Start the game by typing in [ULTIMA7 ABCD]. You must have a space at the end of 'ABCD' which is done by holding down ALT and 255. When the game has been loaded up, F2 gets the cheat menu, and F3 gives you a teleport map.

Wing Commander

Type in WC Origin -k at the dos prompt (the letters are case sensitive). You get permanent shields and if you press ALT and DEL together you can destroy any targeted ship.

By Adrian Mill (3341)

Group Co-ordinator.

Yes, we thanked those who donated their time as tutors this year. The question is: Will there be anyone to thank next year?

We believe there must be people within Brisbug who have enough knowledge and be prepared to get down to a level the children can understand to do some sessions to teach the computer wizzes of the future.

Next year's program has been requested by the committee. This would be much easier to compile if we knew who could help, and when. Surely some members can help please.

Looking forward to the visit from RAMWARE this month,

Wishing you all a Merry Christmas and a Happy New Year.

Gordon Bulmer

Junior Group meeting - 21st November, 1993

It is now 11:15 and Les is teaching us how to fix a problem on his computer. He stepped out of the room for a moment and all the boys were at the back watching the computers. When Les returns he asks if any one can format a disk.

Now it is 11:30 we break for lunch, good I'm hungry. We come back at 12:00 ready for our Windows class. The lecturer Alex gave us a hands on experience about the Icons and their uses. We also have lessons on Dos to. After all this we worked out our plan for the next year. Then Les let us have free time on the computers.

After all this we went home tired but happy.

Cassandra Bulmer

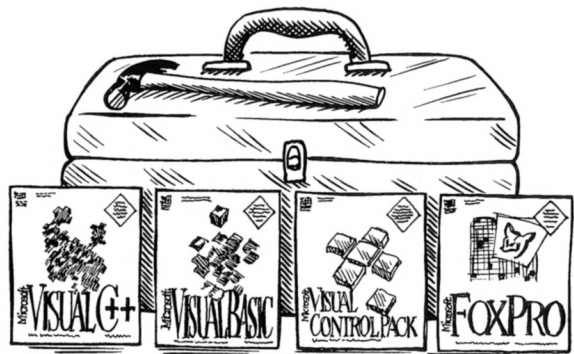
*The President
would like to
discuss your
attitude to
computers...
please come to
the office*



CORIEL Photo CD-ROM



I'm waiting patiently for the Windows session to start!



The Microsoft Tools Suite.

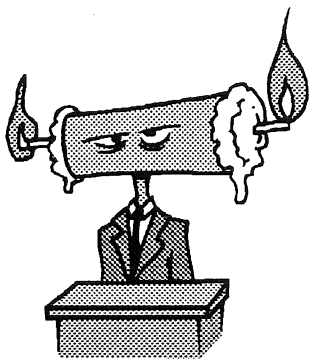
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VCSIG12

Helpers WANTED for 1994- Apply at Junior Group



Ideas on Improving

An open letter to members from Dan Bridges

As the year draws to a close and the new year dawns, I've become reflective.

I've been a Club member now for a fair while (#229 - I've got a Club magazine, dated July 1988, that informs me that I'm overdue, but in those days I think memberships all fell due on the same month, not 12 months from the sign-on date). I've been actively involved in many facets of Club life since January 1989. I'm not particularly happy with the workload that's being shouldered by the relatively few volunteers on the Committee and in other places in the Club's structure.

I was recently talking to Ron Lewis and he mentioned that a membership drive in the Sydney PCUG had added 1000 new members and taken their membership past our numbers. He asked me if I thought we should do the same. I remember shuddering at the thought. I'd like to explain why I would dread such an increase in new memberships at the moment and the possible changes in Club involvement that I believe would be required to accommodate increases of this magnitude, or indeed, improve the lot of those that now contributing at our present membership level.

What follows is my irreverent "boot up the bum" discussion paper on membership involvement.

What's Wrong

The Help Line

The size and scope of Brisbug Help Line entries has not kept pace with increases in membership.

It's a fact that the PC user base is becoming broader. We're attracting more neophytes than ever. They've have just become involved with PCs and have turned to us for assistance. Yet it seems that not enough experience members are willing to help out so the Few are left to answer the calls of the Many.

Since I've started working long hours (the last 18 months) I've become less available to help others. Yet I'd still answer at least 6 calls a week. I apologise to any who have contacted me when I've been grumpy but sometimes I feel like screaming when I receive

yet another call about *"I've lost my CMOS settings and the dealers closed 'til Monday/gone out of business/lost interest in me"*.

Either something's terribly wrong with our education of new members OR many members have inadequate senses of personal responsibility and have not taken heed of the frequent pleas, expressed at meetings and in this magazine, to jot down such information OR too many dealers are not doing a good enough job. In my opinion, any dealer who does not place a sticker with these details on the back, bottom or inside the case is a *JOKE*.

Or the frequent cases of spending a lot of time helping a new member over an initial problem then finding I get repeated phone calls over the next few months as they expect me to help them with just about every other problem they encounter. I'm a person who seems to have a pathological need to help others, yet continuous involvement in the Help Line since February 1990, appears to just about cured me of this affliction, or at least channelled that urge in other directions.

(Coincidentally, as I was writing this, I answered a phone call from a member who has rang me many times in the past. He's a young member who seems to have access to lots of pirated software and never has any manuals or the ability to learn or trouble-shoot. This time it's *"A new HD - 245M - old HD 40M is now D: - it was Dblspaced to 80M when it was C: - now that it's the 2nd HD it's not being recognised - what do I do?"*.

I told him off once before (at that stage he was having problems with a pirated copy of STACKER), and I told him again this time, *"LISTEN, IT'S NOT CLUB POLICY TO SUPPORT PIRATED SOFTWARE! You don't have any manuals or any disks to boot from when things go wrong. Your only copy of DOS 6 is on your 2nd HD that you can't access now. You obviously haven't learnt anything since I first talked to you many month's ago. You don't understand about files with Hidden/System/Read-Only attributes. (He saw little on D: using just DIR. I quickly found DBLSPACE.000 was present with "DIR /AR"). Why do you keep ringing me up with problems when you've made little effort to help yourself. How do you expect to solve your own problems when you don't buy legal*

Sharing the load

Brisbug: Sharing the Load

copies of programs with manuals that explain what's going on????")

Why do I feel discouraged?

The Magazine

Ron Lewis and Geoff Harrod have performed a Herculean task editing the magazine over the last few years, but such a work-load can't be kept up forever. Editing the Club magazine should be an opportunity for them (and others) to express their creativity in a different direction from their day-to-day work. But I believe that the unremitting grind, month-in, month-out, working against the clock, **MUST** be diminishing their interest.

It seems to be an a cherished Club precept: *"They're sure going to burn themselves out if they keep that up. Let's see how long it takes, this time."*

But who else will do it? I've even heard the suggestion that some members want to pay someone to produce the magazine and to fill it with advertising. I wouldn't want to see magazine production farmed out to a commercial concern. That's not what a club magazine should be about. A slick commercially-produced magazine would be a soulless thing. I may as well just buy a completely commercial computer magazine such as APC. Why would Club authors bust their guts trying to write something for a magazine that wasn't a complete Club production?

The first thing I do each month when I receive the magazine is leaf through it checking out the diversity of authorship. All too often I find that the same few names keep reappearing (does Geoff Harrod ever sleep?). We have 2,300+ members. How many different (Club) names appear in the cumulative index?

Then we have the case of the member who complained about the amount of journalism that was coming from our affiliated clubs in the South. Why weren't we publishing only Brisbug stuff? (Did it ever enter his/her mind that there might not be enough contributions from Club members.) Another opinion, for free: He/She should be lined up alongside the dealers, who don't place stickers with CMOS details on new users' machines, against a convenient wall and...

The Librarian

In my opinion, if ever Brisbug should start canonising its great benefactors, LLOYD THE MAGNIFICENT would be at the head of the list. What a thankless job he's performed for so long. **MANY** thousand's of programs have passed through his bleary gaze. What excitement can possibly still stir in his loins when he scans another README about an "enhanced DIR replacement". An yet, on occasions, (usually confined to meetings), I've seen him apparently acting "jolly". (Obviously, he been at it far too long, and has paid the price. As a humane act... place him against the wall, as well.)

Just how does Lloyd get through examining all those new disks each month? And then go on to creating an interesting and informative synopsis of them for both the catalog and the magazine. As an ultra-reliable witness, I can testify that, on more than one occasion, I've heard Lloyd tell his electronics repair customers: "Bugger off. I've got disks to copy." (Well, he may not have used those exact words, but as a sensitive observer, I clearly ascertained the meaning of his body language.)

The BBS

Ah, silly, silly me. I used to think that Paul Marwich was an arrogant bastard. A little Hitler in a little empire: "Just dare sneeze and I'll TWIT you!!!". How wrong can you be? My apprenticeship on the Brisbug Help Line convinces me he's been far too Libertarian. Paul, is it possible to send 3,000 Volts down the phone line? Related question: Is it covered in my Maestro warranty?

I've got to give myself a BIG pat on the back for coming up with the solution of all our BBS problems: **Just double membership fees.** Then the Club can afford to triple HD space and can afford to pay Paul to quit his job and work exclusively for Brisbug, searching out the latest files and answering the incessant demands of the Brisbug BBS users. (*Did you know my middle name was "Solomon"? I didn't.*)

And that Graeme Darroch - "Assistant Sysop". At the next meeting, I bet he goes on again about how much work he has to go through, evaluating new files on the BBS. And he keeps bleating about helpers.

Sharing the load

Oh, I forgot...
you're not that stupid - others serve you.

I wish he'd shut up so I could get to hear what I came for - the Main Act.

That's the trouble with Brisbug: they keep going on with all that Club garbage.

The Software Shop

As a smartarse, I despise them all. There they sit, copying disks while I go to the more interesting classes and the presentations. What fools they must be! Well that was until I've tried to help out when I had

nothing better to do. As a scatter-brain, I found it pretty tough going. Would you like to receive the wrong disk in your bag? I found it surprisingly difficult to maintain concentration while copying umpteen dozen FDs. Just one stuff-up and you've spoilt another Club member's Sunday evening. Why don't you try helping out in the Software shop and prove me wrong.

Oh, I forgot... you're not that stupid - others serve you.

A Rosy-Hued Perspective

Seventeen years ago I was a member of another club: the East Moreton Motorcycle Club. An interesting aspect of membership in that club was that I received a letter from them informing me that I was required to attend a short-track race meeting (I had no interest in this form of racing - it's similar to speedway racing) and act as a flag marshal. To not attend and do my bit would have meant dismissal from the club. At one of the monthly meetings I saw a club tribunal session where a member, who hadn't turned up for a rostered job, managed to avoid dismissal. The assembled club membership voted to reinstate him if he participated at the next two club functions.

Perhaps a similar system of member participation needs to be instituted in this club. Even distant members could be involved, being required to submit their choice of a book review or a review of a shareware program in our library, for the Club magazine. Or to scan the echomail areas of any BBS for a period of time and submit some interesting messages for possible inclusion in the magazine. Or be asked to assess the potential of a number of new programs and write a brief description of them to take some of the workload off the Librarian.

I'm not suggesting that everything submitted be automatically used. Just that members be required to exert themselves somehow as an indication of their recognition of what being a member of this club entails.

Members living within 100KM of Brisbane could be asked to help out at the membership counter (now, that would reduce those long queues), help in the Software Shop, assist with the unloading of equipment, pack the magazine etc.

Persons who put on brief presentations at SIG, or put their name in the Help List for a few months, or were a member of a sub-committee would also be considered to have contributed.

Sure, we would lose members who weren't prepared to do anything to help. But I'd rather be in a smaller club where some workload sharing occurred than in a club where so many seem to be taking advantage of so few and where volunteer brownout/burnout is the norm.

For Sale

DESCRIBE VER 4.0
OS/2 WORD PROCESSOR

\$125

GAME ON CD
WING COMMANDER / ULTIMA VI

\$ 40

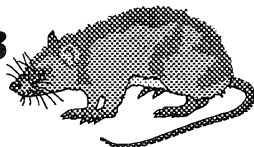
Pro Audio Spectrum 16
STEREO SOUND CARD

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Peter Scopes (07) 267 7512

Cunningware

Ph (07) 841 4623



Dear Santa,

Please don't put any socks or jocks in my stocking this Christmas eve. It causes ladders and you know how expensive a good pair of fishnets is these days.

This year please keep the reindeer off of my lawn and before you come ring Cunningware and grab me some of these software bargains !!

| | |
|----------------------------------|--------|
| Corel Draw 4.0 | \$ 585 |
| Dos 6.2 Stepup | \$ 20 |
| Dos 6.0 Upgrade | \$ 70 |
| MS Flight Simulator 5.0 | \$ 74 |
| MS Golf for Windows | \$ 59 |
| ClarsWorks + FREE Quicken (Win.) | \$ 179 |
| Wordperfect Dos Ver. 6.0 Upgrade | \$ 175 |
| XTree Gold V3.0 for DOS | \$ 164 |

And I really must have Norton Desktop for Windows. At only \$158 it would mean I could use Windows !!

Thanks Santa

(Insert your name here)

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A MERRY CHRISTMAS TO ALL- FROM RATTY !

Software Library News

Lloyd Smith

Christmas Listings

Christmas is on us once again - Crikey, it only seems like yesterday that it was Christmas 1992 and here it is again. Must be my age, but the years seem to be getting shorter.

A listing of some of our most recent games is contained in this magazine so if you are looking for something to amuse yourself or the youngsters over the holidays, why not look through this GAMES GALLERY.

Also, the Software Library has a selection of Registered Shareware available, so check through the listings of the programs available.

Library Charges

Copies of disks supplied by the Software Library are as follows:

5.25" Disks - \$4.00 each

3.5" Disks - \$5.50 each

High Density Disks \$8.00 each

(Special Programs only as advertised)

Postage - Up to 8 disks \$3.00

Over 8 disks \$5.00

Catalog Disk Exchange

\$2.00 at meetings or when accompanied with an order for other disks

\$5.00 if ordered separately.

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

CREDIT CARD MINIMUM - \$25.00

BLANK DISKS are also available from the library, costs as follows:

5.25" 360K MD2D \$ 8.00 per box

5.25" 1.2M MD2HD \$15.00 per box

3.5" 720K MF2DD \$15.00 per box

3.5" 1.4m MF2HD \$30.00 per box

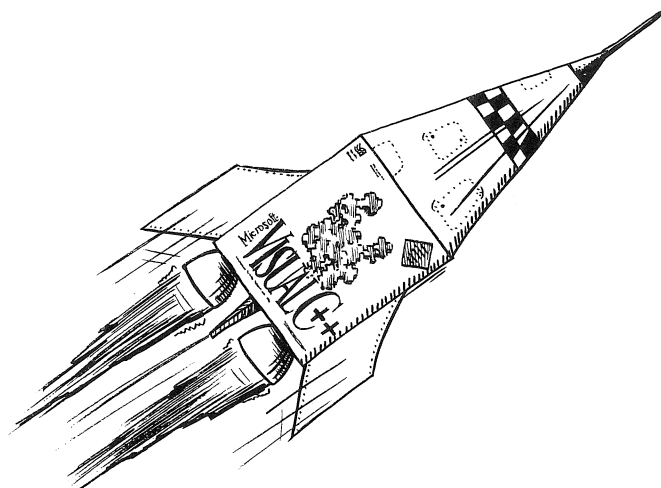
Postage - \$5.00

On behalf of all the Software Library assistants and helpers, I should like to wish all members

A MERRY CHRISTMAS and A HAPPY NEW YEAR

Christmas Vacation

Mail and telephone orders for library requirements will close on the 20th December, and all orders will be dispatched in time to reach you before Christmas. Of course this depends on the mails which at this time of year will be very busy, but we will try to post all orders by 22nd December. Please place orders early to avoid disappointment. The library service will re-commence on 10th January 1994.



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More “Easy Modems” -

Dan Bridges

I've used a modem for a number of years. Up until recently I thought it was necessary to use a comms program's "Host Mode" to transfer a file to a caller. I've fiddled around with Telemate's script files and have successfully transferred files this way. For those readers who have never used host mode, you run a script that makes your comms program act like a mini BBS. Callers have to log in, supply a password, select one or more files from a download directory and then pick a file transfer protocol such as Zmodem. However modifying a host script is a rather daunting job for a beginner and it's a case of overkill when all that's wanted is to send a file to a mate.

Now I know a much simpler method. This article shows you, step by step, how to set up your modem to do this. It uses two different comms programs as examples: Telemate (DOS) and TE/2 (OS/2). This article also aims to reduce some of the mystery of modem communications through hands-on experimentation. And it's a real buzz the first time you play at being Sysop (also known as God) by transmitting a file to a friend.

Establishing the Connection

In this article it will be assumed that you have the file to be transferred and your friend rings you up. To dial you, the caller could enter you in his/her dial directory. Usually though they just perform a manual dial. The keystrokes to pop up a manual call box are *F8* (Telemate) or *Alt-M* (TE/2). In the box they enter your phone number and press Enter to dial.

An alternate method of doing this is to go into terminal mode (Alt-T with Telemate) and type (assuming Tone dialing and a phone number of 3459298):

ATDT3459298

If they can only use pulse dialing, they will need to use "DT" instead of "DP".

If they're operating through a phone system that requires them to press zero first and then wait of a dial tone before dialing they would use:

ATDT0,3459298

The comma inserts a delay of about 2 seconds (see your modem manual).

If they're using a Commander phone system (see Editor's footnote) that requires them to manually select a free line to use for dialing they could do this by using a phone plugged into a double-phone adapter and selecting a line. As soon as they heard the dial tone they would place the handset down and quickly issue "ATDT3459298" in a comms program that they already had opened and ready.

There are two methods for you to answer the phone: manually switching to answer mode and auto-answer mode.

Manually Switching to Answer Mode

You're in terminal mode waiting for the call. You see "RING" on your terminal screen. At the same time on your modem (Maestro in this example) you'll see the "RI" light (Ring Indicator) and "AA" light (Auto-Answer) flash in unison with the incoming rings.

To test dial yourself try:

ATDT199

(This number works with my exchange. I don't know whether it will work with others). You will have to press *Enter* again, after the number has been dialed, to generate a "NO CARRIER" message before the incoming rings will appear. To stop the ringing issue two separate commands: "ATH1" then "ATH0", or as a single command: "ATH1,H0". Notice that as soon as you issue "ATDT199" or (indeed just "ATDT") the "OH" light (Off Hook) will light and will go out when you hang up. This can be explained by you having to lift the handset ("take it off the hook") to ring someone and later place the handset back down to hang up.

As soon as your friend's *RINGS* appear, type "ATA". This switches your modem to (immediate) answer mode.

Auto-Answer Mode

On most modems auto-answer mode is activated by having a value greater than zero (the default) in the S0 register. I think it's a legal requirement to allow at least two incoming rings before answering so I suggest you use "ATS0=2". The "AA" light will remain lit as soon as the S0 register is set to greater than zero.

...it's a real buzz the first time you play at being Sysop (also known as God) by transmitting a file to a friend.

Sending Files to a Friend

This test sequence demonstrates auto-answering:

ATS0=2

ATDT199

(Press *Enter* when dial tone changes)

"NO CARRIER" appears followed by:

RING

RING

At this stage the modem tries to answer. Since it's not connected to another modem it will fail. You can abort by pressing any key.

To summarise, you type "ATS0=2" in terminal mode to set your modem to auto-answer mode to await your friend's call. If anyone else tries to contact you for a voice call, they're doing to get an earful of modem. You can stop this either by switching off the modem or by issuing "ATH" (to be explained later).

Alright, We're Connected - What Do We Do Now?

At this stage you may not be aware you're connected, unless your friend has started to type something. You probably won't see your own typing but they should see it, and visa versa. The reason for this is the lack of *Local Echo* at both ends.

In terminal mode, when you type something in you should see what you type because the default for most modems is *E1* (Echo Commands). To test this try:

ATE0 (Don't Echo Commands)

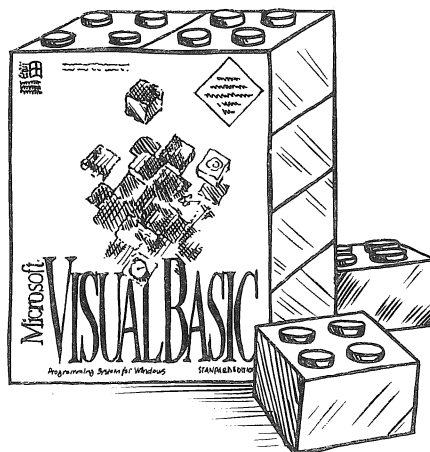
AT

You see the "OK" response in both cases but you won't see the second command. To restore command display issue "ATE1". "E0" and "E1" only apply to command mode. Once you and your friend are successfully connected the modems are in data mode. In this mode you won't see your own typing without help from software.

When you connect to a BBS this is not a problem because the BBS software "echoes" your typing back to you. However neither you nor your friend are running BBS software so you have to get your comms program to do it for you. In *Telemate* you can alter this by

selecting *Options, Terminal, Local Echo*. With *TE/2* you press *Alt-E*. Local Echo status can be changed during a connection.

Some comms programs refer to Local Echo Enabled as operating in "half-duplex mode" but I find this rather misleading. In my book, half-duplex is when you and your correspondent take turns at communicating over one channel (e.g. a transceiver)



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Simple Modem Connection Diagnostics

Part of my job is setting up a comms/modem package on our clients' machines to access our UNIX boxes back in Head Office. I've come up with some simple tests to determine which port a modem is connected to and to determine whether a modem's input and output are working.

PC to Modem

This simple test involves no extra programs and is performed by copying any small file to the suspected port:

```
COPY \AUTOEXEC.BAT COM2
```

If the DTR (Data Terminal Ready) light comes on then the PC has communicated via that particular port to the modem. On some modems this light is labeled "TR".

The RTS (Ready to Send) will also come on after this exercise, but many low-end modems don't have this light.

The illumination of these modem lights indicates that the PC's serial port has transmitted these signals to the modem. On my modem (Maestro 144M), the DSR (Data Set Ready) and CTS (Clear to Send) lights illuminate as soon as the modem is switched on. These modem output signals correspond to the PC's DTR and RTS signals.

Modem to PC

The next test requires software. Manifest (comes with Quarterdeck Office System's QEMM) or Lites V1.1 (a bug-fixed version of the original program that appeared in PC Magazine, Vol. 8 No. 6, 14-03-89) are suitable.

Using Manifest

Select: *System*, *Adapter*, and *PgDn* a few times to get to *Serial Port Display*. Here is the screen that appears when my modem on COM2 is turned on:

Serial / Printer Adapters

Serial Signals

| No. | Port | CD | RI | DSR | CTS |
|-----|------|----|----|-----|-----|
| 1 | 03F8 | - | - | - | - |
| 2 | 02F8 | - | - | * | * |

On some modems "CD" (Carrier Detect) will also be active. Now turn off power to the modem and press the spacebar to force Manifest to re-read the COM port. You should see all dashes. Then turn the modem back on and press the spacebar again. The asterisks will return. This test indicates that the PC is receiving these signals from the modem.

Using "Lites" (available from Brisbug's BBS)

To install this TSR for COM 2 type:

```
LITES 2
```

Later you can remove it from memory with:

```
LITES U
```

You press Lites' hotkey (Alt-L) to display status lights in the top right-hand corner of the screen. Here is the display after copying a small file to COM2 on my modem:

```
DTR RTS CTS DSR    2400 N81
```

This display is updated every few seconds. The other RS-232 signals that Lites will display are DCD (Data Carrier Detected) and RI (Ring Indicator).

Dan Bridges

while full-duplex is when you can both talk at the same time (e.g. a phone).

Setting Local Echo solves the problem of seeing your own typing but there's now another one: both you and your friend's typing is mixed in together if you both type at the same time. A better method is to not worry about enabling Local Echo but instead use chat mode if your comms program has it. The key-strokes are: *Alt-C* (Telemate) and *Alt-G* (TE/2).

Chat mode both turns on local echo and also splits the screen into two regions where you and your friend's typing is segregated. To disable chat mode press: *Alt-C* again (Telemate) or *Escape* (TE/2).

Transferring the File

The Sender's End

Most comms programs use the *PgUp* keystroke to bring up a list of upload file protocols. You select X, Y or Zmodem (as prearranged with your friend) and then enter the filename. With Y and Zmodem you can specify multiple filenames or use wildcards such as **.ZIP*. The location of the file to send is specified in Telemate in *Options*, *Directory*, *Upload*, but you can change it from the file selection box and select the file using the highlight bar. In TE/2 the file's location is specified in the *UploadDir* initialisation variable.

You should warn your friend when you are about to transmit the file. In tests Graeme Darroch and I performed we did not know when the sender had started the transfer so we had to work blind.

The Receiver's End

Most comms programs use the *PgDn* keystroke to pop up a list of reception file transfer protocols.

Using Xmodem. Your friend types in the name of the file in Xmodem file request box. They can use a different name if they wish to rename the file. Xmodem is rather inconvenient to use and is a weak performer unless Xmodem-1K is used. The latter uses a 16-bit CRC to detect errors rather than an 8-bit checksum. Most comms programs can handle Xmodem-1K and will automatically fall back to Xmodem-Checksum if the program at the other end doesn't support Xmodem-1K.

Using Ymodem. Your friend has about 20 seconds to start reception their end. They do not need to supply the filename. Some comms programs refer to "Ymodem Batch" as a separate item from Ymodem but true implementations of Ymodem have batch capability (multiple filenames) as standard.

Using Zmodem. This is the easiest of the lot to use. Providing Zmodem auto-download capability has been enabled (Telemate - *Options*, *Protocol*, *Zmodem*,

Auto-download. TE/2 - *AutoZM True*) they need do nothing. As soon as you start to send, their comms program detects the Zmodem start sequence and switches to a Zmodem download. Most implementations of Zmodem use a 32-bit CRC which makes it virtually impossible for an error to go undetected.

Unfortunately most comms programs that are supplied with modems don't have Zmodem so they should only be used (if at all) to download a decent shareware comms program from a BBS, before being thrown in the bin.

Ending the Session

Many comms programs use *Alt-H* to hang up. It is worthwhile studying the hang-up mechanism. Here is the sequence translated from Telemate's default hang-up string:

Drop DTR (Data Terminal Ready. This signal comes from the PC. Watch the "DTR" light on your modem go out temporarily if your comms package drops DTR).

Wait 1.5 secs

+++ (This sequence of characters in the data flow switches the modem to command mode.)

Wait 1.5 secs

ATH0^M (^M is the Ctrl code for Carriage Return)

Wait 0.5 secs

On my modem I use a &D2 setting so that the modem will disconnect based on the status of the DTR signal from the comms program. So dropping DTR is enough to hang up the modem. Many modems are not set up this way so Telemate goes further.

When you first start up your modem it is in command mode. Once the connection has been established the modem is in data mode, usually for the duration of the session. Hanging up using a *AT* command requires switching the modem back to command mode first. That's done by the presence of "+++" in the data. "*ATH0*" is then used to ensure the hang-up. "*ATH*", the abbreviated version of "*ATH0*", could also be used.

Conclusion

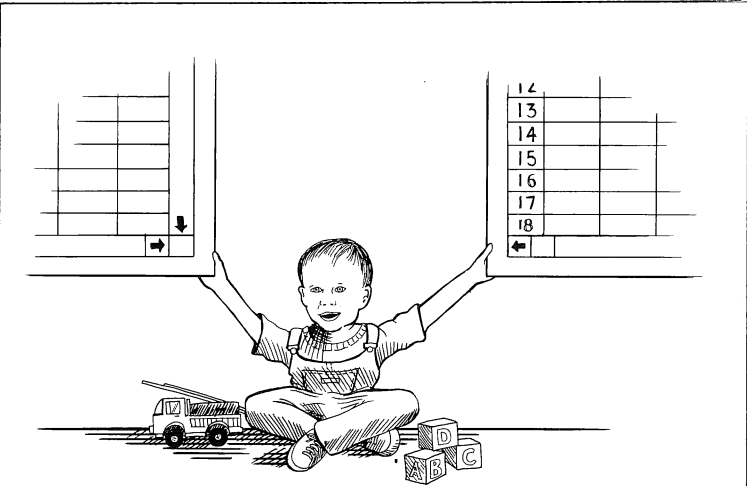
In this article the receiver of the file transfer has been the remote modem. However the caller could just as easily have uploaded to you, or alternated between sending and receiving files in the same session. So it's no big deal about who calls whom.

If you and your friend are interested in experimenting further look around for BIMODEM v1.24. Using this file transfer from within your comms program (Telemate allows you to use external protocols) you can both send files to each other at the same time while both are chatting! This is due to the full-

duplex nature (2 separate channels) of protocols such as V22bis and V32. The chatting impacts very slightly on the transfer rate since it has to be included in the data stream, but generally you can transfer files in each direction at pretty much the same rate as Zmodem. So if you both have a lot of files to exchange you can do it in half the time. Using BIMODEM can be a lot of fun.

If you want to find out how to organise your phone and modem setup to switch in the same session between voice, modem, and voice again reads Graeme Darroch's excellent article "*Psst! Heard about Cheap Transfers?*" in SigBits June '93.

Anyway, now you know enough about comms not to be tied solely to BBSs for your file transfers. Interacting with someone who you know is at the end of the line is a lot more satisfying than working with an automated BBS program. And, as social beings, that's the way it should be.



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High-Speed Modem News

Reported by Dan Bridges

Hayes and US Robotics are supporting a new high-speed standard - V.FC (Fast Class)

Some of the big modem manufacturers such as Hayes and US Robotics are supporting a new high-speed standard - V.FC (Fast Class) that uses a Rockwell modem chipset. The new standard has been produced because the new official ITU-T (formally CCITT) standard of V.34 (V.Fast) is not due until at least the middle of 1994, maybe later. The major manufacturers have had the technology available for some time and are worried about losing any marketplace perception of technological leadership by not implementing it now. They are promising upgrades to convert V.FC modems to V.Fast specification when the standard has been officially ratified.

Hayes has assumed a high profile in its support for the new standard as the following extract from a recent press release demonstrates:

"COLORADO SPRINGS, CO, 31 August 1993 — Eight of the world's largest bulletin board systems and the three major North American mail hubs within FidoNet came together at ONE BBSSCON to announce their plans to support V.Fast Class (V.FC) modems. In addition, they agreed to participate with Hayes Microcomputer Products, Inc. in extensive V.FC modem testing to provide a smooth transition for their users from the current 14.4 kbit/s standard to the higher 28.8 kbit/s transmission. These eight bulletin board systems (BBS) represent over 100,000 users.

Also, the Hayes Sysop Program is offering any US sysop the opportunity of purchasing an OPTIMA 288 V.FC + FAX modem for only US\$288 (this price matches the highest speed of 28,800 bps). The modem also supports all V.32 bis, V.32 and V.22 bis speeds."

The following Fidonet echomail message provides a user report of the OPTIMA 288 modem:

* Area : K12.SYSOP
* From : George Peace, 1:13/13 (Thursday November 04 1993 22:07)
* To : all sysops
* Subj : more V.FC info
* Original to everybody @ 1:321/109.0
* Forwarded 06 Nov 93 20:58:53 by Mort Sternheim

This article was produced by Phil Becker and the other folks at eSoft. eSoft makes the software we

run on my BBS. I've found this data to be consistent with my own real world use of the modems over the last several weeks.

The truth about V.FC modems

The V.FC modem is an emerging industry standard for modems which go faster than the V.32bis speeds of 14.4kbps. The top speed of V.FC on a dial-up line is 28.8kbps, and there are "fall-back" speeds of 26.4k, 24k, 21.6k, 19.2k and 16.8kbps. In addition, the Rockwell chip set which supports this modulation scheme is available in some lower priced versions which only have a top speed of one of the lower fall-back speeds (typically 24k and 19.2kbps). The first full speed V.FC modem to reach the marketplace is the Hayes Optima 288. Zoom is also shipping a V.FC modem using the 24kbps top speed version of the V.FC chip. The tests that eSoft conducted were with the Hayes Optima 288 modem.

What speed do compressed (ZIP) files really go?

For all V.42/V.42bis based modems, there is a speed advantage over the base carrier rate which comes from the protocol itself (not compression). Thus a file which cannot be compressed at all by V.42bis will transfer at a bit less than 20% faster than the carrier rate (1.185 the carrier gives a good estimate of the non-compressing speed of a V.42 modem). You see this when a 14.4kbps modem gives you a 1,700cps transfer rate for a ZIP file (1440cps * 1.185 = 1,706cps). Since V.FC modems have several fall-back rates (which we will discuss below) the following chart (*See Table 1, opposite*) will let you know the actual transfer rates you will see with compressed files.

Note that individual files may go a bit faster or slower than this (just as you see with 14.4kbps V.32bis modems) but non-compressible files will centre around these numbers. You will find that by doing a download and matching your cps meter you can see the modem change carrier speeds if it does, and even tell what speed it switched to just by the transfer rates.

V.FC modems that run faster than the 21.6kbps are really looking to find a "better than spec" telephone connection. So the question arises, "in the real world, what kind of speeds do I reliably see?" Our testing on

These modems are hot!!! They represent a quantum leap forward in transmission

The Proposed New V.FC ("V.34") Standard

this issue is preliminary, but we've tried to do a lot of it in the time we had available.

Local Calls:

What we see is that on cross-town connections you can really get a 28.8kbps connection about 80% of the time. Some particular central offices will not do this as often, and tend to only give you a 24kbps connection. It can sometimes take two or three calls to get the maximum connect rates. 16.8kbps was the lowest we ever saw with 21.6kbps being normally the worst any circuit would give.

Long Distance Calls:

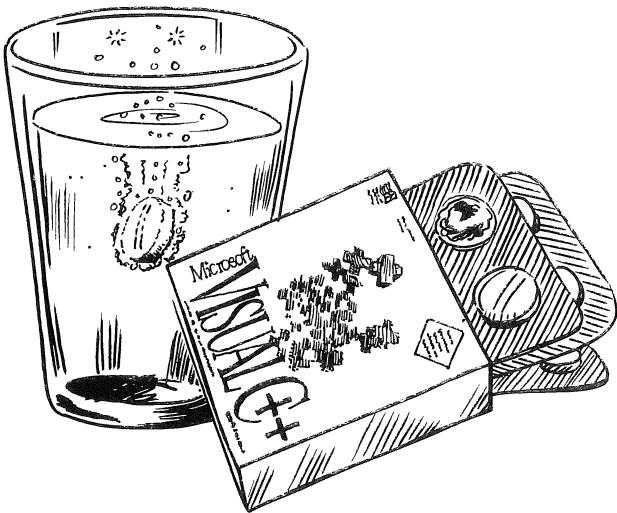
Long distance calls seem to fall into categories based on where in the country you are, and where you are calling. But even here, it seems to vary day to day. All circuits we tried were usually capable of 24kbps and this was the most frequent connect speed we saw. We did manage to get some 28.8kbps connects on every circuit we tried. Some circuits did this easily, with only one fall-back on "bad" calls, while others did this rarely and were more likely to give 21.6kbps and 24kbps connections.

Automatic speed adjustment

One very nice feature of the V.FC modems is that they "fall forward" without a significant delay. So if the lines "get better" the modem will switch to a higher speed automatically. In our testing we saw this happen frequently and there was no evidence of any problems with the modems staying "in sync" with each other through this process. When the modems "fall

back" to a slower speed they do a full retrain operation the same as a V.32 or V.32bis modem so there is about a 30 second stoppage in data flow when the speeds are reduced. Again, the retrains seemed to have no problems losing connections and overall this process looks to be as good as or better than the V.32bis modems in similar circumstances.

Continued over



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Table 1. Transfer Rates

| Carrier Speed | Nominal non-compressing Transfer rate in cps |
|---------------|---|
| 28.8kbps | 3,412cps |
| 26.4kbps | 3,128cps |
| 24.0kbps | 2,844cps |
| 21.6kbps | 2,559cps |
| 19.2kbps | 2,275cps |
| 16.8kbps | 1,990cps |

Overall Assessment

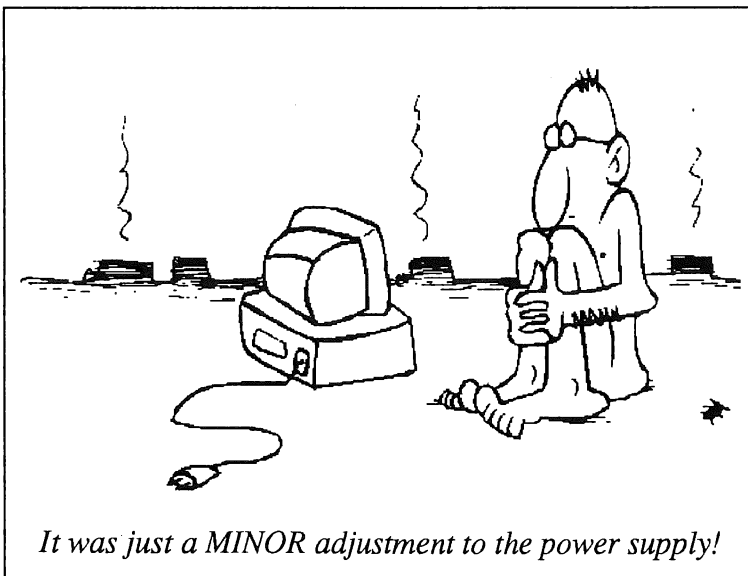
These modems are hot!!! They represent a quantum leap forward in transmission speed and they make yet another category of applications realistic to do on-line. The V.42bis text compression makes an average text file transfer at 7000-8000cps (25% faster than ISDN speeds) so menus and other text displays "snap". In fact, they are usually limited by the terminal software's video display speed which is almost always slower than the transfer speeds for most terminal programs. We transferred some large TBDS .DBF files which always compress well and saw transfer speeds as high as 11,200cps! But in the real world of BBS use, compressed files are the norm, and the 3300cps speed is what really counts. This is double a V.32bis modem and the difference is enough to emotionally affect you when you see it. Even with a 57kbps interface, these modems will provide a full 3300cps transfer rate for compressed files, and a 5600cps or better transfer rate for menus and text.

Comment

Australian phone lines may not have the same bandwidth as US lines so local results may vary.

V.FC is being promoted as an "industry pre-standard" and is claimed to have the support of over 125 modem manufacturers. It is expected that many Asian V.FC modems may arrive on the Australian marketplace. Readers interested in purchasing such a modem should satisfy themselves that the local dealer will be able to supply an upgrade for their modem when the V.34 standard is ratified.

Also remember that it is an offence to connect a NON-Austel-approved modem to the public telephone system.



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Lindsay & Nettie Bates

Brisbug Goes North (twice this month)

Reported by Ron Lewis

First Stop Bundaberg

Continuing its tradition of keeping in contact with associated clubs, Brisbug made two visits north in the past month.

Firstly, President Lloyd, VP Graeme, Education Co-ordinator Rex and Editor Ron, visited Bundaberg to conduct an all-day workshop for the Bundaberg PC User Group.

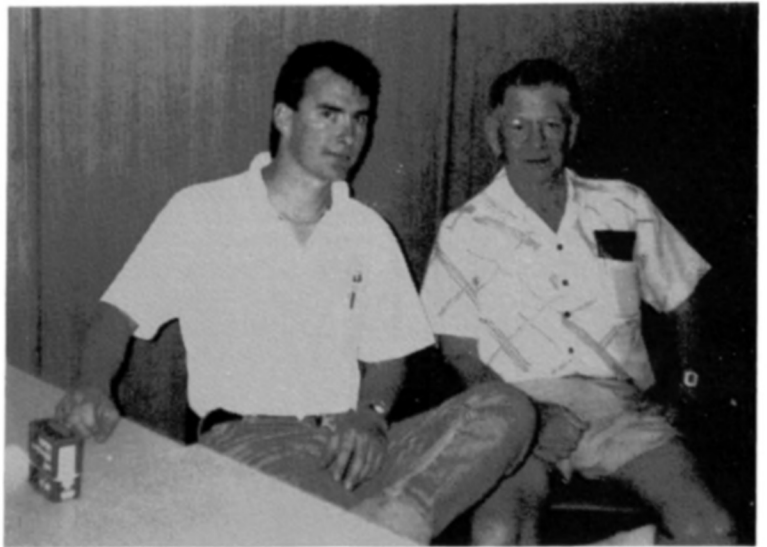
In the scenic surrounds of the Bundaberg Rowing Club, the site of their normal monthly meetings, right on the river, about 100 members and potential members listened to presentations and demonstrations ranging from Upgrading your Computer, to Computers for Fun, Entertainment, and Education, to demonstrations of telecomputing. Graeme was fortunate in his demonstration of Globalnet to be able to talk on-line with a number of USA members of APCUG, who were still awake despite it being the middle of the night over there.

Rex Ramsey did an Intro to Computing talk for the new members of BPCUG and a talk on BASIC

Local business also supported the day, with Dick Smith Electronics mounting a "stand" with multimedia

demonstrations running all day.

Thanks to the generosity of Microsoft (Brisbane) who donated a copy of "Flight Simulator V5" (which was at that time extremely rare in Oz), a very successful raffle covered the cost of the facilities for the day.



Chris Kelly and a helper man the registration desk and raffle counter. The raffle raised in excess of \$150.



Bundaberg's BBS Sysop, Chris Kelly, and Vice President, Bob Wright, concentrate on Graeme's efforts to contact Globalnet



With Lloyd Smith as foreman, BPCUG President, Merv Hersom assists Rex Ramsey (right) in trying to install a CD-ROM drive... all to no avail (wrong controller type)



Bill Young, Caloola's Librarian, spent much of the day copying our shareware disks to expand his library



Rob Neary of Ramware displayed the latest in sight and sound educational programs. Not only the kids were fascinated!



Brisbug President, Lloyd Smith acts as Quality Control Officer for Secretary Carl's lunchtime BBQ (is that why you had five burgers, Lloyd, or did you miss breakfast ?)

Several impromptu workshops were also run, the challenge of the day being Bundaberg President, Merv Hersom's attempts to set up his cherished new CD-ROM/Sound card combination. (It turned out to be an impossible job, the CD-ROM was a SCSI, the sound card an AT type, a classic case of stupid dealer who didn't know the importance of the difference)

All present voted the day a success, with BPCUG signing up a good number of new members. although Brisbug was not touting for members, we also signed up two.

It was purely coincidence that the Bundaberg Rum Festival was on the same weekend... but that did explain why the fireworks appeared on Saturday night (we didn't *really* think they were for Brisbug's visit.

And then to Gympie

Two weeks later, the Brisbug Road Show was in Gympie, visiting the Caloola and Districts PC User Group.

This small but enthusiastic club, which includes many faces familiar at Brisbug's monthly meetings, uses the premises of the very well-equipped Gympie SkillShare. Facilities include two computer rooms with both PCs and (the dreaded) Apples, and separate lecture room. For the day, Caloola Secretary Carl was designated to set up lunch-barbequeing facilities in the car-park (see the photo opposite).

About 100 people attended on the day, to hear presentations by Brisbug (Ron, Lloyd, Graeme), multimedia displays by Rob Neary of RAMWARE, and a description of courses by the Gympie TAFE's computer teacher. Jan Ausburn was able to help the Caloola administrators with advice on membership matters.

Rob Neary was called on early in the day to come to the aid of the other lecturers when the overhead projector used with the display pad (you've seen the equipment in use in the junior club and Rex's classes on Brisbug Sundays) developed a very loud sizzle, then died about 15 minutes into the first lecture. While Ron Lewis carried on with the lecture like he wasn't going to use the projector anyway, Rob's magnificent 50" monitor was hooked up to our computers, so the audience could see what was happening

An unusual feature of the day was Rex Ramsey's two hands-on introductory sessions ... in the morning on DOS, the afternoon covering Windows. Using the computers in one of the workshops, Rex entertained and informed a constant-sized crowd of ten new users.

Rex Ramsey's introductory classes ran all day and were very popular with a floating population of about 10 present most of the time. The morning class covered DOS, including useful utilities. The afternoon session covered Windows, including basic fault finding and crash recovery.



Why is Graeme smiling? While he's distracted, Dorothy Ross, Caloola PCUG President, (macadamia) nut lady, and school bus driver extraordinaire, is trying to kidnap his banana split - its fate in dire distress. Maybe he's seen a grub in the crushed nuts garnish.



The audience at Gympie included some familiar faces from Brisbug meetings. Also visiting were several Bundaberg members (note Chris Kelly in the second back row). It's great to see the smaller clubs mixing together

It seems to be working now! While Ron tries to pretend nothing is happening, Graeme (acting as technician) is furiously swapping connections to provide a visual display after the failure of the OHP used to power the projection pad. Thanks to Rob Neary's herculean effort in carrying his 50" monitor up three flights of stairs, we were able to carry on. Our offer to carry the monitor back down, provided we could keep it for Brisbug, was politely (like hell) declined.



News of Associated Clubs

Collected by Ron Lewis

INNISFAIL PC USER GROUP

PRESIDENT: John Brennan
10 Tulip St. INNISFAIL (Ph.070 613 286)
VICE-PRESIDENT: Hugh Pittman
c/- T.A.F.E. College
SECRETARY: Lyndell Coianiz
10 Stanwell St. BABINDA (Ph.070 671 301)
TREASURER: Donna Barletta
P.O.Box 523. INNISFAIL (Ph.070 612 014)

PRESIDENT'S REPORT (1993)

Hugh Pittman's Computer exhibition was an outstanding success, and has resulted in an influx of new members to our group. We must ensure that members do not, in future, leave the group because they are not improving their computer expertise. This can only be done by paying attention to their needs. We have been unsuccessful in the past in securing

the services of a Special Interest Group Co-ordinator.

To ensure that in the coming year we WILL, in fact, have such an officer, I do not intend to seek a further term as your President. This post can be easily be taken over by another, leaving me free to devote my attention to the Special Interest Groups, assuming I am elected.

In order to ensure that we continue to enjoy the use of these excellent facilities, we must

1. Be sure that each and every one of us registers in the new year with the college as a student of the Computer Appreciation Course as well as renewing your membership with the group.

2. Help to promote our PC User Group. Be sure that you spread the word about our group to others you come across who are also interested in our hobby. If we do not keep our numbers up, numbers will dwindle to the point that it will not be a feasible

Want to publicise your club? Send your news the editor, preferably on disk (any size).

ASSOCIATED CLUBS DIRECTORY

| Club Name | Centred in | Telephone | Contact |
|-------------------------------------|---------------|-------------|------------------|
| Coffs Harbour Computer User Group | COFFS HARBOUR | 066-538283 | Janell Rose |
| Gold Coast SIG (of Brisbug) | MERRIMAC | 075-710113 | Joanne Ellis |
| Dalby PC Users Group | DALBY | 076-621381 | Peter Allen |
| Beaudesert Computer Club | BEAUDESERT | 075-411050 | Bernie Williams |
| Pine Rivers IBM Compatibles C C | STRATHPINE | 07-8881452 | B Schultz |
| Sunshine Coast Computer Users Group | MOOLOOLABA | 074-914680 | Ernie Camilleri |
| Landsborough Computer Club | LANDSBOROUGH | 074-923205 | |
| Noosa Hinterland PC User Group | COOROY | 074-852052 | Colin Sheehan |
| Kenilworth Computer Users Group | KENILWORTH | 074-460328 | Peter Webb |
| Cooloola District Computer Club | GYMPIE | 074-833881 | Dorothy Ross |
| Fraser Coast Computer Club | HERVEY BAY | 071-212394 | Steve Bottom |
| Bundaberg PC User Goup | BUNDABERG | 071-531449 | Bob Wright |
| Gladstone QRI Computer Club | GLADSTONE | 079- 723083 | Dave Franklin |
| Gladstone Computer Users Group | GLADSTONE | 079-783941 | Cec Wilmott |
| Rockhampton Group | ROCKHAMPTON | 079-282554 | Nick Quigley |
| Mackay Computer Users Group | MACKAY | 079-573998 | Gabriel Barbare |
| Burdekin Computer Club | AYR | 077-834630 | Rod McRae |
| Townsville Computer Users Group | TOWNSVILLE | | |
| Johnstone PC User Group | INNISFAIL | 070 -671301 | Lyndelle Coianiz |
| Cairns PC User Group | CAIRNS | 070-577997 | John Hampson |

proposition for the College to continue with our course. (They have a minimum number for course participation).

The projection unit has allowed us to view a couple of programs, and it is hoped to make further use of this facility to demonstrate various Shareware utilities and other programs in which members have been seeking further knowledge.

The College has, as from January this year, become a corporate member of BRISBUG, thus saving our group that expense. This means that you, as College students, may borrow copies of the "SIGNIFICANT BITS" (BRISBUG) magazine to read. (The catalogue of Shareware programs available from Brisbug is accessible to our members on our library hard disk).

Our library has been gradually extended, and could be added to considerably by taking advantage of the occasional use of one of the College's CD-Rom units, by purchasing our own CD-Rom disks of Shareware.

I have brought along this evening, a copy of the catalogues contained on the three CD-Roms purchased last year by the Cairns Group. You may copy these and browse through them. They will give you an idea of the range of software available. As each CD-Rom disk contains in excess of 500Mb of Shareware, we may be able to look forward to a greatly expanded library. (A demonstration, using the overhead projection unit, has been arranged for this evening to browse through the Cairns Club disk catalogues. If we should procure our own CD-Rom disks, we will be able to exchange disks with Cairns, and, in that way, expand our library even further to possibly something like 3 gigabytes plus!!

We will, this evening, determine the venue and format of our end-of-year social get-together, which I hope you will all be able to attend. Hugh Pittman has kindly extended the use of his new home and swimming pool at Sundown Road for this event. (Location diagram on board).

During the evening we will be drawing the winner of the dBASE IV package, kindly donated by Borland.

Thank you all for your co-operation to date. Whoever you elect as your new President will receive my full support in every way possible. I look forward to seeing you at the end-of-year social.

Landsborough Club

Would the member who kindly supplied details of the Landsborough Computer Group, please send them to me again as my system (what system???) has eaten them - *Editor*

Dalby Computer Group

The Dalby Personal Computer Users Group meets in one of the computer rooms of the Dalby High School at 7:30 pm on the forth Thursday of the month.

Sunshine Coast Computer Users Group

Congratulations to Ernie Camelleri on his election to the position of President.

The SCCUG meet on the first Monday of the month at Caloundra State High School. They are actively seeking new members.

Ernie is a regular at Brisbug Sundays... he's the big guy often seen talking to Ron Lewis

Gladstone QRI Computer Club

Our spies tell us that ex President, Dave Franklin, has been spending a lot of time on Heron Island lately. Claims that a new customer of Franklin Technologies is having printer problems.

How do you fix a laser printer with a fishing rod, an Esky, and two packets of pilchards, Dave?

Long-Distance member

One of Brisbug's more distant members, took the opportunity to pay us a visit at the Computer Expo, recently.

Long-time member Ron Hammersley (pictured below) is a computer consultant based near Kempsey on the mid North Coast of NSW, but occasionally visits the "big smoke" (if you can call Brisbane that) to keep up to date with what's new.



DayINFO - First Impressions

by Rex Ramsey

I would describe DayINFO as a free-form database, a file manager, and a substitute for Program Manager

I have called this evaluation "First Impressions" because in my opinion it is impossible to learn how to use a program in a few weeks.

The program comes in a well manufactured box with a brief resume of the features of the program and the System Requirements neatly printed on the back of the box. Open the box and there are two books and two 3.5" HD floppy disks containing the program and a tutorial. One book is the User's Guide and the other the text of a tutorial.

Easy installation

Chapter 2, *Getting started*, in the User Guide has a clearly written itemised list on how to run the setup. From program manager select <Alt> F R, then type A:\ Setup and follow the instructions on the screen. The setup program allows the user to determine the directory to be used, C:\DAYINFO is the default. You are also advised on one panel that *SETUP* will also make a program group.

Starting up

Start DayINFO by double clicking on the DayINFO icon and you are away. There is a small part telling the user how to exit the program and there is also a warning which I think should be in all manuals. The warning is:

WARNING: Never switch off the computer without exiting the program. Irreparable damage could be done to stored information!

The rest of the manual is well laid out and very helpful.

The on-line tutorial

The tutorial menu clearly states the steps needed to run the tutorial. Following through the tutorial certainly helps the user to understand the program. The examples used could be modified for individual use.

What does the program do?

I would describe it as a free form database, a file manager and a substitute for Program Manager that can access all types of programs and readily find information for the user.

One tutorial example is a business database, while the other is a database of the planets and moons of the solar system. As well, the user is shown how to set up the program to act as a program manager so that it can launch programs.

Operation

The program uses data files to operate. A data file can consist of one or several or all of the following item types.

- Field
- Record
- Note
- Program
- Viewer
- Sound.

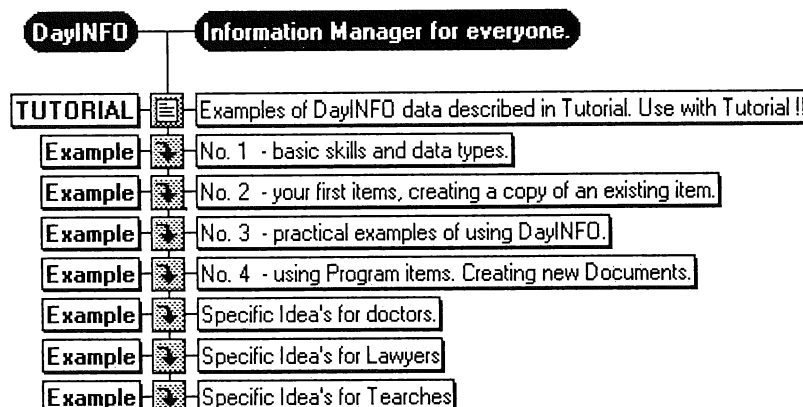


Figure 1.
The Tutorial menu
screen

Evaluation
Program
supplied by
WINTek
Computers
Limited.

* Free-form DATABASE

* Program Manager

* File Manager

...and Australian-written, too

Each of these types except the field, consists of a tag, a symbol denoting the item type and a description.

Field

The field consists of a tag and the description.

The Tag could be a phone number, an address, FAX No, or piece of information that does not normally change. You can have many fields.

Record

The record leads to other items which can be any of the 6 shown or combination of them. The advantage of the record is that it is one line until opened then the other items are revealed. If one of the items is a record then it too can be expanded.

Note

Opens an editor and allows the user to write a note about something. The note is restricted to a maximum of 14,000 characters (about 3 pages of this magazine).

Program

This item allows the user to open a program with and load a file for use. eg. Load Word for Windows with a template or a document often used.

Viewer

The viewer will display the following Image types from within the program (*this information is as shown in the user manual and I have not been able to check all images.*)

BMP All uncompressed BMP images are supported.

PCX Supported image types:

- monochrome
- 16 colour
- 256 colour
- 24-bit colour

TIFF Supported Compression types:

- uncompressed
- LZW
- Packbits

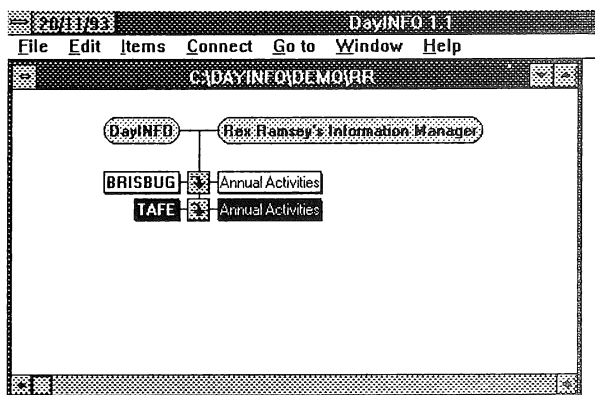


Figure 2. The Big Picture - a year at a glance

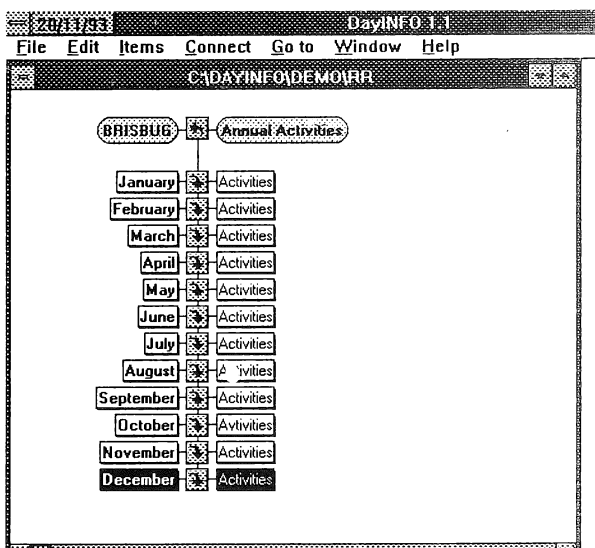


Figure 3. In more detail, a summary of the author's Brisbug activities for the year.

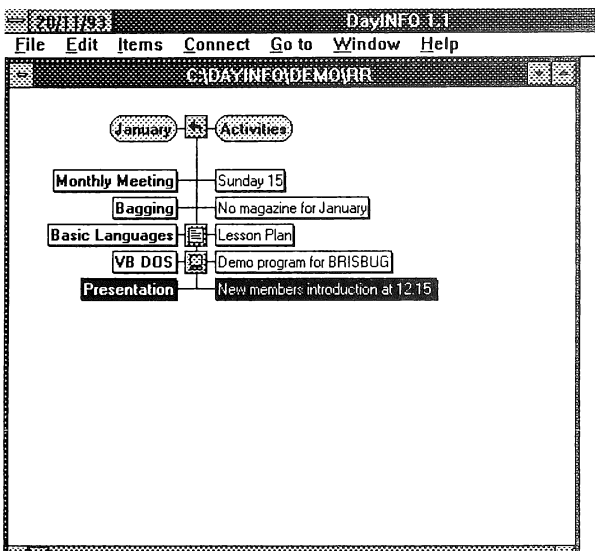


Figure 4. More detail again... Brisbug January, 1994

The BIG PICTURE

Looking CLOSER

The FINE PRINT

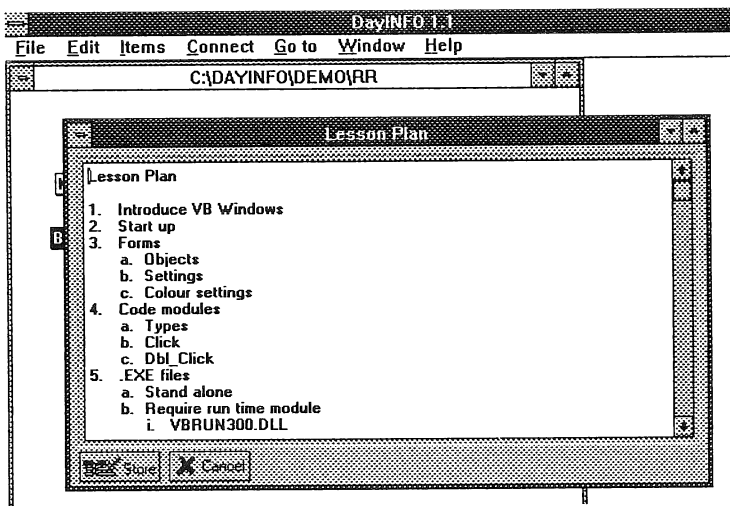


Figure 5. Expanding the BASIC Languages icon, the author has used the word processing function to develop his lesson plan for the January lecture

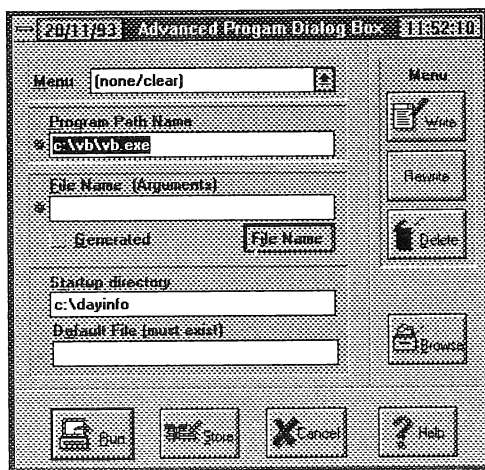


Figure 6. Showing DayINFO set up as a program manager, ready to launch VisualBASIC for Windows

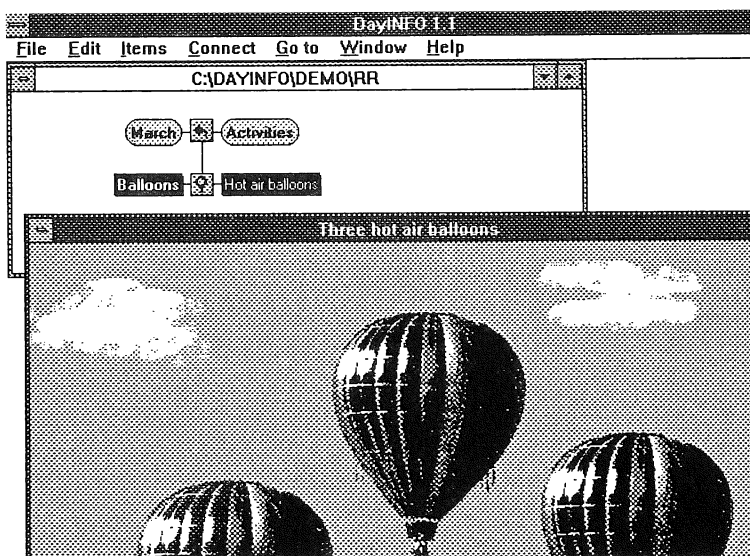


Figure 7. Showing DayINFO in another guise as graphics file viewer

- Modified Huffman encoding
- CCITT Group 3 1D
- CCITT Group 3 2D
- CCITT Group 4

Supported colours:

- monochrome
- 256 colour
- grayscale
- 24-bit colour

GIF All non-interlaced GIF files are supported.

WMF Only metafiles which conform to the Aldus Placeable Metafile Format are supported. Most applications which export or import metafiles support this format.

Targa All 8, 16, 24 and 32 bit images are supported. Version 1 & 2 of the file format are supported although compressed images in V 1.00 format may take longer to display than Version 2 images.

Sound

This version comes with a sound capacity, but the manual does not cover its use. This information will no doubt be in the new manual.

How do you use it?

Start up the program and select *new* from the file menu.

Then press <insert> and a window opens which allows the user to add the particular item type required. When the first is finished then <insert> enters another and so on and on.

As a trial I made up a list of BRISBUG commitments for the year and each month was a record. Within that record were:

A field showing when the next meeting was

A note with a lesson plan for the Basic Language class

A field to show when the next magazine bagging session would be held.

A program item that opened VB and loaded a program which would be worked on and used in the next basic lesson.

A field showing presentation.

Once one month has been completed all the details can be copied and edited for the next month. *Saves a lot of time.*

You can also delete any item from your list, but

BEWARE!!, you can delete .EXE files from your hard drive. The item box *does* warn you, although it could be overlooked or misread.

The manual says use your imagination and you can do that.

Why not:

- Set up a GIF or other viewer with a catalogue
- A series of programs that you normally use and run them from DayINFO.
- A diary.
- A to do list.
- Catalogue your programs.
- Catalogue your books.
- Run a limited project planner.
- Get all your FAXes under control.

OR ?

The program database is free form and has a capable search function as well as edit, copy, delete and join data to mention a few of its capabilities for the developer.

Use the manual, use the tutorial and try your ideas with the program.

All actions required have their own windows and sub windows which allows the user to quickly set up programs to run, find files, edit, copy, delete and sort files.

Printing

You can select a variety of ways to print out the contents of a database. It comes out as a text file.

HELP

Context sensitive help is available at all levels while there is the standard windows program help from the main window.

Overall Impression.

I think that it is a very good program if you want another file manager, program manager or you just want to get rid of those icons. You will still need to know your way around your hard drive and directories to use the program correctly. And finally it is **Australian Made.**

The Company representative I spoke to said that the voice type had several new features which are not covered in the manual and I would like to see more of them. Perhaps the company will be given the opportunity to provide a demonstration of the program to members at a future meeting. ○

Editor's note: Wintek will be at our February, 1994 meeting to demonstrate the network-compatible version which includes DDE-like file linking.

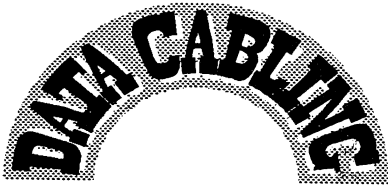
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Disaster Recovery

Ron Wilby.

Hello, to all beginners and to anyone else who is patient enough to read this stuff. Last month you had made a basic "start-up" disk, which would boot your computer in case your normal start-up procedure doesn't work. Now we need to prepare for the day when you lose all the files on your hard disk. This can happen due to virus attack, unwise use of the *FORMAT* or *DEL* (*Erase*) commands or hard disk failure. Getting back in business involves four steps.

1. Restart your computer using your emergency start-up disk.
2. Re-format or replace your hard disk, as required.
3. Reload your applications programs (wordprocessor, database etc.) on to your hard disk. For this you will use the disks copied from the disks you bought. Hopefully you made these copies when you purchased the original Application Programs.
4. Use your Backup and Restore Program to restore your data to your hard disk. This should put you (nearly) back to where you were. To do it you need something more than a basic "Startup" disk. Let's see how you can make a "Disaster Recovery Disk."

Formatting

Before we can make a Recovery Disk, we may have to do some Formatting. This means taking the piece of virgin plastic with magnetic coating, (e.g. a new floppy) and making it ready to be used by a DOS system. You can only write to, and store information on, disks that have been formatted. To Format a disk you type

FORMAT A: (or B: but *never* C:)

next to the DOS prompt and press *Enter*.

The formatting process must be appropriate to the drive and the disk you are using. Thus you cannot format 360 kB floppies in a 1.2 MB drive unless you tell the drive you want the disk formatted to 360 kB. You do this by attaching "switches" to your command. These switches are letters or numbers added to the command, like the *FORMAT A: /S* command we used last month to make your basic startup disk, called a "system disk." This is a disk that contains, in particular special positions, the "System Files." These files are the Command Interpreter, called *COMMAND.COM*, the "heart" of DOS and two "hidden" files associated with the startup procedure.

The actual formatting is done by a program supplied with DOS called *FORMAT.COM*, which many people delete from their hard disk or rename as something like *FORMAT!!.COM*. Why?

Before DOS 5, *FORMAT.COM* deleted everything already on the disk and recovery of your programs and data was a job for experts who were not always successful. Note that DOS 5 and 6 provide a "safe" format and an "unformat" command, although there is still a destructive format available. PC Tools and some other utilities also provide "safe" formats. **Users of earlier DOS versions beware of the deadly *FORMAT*.**

Many times my phone has rung with anguished calls for help after its unwise use.

The default drive is the one that shows at the DOS prompt, so if your prompt is *A:\>*, the default drive is *A:*. DOS will use the default drive to carry out commands and look for programs unless you tell it otherwise. You can change the default drive by typing *B:* at the prompt and *Enter*. The prompt will change to *B:\>* and DOS will look on the *B:* drive for programs and commands. The most common default drive is *C:*, your hard disk, and here lies the danger of the *FORMAT* command. If you don't specify a drive after the command *FORMAT*, you will format the default drive, usually *C:*, so you lose the contents of your hard disk. **Yes, everything!**

All you have to do is type the word *FORMAT*, the phone rings and you forget to type a drive name, press *Enter* and bingo, it's all gone. There are several switches with *FORMAT*, and they vary somewhat with different DOS versions, so check your Manual. Some switches allow you to give the disk a label, or put system files on the disk that is then called a "System Disk." That's what the */S* switch did last month. You can boot your computer by putting a System Disk in drive *A:* before you switch on the power, and that is exactly how our Disaster Recovery Disk will be used.

The Copy Commands

We are now going to work from the DOS Command Line, which means the line where the DOS prompt appears. It looks something like *C:\>* followed by a short blinking line. The name of the directory you are in may also be in the prompt, as in *C:\MAGFILES>*. What's a directory? I'll have to leave that for now. The DOS prompt is DOS saying to you "Type your commands here, Master."

Ron Wilby takes a beginner's look at some common DOS commands

There are three copy commands in DOS. Let's look at them. They are *DISKCOPY*, *COPY* and *XCOPY*.

DISKCOPY

You should have used this command to make working copies of the disks that came with your original program(s). Write-protect copies and originals by sticking the silver or black tabs (5.25-inch size) over the notch in the side of the floppy disk; for 3.5-inch disks move the write-protect tab over. Beware of *DISKCOPY*. It will copy everything on a floppy disk in A: drive to another disk; everything, including bad sectors of the disk, corrupted files, you name it. *DISKCOPY* makes an exact copy and it formats the target disk as it copies, so any data you had on that target disk will be lost.

The command you issue (type at the prompt) is

```
DISKCOPY A: B:
```

which means copy exactly the disk in drive A: to the disk in drive B:. Don't worry if you only have one floppy drive. DOS then regards your drive as A: when copying from the Source disk but as drive B: when copying to the Target disk. Thus you have one physical drive but its name to your computer (called its logical name) depends on which disk is in it. As *DISKCOPY* works, DOS will instruct you to change disks when necessary. Clever, isn't it?

Here is where you must learn to talk with your computer. You talk to it by typing commands, the computer talks back to you by on-screen messages. **You must read these messages**, else disaster will strike. When you issue the *DISKCOPY* command, the computer (DOS) will say

```
"Insert SOURCE diskette in drive A:"
```

```
"Insert TARGET diskette in drive B:"
```

```
" Press any key to continue
```

DISKCOPY will start working. Please note that any key should perhaps read "any character key." The space bar works here, but the three shift keys, *Shift*, *Ctrl* (control) and *Alt* (alternate) do not qualify as "any key." You can type

```
DISKCOMP A: B:
```

which compares the source and target disks, to verify that you have an exact copy. If it isn't, you will get messages like

```
"compare error track 47"
```

and you need to try again.

COPY

COPY is just that. The Syntax (up-market jargon for how to make DOS understand what you want) is

```
COPY {Source filespec} {Destination filespec}
```

So what's a *Filespec*? It's the address where a file can be found, and every file on all your disks has

a unique *Filespec*, just as every house in your city has a unique address. An example is the file from which this article was created. The file's full address is C:\MAGFILES\BEGBYTE2, which says that the file is located on drive C: in the directory called MAGFILES and its name is BEGBYTE2. An example of using *COPY* would be the command

```
COPY MYFILE A:
```

which copies *MYFILE* from the default drive to the disk in your A: drive. Another example could be

```
COPY MYFILE A:YOURFILE
```

which copies *MYFILE* to a file called *YOURFILE* on drive A:. But what if DOS can't find *MYFILE*? The computer will say to you

```
"File not found. 0 file(s) copied"
```

This happens because you have not used the full *Filespec*. You may have to use the full address, like C:\WORK\MYFILE.

Use the command

```
COPY MYFILE PRN
```

to send that file to the printer, which DOS calls PRN or sometimes LPT1. *COPY* is rather slow, and if you have only one floppy drive and big files, there is a lot of diskswapping involved. This means you must be careful to put the right disk in, or some files could be lost.

XCOPY

In my early days I didn't know about *XCOPY*, but I have since discovered it offers many advantages over *COPY*. For a start it works much faster than *COPY*, it can copy whole directory trees (we'll talk about these later) and it can be made to copy only those files that have been updated since the last *XCOPY*. There is much less disk-swapping since *XCOPY* reads as many files as possible into memory before it starts dumping them onto the target disk. If, for example, you want to take home all the files in a particular directory (section) of your hard disk, use *XCOPY*. You will need to add some "switches" to *XCOPY*, so you might type *XCOPY/V* where the /V part is known as a "switch." This particular switch verifies the copy being made, so if you type *COPY/V* or *XCOPY/V* DOS will check the copy for accuracy and correct any errors. Trade-off, of course, adding N slows the copy process. An alternative is to use the *COMP* command. *COMP* will compare your copy with the original, to ensure an accurate copy. Refer to your DOS Manual for the available switches and how to use them, or look at PC Update Nov. 1989, which has an excellent piece by Fritz Lang on this subject.

Well, that's all for this month, and we still haven't made that Disaster Recovery Disk. But, we're getting there. So, next month...

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Learning Assembly - Part 3

Carlo Hamalainen

This month, I'll show how to access the disk using assembly.

FCBs

To understand how to use the disk using assembly, you need to know what an FCB (File Control Block) is. FCBs are fairly horrible things brought over from the days when the CP/M operating system was used. Figure 1 shows an extended FCB. One of the biggest problems with this (personally) is that you can only have a filename of 8 characters with 3 characters of an extension. I've used UNIX on a SPARCstation, and on that system, (or any UNIX system) a filename can be up to 255 characters long. Not only that, but you can have upper and lower case. Therefore, there's no-one saying that you can't have a file called "MailBoxOld.TextforVI". Files can even start with a ".", like ".login", ".Xauthority", etc. But enough of UNIX. This is supposed to be a tutorial on assembly with DOS files, so back we go to technology from the stone age.

From DOS 2.0 a new system that allowed for a hierarchical directory system was introduced (nicked off UNIX where it had been for several years). It uses an ASCIIZ (NULL terminated ASCII) string to

point to a directory where the file is. Another thing that came with this development was the fact that devices could be accessed in the same way as a file. Figure 2 shows these devices.

The first thing to do to access a file is to open it, and Figure 3 shows this. In fact, Figure 3 also shows how to close a file. This program is fairly straightforward. After it has declared the two messages, it declares an ASCIIZ string for the file name. The ,0 at the end makes it null terminated. If you want to, you could use something like

```
FName DB 'C:\RUBBISH\TEST1.DAT',0
```

to create a file in the RUBBISH directory and call it *TEST1.DAT*. Next, the file's handle is declared. This has to be a double word (two bytes). The program uses int 21h, subfunction 3Ch, which creates a file. If the file exists, it is effectively deleted and then created again, with nothing in it. After it has called the interrupt, you can check if there was an error by checking the carry flag. If it's set, there's been an error. Otherwise, everything's OK.

Then, depending on whether there's been an error or not, the program prints one of two messages and quits. One thing that you have to remember when creating and opening files is to close them after they've been used. This is easily done with int 21h, subfunction 3Eh. You just have to give BX the handle of the files you want to close, and that's it.

You'll probably also want to open a file without destroying its contents, and the code required to do it is as follows:

| Offset | Length | Use |
|--------|--------|--|
| 00h | 1 | Flag to DOS to say this is an extended FCB |
| 01h | 5 | Reserved |
| 06h | 1 | File attribute |
| 07h | 1 | Drive (0=A,1=B,2=C,etc). |
| 08h | 8 | Base file name, left justified |
| 10h | 3 | File extension, left justified |
| 13h | 2 | Current block number |
| 15h | 2 | Record size in bytes |
| 17h | 4 | File size in bytes |
| 18h | 2 | Date last written to |
| 1Dh | 2 | Time last written to |
| 1Fh | 8 | Reserved by DOS |
| 27h | 1 | Current record number |
| 28h | 4 | Random record number |

Figure 1. DOS extended FCB

| Name | Use |
|-------|---|
| AUX | Standard auxiliary device, usually COM1: |
| CLOCK | The system clock |
| CON | CONsole (the keyboard) |
| NUL | A black hole - anything sent there disappears, and anything read from there returns NULL |
| PRN | The printer, usually LPT1: |
| LPT1: | First parallel port, goes up to LPT4: |
| COM1: | First serial port, goes up to COM4: |

Figure2. Standard PC devices

This month Carlo looks at accessing the hard disk using assembly language

```

.MODEL large
.STACK
.DATA
Msg DB 'File Opened OK'
Error DB 'File Open failed'
FName DB 'FIGURE3.TXT',0
NameHandle DW 0

.CODE
.STARTUP
    mov     ah,3Ch
    mov     cx,0
    mov     dx,OFFSET FName
    int     21h
    jc      OpError
    mov     NameHandle,AX
    jmp     NoError

OpError:
    mov     bh,0
    mov     bl,07h
    mov     dh,0
    mov     dl,0
    push    @data
    pop     es
    mov     bp,OFFSET ES:Error
    mov     cx,16
    mov     ah,13h
    int     10h

.EXIT

NoError:
    mov     bx,NameHandle
    mov     ah,3Eh
    int     21h

    mov     bh,0
    mov     bl,07h
    mov     dh,0
    mov     dl,0
    push    @data
    pop     es
    mov     bp,OFFSET ES:Msg
    mov     cx,14
    mov     ah,13h
    int     10h

.EXIT
END

```

Figure 3. Creating/Opening and closing a file

```

MOV     AH,3Dh
MOV     AL,OpenCode
MOV     DX,OFFSET FileName
PUSH    @data
POP     DS
INT     21H

```

Figure 4 shows the bits to set on or off for OpenCode. For example, to open a file for reading, use 11000000b.

| Bits | |
|----------|---|
| 76543210 | Meaning |
| 0 | File is inherited by a child process |
| 1 | File not inherited |
| 000 | Sharing mode - complete access |
| 001 | Sharing mode - exclusive access |
| 010 | Sharing mode - deny others write |
| 011 | Sharing mode - deny other read |
| 100 | Sharing mode - allow others full access |
| 0 | Reserved - set to 0 |
| 000 | Open for read access |
| 001 | Open for write access |
| 010 | Open for read/write |

Figure 4. File mode (use when opening)

Reading and Writing

To read from a file, just use the following code:

```

MOV     AH,3Fh
MOV     BX,Handle
MOV     CX,BytesToRead
PUSH    @DATA
POP     DS
MOV     DX,OFFSET Buffer

```

On return, just like opening a file, the carry flag will indicate if an error has occurred. If you want, you can use int 21h, subfunction 59h to get more detailed error messages.

This above code fragment reads the number of bytes in the variable BytesToRead, into the Buffer array, from the file associated with Handle.

To finish off this month's article, I've included a listing from Advanced Assembly Language called SHOWFILE. I had to modify it slightly to work with TASM 3.0, since it's written for MASM 6.0. It shows how to open a file, read it, display it and close it. To use the program, supply it a path and filename:

```
SHOWFILE C:\CONFIG.SYS
```

This will display your CONFIG.SYS file, pausing at each page. (See Figure 5 over)

```

.MODEL small
.STACK ;Default 1Kb stack is OK
.DATA
TRUE EQU -1
FALSE EQU 0
BufSize EQU 2048

WorkDir DB 129 DUP(0)
Handle DW 0000
NumBytes DW 0000
EOF DB 00

Pause DB 'Press any key to continue...',0
ErrMsg DB 'Bad file name, path not found, or access
          denied',13,10,0

.CODE
.STARTUP
ShowFile PROC

MOV AL,ES:[80h] ;Get length of command tail
CMP AL,0 ;Is there a command tail?
JE AllDone ;Nope, so exit completely
CALL Xfer ;Go transfer command tail

; The following memory allocation code works because it is
; known that MASM sets DS and SS to the same segment address
; in the startup code. Also, ES is set to the PSP for the
; program upon entry.

MOV BX,DS ;Point to start of data segment
MOV AX,ES ;Point to start of PSP
SUB BX,AX ;Number of segments for code & data
MOV AX,SP ;SP is pointing to top of stack area
MOV CL,4 ;Dividing by 16
SHR AX,CL
ADD BX,AX ;BX=paragraphs needed
MOV AH,4Ah ;Modify memory allocation
INT 21h

MOV AH,3Dh ;Open file
MOV AL,40h ;Full sharing, read only access
MOV DX,OFFSET WorkDir ;Point to start of file
                           name
INT 21h
JNC FileOpen ;No error, continue
MOV SI,OFFSET ErrMsg ;Point to message to display
CALL PrtString ;Display the string
JMP AllDone

FileOpen: MOV Handle,AX ;Store handle for later
MOV AH,48h ;Allocate memory
MOV BX,BufSize/16 ;Paragraphs to request
INT 21h
MOV ES,AX ;Point to memory block for later use
MOV EOF,FALSE
CALL CIs

DoLoop: CALL ReadFile
CALL DispBuffer
CMP EOF,FALSE
JE DoLoop
MOV BX,Handle ;Get file handle
MOV AH,3Eh ;Close file
INT 21h

```

```

Done: MOV AH,49h ;Release memory block at ES
      INT 21h

```

```

AllDone: .EXIT
ShowFile ENDP

```

; The following routine fills the buffer from the disk file

```

ReadFile PROC
    push ax
    push bx
    push cx
    push dx

    MOV AH,3Fh ;Read file
    MOV BX,Handle
    MOV CX,BufSize ;Get a full buffer
    PUSH DS ;Store data segment and point
    PUSH ES ; it to the right segment
    POP DS ; for the buffer area
    MOV DX,0 ;Start of memory block
    INT 21h
    POP DS
    JC ReadErr ;Could not read from file
    MOV NumBytes,AX ;Store number of bytes read
    CMP AX,CX ;Were all bytes read?
    JE RFDone ;Yes, so exit
SetEOF: MOV EOF,TRUE ;No, so EOF reached
        JMP RFDone
ReadErr: CMP AX,0 ;Was it because EOF was reached
        JE SetEOF ;Yes, so set flag
RFDone: pop dx
        pop cx
        pop bx
        pop ax
        RET
ReadFile ENDP

```

; The following routine displays the buffer information.
Assumes that ES points to the buffer segment.

```

DispBuffer PROC
    push ax
    push dx
    push si

    MOV SI,0 ;Point to start of buffer
DB1: MOV DL,ES:[SI] ;Get character
      MOV AH,02h ;Output a character
      INT 21h
      MOV AH,03h ;Read cursor position
      INT 10h
      CMP DH,23 ;Rolled over to line 23 yet?
      JNE DB2 ;Nope, continue
      CALL PagePause ;Yep, so display message
      CALL CIs ;Clear screen
DB2: INC SI
      CMP SI,NumBytes ;At end of buffer?
      JB DB1 ;Nope, so keep going
      pop si
      pop dx
      pop ax

```



```

RET
DispBuffer ENDP

```

; Transfers the command tail into the work file area, converting it into an ASCIIZ string. Assumes ES points to PSP segment.

```

Xfer  PROC
      push ax
      push cx
      push si
      push di
      push es
      push ds

      PUSH  ES          ;Swap ES and DS
      PUSH  DS
      POP   ES
      POP   DS
      MOV   SI,80h      ;Point to start of command tail
      MOV   CH,0
      MOV   CL,[SI]     ;Get length of command tail
      INC   SI          ;Point to first character
      MOV   DI,OFFSET ES ;WorkDir
X1:   LODSB
      CMP   AL,' '      ;Was it a space?
      JE    X4          ;Yes, so skip it
      STOSB             ;Store a byte
X4:   LOOP  X1          ;Keep going to the end
      MOV   AL,0
      STOSB             ;Make sure NUL at end of path
      pop ds
      pop es
      pop di
      pop si
      pop cx
      pop ax

```

```

RET
Xfer  ENDP

```

; The following routine clears the screen and homes the cursor

```

Cls  PROC
      push ax
      push bx
      push cx
      push dx

      MOV   AH,6        ;Scroll window up
      MOV   AL,0        ;Scroll full screen
      MOV   BH,7        ;Normal white on black
      MOV   CX,0        ;Upper left corner of screen
      MOV   DH,24       ;Bottom right
      MOV   DL,79
      INT   10h

      MOV   DX,0        ;Upper left corner of screen
      MOV   BH,0        ;Assume page 0
      MOV   AH,2        ;Set cursor position
      INT   10h

```

```

pop dx
pop cx
pop bx
pop ax

```

```

RET
Cls  ENDP

```

; The following routine pauses at the bottom of a page

```

PagePause  PROC
      push ax
      push bx
      push dx
      push si

      MOV   DH,24       ;Set up to print pause message
      MOV   DL,0
      MOV   BH,0        ;Assume page 0
      MOV   AH,2        ;Set cursor position
      INT   10h
      MOV   SI,OFFSET Pause ;Point to start of pause message
      CALL  PrtString    ;Display the string
      MOV   AH,0        ;Read keyboard character
      INT   16h

      pop si
      pop dx
      pop bx
      pop ax

```

```

RET
PagePause  ENDP

```

; The following routine prints the ASCIIZ string pointed to by DS:SI

```

PrtString  PROC
      push ax
      push dx
      push si

PS1:  MOV   DL,[SI]     ;Get character
      INC   SI          ;Point to next one
      CMP   DL,0        ;End of string?
      JE    PS2         ;Yes, so exit
      MOV   AH,02h      ;Output a character
      INT   21h
      JMP   PS1         ;Keep doing it
PS2:  pop si
      pop dx
      pop ax
      RET
PrtString  ENDP

```

```

END

```

Figure 5. SHOWFILE.ASM

Hard Disk Organisation

© Seagate Technologies

What is
SKEW...
How do you
calculate
maximum
theoretical
data
transfer
rate?

Many users will be curious as to how the information on their hard drive is organised.

Any sector editor, such as the Norton's Utilities, can display the user data written to a sector, but ignores the HEADER information - that information written either side of the data in a sector so that the drive can locate it and check the accuracy of a read or write of that information. The following information was abstracted from the documentation file for the Seagate Technologies program SGATFMT2 available on Seagate's Support BBS.

If you want to understand the techniques of hard drive information management, we recommend you seek access to their BBS... BUT, as the intro says, read the whole documentation before you run the program, otherwise you could do your drive and data a real injury.

INTERLEAVE

The interleave value for a hard disc drive determines how many times a disc needs to spin in order to read a single track of data. The typical disc drive usually spins at 3,600 rpm (or 60 times per second). On a MFM disc drive with 17 sectors per track, the Read/Write heads, drive circuitry, controller and CPU are required to process all 17 sectors in 1/60th of a second. SGATFMT2 can test the system and report which interleave yields the fastest data transfer rate for your system (this is a data destructive test, be sure to back up 100% of your data before running the interleave tests). The best interleave possible is 1 to 1, meaning 1 revolution to read 1 track of data. Interleaves are always whole numbers, so the next best interleave is 2 to 1.

1 to 1:

1- 2- 3- 4- 5- 6- 7- 8- 9-10-11-12-13-14-15-16-17 (with sector 17 looping around to meet sector 1)

2 to 1:

1-10- 2-11- 3-12- 4-13- 5-14- 6-15- 7-16- 8-17- 9 (with sector 9 looping around to meet sector 1)

It takes a little getting used to looking at this, but the most important fact to keep in mind is that the operating system reads the sectors in sequential order and will read on until the next sector in sequence

appears. On the 2 to 1 interleave example the disc will need to spin two times in order to read all 17 sectors. Most of today's modern controllers are designed for a 1 to 1 interleave. Some early 16-bit controllers for 286's were only 3 to 1 or 2 to 1.

An interesting problem happens if a 1 to 1 interleave is selected on a controller not designed for this speed: *The Disc ends up performing like it has a 17 to 1 interleave!* The reason for this is quite simple. If sector 2 immediately follows sector 1, and the controller isn't ready to read sector 2, then the disc needs to spin all the way around again in order to pick up on sector 2. This extra spin would be needed for all 17 of the sectors.

SKEWING

By way of an analogy, the function of the modern disc drive has been described like this:

"Today's new generation of disc drives achieve the engineering equivalent of a Boeing 747 flying at MACH 4 just two meters above the ground, counting each blade of grass as it flies over. The read/write head floats at 12 millionths of an inch above the surface of the disc which is turning at 3,600 revolutions per minute. Read/write heads position precisely over information tracks which are 800 millionths of an inch apart and the data is electronically recorded at 20,000 bits per inch."

Skewing is best understood by first looking at the layout of a non-skewed disc drive. A single circular MFM track has 17 sectors like this:

1- 2- 3- 4- 5- 6- 7- 8- 9-10-11-12-13-14-15-16-17
(with sector 17 looping around to meet sector 1)

The platters within the drive are spinning at a very high rate (usually 3,600 rpm), so one sector is passing beneath the R/W head once every 980 millionths of a second! This is obviously a very small timing window. When the entire track is processed, it is time to move to the next head (on another surface) in the cylinder. For example: a drive with two heads reads track 1 head 1, track 1 head 2, then repositions the heads over the next track and reads track 2 head 1, track 2 head 2, and so on. The time it takes to switch between heads is extremely fast since it is an

electronic change. The time it takes to reposition over another cylinder, however, takes significantly longer since it requires a mechanical movement that is an order of magnitude slower.

Looking again at the 17 sectors, if we stack two heads we see:

```
head 1 : 1- 2- 3- 4- 5- 6- 7- ..... -17
head 2 : 1- 2- 3- 4- 5- 6- 7- ..... -17
```

We would expect sector 1 on head 2 to immediately follow sector 17 on head 1. Unfortunately, this doesn't happen because it **TAKES TIME** (or "overhead") to switch to the new head, and by the time it does, sector 1 has already gone by! Therefore the R/W head waits for the disc to spin around once for sector 1 to show up again so it can get on with its job. Effectively, we have wasted one disc revolution that equals 1/60th of a second which could have processed almost an entire track of 17 sectors. This is the crux of the problem that skewing addresses: eliminating unnecessary disc revolutions.

The solution is easy; shift the beginning position of sector 1 head 2 enough to compensate for the head switching overhead. That way when head 1 sector 17 finishes and the head switches, sector 1 head 2 would be spinning into place. Remembering that tracks are circular, it would look like this:

```
head 1 : 1- 2- 3- 4- 5- 6- 7- ..... -15-16-17
head 2 : 16-17-1- 2- 3- 4- 5- ..... -13-14-15
```

Shifting these two sectors gives us time to allow for the head switching overhead and is the equivalent to $\text{HEAD SKEW} = 2$.

In normal use, a disc drive switches heads many times more often than it does switching physical cylinders. The data throughput can rise dramatically when a head skew is in place. For example, a simple non-head skewed MFM drive might have a transfer rate of 380kps and the transfer rate of a drive with a head skew of 2 could rise to around 425kps. (Since we've listed a kind of performance result, here, it is VERY important to point out that ALL systems/controllers have different amounts of overhead and processing power, not to mention the wide range of results from different transfer rate diagnostics. See the section ABOUT TRANSFER RATES below.)

A formula for calculating a head skew value is as follows (but be sure to read on):

HEAD SKEW =

$$\left[\frac{(\text{head switch time} * \text{SPT} * \text{spindle speed})}{60,000} \right] + 2$$

Ex: $[(<15 \mu\text{S} * 17 * 3600) / 60,000] + 2 = 2$

Basically, this evaluates to zero, and the 2 is a typical overhead for most MFM controllers.



Cylinder

skewing is usually a little more drastic. It stands to reason that since the mechanics of repositioning the head assembly is going to be significantly slower than an electronic head switch, the value for a cylinder skew will be larger. Going back to our two head drive, we might see:

Cyl 1: head 1: 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17

head 2: 16-17- 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15

Cyl 2: head 1: 8- 9-10-11-12-13-14-15-16-
17- 1- 2- 3- 4- 5- 6- 7

Shifting these eight sectors gives us time to account for the cylinder switching overhead and is the equivalent to $CYLINDER\ SKEW = 8$.

A formula for calculating a cylinder skew value is as follows:

CYLINDER SKEW =

$$[(\text{max track to track time} * \text{SPT} * \text{spindle speed}) / 60,000] + \text{OHFactor}$$

Ex: $[(8 \text{ msec} * 17 * 3600) / 60,000] + 0 =$
8 (ok to round down on MFM)

Note: OHFactor is an 'overhead factor' that is tied to SPT or sectors per track. After some casual experimentation, we've figured -

| SPT | OHFactor |
|---------|---------------------------------------|
| 17 | 0 or 1 (usually MFM drives) |
| 26 - 31 | 1 or 2 (usually RLL drives) |
| 33 - 52 | 2 or 3 (usually ESDI drives) |
| 53 - >> | 3 or 4 (usually high end ESDI drives) |

The "0 or 1" type values are intended to be ambiguous, and are meant to illustrate that these values are system/controller dependent. The higher of the two numbers is the most conservative. For all intents and purposes, choosing a value a little high is not as bad as choosing a value too low, thereby causing a wasted disc revolution. Now is a good time to remind you that it is the head skew value that offers the most significant boost to the transfer rate, while

There seems to be a lot of confusion concerning data transfer rates on hard disk drives. This is a pity, as this should be a very straightforward issue.

an optimized cylinder skewing helps only when the heads are repositioned over a different track. If you use a transfer rate utility to measure performance results, be advised that many of them just use a single cylinder and don't reflect cylinder skews.

ABOUT TRANSFER RATES

There seems to be a lot of confusion concerning data transfer rates on hard disk drives. This is a pity, as this should be a very straightforward issue. The first thing to do is forget the sales literature in expressing the practical transfer rate of a drive. The internal and external transfer ratings are only useful as an estimate of the maximum bus transfer rate of the area in question. What that usually means is that those rates are the measure of the speed both data and commands can be transferred across a given bus in a given rate of time. For all practical intents and purposes, this is only a valid landmark for clocking command transfer rates, and data transfer in burst mode.

For sustained data transfer rate, the bottom line is, the more sectors that pass under the head in a second, the faster the data comes off of the drive. To calculate the sustained rate, use this formula :

$$(512 * \text{Drive RPM} * \text{SPT}) / (\text{Interleave} * 60)$$

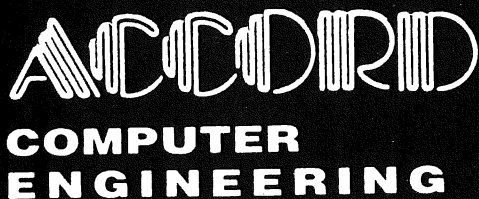
This rating is in Bytes / Second.

For Example, a 251 at 3:1 interleave would transfer data as follow :

$$(512 * 3600 * 17) / (3 * 60) = 174,080 \text{ Bytes/second.}$$

This is the maximum data transfer rate possible without caching. To differentiate, and explain failings, you must realize that the above formula is for IDEAL conditions. Delays can be introduced by track crossings, head switch time, or, most importantly, how the system asks for the data.

There is also the system overhead to look at, which can be grouped in with data inquiry delay. To illustrate the latter, think of the drive rotating at 3600 RPMs. The host system wants several sectors worth of information for its spreadsheet. It asks for a sector read. The drive acknowledges the command. the system waits. The drive steps to the proper track. The drive reads. The host acknowledges. The host asks for the next sector. The drive, which has been spinning all this time as drives do, no longer has its heads over that sector, because the host didn't ask for data in time. The drive spins. The sector is read, and so on. This procedure is much faster if the host just asks for a multiple sector read, as once the data is located, it streams directly off of the drive. This condition can be masked by the use of buffers, because the next few data requests can be satisfied by the queue, or buffer, whether built into the drive controller, or allocated to the system memory. Both of these schemes anticipate a multiple sector read beforehand, and fill memory locations with the data from the next few contiguous sectors. Although this works for the most part, once the queue is exhausted, we are back to the limitation of the sustained transfer rate, to be found by the aforementioned formula.



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UPGRADE AND SAVE ENHANCE YOUR COMPUTER POWER

MacWorld & MultiMedia Expo

Geoff Harrod

THIS EXHIBITION, with the rather amazingly long-winded name of *Australian MACWORLD Expo with Publish MULTIMEDIA World*, was held at Sydney's Darling Harbour Exhibition Hall from 4 to 6 November 1993. The *MacWorld Expo* has been a regular event for some years, and as may be expected, is devoted to Apple Macintosh matters. This year, MacWorld was joined by *Publish Multimedia World*. The two parts of the show were roughly divided into two exhibition halls, although the division between the halls was not all that obvious from the floor, and MacWorld also flowed over into the other hall. To distinguish them two different coloured carpets were used. However, the mix of the two events seemed to confuse a lot of people.

I was there to run a stand for *MULTI-CAD Magazine*, of which most readers will know by now that I am Technical Editor and Partner. There have been some jokingly less than kind remarks made about me exhibiting at a Mac show! However, in my role as a multi-system magazine producer I do need to show impartiality. I'd take some convincing to part with enough money for a Mac though.

I have had a bit more to do with them lately, and have come to the conclusion that the story of their being much more robust and reliable than Windows on a PC is a myth. They are certainly well made machines; as well made as the not much cheaper top brand name

PCs like Hewlett-Packard and Compaq, and there is less uncertainty about buying a Mac for the non-technical than buying a "clone" PC. But as well as the higher initial price tag the cost of add-ons and any maintenance is very much higher. You can't buy spare parts for Macs and fit them yourself, however technically experienced or qualified you may be. You

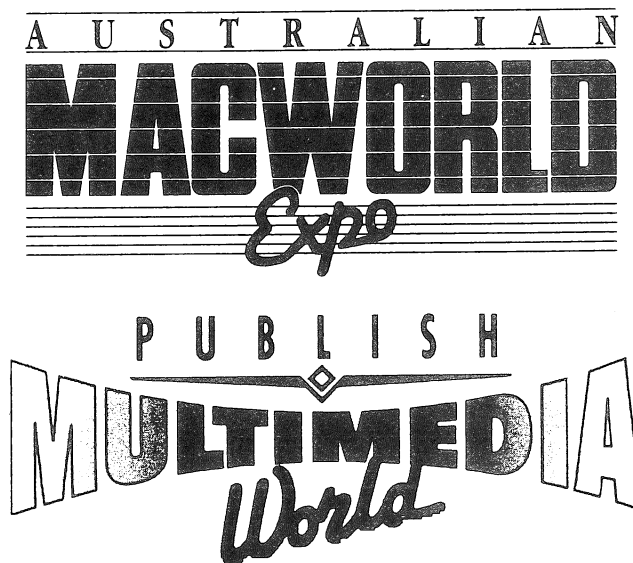
have tended to encourage such misconceptions.

Consequently, some Mac users moving around the Multimedia section seemed quite put out to find the area contaminated with PCs (and also Silicon Graphics Indigos)! Conversely, I think some PC users with an interest in graphics and Multimedia may have stayed away thinking it was purely a Mac show. It was quite a busy show though, even so.

MacFeast

In the MacWorld area all the big Mac people were there of course (oops!), with Apple plumb in the middle, hedged in by all the major Mac supporters such as Claris. Microsoft had a large stand with a theaterette showing regular demos. As well as being Apple's big rival and legal combatant with Windows, Microsoft have also always been one of the biggest producers of Mac software and one of the earliest supporters of the Mac platform. Most of their software is available in near identical form on both Mac and Windows. They were showing all their stuff, with particular emphasis on their Multimedia products like Cinemania, their integrated entry-level office and domestic tasks software Works, and the various ways the integration of the parts of Office (Word, Excel, & PowerPoint) can be exploited.

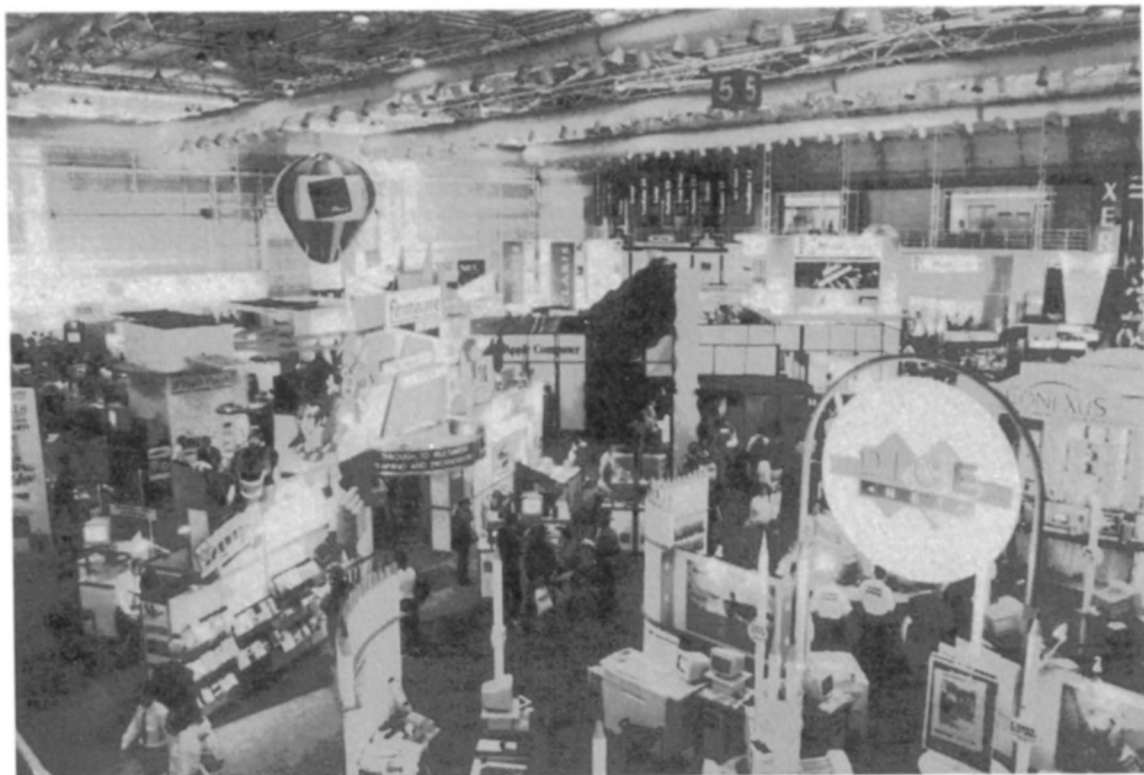
Apple had regular demonstrations of their radical new hand held *Newton MessagePad*; the palm-sized tablet that uses pen input and is supposed to con-



have to pay dearly for an authorised Apple service centre to do anything. As far as robustness is concerned, I have not had any problems with Windows since 3.1 came along, except for hang-ups caused by bad programs, but I found the Mac, even with System-7, is quite prone to getting its memory system in a knot and grinding to a stop.

The Mac has featured strongly in Multimedia of course, and many Mac devotees think you can't do Multimedia on anything else, just as some still think any sort of graphics and such is only possible on the Mac. Of course Apple

Part of the
MacWorld Hall at
the MacWorld &
MultiMedia Expo



vert your scribble into text, send faxes, alert you to appointments, boil the billy and bring on the dancing girls. I had to agree with most observers I spoke to, that this is a good idea but doesn't work well enough yet to be useful. The concept needs a lot more development still. In particular, its handwriting recognition seems decidedly unreliable, which is probably quite excusable. You'd need more than a Cray to recognise some people's writing! It remains to be seen whether this Newton really gets a foothold.

Sensibly, Apple are licensing its new technology to others rather than trying to keep it to themselves as has been the company's past general policy. Already the likes of Sharp and Panasonic have taken it up. From my knowledge of Asian languages, it seems to me the system may have more to offer the Japanese, Korean and Chinese than places that use European style writing. Typing in data in such ideograph based languages is not easy, and pen input is a great advantage, whether or not in a palm-top unit. It is easy to write Chinese and Japanese very quickly without losing legibility because the strict stroke order that everyone learns causes the character form to always degenerate in a similar way with rapid writing. So the Newton technology may work much

more reliably in Chinese. It may herald a new era in Japanese and Chinese word processors.

Multimedia was in evidence all throughout the MacWorld area as well as in the Multimedia area. It was obvious that the biggest items at this show were colour printers and Multimedia support. There were numerous theatrettes showing Multimedia productions, and also multi-screen TV matrices showing fast moving slick promos. Sound boards and concert-standard hi-fi audio was also much in evidence — audibly!

Morphing (the gradual transformation from one form to another) seemed to be a topic of great interest, and it is being increasingly used in the new generation of TV ads, such as the morphing of a jet fighter into a sports car. There were several blow ups and slow replays of such famous morphs as the molten metal man oozing into the helicopter in *Terminator-II*.

TV ad and promo production are now big users of Multimedia techniques and the associated 3D modelling and photo-realistic rendering. There is a ready market for the talents of those who get expert with these techniques and software-hardware systems. The introduction of *Multi-CAD Magazine* has proved timely for the emergence of the

Multimedia mania and the sudden increase of interest in 3D CAD and its merging into Multimedia.

Colour printers for all

Colour printers were everywhere and from every known supplier plus some more. Dye-sublimation technology is evidently the "in thing". It certainly produces superb results, like real photo colour prints, but at a price. Not only are the machines expensive, but the consumables are also. The Tektronix ones were noticeably the highest quality but also the dearest and had the highest running cost — like about \$18 an A3 page, and \$27,000 for the printer! They were also the fastest at generating the image, provided you used an Ethernet network input rather than ordinary ports.

There were also many very good much lower cost units. You can now get quite adequate presentation quality from affordable equipment, and the equipment to produce the ultimate in quality is available at bureau services. There were also some units on show that were printing five metre long superb colour pictures!

Incidentally, we decorated our stand walls with A1 size blow-ups of Magazine covers. These were done by scanning the original Chromalith printer's proofs and printing on an A1 size

Canon colour Bubblejet. The results were astoundingly good.

Where did the CAD go?

As I said, many Mac users coming to our stand seemed quite amazed that we covered other systems than Macs, or even that CAD could be done on anything else! They just couldn't believe that the PC is by far the dominant system for CAD (even if they had heard of CAD on Unix workstations), and that the PC is at least equal now in Multimedia.

A common cry was: "Ah! a CAD magazine. Where are all the CAD software people this year?" It seems previous MacWorld shows had stands by all the Mac CAD people such as MiniCAD, Claris, Ashlar, ArchiCAD, etc. This year there were none. Some of those CAD systems were being shown to some extent on other vendor's stands — retailers or hardware dealers — but not in their own right, and rather hard to find. I never did succeed in finding ArchiCAD even though I had a visit from their personnel at our stand.

It was evident that interest in CAD is now quite widespread. It is no longer solely the province of engineering and architectural offices, and there is a lot of interest in the more popular priced systems, and in 3D modelling, rendering and animation, which leads on to MultiMedia of course.

Some consternation had just been caused in the Mac CAD arena by the unexpected decision by Claris to kill off *Claris-CAD*, one of the best liked of Mac CAD systems! Most of the Mac CAD systems seem to be getting ported to Windows now, but presumably *Claris CAD* won't be among them. It's even stranger than Autodesk's decision to kill *Generic CADD*, as Claris have no alternative CAD product.

Several impromptu discussions between knowledgeable Mac CAD users took place on our stand about this, which proved very interesting. We became something of a meeting place for the CAD community!

The Media, Information Distribution, & Multimedia

A special address on Multimedia and Information Systems was delivered at the VIP and invited guests session by *John Evans*, the head of *News Electronic Data Incorporated*, a division of *News Limited*. He commented on how reluctant the media have been generally to adopt electronic media technology, and also on the lack of success so far of purely electronic publishing (i.e. without any final printed distribution). Attempts to market on-disk or on-line substitutes (rather than adjuncts) for established magazines, even those with computer topic orientation, have largely failed. Partly this has been the difficulty until now of accommodating any format of data other than fairly plain text.

He explained *News Limited's* plans and how they see electronic publishing as fundamentally different in basic technique to print media. Print media is by nature a broadcast technique; put out as much as possible of what the target audience in general is likely to want and let individual recipients read the bits that fall within their own narrower interest ranges. To do that they have to read or scan all the rest to some extent of course. *News* see electronic publishing as a "narrow-cast" technique, where the distribution system acts on feedback or input from individual recipients and sends only what is actually of interest.

He said the information explosion is causing an ever more impossible reading overload for many business people, and subscribing to the present generation of on-line electronic information services will only worsen the problem of coping with the overwhelming mass of material. What is needed is a system that acts as an automatic pseudo-intelligent filter that pre-scans the mass of material by very thorough keyword indexing and selects a manageable sample for you that accurately matches your particular interests and needs.

This is what they are working on, and Multimedia technology will enable integration of all formats of world-wide information sources to be presented to the subscribers, rather than only text. As

well as being initially programmed to each user's specifications, the "filtering engine" will learn as it goes, noting the user's actions on the offered selections, or requests for additional material outside that selected or referred to within it, and will continually update its selection criteria.

He also looked at the stages of use of new technology, using historical observation to provide an insight into the adoption of current new technology, such as Multimedia. He observed that whenever any new technology developed, it was initially only useable by the technicians, and its full artistic or commercial potential did not get exploited until the operation of the technology became developed so that its technical nature was largely hidden from the users who could then use it as another tool in their field of activity. Movie film and computers both clearly followed this pattern. Multimedia is at the stage of just beginning to escape from the constraints of its technical operation.

Summary

Clearly, Multimedia technology is going to play a very significant role in mass communication and in areas of computing that have traditionally been the province of purely test based mainframe-and-terminals systems. It will certainly revolutionise the now rather archaic and user-hostile style of computing interface that has continued to be accepted on mainframe systems while slick graphical systems have steadily taken over desktop computing. Microsoft have for some time been extolling the virtues of Windows on PCs as the human interface to mainframe data systems, and whether or not they end up having it all their own way or not with Windows, I'm sure the concept will become the new way of working with big data stores on wide area networks. It is the only way to provide friendly user interfaces that can handle MultiMedia style access to a wide variety of stored data forms — text, line graphic, raster images, video clips and sound. Hence the boom in interest seen at this show and the magazines.

Microsoft Access Basic -

Brian C. Blackman - Developer Support Engineer, Access

Abstract

This article outlines techniques that when applied to Microsoft® Access™, using Access Basic, can increase application execution speed, decrease code size, and reduce common pitfalls in application development when programming to the Windows™ APIs (Application Programming Interface). Prudent use of variables and the memory space those variables occupy can significantly reduce the resources an application consumes and increase its overall performance.

Incorrect calling of Windows APIs will have undesirable side effects and potentially corrupt an application's code or data segment. Correct use of a Null 32-bit (far) pointer in Microsoft Access is imperative.

Microsoft Access has an undocumented feature that can be used when working with Forms and Reports. This feature allows you to make a procedure call from the design view Property Sheet window by pressing the *Shift + F2* key combination.

Introduction

Microsoft Access Basic provides a rich development environment that gives you the flexibility and control of Windows APIs while shielding you from many of the frustrations associated with using high and low level language development environments. However, many aspects of optimization and efficient data and code modeling can only be applied by the application designer. The developer should rely on prudent use of efficient algorithms. In addition to general programming concepts, there are specific memory management techniques that when correctly used can increase the application's execution speed and decrease the memory resource the application consumes.

Increasing The Speed and Decreasing The Size Of Your Code

You can use several tricks to increase the speed of your code but, there's no substitute for efficient algorithms. Following are several suggestions to increase the speed of your code and decrease the memory your application consumes.

Use Integer Data Types For Mathematical Calculations

Even though Access will use a coprocessor for floating point math, integer math is always faster. Use Integer or Long data types in place of Variant or Double data types when your calculations don't include fractional values. Integer division (\) is faster than floating point division (/). A warning in using more efficient data types is that the code will be less forgiving—remember, there's no substitute for efficient algorithms.

Use In-Line Code In Place Of Procedure Calls

Avoid the use of Sub or Function calls in loops. Each call adds to the code's overhead by involving additional work and time. Each call requires that the function's local variables and arguments be placed on the stack. The stack size is fixed, cannot be increased, and is shared with Microsoft Access.

Use The Variant Data Type Judiciously

The Variant provides greater flexibility such as allowing proper handling of Nulls and automatically handling of overflows. Yet, this data type is larger and consumes more memory for storage than conventional data types. As previously mentioned, Variant variables are slower in mathematical calculations.

Use Variables To Store Frequently Used Properties

You can reference and set Variables faster than properties. If you are getting or referring to the value of a property many times your code will run faster if you assign the property to a variable and use the variable instead. For example, in a loop you refer to a property of a control on a form; it is faster to assign the property to a variable outside the loop and then reference the variable in the loop instead of the property.

Pre-load Forms

The performance of your application can be perceived as fast if you load all your forms when your application starts and set their visible property to False. When you need to show a form you just set the visible property to True—which is faster than loading the form. Remember that you will be consuming memory from the applications global heap for every form you pre-load.

Tips, Tricks and Traps

Traps in Access Basic

A frequently encountered trap in Access Basic is the use of external procedures in dynamic-link libraries (DLLs). When you supply your customers and clients with solutions use caution when calling external DLLs, otherwise expect to get the error message "Tried to load module with duplicate procedure definition."

Use Unique Alias Names

In Access Basic you can call external procedures in DLLs when you know the entry point (the name of the function in the DLL). However, the caveat is you can only declare the external procedure once. If you load a library that calls the same Windows API that your module calls you will get the infamous error, "Tried to load module with duplicate procedure definition."

You tried to load a module that either contains duplicate procedure names or contains procedure names that are in use by procedures in existing modules. To remove these procedures use the Find command on the Edit menu to find the duplicate procedure names. To work around this issue you need to use a technique called Aliasing that will allow you to give your procedure an unique name. There's always a chance that the Alias you chose is not be unique. So, to make your Alias unique you can precede all your declared procedures from DLLs with your initials and an underscore. For example, declare `GetActiveWindow` as:

```
Declare bcb_GetActiveWindow Lib "Kernal"  
    Alias "GetActiveWindow" () As Integer
```

How To Pass 32-Bit Null Pointers To DLLs

A null 32-bit (far) pointer is a valid or required parameter for some dynamic-link libraries (DLLs). To specify a null value, use 0&. When your function calls a procedure and passes the expression 0& the ampersand (&) specifies a 32-bit (far) null pointer. In a function declaration, an `As Any` parameter instructs Access Basic to omit type checking for that parameter and to pass the value to the called function.

The following code demonstrates the correct method to declare an Access Basic function that passes a null parameter to a procedure in a DLL. This code declares the `WriteProfileString` API function from

the external Windows dynamic-link library "kernel."

```
Declare Function WriteProfileString Lib "Kernel"  
    (ByVal lpApplicationName As Any,  
     ByVal lpKeyName As Any,  
     ByVal lpString As Any)
```

The following function calls the external procedure, specifying null for each argument. This causes `WriteProfileString` to flush its internal cache and writes to disk any changes to *WIN.INI*.

Important: Incorrect use of this function can cause a general protection fault or modify your *WIN.INI* file.

```
Function nFlushIniCache()  
    nFlushIniCache = WriteProfileString (0&, 0&, 0&)  
End Function
```

How To Pass And Receive Unsigned Integers From DLLs

There are situations in which calling procedures from external dynamic-link libraries returns a 2-byte unsigned integer. Access Basic doesn't support this data type. Correctly evaluating this data type requires converting it from an unsigned integer to an Access Basic long data type.

The Access Basic integer data type has a range of -32,768 to 32,767. An unsigned integer has a range of 0 to 65,536. Access Basic uses the most significant bit to set the sign of the value. Therefore, when a value exceeds 32,767, bit 16 is set to reflect a negative number. To evaluate an unsigned integer, you must manually adjust bit 16.

There are two methods you can use to convert to and from the unsigned integer type to the Access Basic long data type. The first method uses basic arithmetic (65,536 is subtracted or added to the unsigned integer). The second uses bitwise operators. The Arithmetic method works as well as the Bitwise method; however, the arithmetic method may be more readable, and the bitwise method may be faster when executed repetitively.

Arithmetic Method

The following `lArithUIntToInt (nUInt)` and `lArithIntToUInt(lBytes)` procedures demonstrate using the Arithmetic method of converting unsigned integers. This first function reads in an unsigned integer and

returns the converted value as a long. The second function reads in a long and returns an unsigned integer.

```
Function lArithUIntToInt (nUInt As Integer)
```

```
    If nUInt < 0 Then
```

```
        lArithUIntToInt = nUInt + 65536
```

```
    Else
```

```
        lArithUIntToInt = nUInt
```

```
    End If
```

```
End Function
```

```
Function nArithIntToUInt (lBytes As Long)
```

```
    If lBytes > 32767 Then
```

```
        nArithIntToUInt = lBytes - 65536
```

```
    Else
```

```
        nArithIntToUInt = lBytes
```

```
    End If
```

```
End Function
```

Bitwise Method

The following nBWUIntToInt(lBytes) and lBWIntToUInt(nUInt) procedures demonstrate using the Bitwise method of converting unsigned integers. The first function reads in an unsigned integer and returns the converted value as a long. The second function reads in a long and returns an unsigned integer. The message box statement in the second function is used to prevent an overflow message when the value passed to the function is greater than 64 kilobytes.

To illustrate what is taking place in the first bitwise function nUInt equals -23584, a value returned from an external dynamic-link library that is an unsigned integer and needs to be converted to a long:

```

1010001111100000 (-23584)
AND 1111111111111111 (FFFF&)
-----
1010001111100000 (41952)
```

The functions follow:

```
Function lBWIntToUInt(nUInt As Integer)
```

```
    lBWIntToUInt = nUInt And &HFFFF&
```

```
End Function
```

```
Function nBWUIntToInt(lBytes As Long)
```

```
    Dim nTemp As Integer
```

```
    If lBytes > 65535 Then
```

```
        MsgBox "You passed a value larger than 65535"
```

```
        Exit Function
```

```
    End If
```

```
    nTemp = lBytes And &H7FFF
```

```
    nBWUIntToInt = nTemp Or -(lBytes And &H8000)
```

```
End Function
```

Note: The &HFFFF& requires the "&" at the end of the hex number. This qualifies the hex number as 32-bit versus 16-bit value.

Tricks in Access Basic

There is an undocumented feature in Access that allows you to specify procedures that are called from the Property Sheet window of a Form or Report when you press the key stroke combination for *Zoom View, Shift + F2*.

BuilderForm Functions

If a function identifier in a module begins with "BuilderForm" and contains a property or event identifier like OnClose, pressing the key combination Shift + F2 will call this procedure. For example, when you're in design view of a form and the cursor location is in the edit control of the OnClose event in the Property Sheet window, pressing Shift + F2 will call a function BuilderFormOnClose. This applies to most properties and all events of both Forms and Reports. The format of the function is demonstrated in the following code:

```
Function BuilderFormOnClose (szFormName As String,
                             szControlName As
String,
                             szCurrentValue As
String,
                             szReserved As String)
```

```
    If szCurrentValue = "" Then
```

```
        DoCmd SelectObject A_MACRO, "", True
```

```
        SendKeys "%n%fs" & "New Macro" & "{Enter}"
```

```
        Forms(szFormName).OnClose = "New Macro"
```

```
    Else
```

```
        DoCmd SelectObject A_MACRO, szCurrentValue,
True
```

```
        SendKeys "%d"
```

```
    End If
```

```
End Function
```

The arguments "szFormName", "szControlName", "szCurrentValue", and "szReserved" must be declared even if you never use them. When your function is called these arguments are always passed. If they're not declared then Access doesn't call your function. The preceding procedure opens a macro if one is assigned to the OnClose event, if the edit control is empty the code creates a new macro called "New Macro" and sets the edit control value to "New Macro". Granted the following example is not very elegant but it does demonstrate the necessary components to create elegant and efficient database solutions. ○



BRISBUG PC USER GROUP INC.

P.O. Box 985, TOOWONG QLD 4066

NOMINATION FORM

Please return completed form to "The General Secretary" at the above address.

NOMINEE

I, _____ hereby accept nomination to serve on the Management Committee of Brisbug PC USER GROUP INC. for the term commencing from the next Annual General Meeting of that group and ending at the Annual General Meeting of the following year. I understand that this nomination will only be valid if I am a "fully paid up" financial member of BRISBUG (as defined in its Constitution) PRIOR to the official commencement of the Annual General Meeting, at which the vote for election to the position for which I am nominating is taken.

POSITION FOR WHICH I AM BEING NOMINATED _____

NOMINEES SIGNATURE _____ DATE _____

NOMINATOR

I, _____ hereby nominate the abovenamed for election to the requested position on the Management Committee of BRISBUG for the term indicated. I acknowledge this nomination will be void if it is found that I am not a "fully paid up" financial member of BRISBUG as at the closing date for acceptance of written nominations in accordance with the BRISBUG constitution.

NOMINATORS SIGNATURE _____ DATE _____

SECONDER

I, _____ hereby second the above nomination for election to the requested position on the Management Committee of BRISBUG for the term indicated. I acknowledge this nomination will be void if it is found that I am not a "fully paid up" financial member of BRISBUG as at the closing date for acceptance of written nominations in accordance with the BRISBUG constitution.

SECONDER'S SIGNATURE _____ DATE _____

NOTE: Persons nominating for a position who have not had their membership formally accepted at a BRISBUG Management Committee Meeting shall be deemed to have had their application for membership formally accepted should they be elected to the position for which they have nominated.

OFFICE USE ONLY

| MEMBERSHIP STATUS | NAME | MEMBERSHIP NO. | FEES PAID TO | RECEIPT NO. |
|-------------------|------|----------------|--------------|-------------|
| NOMINEE | | | | |
| NOMINATOR | | | | |
| SECONDER | | | | |

ACCEPTED ☐ REJECTED ☐ General Secretary _____ Date _____

Booting Up

Ron Wilby

Starting Up

To get your computer into action, you must first "Boot" it, after turning on the power. Most of you will have your computer set up so that it 'boots' after you switch on. You may not even know what is happening, just that various miscellaneous pieces of information are seen on the screen, accompanied by some beeping and scraping from the computer. You can't read what's on the screen because it "scrolls" off the screen too quickly. The end result of all this will be a "menu" from which you can select the next action you want. This will usually be the selection of the program you want to run, then pressing the "Enter" key loads the program so you can start work. Loading means copying the program files from a disk into memory.

How It Really Works

Behind all this startup activity there is at work an "operating system." The operating system provides the interface between you and your computer. It executes the commands you enter from the keyboard and manages the system resources including the peripherals such as monitor, printer, mouse etc.

The System we (nearly) all use is called DOS. This stands for **Disk Operating System**, and it allows you to run other programs, called Application Programs, such as word processors, databases and spreadsheets. What are they? We'll go into that later.

Often, though, you are not in contact with DOS because it hides behind a secondary program that takes control of the computer soon after startup. This program is known as a "Shell" and commands are issued from a screen, called a menu, on which several alternatives are displayed for you to select. Even if you have a shell, I strongly recommend you get behind it and learn a little about the basics of your operating system. To make best use of your computer you need to be an adequate DOS user (which doesn't mean an expert).

BIOS

When switched off the computer is dead. There is nothing in memory. DOS is hanging about somewhere on hard or floppy disk but is powerless. Before the operating system can operate, we need something to start the whole thing, something to breathe life into this dead computer. This something is called the BIOS (stands for **B**asic **I**nterface **O**utput **S**ystem) and

is built into the computer when you buy it. No BIOS, no go! When you switch on the power your BIOS is ready and waiting and performs POST (Power On Self Test). This is the beeping and scraping bit mentioned above. POST checks that your hardware is in working condition, and you will see on screen messages from the BIOS in the first half-minute or so after power on.

Booting

After the POST routine (about half a minute) the BIOS hands over control to DOS. At this point you need a "System Disk," either a floppy, which must be in drive A, or your hard disk.

Capital letters like A, B, C etc are the names of your disk drives. DOS recognises these letters as drive names when they have a colon after them, as A:, C: etc. Your first floppy disk drive is always A:, your hard disk C:. If you have a second floppy drive it will be B: and more hard disks (or partitions) are possible.

DOS looks at drive A first. If there is a system disk there, then that disk is used for startup. When drive A contains disk without the System files, you get an "error message" telling you it's a "nonsystem disk, replace and try again" or words to that effect. If there is no disk in drive A (or the door is open) DOS moves on to drive C, your hard disk. Most PCs start from drive C, but be aware that if there is a disk left in drive A, DOS will try to use that first and your computer may fail to start.

When DOS has found a system disk it proceeds to "boot" your computer, which means that DOS looks at a file called *CONFIG.SYS* for information about how you want your computer configured. DOS also looks at a file called *AUTOEXEC.BAT* to find which of the various DOS programs are to be "loaded" into memory after which the computer is ready and willing to accept your commands. Later I'll show you how to modify *CONFIG.SYS* and *AUTOEXEC.BAT*, but for now you should see on screen the DOS prompt, which will be A:\ or C:\ followed by a blinking line. This line is DOS saying to you "type your command here, Master." If, instead of the DOS prompt, you have a menu on screen, there will be some command to take you from the menu to the prompt. For DOS 5, type *Alt + F4*. (Hold down the *ALT* key and press the *F4* key).

What we are going to do now is to examine some basics of computer operation. You'd be surprised how many people perform miracles with

Ron takes a new users look at the operation of his computer

A Path for Beginners

Tom Coleman

Lately I have come across a number of horrendous *PATH* statements. Let's take a look at one.

```
PATH=C:\;C:\DOS;C:\WP51;  
C:\TEMP; C:\NORTON;  
C:\UTIL; C:\QUICKEN;  
C:\GAMES; C:\PARADOX;  
C:\WINDOWS; C:\WINDOWS\BIN;  
C:\GAMES\GAMES; C:\XTREE;  
C:\TELIX
```

Does yours look anything like that? First, let's look at where *PATH* fits into the overall scheme of things and then take a look at what is wrong with this particular one, and many other *PATH* statements I see from time to time.

When you enter something on the command line (that is, at the DOS prompt), for example:

```
XCOPY *.* A: X /M
```

DOS looks at the whole line and gives each part between separators (in this case, as in most, the separators are spaces) a number starting at 0. In order that it can identify what the numbers mean it puts a "%" in front of each number. Nothing to do with percentages, just an identifier.

Thus, "%1" is the "*. *" and "%2" is "A:". We can use the "%" identifier in batch files, but that is outside

the scope of this discussion. The bit we are interested in is %0, the first item on the command line. How about we take a brief pause here and all repeat after me

The first thing on the command line is a command.

Now off you go for five minutes meditation on this simple mantra. Doubtless you will have been enlightened if you followed the above instructions.

You will now realise that "*Bad Command or Filename*" means there was something wrong with the first thing on the command line when you pressed the <Enter> key. This raises the question, how did DOS know there was something wrong? The simplest answer is to follow DOS through as it tries to execute a command.

For the purposes of illustration we will enter a meaningless command. You can try it if you like. I am going to enter the command, *QQQ*, which is pure garbage on my computer. DOS dutifully scans the line, takes the first thing on it (*QQQ*), and tries to execute it.

First it looks in the environment to see if it matches any of the variables in there.

The environment is a bit of conventional RAM (memory). It's part of your 640 kB, that holds a number of variables like *PROMPT*, *COMSPEC*, *PATH*, *TEMP*, and so on.

PATH is a very useful command, often under-utilised. Tom Coleman explains it for new users.

Continued from previous page

wordprocessor or spreadsheet but have no idea how to copy a file. At this stage you should have an emergency "Start Up" disk, which is basically a floppy disk formatted as a "System" disk. Never use your original DOS disks, use the *DISKCOPY* command to make copies and use them. To make the startup disk you get the DOS prompt on screen as described above, put a new floppy disk in Drive A and at the prompt type *FORMAT A:/S*. Making a complete startup disk requires some file copying, and I am about to tell you how to do that in next month's episode.

Meanwhile, to get the DOS prompt, put your startup disk in drive A, press *Ctrl, Alt* and *Del* all together. This will reboot your computer giving you the required DOS prompt on screen. Keep this startup disk, you may need it in an emergency I'll be back next month

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Please wait while I check out the path

Failing to find *QQQ* there, DOS now takes a look in a bit of memory used by *DOSKEY* if you have it loaded. If it is a *DOSKEY* variable then it gets interpreted and executed. I don't have one called *QQQ*.

Now DOS takes a look at the current directory. You know, all the files that get listed when you type *DIR*. It looks first of all for a file named *QQQ.COM*. Failing to find it, DOS then goes looking for a file in the current directory named *QQQ.EXE*. Still no joy, so it has another look, this time for a file named *QQQ.BAT*.

Everybody stop.

Now read that last paragraph again. Look at what has happened. DOS looked first for a *.COM* file, then for an *.EXE* file, and finally for a *.BAT* file. **Most important.**

Suppose I had files named *QQQ.EXE* and *QQQ.BAT* in the current directory and, to make life difficult, I wanted to execute the file, *QQQ.BAT*. It can't be done. *QQQ.EXE* is found first and then DOS stops looking.

Aha, you say, how about we put *QQQ.BAT* on the command line. Shouldn't that find it? *Sorry*. When DOS looks at the command line it sees the dot (.) and tosses it out along with everything that follows it up to the next separator. In other words, the dot and extension (in this case "BAT") are dumped before anything else happens. What this means is that putting a file extension in the command is always a waste of time and is bad technique. Having looked for the *QQQ* in the current directory and not found it DOS now goes looking for other places to search. Those other places to search are contained in the *PATH* statement.

If you examine the *PATH* statement at the beginning of this article you will see it consists of a list of directories separated by semicolons. DOS searches every item on the list of directories for, first, a *COM* file, then an *EXE* file, and then a *BAT* file. In our case, one called *QQQ*.

Finally, when it has exhausted the list of directories in the *PATH*, DOS displays the message "*Bad Command or Filename*", and starts sulking. Even without having the

latest versions of software, there is likely to be well over 10 MB of files searched on each occasion you make a *typo*.

Remember, there are only two or three executable files in each directory and none are files you are likely to want at a moments notice. Often when there are many directories, there is a good chance you will execute a file of the same name in an earlier directory. I remember one class I was running when we all had a jolly time trying to bail out of installing WordPerfect—I had forgotten to tell the students to change to drive A: before entering *INSTALL*. Talk about a thieves' picnic. We ran a bit overtime that night.

The argument that you need to be able to get access to, say, your word processor, at any time, really does not hold up when balancing the penalties of having it in the *PATH* against the advantages of writing a batch file to do exactly the same thing.

All you can do from the command line is execute the word processor. If you want to move, say, the dictionary into a *RAMDISK* to speed things up, it must be done manually each time. It could be done in the same batch file that starts the word processor, as well as automatically copying a custom dictionary back to drive C: when you have finished. It guards against forgetting, too.

All you need is a special directory to hold all your batch files and put it in the *PATH*. That way you can always find it. Take all your application programs out of the *PATH* and write batch files to start them.

Another thing about that *PATH* statement. Why on earth is the root directory there? The only things you should have in the root directory are *COMMAND.COM*, *CONFIG.SYS*, and *AUTOEXEC.BAT*. You may have some bloody-minded program that insists on writing its log file to the root directory, but generally the root directory should be clean, bare, and bald.

So just what should be in your *PATH* statement? Think about it. You want the files that you need to be able to access at any time from anywhere. Your DOS files, so *C:\DOS* should be in the path. I have suggested a directory for your batch files, so *C:\BAT* would be appropriate.

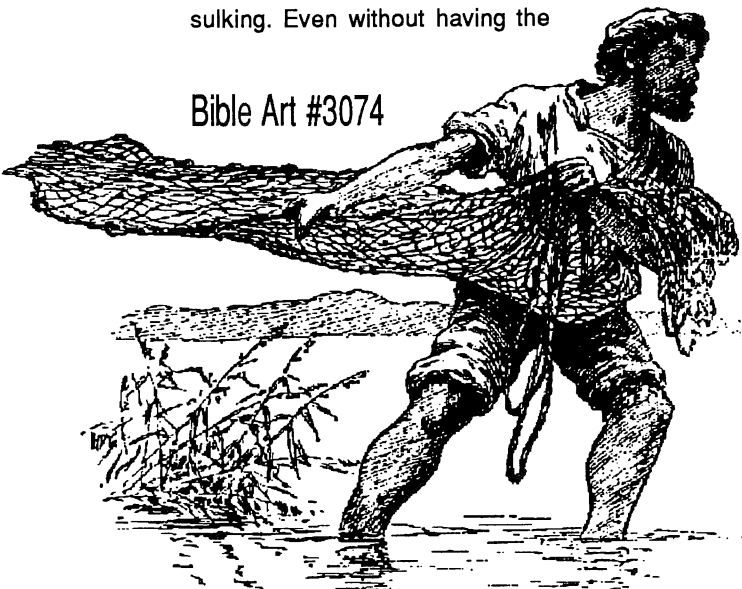
Then there is a bundle of utilities like *LIST*, and *MEM*, *WHEREIS*, and a bucket of others that are handy to have around. Put them all in a *UTIL* directory and put *C:\UTIL* in the *PATH*.

That's it. You don't need anything else.

The only decision now is which order do you put them in. The rule is to put the most frequently used directory first and the least frequently use directory last. Exactly which is most and which is least is a reflection of how you choose to use a computer, and that is up to you.

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Bible Art #3074



Computer Time (CMOS)

Alan R. Cunningham

I suppose everyone has noticed that their computer does not keep very good time. This is a product of the way real time is provided and the heat generated in the system affecting the crystals.

If you use the computer time in any way this can be annoying. I currently use the clock to display on the screen and via a personal organiser for meeting/appointment alarms. This requires me to update the CMOS about every two weeks, usually a haphazard method of menu's and watches, or dialling the time on the phone.

Telecom have come to our rescue with a new service called CompTime. Provided from their existing speaking clock the 1200 baud CompTime signal provides Time and date information and a daylight saving character. The speaking clock in each capital city provides a CompTime signal. To access this service a small program has been provided by Telecom Research Laboratories. It takes little time and effort to provide an accurate update direct to CMOS, so I could update to which ever state time I chose. This program is provided on the Brisbane and Melbourne Bulletin Boards as sclock.exe. a self extracting program. Phone numbers for the CompTime service are provided in the files and even an explanation of the time signal provided. A nice little project for some Windows programmer out there would be to provide us with a Windows version.

In use I have found the program very simple to use. I only run it direct under DOS. On a couple of very fast computers the program tells me the CMOS has not been updated when it has. The accompanying text files give information on the options available and the CompTime signal signature.

Telecom really deserve a pat on the back for such a useful service.

The following is from TELECOM's handout on the subject As a new Telecom Australia service, the speaking clocks in each capital city will provide a computer readable, accurate time and date message. The time and date will be output every second via a serial port to 1200 baud modems connected to provide PSTN dial-up access. PSTN numbers have been allocated in each State as follows:

Melbourne (03) 600-1641
Sydney (02) 267-4648

Updating

| | |
|----------|---------------|
| Brisbane | (07) 221-7033 |
| Darwin | (089) 41-3423 |
| Perth | (09) 221-5457 |
| Adelaide | (08) 410-0143 |
| Hobart | (002) 24-1905 |

The output provides a 1200 baud CCITT V22, asynchronous serial output of local time and date for each state and territory in ASCII encoded characters.

The time and date are repeated every second for the duration of the maximum connection period which is currently limited to 20 seconds.

Code sequence is

YYYY-MM-DD<SPACE>HH:MM:SS * <CR><LF>

The transition between the stop bit of <CR> and start bit of <LF> marks the seconds epoch for each code frame.

Accuracy of the seconds epoch at the exchange is one millisecond.

The * character is present during all non-daylight saving periods and is replaced by a # character during daylight saving periods in each state and territory.

The most significant digit is always sent first.

The character frame is 1 start bit, 8 data bits, 1 stop bit, no parity.

Automatic time synchronisation for PC's

A program has been developed to allow PC users, with access to a modem, to use Telecom's new dial-up time service to update the internal clock of their IBM compatible personal computers with the current time and date automatically. A feature of the program is the incoming data validation sequence after which synchronisation of the internal real time clock can occur. The program is available on Brisbug Bulletin Board area 22 as CSLOCK.LZH. ○

Now you can use TELECOM's CompTime service to maintain the accuracy of your computer's internal clock



I Think... I've Just Invented a Wheel !

Phyllis O'Fearna

I'm in a love-hate relationship with WordPerfect: love Ver.5.1 for its speed and flexibility, love Ver. 5.2 for graphics, and love Ver. 6 because (apparently) it's going to combine the best features of the other two.

But no matter which cloak WordPerfect is wearing, when it comes to Secondary Files for producing personalized letters or addresses from a mailing list - well, let's just say I prefer Q & A Ver. 4.

Problem: I keep a number of complex Data Files in Q & A Ver. 4 which I use for many things. Frequently I am called upon to produce personalized letters or mailing lists which have to 'marry up' with WordPerfect Ver. 5.1 files in another office for ultimate printing on that office's high speed laser printer.

Re-entering the data into WordPerfect is unthinkable (although I have done so). All transfer methods were cumbersome and required lengthy re-formatting in WordPerfect before use. I needed a wheel to get from here to there faster and safely.

What I have finally done is enter special 'FIELDS' at the foot of my Q & A Master File. Using the *Program* feature of Q & A, "Title", "Initials" and "Last Name" (separate fields in Q & A for my own reasons) automatically become {FIELD #1}; the components of "Mailing Address" become {FIELDS #2, #3, #4 and #5}. (The "Postcode" is a {FIELD} by

itself because in Q & A it is derived from a *LOOKUP* command which causes trouble if you try to read it in conjunction with the "City/Suburb" field.)

I had tried a similar ploy without much success, but NOW I have found my wheel! At the end of each Q & A FIELD I have entered a unique symbol unlikely to be used in an address.

When I print my mailing list (or material to be merged) in Q & A, I print {FIELDS #1..#5} to a WordPerfect File, originally formatted with no left margin, '0' top margin, '0' bottom margin and a page length of 1". (This is the Q & A page format.)

When I retrieve the file in WordPerfect I immediately re-save it formatted as a WordPerfect file and then edit it using the *FIND/REPLACE* feature.

I replace the unique symbols '\$', '%', etc. with {END FIELD} and following "Postcode", the symbol is replaced by {END RECORD}{HPg}.

The re-formatted file, used as a secondary file, is wholly acceptable to WordPerfect Ver. 5.1, my dot matrix printer and the laser printer. WordPerfect Ver. 6.0 has changed the rules slightly, but the Reference Manual says it will accept files in Version 5.1/5.2 format, so I'm hopeful I won't have to invent another wheel.

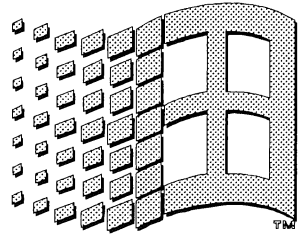
P.S. I'll feel pretty silly if I've re-invented an "old wheel" that everybody (except me) already knows about - how DO people know their tips are new anyway?

If it hasn't been in SigBits... it's new - Ed

| FUN-FILLED ASSOCIATION | | |
|--|---------------|--------------------------|
| LName: #5 | Malename: #10 | Fname: #100 |
| Title: #20 | Paid to: #25: | See FUN-DUES re payments |
| Init.: <#22:IF | MemNo.: #40 | Type: #45 Count: < |
| MailAddress: #51 | | Date Joined: #55 |
| City: #60 | Postcode: <#6 | |
| Telephone (H): #70 | Bus: #75 | Phonelst: |
| FAX: #80 | MOcc: #90 | F0cc: |
| Field 1: #110="***"+ " "+"STATUS"+ " "+#25+"\$" | | |
| Field 2: #115=#20+" "+#22+" "+#5+"%" | | |
| Field 3: #120=#51+"@" | | |
| Field 4: #125=#60+" " | | |
| Field 5: #130=#65 | | |
| Field 6: #135="!" | | |
| NOTES: | | |
| Mailing: | | |
| LIB-ADD.DTF | Program Spec | Page 1 of 1 |
| Esc-Exit F1-Help F2-Print F3-Clear Spec F6-Program editor F10-Continue | | |

Figure 1. Showing the author's Q&A screen with WordPerfect fields embedded in it ready to be converted.

Windows Watch



An Occasional Column, compiled by Ralph De Vries

Communiqué

If you own a Microsoft product (and each Windows user has at least one or two!), you are no doubt aware of their Communiqué customer support scheme. As I own more than one or two Microsoft products, I find Communiqué a great investment. Their fully automated telephone help lines may at first appear a bit daunting, but I find that the system works, which is the main thing.

Recently they added their so-called *Hot Fax* line, which is an interesting innovation. It allows Communiqué members to dial their 008 number for more technical data, to be supplied by facsimile machines. As my wife recently installed a dedicated fax line for her job, I decided to test the new service out. After giving the 'mechanical man' on the 008 number my membership number and other details, our new fax machine started spitting out large amounts of technical data before I had finished my call to the 008 number! Wow, I was greatly impressed, Mr. Microsoft!

As mentioned in my last column, Microsoft is going berserk releasing new products during the next three months. No doubt they will have a great X-mas, but how about us poor end users? At the time of writing I haven't received my 'goodies' yet, so I'll take the next few months off to learn all the new stuff.

One item which took my fancy, was Microsoft's release of the '94 edition of their *Encarta* CD-Rom encyclopaedia (The '93 version was reviewed in last July's issue of *Significant Bits* by Ash Nalawalla). Between now and the end of the year, it will have an RRP of \$199, which is a far cry from \$599. Now I wonder if I can sneak this one in without my wife noticing...

WordPerfect

With the release of *WordPerfect for Windows Version 6.0*, it appears that WP have at long last got their Windows act together. Reading through the Fidonet's Windows messages, there is a lot of

positive feedback from present and former WordPerfect users who have tried out this new version. Of course you need about 25 to 30 Mbytes of hard disk space, but these days we expect that from the 'biggies' in the software game.

Shareware

Habitually I work in Super VGA mode - in my case that means 800 x 600 in 256 colours. This suits me, and is now my standard 'modus operandi'.

Most of the commercial programs, which I use, are aware of different screen resolutions and adjust the screen image automatically. Wish this were so with shareware!

Time and time again one finds shareware programs which only recognise one format - standard VGA or 640 x 480. To be able to view these in 'full screen mode', one has to switch back to VGA mode, or put up with an image that only fills part of the screen. As I find neither solution very attractive I always end up wiping these programs from my hard disk.

For your delectation I include here another listing of shareware which I found in the Nov and Dec '93 issues of *Windows Magazine*. As mentioned in last month's issue, I very much doubt if all these programs are in Brisbug's shareware library as yet, or if they are available on our BBS, but Brian Bere-Streeter, the Windows SIG Coordinator, will no doubt do his very best to find them for you.

Address Manager 2.0b: Perfect for the person with many contacts, this address book utility lets you store as many as 8,000 names in each address book you create. Address Manager supports DDE and output to Avery laser labels, and provides Word macros for importing addresses.

Chartist 1.04: Create flowcharts and organisational charts using Chartist's library of shapes. The Select Symbol Shape dialogue box offers a thumbnail preview of each shape; line-style variability lets you change the width and curvature of





lines. You can also import bitmaps and customise your colour palette.

Clysmic Icon Bar 1.7: This Program Manager replacement or enhancement gives you a bar of icon buttons that enable you to launch applications quickly. The utility features submenu bars you can use to create nested menu bars that have a hierarchical structure. The total capacity is around 200 icons.

KBS People Management System 1.23: Now you can keep track of people important to your business activities by setting up and maintaining a people-oriented database. This management system includes a detailed report generator and an autodialer for voice or fax lines.

MegaEdit 2.07: This text editor lets you handle as many as 25 files at once, supports large file editing and has no preset limit for file size. MegaEdit can automatically recognise and load Macintosh and UNIX text files, as well as standard DOS-text files. You can also load binary files for viewing.

MGWalk 1.0: Specifically created for programmers, this memory utility displays the Windows global heap and local heaps. You can scan system window classes, modules, tasks and task data space. The utility also lets you copy bitmaps to Clipboard, save and/or print the global heap and more.

Reminder 1.3: Designed to let you set up and view your appointments as easily as possible, this time management program sorts tasks by date and time, placing the most urgent items at the top of your list. Included are several DDE and link programs to link Reminder with Excel, Word and Visual Basic.

SideBar Lite: With its sleek icon bar, this Windows shell organises your desktop and open apps. Tile, size, optimise, minimise or hide windows by pressing a button; place directories or files on the bar for easy access. Optimised memory usage keeps the shell on-screen without slowing your system.

Time & Chaos Professional 3.1a: This PIM makes it easy for you to keep track of important information

by displaying your calendar, to-do list, address book and telephone book all in one place. It also lets you import and export ASCII text and share your files across a network.

WinCheck 3.0: Manage your cheque, savings and credit accounts using this utility's 3-D dialogue boxes. Build cheque templates for printing on preprinted cheque forms. Use the Custom Report Maker to print an expense report, a deposit history or all tax-deductible transactions for the year to date.

BLINC 2.05: This mailing list manager allows you to organise your contacts in a relational database and output them to mailing labels, customised letters and Rolodex cards. You can also attach electronic sticky notes to any file and search for specific files by name, address or post code.

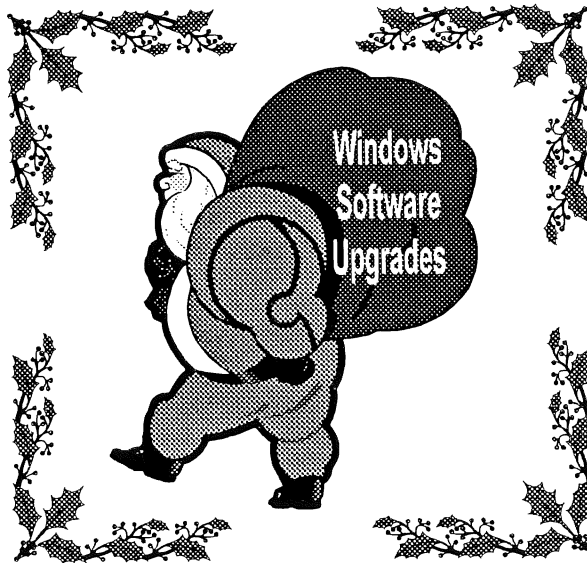
Encrypt-It 2.0: Protect your electronic information, such as private notes and confidential data, with encryption routines. This program graphically displays files along with numerous statistics about their contents.

Versions for Windows and DOS are available; files are interchangeable between the two.

FontShow 5.0: For easier font management, view and catalogue your fonts with FontShow. The program displays characters on-screen from 4 to 600 points in regular, bold, italic, underline and strikethrough styles. Support is included for Adobe Type Manager, Bitstream FaceLift and Publisher's PowerPak fonts.

GrpIcon 2.01: With this utility, you can visually customise Program Manager by replacing the default group icon associated with each of your program groups. GrpIcon comes with 108 icons; you can also import icons from files with .EXE, .DLL, .DRV, .ICO, .NIL and .ICL extensions.

InContact 1.2: Not only does this contact manager keep track of names and addresses, it also lets you record information about the last call, date and time of the follow-up call, and the contact's birthday and age. You can store up to 64KB of notes per contact, import and export ASCII text, and print on labels.



Organize! 1.53: Create your own information structure with this on-screen, three ring appointment book. Enter your data as paragraphs, lists, free-form sentences or bulleted items. Organize! provides Find and View search functions and lets you develop and use your own key words to locate entries.

Rummage 2.1: Free up precious hard disk space by weeding out duplicate files with Rummage. This search-and-destroy utility will locate duplicate files on your system and then delete and/or move the files you select. You can search multiple drives and even print out the contents of your search.

The Runner Utilities: This handy set of four utilities enables you to run, optimise, hide, tile, cascade and arrange task icons in an eight-task display; specify a starting size for any application window; put groups within groups in Program Manager and run multiple programs from the command line.

To Do Manager 1.04: Organise your tasks into a list of to-do items that are sorted by date and priority in a list box, and colour-coded to indicate status at a glance. To Do Manager lets you create multiple lists for different dates and purposes. You can even assign dates and priority codes to individual items.

WinModem 3.0: If you have an internal modem, the absence of status lights that are standard on external modems may make it hard for you to discern a failure. WinModem remedies this problem by providing a graphical screen representation of a modem's front panel, complete with status lights.

Looking Back and Forward

This year has certainly put Windows on the map. Software manufacturers have embraced the Windows concept totally, and they are now trying to outdo each other with more and more powerful software packages. From the enduser's point of view, the result is the ubiquitous "Software Suite", which the big boys have unleashed on us.

If you need all the programs in the suite, they are a real bargain (usually less than half the price per program, compared to the individual program price.) However the skeptical ones amongst us think that it's really a bit of a 'con' to make you buy all the upgrades. Besides you have to buy bigger hard drives as well!

This year has also seen the release of OS/2 2.1, which is now a very nice operating system. I have been tempted a few times to take the plunge, but felt that the time is not right yet. There are still a few Windows programs out there (WinZip for example) which don't like this 'foreign' O.S., and of course there is the promise of Windows 4.0, which we may (or may not) see in 1994.

Of course Microsoft also released Windows for Workgroups (new version 3.11 should be released by the time you read this), and Windows NT.

No, I'm not going to predict the future of these operating systems, but somehow I feel that perhaps one fine day Microsoft and IBM become friends again, and then amalgamate their Windows NT and OS/2 technology - after all stranger things than that have happened!

But that's only speculation, so back to reality. Upgrades are definitely going to continue in 1994! You name your favourite Windows program and there will be an upgrade in the next year, unless you have just received your latest upgrade.

There's a new *Works for Windows* on the way, as well as the new *Norton Desktop for Windows*, V. 3.0. A new *AmiPro* is also in the works. With the release of Dos 6.2 we will probably see that some other Windows programs need updating as well. As Corel has taken over *Ventura*, we can look forward to a new version of that program as well. Just keep on saving your pocket money!

Hopefully 1994 will be the year of the 32 bit operating systems and 32 bit software. In its wake will follow compatibility problems, but these will be of a temporary nature only. I don't think that we can recommend to anybody to buy anything less than a 486 computer in 1994. After all 486 systems have fallen further in price, and to buy anything less is to buy obsolescence.

Will 1994 be the year of the CD-Rom? Drives are becoming faster and cheaper, as are sound cards, so perhaps 1994 will be MultiMedia year. Kodak's Photo CD-Rom is currently far too expensive to attract the 'instamatic' market, so we'll put that one on the backburner for a while.

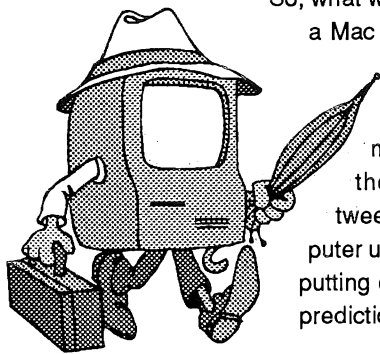
Enough guessing - Here's hoping that you see 1993 out in style, and that 1994 will bring you all that you wish for.

Ralph

The Future of Personal Computers:

Rex Newsome

This is a revised version of an article that appeared in an edition of Macademia, a newsletter produced at the University of Queensland for Macnuts. Your editor screwed my arm to provide a version for Significant Bits - very definitely up-market from Macademia - but don't tell the mac nuts (these are the author's comments... not mine - Ed)



So, what was a non-Mac user doing writing for a Mac newsletter? And with WordPerfect on a 386 machine!

Well, I had been asked to give my projections for the future when the snide comments that pass between Mac people and IBM type computer users will no longer be relevant. Well, putting on my futurologist's hat, here is my prediction.

The device

It will be not too many years before our beige-coloured boxes with whirring hard-drives and CRT displays will disappear. The writing is on the wall with the continuing trend towards minaturisation. Our collection of boxes, cables and dongles will be gone. The only mouse that will be seen will be the one that eats genuine apples.

Replacing all of the present collection of toys will be an integrated, multi-media, multi-purpose device. Such a system will incorporate all communication and control functions we will need to interact with the world at large. This will include radio, television, telecommunications, and intelligent data transference. Direct to-air radio and TV will be out-moded. The form of the replacement will be the Multi-Media Computing Helmet (MMCH).

The way things are going, it will be good form in twenty or thirty years to wear a MMCH. This will be not only for the facilities it will provide, but for necessary protection from head injury (closed head-injuries are a fast-rising phenomenon in our current world with 12,000 occurring in Queensland each year alone - tomorrow's world will be a dangerous place!).

Besides physical protection, the MMCH will provide all the communication and computing needed. This will include a very high capacity communication link (perhaps via Optuscom?) and voice, video, or data transfers will be able to be made to and from anywhere at anytime.

For visual input to the wearer, the MMCH will have a visor that can be flipped down (this will give "flipping one's lid" a whole new meaning) to give a three-dimensional, wide-angled visual presentation. The system will be fully VR such that the image will be stabilised in reference to the wearer's environment. That is, moving one's head will not cause the image to shift in space.

Courtesy of Optuscom, or whoever, input from a wide variety of sources will be possible. A movie, a game, newscasts, sportscasts, libraries, lectures, or a work situation.

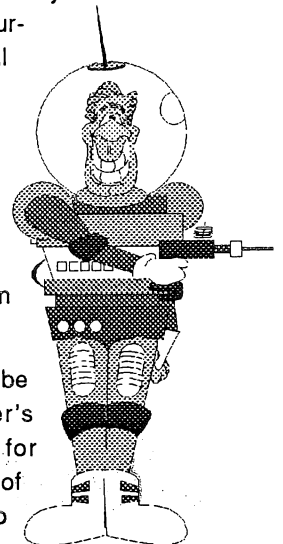
Advantages

With the MMCH one will be able to experience standing on the great wall of China, to play the latest game of space spiders, or to become an active member of the audience of a lecture being given by a Nobel prize physicist somewhere over the other side of the world.

Meanwhile, while the visor is down and in use, the MMCH wearer will be able to monitor the real world, through a "reality" window.

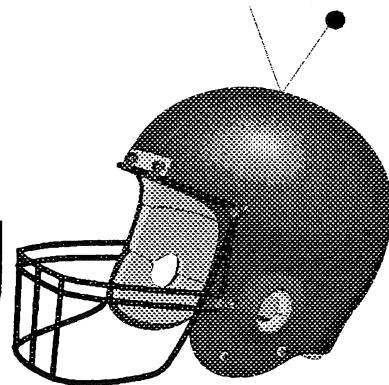
For output, there will be the possibility of voice, gaze-pointing, or hand signalling and pointing. For those still stuck on QWERTY, it will be possible to call up a VR keyboard in space and type away. Storage capacity will be no problem as the inbuilt BIORAM capacity will be limitless for all practical purposes. Transfers will be made transparently in or out to other data banks via the high-capacity communications channel. A further function of the MMCH will be to capture all ongoing activity around the wearer. Instant replay will be available. Lecture notes and other transcriptions will therefore be unnecessary (playback will take over eyewitness testimony in court actions).

The MMCH will also be able to monitor the wearer's health status and arrange for quick attention in the case of cardiac arrest, strokes, and so on.



...I had been asked to give my projections for the future when the snide comments that pass between Mac people and IBM type computer users will no longer be relevant. Well, putting on my futurologist's hat, here is my prediction.

the Multi-Media Computing Helmet



Brave new world of computability

Where will the humble PC be in the scheme of things to come? The PC could be provided in virtuality, for those who want one, but what would be the point? Number crunching, data analyses, wordprocessing will all be simply functions integrated into the MMCH wearer's natural activities.

Preparation of a paper on psycho-nuclear analysis will be simple. It will be a matter of calling in all the reference material available from the global library, which may include a paper delivered the day before by Bloggs at a conference at the National University of Western Australia, and providing appropriate intellectual input. Borrowed central processing capacity with AI will help in sorting out wheat from chaff. Data to be inserted will be treated statistically and automatically inserted.

A final copy will be laid down in BIORAM fully spell-checked, analysed, politically and academically corrected, ready for whatever use should be required of the document. Hardcopies will be available, when wanted, from local printer conveniences - or the paper could be sent to the appropriate editor, or whoever.

While waiting for the whole boring process to be completed one will be able to watch the latest movie, personalised by your MMCH to suit your own bizarre tastes. Or perhaps you could indulge in some erotica downloaded from the files of your favourite pornographer!

The MMCH, is actually only a short step from those worn by combat pilots now (and since writing the original version several new product announcements have moved the state of the art closer to the MMCH). The possibilities opened by the access that will be provided are enormous, but there will be a downside.

The downside

While the MMCH will allow the user access to most libraries, data bases and so forth, and will enable global communication with anyone, the user's position will be known to the general system. Thus, the monitoring of activities will be possible and illicit deeds will be instantly signalled to authorities (mobile telephones already have locatability!). Anyone not wearing an active MMCH that identifies with you, and identifies you, will probably not be allowed near a bank. Start

doing wrong somewhere and a signal from the CJC will zap you into immediate compliance.

Because so much will be able to be done without actually going anywhere, MMCH users will also become a rather sedentary lot (no-one will attend a Brisbug meeting in person!). Work, for many, will be by MMCH-commuting and will be able to be done without getting out of bed, if that is the mood that takes the wearer. This same goes for attendance at schools and universities. The MMCH will allow attendance at lectures and will allow full class-room interaction, including some of the physical kind, via a telerobot.

Transport, school, and university facilities will become largely redundant, as will books shops. With the MMCH one would simply call up a library or a publishing house who would bill for what you read. Or one can simply tap into your favourite author's book file and, after a transfer of a royalty, read the latest work.

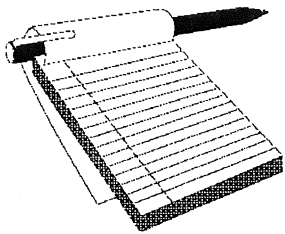
For those who cannot be bothered to actually read, or learn to read lexical characters, instant voice translations, along with computationally generated visuals, will be available. Since autotranslation will be an available option, books in any language will be accessible. Dyslexia will be no barrier and help will be available for those who have cognitive difficulties.

In conclusion

In the future, thanks to the MMCH, the global village will be here. There will be no wars (except those fought out in VR). The MMCH will thus be the great leveller.

Think of the citizen of the future. As they sit on their exercise bicycles in their allotted biospace, sucking on a sustenance tube, the whole world will be able to be experienced through their IAMM (IBM-Apple-Microsoft-Motorola Co.) MMCH with *Sensurround*. They will have the comfort of knowing that they have everything they need of life, just like the other ump-teen-billion pedalling idiots around the world. ○

The MMCH,
is actually
only a short
step from
those worn
by combat
pilots now



Consultant's Notepad

Geoff Harrod

PKzip-2

Some while back I wrote a bit about the new release of the well known PKZIP file archiving and compression program. Well, now it has been around for some while, a couple of points are worth making about it.

Having now had some experience with it, I have resurrected my old PKZIP ver 1 (which had got overwritten by ver 2) and renamed version 2 to PKZIP2.EXE and PKUNZIP2.EXE. This means whenever I just type PKZIP I run the older version. I find it much less confusing to never use the new version except when I want to unzip a ver 2 archive, or to zip to multiple floppy disks, which only version 2 can do. Since both versions default to using files of type ZIP it is not obvious which version you have, and this gives rise to a lot of confusion.

In particular, it often leads to sending ver 2 archives to people who do not have ver 2 of PKUNZIP, or who rely on XTREE-Gold ver 2.5 for zipping. By keeping the new version on the hard drive, but renamed, it is always ready to use when I receive a ver 2 archive, but doesn't get accidentally used. Ver 2 uses a new compression method which claims faster and more compact compression but I have not noticed the difference in practice without using a stopwatch, which means it is inconsequential.

More people do have ver 2 now, but still not by any means everyone. Furthermore, according to PK-Ware, ver 2 is not allowed to be distributed as Shareware, and not a lot are going to fork out the money for it and order it, when they already have ver 1 or Xtree, or LHA or something. There are copies of ver 2 on the bulletin boards but the copyright situation seems quite clear from my reading of PK-Ware's statements in the manuals — they shouldn't be publicly available. I think there is also

a free "work-alike" for PKUNZIP ver 2 around, which presumably provides a legal means of unzipping those archives. I consider PK-Ware should at least free the copyright on PKUNZIP.

The best way of avoiding unzipping problems by the recipient of an archive file is to send a self-extracting file. However, according to PK-Ware, you are expected to have a distribution licence to give away self-extracting PKZIP files, because they include some of their copyright code. What a farce! The best remedy is not to use PKZIP. There are plenty of Shareware and Freeware archiving systems that do not have such absurd restrictions.

The safest way is to use good old Yoshi's LHA. "Yoshi" is the nickname for Haruyasu Yoshizaki, the founder of the Free Software Foundation of Japan, who has devoted a great deal of time to archiving systems, and who offers his LHA system quite freely to non-commercial users. Interestingly, it seems to be the preferred compression system for many commercial software installation programs, even though in such cases, LHA would require licencing just as does PKZIP. Another popular system is ARJ, which will also handle multi-disk archives like PKZIP ver 2. ARJ is Shareware, but at least you can legally give someone a copy or a self-extracting archive.

There is also a rather annoying problem with the PKZIP ver 1 and ver 2 incompatibilities. If you try to access a ver 2 ZIP with ver 1 you get a string of "can't handle this file" messages, which is OK. However, if you try to access any but the LAST disk of a multi-disk ver 2 ZIP, the computer seems to hang trying to read the file. Actually Ctrl-C will escape from it. I rather regret having paid for PK-ZIP ver 2; I would rather donate the money to Yoshi's organisation or register ARJ.

Piracy

It seems there is much less rampant piracy now, at least in the major business computing and teaching areas, no doubt due to the continuing efforts of the BSAA "swat" teams. As word of their actions and of places that have got "stung" get around more licences get fixed up properly. There have been some huge multiple orders!

One program that often gets overlooked in this is Xtree. It is so much taken for granted and glibly copied onto all stations in organisations, that it is estimated the number of paid-up copies even in business is only a small fraction of those in use. Expect Xtree to be a target by the investigators! If you don't want to pay up that much for however many copies you use, change to a Shareware equivalent, of which there are several, and pay their very low registration fees.

It is amazing to find how many private users and new Brisbug members seem to take for granted that they should not have to pay for any software. I think the impression is fostered by several of the "real cheap" PC vendors. I don't know how these people expect anyone to create software if they are not going to get paid for it! It might be true that the copyright holders are not going to persue domestic and hobby users so much as commercial users, but these people do need to be aware that using copied software is illegal and they shouldn't openly talk about their use of it to all and sundry. Don't forget, many of Brisbug's most helpful and knowledgeable people are also dealers or consultants, who generally do not take kindly to brazen piracy. You should at least own the programs you regularly use, including DOS, and keep quiet about the others.

The trend to selling PCs with a fairly complete set of bundled legal software is doing a lot to reduce domestic and small business software piracy, and

the major producers such as Microsoft are putting more effort into promoting cut price bundle deals to PC sellers than to chasing piracy among such users. It's more cost effective for them anyway. Such deals are generally exceptional value, although a few are rather poor combinations. If you get, say, DOS, Windows and Works you have all the basic needs covered quite well. If you really have need for the capabilities of such as Word and Excel then they are probably well worth their price to you, otherwise Works will serve very well.

Whither next?

We are currently at something of a major cross-roads in computing, and the way ahead is rather hard to pick. Good old DOS is clearly at the end of its development, which doesn't by any means imply it is about to die; just not develop further. Windows 4 next year will stand on its own without any DOS foundation. Windows NT is here now and working well, but is clearly not going to be a system for the masses. It is ideal for the power graphics and engineering users and a super-secure major network base.

OS/2 seems to be in the middle ground between DOS+Windows and NT, and probably stands a better chance of gaining wider based support due to its lesser demands. I can't comment much on it as in my field of CAD, animation and engineering it has made absolutely nil impression and I never have any contact with it at all. I'll have to leave it to the OS/2 proponents to extol its advantages and show where it fits in the scheme of things. In my areas of specialisation NT is the big thing and the focus of attention of software producers. It seems to me there will be more rivalry between OS/2 and Windows-4 (when it comes) than between OS/2 and NT.

The Unix camp is also in a state of upheaval. The Unix multi-user text-mode areas of accounting and databases etc are not so affected (although some sites are switching to networked Windows PC systems), but the networked single-user workstation areas of CAD and engineering have been increasingly going over to Extended-DOS

systems as the cheaper Intel 486 PCs have become equally powerful. This is where NT is making its mark and likely to further erode the Unix base, especially as it is aimed at the RISC based Unix workstation machines as well as Intel PCs, if not more so. The disparate and incompatible Unix graphical systems have begun to really try to get together at last in self-defence, but maybe too late.

Then there is the new breed of RISC systems like the DEC Alpha, designed for NT. These do everything the Unix workstations do, or more, and run DOS and Windows programs too — the best of both worlds.

The Apple camp has finally admitted it has not had the muscle to match the 486 PCs, and is now pinning its future on the joint Apple-IBM developed RISC chip called, rather confusingly, "Power-PC". This chip is to very quickly replace the Motorola 68030 in all but the lowliest Macintoshes, and, they claim, bring affordable RISC workstation performance. IBM's plans for the Power-PC are somewhat less clear.

The advent of AutoCAD Rel-12 for Windows has given the often denigrated Windows+DOS a new respectability as quite a worthy power platform after all. Autodesk has shown that programs do not need to suffer a speed penalty when ported to Windows if carefully programmed. Autodesk have announced that their primary development platform will be NT from here on. Intergraph have the NT version of MicroStation-5 ready for release about now. The 32-bit "DOS-extendors" that all the major CAD systems have had to depend on, are almost certainly going to pass into history, and be seen as short term kludges to bridge the gap between 640k DOS and its successors. Some systems (like QikDraw) have already given them up by using Windows-3.1 as their protected-mode vehicle without actually adopting a normal Windows visual environment initially.

It is now fairly well known that NT requires a minimum of 16 Mb of memory and takes up 80 Mb of disk space, meaning that a 300+ disk is really needed. Actually, for the sort of programs for

which NT is relevant, 32 Mb RAM is more sensible, making the spec the same as typical Unix workstations. Anyone contemplating adopting NT should also be aware that drive compression is not allowed, and CD-ROMs must be SCSI, not proprietary or AT bus like most sold with sound boards. IDE disks are supported, but the same comments Paul Marwick made about IDE v SCSI for OS/2 apply equally to NT. (Oct 93 "OS/2 Column") However, many new machines are using motherboards with built-in local-bus HD interface, and most of these, such as the DEC LPx, are excellent NT boxes.

It appears Windows-4 will use a lot of NT's 32-bit modules and bring most of NT's advantages to ordinary users, leaving out NT's extreme security and disaster recovery systems that take up so much of its overheads. It seems to me anyone not committed to real power tasks and work where true NT versions of their software is to be released, would be better waiting for Windows-4.

Steve Jobs, Apple's founder, now not associated with Apple, developed the revolutionary *NEXT* computer, but that seems to have fallen by the wayside. Hardware production has ceased I believe, but the *NEXTstep* operating system is now being promoted as a rival to Mac, NT and Unix. It was on show at *MacWorld* on a Mac Quadra. The arguments for the benefits of its "object-oriented" operation went way over the heads of almost all those watching, I thought, and it was hard to distinguish any great practical advantage in this alternative.

The quest for domination of the "power user" graphic operating system market is getting a crowded arena. SUN Microsystems are also in the fray with their *Solaris*, derived from their own graphical extension to Unix, *Sun-OS*. and are promoting it for the Mac and as a successor to Unix and for PCs as an alternative to NT. We're certainly at an interesting time!



MS-DOS 6 Upgrade -

1. Difference Between DEFRAG and DBLSPACE /DEFRAGMENT

There are two ways to defragment a DoubleSpace drive: you can run *DBLSPACE /DEFRAGMENT*, or you can run Microsoft Defragmenter (*DEFRAG.EXE*).

More Information:

Files stored on DoubleSpace drives become fragmented just as they do on physical drives.

Running DEFRAG.EXE

Microsoft Defragmenter (*DEFRAG.EXE*) makes files contiguous by making virtual clusters contiguous. For example, a DoubleSpace drive would change from

```
H:\DBLSPACE.000: [1213--542---132-2--113---4 ]
C:               [1123156-1-13-5-1-2-3-1521--
                  123----- ]
```

to:

```
H:\DBLSPACE.000: [1213--542---132-2--113---4 ]
C:               [111112222333344455556-----
                  ----- ]
```

Note: In this example, each number represents a piece of a file. For example, each "1" indicates a piece of file 1.

Running DBLSPACE /DEFRAGMENT

DBLSPACE /DEFRAGMENT moves data within the compressed volume file (CVF) so that all the free space is at the end. Files aren't made contiguous; they are simply placed in one group at the front of the drive. Using the same example, the file would change from

```
H:\DBLSPACE.000: [1213--542---132-2--113---4 ]
C:               [1123156-1-13-5-1-2-3-1521--
                  123----- ]
```

to:

```
H:\DBLSPACE.000: [121354213221134----- ]
C:               [1123156-1-13-5-1-2-3-1521--
                  123----- ]
```

Running DBLSPACE /DEFRAGMENT /F

DBLSPACE/DEFRAG/F moves all the used sectors to the end of the CVF. Using the same example, the file would change from

```
H:\DBLSPACE.000: [1213--542---132-2--113---4 ]
C:               [1123156-1-13-5-1-2-3-1521--
                  123----- ]
```

to:

```
H:\DBLSPACE.000: [-----121354213221134 ]
C:               [1123156-1-13-5-1-2-3-1521--
                  123----- ]
```

Note: When you run *DBLSPACE* with the */DEFRAGMENT* parameter, it may not make all of the unused sectors contiguous; this is why the */F* switch exists. If you cannot resize a DoubleSpace drive because it is too fragmented, you must defragment the drive with *DBLSPACE /DEFRAGMENT*

and then with Defragmenter.

To do this:

1. Run *DBLSPACE* to defragment the CVF.
2. Move all the sectors to the end of the disk by typing the following at the MS-DOS command prompt:

```
dblspace /defragment /f
```

3. Run Defragmenter with the */F* parameter by typing the following at the MS-DOS command prompt:

```
defrag /f
```

This should move all of the data to the end of the CVF and then back to the front. All of the unused sectors should then be contiguous.

Fully Optimizing Your DoubleSpace Drive

If you type *DEFRAG* to defragment a DoubleSpace drive, Defragmenter runs *DBLSPACE /DEFRAGMENT* when it has completed. Once both types of defragmentation have been done, the sample file appears similar to the following:

```
H:\DBLSPACE.000: [121354213221134----- ]
C:               [111112222333344455556-----
                  ----- ]
```

Note that files are contiguous on the virtual drive (drive C) but not within the CVF. Free space is contiguous in both places.

2. MemMaker Doesn't Optimize Batch Files in AUTOEXEC.BAT

If a third-party memory manager has optimized memory by using specific loading programs or parameters within batch files, the following error message is displayed after you run MemMaker:

```
Bad Command or Filename
```


Top Tips and Tricks

Note: You may also receive error messages from the third-party expanded memory manager (EMM) if commands such as *LOADHI* (from *QEMM*) are called.

More Information:

Some third-party memory managers optimize one or more levels deep in batch files called from the *AUTOEXEC.BAT* file, trying to load programs in upper memory. MemMaker does not analyze software called from batch files within the *AUTOEXEC.BAT* file, but instead treats the whole batch file as one entity and attempts to load it in upper memory.

If you receive error messages because commands specific to third-party EMMs are still in your batch files, edit the files and remove the third-party specific information.

For example, if you have the following *QEMM* command in a batch file called from the *AUTOEXEC.BAT* file, you receive the following error message after you run MemMaker:

```
LOADHI /R:2 doskey /insert
```

To work around this problem, remove the *QEMM*-specific information. For example:

```
doskey /insert
```

3. Troubleshooting MS Backup and MS Backup for Windows

If you encounter problems running Microsoft Backup for MS-DOS or Microsoft Backup for Windows, use the steps in the following section to correct the problems.

Common problems caused by incorrect system configuration include the following:

- Microsoft Backup appears to stop responding (hang) when run from the MS-DOS command prompt in Windows.
- Microsoft Backup for Windows causes Windows to close, leaving the MS-DOS command prompt displayed on the screen.
- Windows reports that the DMA buffer size needs to be increased to 64.

- Microsoft Backup fails the compatibility test.
- Troubleshooting Microsoft Backup for Windows and Microsoft Backup

1. Microsoft does not recommend or support running the MS-DOS-based version of Microsoft Backup (*MSBACKUP.EXE*) with Windows. If you choose to do this, you should create a program information file (PIF) with the following settings for Microsoft Backup:

Display Usage: Full Screen

Execution: Exclusive

2. Your *CONFIG.SYS* file should include the following settings (the values shown are minimums):

```
FILES=30  
BUFFERS=30  
STACKS=9,256
```

3. The *DMABufferSize=* line should be set to at least 32 in the [386Enh] section of the *SYSTEM.INI* file. In some situations, the DMA buffer size needs to be set to 40 (either in the *SYSTEM.INI* file, or using *EMM386.EXE*, or both).

4. If you are using *MSBACKUP.EXE* in Windows or the Windows version of Microsoft Backup (*MWBACKUP.EXE*), you should place the following line in your *SYSTEM.INI* file if *Setup* did not install it:

```
device=c:\dos\vfintd.386
```

If you omit this line, *MWBACKUP* displays an error message.

5. Using MemMaker with Multiple Configurations

You can use MemMaker with multiple configurations, but doing so requires that you create separate configuration files to run MemMaker. The "MS-DOS User's Guide" for version 6.0 explains this procedure in detail in Chapter 6 (pages 151 to 154).

This article explains why these separate configuration files are necessary.

More Information: MemMaker removes all

references to memory managers, the FILES= statement, the BUFFERS= statement, and the DOS= statement. It then adds the following statements at the top of the CONFIG.SYS file:

```
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE <settings>
buffers=<setting>
files=<setting>
dos=umb
lastdrive=<setting>
FCBS=<setting>
```

[Everything else remains in the same order]

Note: The <setting> and <settings> are determined by MemMaker for your specific installation and configuration.

Because of this design, MemMaker cannot work with configuration files containing Multi-Config sections that reference multiple memory managers or have different memory configurations.

MemMaker also uses a program called *SIZER.EXE* to determine memory requirements for device drivers and terminate-and-stay-resident (TSR) programs. MemMaker analyzes the contents of the entire *CONFIG.SYS* and *AUTOEXEC.BAT* files (regardless of Multi-Config headings) to calculate the optimum memory configuration for your system. Because the files are viewed as a single unit, each individual configuration will not be optimized after you run MemMaker.

5. Converting Stacker Compressed Removable Disks

To convert a Stacker-compressed floppy disk, you must have approximately 900K of free disk space on the removable disk. To convert a Stacker-compressed removable media disk (such as Bernoulli disks and removable optical disks) you must have approximately 1 megabyte (MB) of free disk space on the removable disk. The free disk space can be either at the end of the Stacker volume file (SVF) or on the uncompressed portion of the disk.

If you do not have enough free disk space to compress a removable disk and you cannot remove any files to create more free disk space (or the disk capacity is less than 900K [360K or 720K]), use the procedure below (which was taken from the *README.TXT* file).

More Information: DoubleSpace requires 900K free disk space so it can create a 512K DoubleSpace compressed volume file (CVF). DoubleSpace also requires 400K-500K free disk space so it can internally unfragment a highly fragmented SVF.

If DoubleSpace cannot convert a Stacker-

compressed volume file due to disk space limitations, do the following:

1. Insert the floppy disk in drive A or B.
2. Move the *STACVOL.DSK* file to the host drive on your hard disk. If you don't know which drive is your host drive, start DoubleSpace by typing *DBLSPACE* at the command prompt and choosing the Info command from the Drive menu. Exit DoubleSpace.

When you move the file, change its extension to .001. For example if the floppy disk is in drive A, and your host drive is drive D, type the following at the command prompt:

```
move a:\stacvol.dsk d:\stacvol.001
```

If you have insufficient disk space, start DoubleSpace by typing *DBLSPACE* at the command prompt, and choose Change Size from the Drive menu. Make the size of the uncompressed drive large enough to contain the Stacker-compressed volume file.

3. If are using Stacker version 2.0, delete the *STACKER.DRV* file on the floppy disk. If you are using Stacker version 3.0, delete the *STACKER.EXE* and *README.STC* files.

4. Covert the compressed volume file to DoubleSpace format, as in the following example:

```
dblspace /convstac=d:\stacvol.001
```

After DoubleSpace converts the file it will mount it.

5. Make sure your floppy disk is in drive A or B and then compress it by choosing the Existing Drive command from the Compress menu in DoubleSpace. Follow the instructions on your screen.

DoubleSpace mounts the floppy drive after it finishes compressing the floppy disk.

6. Exit DoubleSpace.
7. Use the *XCOPY* command to copy all the files on the new compressed drive on your hard disk to the compressed floppy disk. For example, if the compressed drive is J, and the floppy disk is in drive A, type the following at the command prompt:

```
xcopy j:\*.* a: /s
```

8. Delete the compressed drive on your hard disk. For example, if your compressed drive is J, type the following at the command prompt:

```
dblspace /delete j:
```

To confirm the deletion, type "Y" (without the quotation marks).

6 . DoubleSpace Err Msg: 'Not Enough Conventional Memory...'

If you start your computer using the interactive startup option in order to free enough memory to run the DoubleSpace Stacker conversion option, you may receive the following error message after DoubleSpace restarts your computer:

Not enough conventional memory

More Information: When you start your computer and press the *F8*, *F5*, or *SHIFT* key to free enough conventional memory to run the DoubleSpace Stacker converter, you must also use the interactive startup option when DoubleSpace restarts your computer. If you do not use this option, you will not have enough memory to complete the conversion.

If you use the *F5* key to bypass the *CONFIG.SYS* and *AUTOEXEC.BAT* files, the only directory in the *PATH* environment variable is *C:\DOS*; therefore, DoubleSpace cannot start Stacker.

Workaround

To work around this situation, either use the *F8* key to bypass some of your device drives before and during the Stacker conversion process, or remark out (REM) some of the device drivers and terminate-and-stay-resident (TSR) programs in your *CONFIG.SYS* file.

7. MemMaker Doesn't Remove All References to QEMM

MemMaker removes all references to *QEMM*. However, if one of your *QEMM* statements in the *CONFIG.SYS* file does not have an equal sign (=), *MemMaker* ignores it; the driver is not loaded by *MemMaker*, nor is it removed from the *CONFIG.SYS* file. If this occurs, you may receive an error message from *MemMaker* stating that another expanded memory manager (EMM) is already running.

To work around this problem, edit your *CONFIG.SYS* file with a text editor such as MS-DOS Editor and put equal signs in your *DEVICE* commands.

8. DoubleSpace Err Msg: Drive is Too Fragmented to Resize

When you try to resize a DoubleSpace drive, you may receive the following error message

Drive C is too fragmented to resize. Before resizing drive C,

defragment it by typing

DEFRAG.EXE /H /Q <x>:

at the MS-DOS command prompt where *<x>* is the drive letter of the compressed drive.

Running *DEFRAG /H /Q C:* does not correct this problem; you still cannot resize the DoubleSpace drive.

This error can occur if the drive is too fragmented or if a program (such as *MIRROR* or *Norton Image*) places a hidden file at the end of the DoubleSpace drive.

More Information: If the problem is not being caused by a delete tracking program (such as *MIRROR*), and *DEFRAG /H /Q C:* does not correct the problem, edit the *DBLSPACE.INI* file and increase the *MaxFileFragments* setting.

To do this:

1. Remove the Read-Only, System, and Hidden file attributes on the *DBLSPACE.INI* file. For example, if drive H is your host drive, type the following at the MS-DOS command prompt and press *ENTER*:

```
attrib h:\dblspace.ini -r -s -h
```

2. Using MS-DOS Editor, edit the *DBLSPACE.INI* file and increase the value for *MaxFileFragments* - 2000 is a good number to try.

3. Save the *DBLSPACE.INI* file and quit MS-DOS Editor.

4. Use the *ATTRIB* command to reset the file attributes on *DBLSPACE.INI*. For example, if your host drive is drive H, type the following command and press *ENTER*:

```
attrib h:\dblspace.ini +r +s +h2.
```

5. Restart your computer and try to resize the drive.

Delete Tracking Programs

This problem can also occur if a program (such as *MIRROR* or *Norton Image*) creates a file at the end of the drive. *MIRROR*, for example, creates a file called *MIRROSAV.FIL*; *Norton Image* creates a file called *IMAGE.IDX*.

Since this file has read-only, hidden, and system file attributes set, it cannot be moved when you run Defragmenter (*DEFRAG.EXE* or *Defrag*). To allow Defrag to move the hidden system file, remove the file attributes, then use *Defrag* with the */Q* and */H* switches. For example, type "*DEFRAG /Q /H C:*" (without the quotation marks) at the MS-DOS command prompt and then press *ENTER*.

Note: If you do not use MIRROR or Norton Image, it is possible that another program has placed a file with its system attribute set near the end of the drive.

To search for hidden files on your drive, type the following at the MS-DOS command prompt:

```
dir /s /ah /p
```

To search for hidden SYSTEM files on your drive, type the following at the MS-DOS command prompt:

```
dir /s /as /p
```

Note: Since *MIRORSAV.FIL* may exist on the host drive, you should log on to H: and do a *DIR /AH /S* to look for these hidden system files.

You can use the ATTRIB command to remove the file attributes on the file. For example, if you have the MIRROR file on drive C, issue the following command at the MS-DOS command prompt:

```
attrib -r -a -s -h c:\mirorsav.fil
```

After you run Defrag with the parameters suggested in the error message, you should be able to resize the DoubleSpace drive.

The Norton products included here are manufactured by a vendor independent of Microsoft; we make no warranty, implied or otherwise, regarding these products' performance or reliability.

9. MSAV: Cleaning Boot-Sector Viruses from Compressed Drives

Microsoft Anti-Virus may detect a boot sector virus (such as STONED or Michelangelo) but may fail to clean it. This problem can occur for two reasons:

- The boot sector virus is on your DoubleSpace-compressed drive and your host drive.
- All of the virus code is not being overwritten

More Information: The Boot Sector Virus is on Your DoubleSpace-Compressed Drive and Your Host Drive.

Boot-sector viruses are activated when you start your computer from the infected drive (usually drive C) and alter MS-DOS startup code located in the boot sector of your hard disk. DoubleSpace drives do not actually have MS-DOS startup code to corrupt; however, if a virus is detected on a compressed drive, it is likely that the host drive is also infected.

You can detect and clean viruses from all local drives by using the following command:

```
msav /c /l
```

The /C switches causes Microsoft Anti-Virus to scan and clean the disk. The /L switches causes Microsoft Anti-Virus to scans all local drives except A and B.

All of the Virus Code is Not Being Overwritten

When a boot sector virus infects a hard disk, it moves the original boot sector information to another location on the disk and replaces it with virus code. Microsoft Anti-Virus finds the original boot

sector information and uses it to overwrite the virus code. If the original boot sector information is incomplete or has been damaged in some way, all of the virus code may not be overwritten. When Microsoft Anti-Virus scans the drive and finds the remnant of the virus code it report it as a virus.

Workaround if CHKDSK reports 655,360 Total Bytes

If the Total Bytes Memory reported by MS-DOS CHKDSK is 655,360 bytes, the virus is not active, and the following steps should be taken to clean the remnant of the virus code from the drive:

1. Back up all data on all partitions on the hard drive. You might want to use the Microsoft Backup Compare feature to ensure that all files have been backed up successfully.

2. If the infected hard drive was partitioned with MS-DOS *FDISK*, the virus remnant may be cleaned by running *FDISK* with the */MBR* parameter. This will refresh the Master Boot Record and overwrite any remaining virus code. Turn the computer off and then back on after this procedure.

Warning You should not use *FDISK/MBR* if :

- the disk was partitioned using Storage Dimensions' SpeedStor utility with the */Bootall* option
- more than 4 partitions exist
- certain dual-boot programs are in use

For more information, query on the following words in the Microsoft Knowledge Base:

FDISK /MBR REWRITES MASTER BOOT RECORD

3. Microsoft Anti-Virus to determine whether the procedure eliminated the remaining virus code.

Workaround if CHKDSK reports less than 655,360 Total Bytes Memory

If CHKDSK reports less than 655,360 Total

Bytes Memory, the virus may still be active -- proceed as follows:

1. Boot from a write-protected system disk, known to be free of virus infection (such as your original MS-DOS 6 Upgrade Setup disk 1).

Note While the 1.2 MB (5.25 inch) floppy disks are write protected, the 1.44 (3.5 inch) floppy disks are not. If you have the 1.44 inch floppy disks, you should slide with write protect tab so the write protect whole is open on all your disks. Be sure you scan the floppy disks to ensure they are not infected. If they are, order new disk from Microsoft Consumer Sales.

1. Put disk 3 of either the 1.2 MB (5.25 inch) or 1.44 (3.5 inch) disk set in drive A.

2. Change to the MS-DOS prompt at drive A and run Microsoft Anti-Virus. For example, type the following at the MS-DOS command prompt, pressing *ENTER* after each line:

```
a:
msav c: /c /l
```

3. Remove the floppy disk drive from drive A and restart your computer.

4. Scan all hard drives to ensure the virus has been removed.

Note The new location of the original boot sector information may be different for each boot sector virus. Microsoft Anti-Virus can therefore clean only the boot sector viruses on the Microsoft Anti-Virus Virus List.

Which Boot Sector Is Executed During Startup?

If drive C is uncompressed, its boot sector is run during system startup. If drive C is compressed, the boot sector of its host drive is run.

What the Boot Sector Does

MS-DOS 5.0 and 6.0 boot sector startup code does the following:

- Confirms that the system files (IO.SYS and MSDOS.SYS) are the first two files in the root directory of the drive.

- Loads and executes the first three sectors of the IO.SYS file.

The boot sector is executed by the master boot record (MBR). If you have more than one partition, the MBR determines which one to run using the partition table.

How Boot Sector Viruses Get on a Compressed Volume File (CVF)

If a drive is infected before you install

DoubleSpace, some boot virus information may be replicated on the DoubleSpace CVF. Although it cannot affect the system from the DoubleSpace volume, the signatures may still be detected here. To correct this, clean both the host drive and DoubleSpace-compressed drive.

10. FastTips: DoubleSpace Q&A

1. Q. How can I receive the Stacker(R) Conversion Disk?

A. You can order the "Conversion Disk for Users of Stacker" by sending in \$10 and the Conversion Disk Offer coupon from your "Microsoft MS-DOS 6 User's Guide." Unfortunately, we cannot make this conversion tool available electronically. For more information on the MS-DOS 6 Stacker Conversion tool, call Microsoft Sales and Service.

2. Q. Why does DoubleSpace create a drive identified by the letter H when I have drives A, B, and C only?

A. To avoid conflicts with existing drives, DoubleSpace examines the existing drive assignments during installation to find the highest drive letter currently in use. It then skips the next four letters and assigns the fifth letter to the new DoubleSpace drive.

For example, if your computer has two floppy disk drives (A and B) and a hard disk drive (C), DoubleSpace locates the highest letter (C); skips drive letters D, E, F, and G; and then assigns drive letter H for its own use.

For more information, refer to the "Freeing Disk Space" chapter in the "Microsoft MS-DOS 6 User's Guide."

3. Q. I am currently using a third-party disk-compression software package and now want to convert to DoubleSpace. How can I do this?

A. To convert to a DoubleSpace drive, use the following steps:

1. Install the MS-DOS 6 Upgrade if you haven't already done so.

2. Back up your program and data files on all drives using Microsoft Backup or a third-party utility.

3. Create a bootable MS-DOS floppy disk. To do this, insert the original MS-DOS 6 Setup Disk 1 in either drive A or drive B, type the following command, and then press *ENTER*

```
drive:setup /f
```

where "drive" is the floppy disk drive containing Setup Disk 1.

Important After you type the above command and Setup prompts you to insert a disk to create the startup floppy disk, you **MUST** create that disk in drive A. Also, be sure that you choose to install on drive A.

1. Verify that the disk you have just created is bootable by inserting the disk in drive A and pressing **CTRL+ALT+DEL**. If your system starts up, continue with the next step. If it does not, reboot from your hard disk and repeat step 3 until you have created a bootable floppy disk.

1. Format the drive with the compressed volume file (CVF). To do this, type the following command at the A: prompt and then press **ENTER**

format drive:

where "drive" is the floppy disk drive containing the CVF.

Note If you are formatting drive C, use the /s switch with the format command to make the hard disk bootable.

1. If you formatted a drive other than C, skip to step 7. If you formatted drive C, you must reinstall the MS-DOS 6 Upgrade. To do this, insert Setup Disk 1 in drive A or drive B, type the following command, and then press **ENTER**

drive:setup

where "drive" is the floppy disk drive containing Setup Disk 1.

Follow the steps on the screen to install the MS-DOS 6 Upgrade.

Note If you used Microsoft Backup for MS-DOS to back up your compressed drive, be sure to reinstall Backup for MS-DOS when Setup prompts you to do so. (You need this program to restore your backup disks.)

1. Install DoubleSpace. To do this, type "dbspace" at the MS-DOS command prompt, press **ENTER**, and then follow the steps on the screen.

Note For more information on DoubleSpace, refer to the "Freeing Disk Space" chapter in the "Microsoft MS-DOS 6 User's Guide" or type "help dbspace" (without the quotation marks) at the MS-DOS command prompt and press **ENTER**. For more information on Microsoft Backup, refer to the "Managing Your System" chapter in the "Microsoft MS-DOS 6 User's Guide."

1. Restore the files from your backup disks by using Microsoft Backup or your third-party backup utility. If you are using a third-party backup utility, you must install the software onto the hard disk. Refer to the manufacturer's documentation for the procedure to do this.

2. **Q. I installed DoubleSpace and now each time I enter Microsoft Windows I receive the**

error "Corrupt Swapfile Warning." I have set up my permanent swap file many times, but I continue to receive this error. How can I correct this problem?

A. In this case, the error "Corrupt Swapfile Warning" probably means your permanent swap file is being created on a DoubleSpace compressed volume. Windows cannot create a permanent swap file on a compressed volume. To correct this problem, set the permanent swap file to a noncompressed drive.

Windows contains code to detect and avoid compressed volumes created with third-party software. However, Windows cannot detect compressed volumes created with DoubleSpace because Windows' release predates the release of DoubleSpace.

For more information, refer to the "Freeing Disk Space" chapter in the "Microsoft MS-DOS 6 User's Guide," or type "help dbspace" (without the quotation marks) at the MS-DOS command prompt and press **ENTER**.

3. **Q. I am trying to run Windows 3.0 in real mode so that I can change my permanent swap file with SWAPFILE.EXE. Every time I try, I receive the error message "Unsupported DOS version; upgrade to DOS version 3.1 or higher." What causes this error?**

A. This is an incorrect message. To correct this problem, run the SPATCH.BAT file, which is located on your original MS-DOS 6 Upgrade disks.

11. FastTips: MemMaker Q&A

1. **Q. How can I free conventional memory on my computer?**

A. You can optimize your computer memory use automatically by running the MS-DOS 6.0 MemMaker program. There are some restrictions on using MemMaker to optimize your system memory. MemMaker works on 80386 and 80486 computer systems only; it does not work on 80286 or 8088 systems. It works with the MS-DOS *HIMEM.SYS* and *EMM386.EXE* memory-management utilities only; it does not work with third-party utilities, such as *Gemm(TM)* and *386MAX(R)*.

MemMaker reviews your *CONFIG.SYS* and *AUTOEXEC.BAT* files and then optimizes them by loading terminate-and-stay-resident (TSR) programs and installable device drivers into the memory area between 640 kilobytes (K) and 1 megabyte (MB), which is called the upper memory area (UMA). Before you run *MemMaker*, verify that all device drivers are being loaded properly and that any hardware they control is also functioning correctly. To run *MemMaker*,

type "memmaker" (without the quotation marks) at the MS-DOS command prompt, and press *ENTER*.

Read each screen and follow the instructions listed. During this process you are prompted to choose either *Express Setup* or *Custom Setup*. We recommend using the express mode of *MemMaker Setup* initially. *Setup* prompts you to verify that your applications require expanded memory. If you are unsure, refer to your software documentation.

MemMaker reboots your machine twice while it determines the optimal configuration. When it has chosen a configuration, a screen reports how much memory was available before you ran *MemMaker* and how much is available now. If the displayed memory is not what you expect or need, press the *ESC* key to undo changes made by *MemMaker*.

If you accepted the changes made by *MemMaker* and now want to undo them, type "memmaker /undo" (without the quotation marks) at the MS-DOS command prompt, and then press *ENTER*.

For more information about *MemMaker*, please refer to the "Managing Your System" chapter of the "Microsoft MS-DOS 6 User's Guide."

2. Q. After MemMaker rebooted my computer, the computer stopped responding ("hung"). How can I correct this problem?

A. *MemMaker* tries to use UMA locations that it determines are free. If your machine hangs, note any error messages that are displayed, then restart your computer. *MemMaker* detects that your compu-

ter is being restarted before the optimization is complete and displays a screen listing possible reasons for the interruption and instructions for resuming or quitting the optimization. Accept the default options to continue.

For more information regarding *MemMaker*, please refer to the "Making More Memory Available" chapter of the "Microsoft MS-DOS 6 User's Guide."

3. Q. After running MemMaker, some programs on my computer no longer function properly. How can I correct this problem?

A. Some programs and device drivers are not designed to be loaded into the UMA. If you have such a program, it cannot work correctly when loaded into the UMA. To correct this problem, you must change how the program is loaded, thus changing where it will be loaded in memory. Two procedures for doing this follow.

If the program is being loaded from the *CONFIG.SYS* file with a *DEVICEHIGH* command, open the *CONFIG.SYS* file in an ASCII text editor, such as MS-DOS Editor, and change the line for the device driver to read device instead of devicehigh. Save the file, quit the text editor, and then reboot your computer by pressing *CTRL+ALT+DEL*.

If the program is being loaded in the *AUTOEXEC.BAT* file, open the *AUTOEXEC.BAT* file in an ASCII text editor and remove the *LOADHIGH (LH)* command for that program. Save the file, quit the text editor, and then reboot your computer.

BBS News

First, the BBS is about to have a holiday. Well, the BBS isn't, but I am.

I'll be away from Christmas Eve until at least the 2nd of January. While some precautions have been taken, any serious problems in that period will most likely leave the systems offline.

During this period, new user registrations will not be processed, messages will not be answered, and there will probably be little in the way of new files appearing.

Lines 1 & 2 go Maximus

The conversion of Lines 1 and 2 to the Maximus 3.00 beta has not yet taken place. It may be done before Christmas, but is more likely to occur early in the new year.

This conversion will involve a short period of downtime, since the user record format, file and message area formats all have to be change to suit the new system.

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ADVENTURE GAMES

BBUG NO 2138 ANOTHER LIFELESS PLANET & ME WITH NO BEER Ver 1.3

*CLASSIFICATION * Games * Hard Disk*

NOBEER is a logical adventure game. It's a big one, too, created with the Gamescape adventure game generation system. The response has been incredible. If you like adventure gaming, this is a must have! In NOBEER, the player is an astronaut stranded on a hostile alien planet (sound familiar? Players of Marooned Again will recognize the character immediately). The goal: find a way to get to an alien space ship and rig it to blast off to safety. That's easier said than done; as the astronaut you will face perils such as deadly slurpers, air squids, bladderbeasts and the terrible pun palm tree!

Unlike many adventure games, ANOTHER LIFELESS PLANET AND ME WITH NO BEER is completely logical. Everything in the game has a reason (well, maybe) and everything you do has a purpose (most of the time) and above all, everything is logical (well, to an alien, anyway). This game is funny too. Do you know what happens when you eat a frog? Or the only way to get past an alien monster? Have you ever tried to munch a slimeball? Do you know what it feels like when you try to pick up slime? What does a dead astronaut's head look like? You'll find all this out in ANOTHER LIFELESS PLANET AND ME WITH NO BEER.

BBUG NO 2150 HUGO'S HOUSE OF HORRORS Version 1.3

*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

If you are looking for an exciting, fun filled game, HUGO'S HOUSE OF HORRORS will fit the bill. Take your hero through an animated adventure, solving puzzles, finding hidden objects, and rescuing the sweet Penelope from the hosts of the demonic mansion. At the same time stay alive and don't let yourself be turned into dog food! The graphics are fantastic!

BBUG NO 2158 THE LAND Version 1.9 (Disk 1 of 2, also 2159)

*CLASSIFICATION * Games * Hard Disk*

A fantasy role-playing game based on the book "The Chronicles of Thomas Covenant." Choose from six character classes, and explore towns, villages, and dungeons in search of treasure and magic.

Buy and trade armor, weapons, food, or magic items from the townspeople, who sometimes have helpful hints about the game. Mapping is simple in THE LAND since the program does it for you. As you search a town, a dungeon, or the outside world, an overhead view shows where

you are, and how much is left to explore of that region.

You can save your game at any time — handy if you are about to do battle with a dragon, or Hydra. Like Ultima and Questron this game will take you many hours to complete as your character gains experience and knowledge in the place called THE LAND.

**BBUG NO 2159 THE LAND Version 1.9 (Disk 2 of 2,
also 2158)**

BBUG NO 2296 SUPER GAME PAK Version 05/90

*CLASSIFICATION * Games * Hard Disk*

SUPER GAME PACK contains six new games for you to explore and enjoy. In the SHRINE OF KROZ, you are searching for the precious Crown within the mysterious kingdom of Kroz. Undoubtedly, the Crown must be guarded by unspeakable dangers. Armed with a whip and great courage, you decide to continue your journey.

WORD WHIZ is a word challenge game to measure your knowledge of the English language. For example, are you positive you know what the word "peruse" means? Most people believe it means "to skim" or "to glance over," but in fact it means "to read carefully." Most questions focus on a key word. There are four multiple choice answers to choose from. Your quest in the ROGUE RUNNER is to recover the precious Heart of Courage, hidden deep inside the treacherous Ezam dungeons. The dungeons are populated by the lost souls of those who tried the journey before you. You may find maps and pick axes left behind by these adventurers. Keep an eye out for the scattered Teleport Scrolls. They will help you escape imminent death.

Test your knowledge in the world of Star Trek with TREK TRIVIA — the most popular TV series of all time, with TREK TRIVIA. There are 100 questions to pick your brain, each with four possible answers.

ASTEROID RESCUE has you put in command of the Space Eagle. Your mission is to rescue the crew members that have been blown from the USS Sagan during an uncharted asteroid storm. The crew members from the USS Sagan were able to get into their life suits, but their air supply will not last long. Help is needed immediately!

BLOCK FIVE is a simple game to learn, yet is quite difficult to master. The object is to place five of your Xs in a row while preventing the computer opponent from putting five Os in a row.

BBUG NO 2438 THE LAST HALF OF DARKNESS

*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

Do you like graphic adventure games with sharp pictures, mouse support, save and restore game functions, and spine-shivering puzzles to solve? Then THE LAST HALF OF DARKNESS is for you!

When the game starts, you find yourself in front of

- * Adventure
- * Arcade
- * Card & Board
- * Childrens'
- * Educational
- * Puzzles
- * Text
- * War
- * Windows

Complete Listing of

your recently deceased aunt's mansion. In order to gain the title to her fortune and estate, you must find the ingredients to a potion she was working on before she was killed. It won't be easy as there are many strange denizens in the old mansion. Some will help you in your quest, while others would just as soon finish you off!

Choose one of the listed commands with either the keyboard or mouse. Use speaker sound or Covox's Speech Thing. Examine everything, take what you can, and don't forget to save your game before you do anything dangerous which, in this game, can be a frequent thing. What are you waiting for? Dust those cobwebs off your trusty old map notebook and take a journey to THE LAST HALF OF DARKNESS!

BBUG NO 2505 COMMANDER KEEN MAROONED ON MARS Volume 1

CLASSIFICATION * Games * Hard/Floppy Disk * EGA

COMMANDER KEEN "INVASION OF THE VORTICONS" - MAROONED ON MARS features ultra high-speed smooth-scrolling EGA graphics and superb sound effects. The animation and scrolling is updated at nearly 40 frames per second, for comparison, motion picture quality cartoons are filmed at only 24 frames per second.

The story of Commander Keen is epic, and in the style of the memorable matinee serials, like Flash Gordon. You play the role of Billy Blaze, eight year-old kid genius who builds an interstellar ship when not working at home on his college fast-track degree. Among other household objects, Billy uses his Nintendo joystick for flight control and his mom's vacuum cleaner (heavily modified) for his ship's ion propulsion system (with pile height adjustment).

At the hint of galactic trouble, Billy dons his brother's football helmet and becomes "Commander Keen"-defender of Earth! Ever on the side of justice, fairness, and high calorie junk food, Keen dispenses justice with an iron hand.

Keen's first adventure takes you to Mars, where the Vorticon invasion force is planning their conquest of Earth. While Keen is exploring Mars the Vorticons steal pieces of his ship and hide them within their cities. Can Keen recover all the pieces and repel the Vorticon invasion? You'll explore many dangerous cities, packed with diabolical traps and hideous creatures, both of Martian and Vorticon origin. Use your pogo stick to reach high ledges and jump deadly pits, and use your ray gun to stun the Vorticon invaders. Can you find the secret city?

BBUG NO 2535 JUMPJET Version 1.04

CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA * Sound Card Supported

For those who want to BLOW things up after a hard day of classes or a hard day of work, JUMPJET may be the remedy for you. JUMPJET is more or less a shoot'em down type of arcade game where the you can test your shooting skills and rake up a high-score.

Your mission: seek and destroy three enemy bombers. This is one of many missions that will let you find out if you have what it takes to fly a JUMPJET. Good arcade style graphics make it easy to play. Sounds simple? Well maybe. Give it a try. May be addicting.

BBUG NO 2573 THE LAST HALF OF DARKNESS

CLASSIFICATION * Games * CGA * Hard/Floppy Disk

Do you like graphic adventure games with sharp pictures, mouse support, save and restore game functions, and spine-shivering puzzles to solve? Then THE LAST HALF OF DARKNESS is for you!

When the game starts, you find yourself in front of your recently deceased aunt's mansion. In order to gain the title to her fortune and estate, you must find the ingredients to a potion she was working on before she was killed. It won't be easy as there are many strange denizens in the old mansion. Some will help you in your quest, while others would just as soon finish you off!

Choose one of the listed commands with either the keyboard or mouse. Use speaker sound or Covox's Speech Thing. Examine everything, take what you can, and don't forget to save your game before you do anything dangerous which, in this game, can be a frequent thing.

NOTE - This is the CGA version of BBUG disk #2438.

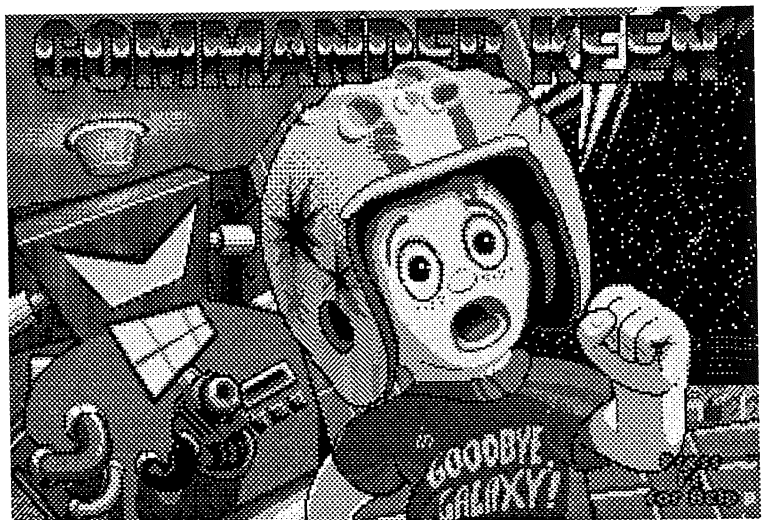
BBUG NO 2769 THE HOUSE AT THE EDGE OF TIME Version 1.0

CLASSIFICATION * Games * Floppy Disk

THE HOUSE AT THE EDGE OF TIME, a puzzle of time and space. Your eccentric uncle has died under mys-



Games
for all
ages
and
tastes



terious circumstances and left you fortune—that is, IF you can survive a night in his enormous Pseudo-Tudor-Greco-Gothic-Byzantine mansion, where time and space are not exactly what they seem. In this text adventure, typed commands allow you to move around the mansion, interact with those you meet, and find the key to—well, you'll find out.

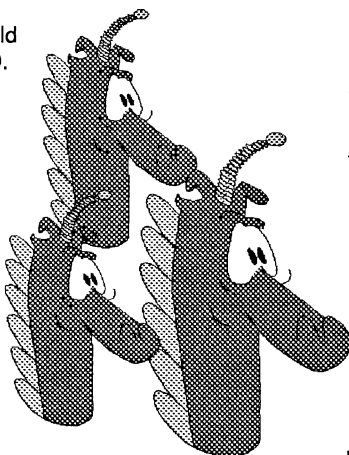
This game can be played more than once, because it's never the same game twice.

BBUG NO 2806 THE DRAGON SWORD Version 2.71

CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA

And such is the world of the DRAGON SWORD. Magic, monsters, mayhem. But it wasn't always so.

Bralka was once a peaceful town with a prosperous future. Townsfolk once walked the streets without fear. Store owners once thrived on the wealth of trading Bralka received. The crops were good, the land at peace.



Then came the dragon. Your goal as adventurers, is to penetrate the web of defenses and secrecy surrounding the Dragon Sword and its whereabouts and retrieve the weapon for use against the mighty Oijngate. The citizenry of Bralka are depending on the return of the sword—they will pay dearly for its recovery. Those powerful and crafty enough to return it shall live forever in the minds of the people.

DRAGON SWORD is a fantasy role-playing game very much like the popular "Wizardry" series. You play the part of a party of adventurers prepared to take on all challenges to seek out and find the "Dragon Sword"—a weapon mighty enough to defeat the dragon Oijngate.

BBUG NO 2940 VIRTUAL REALITY

CLASSIFICATION * Games * Floppy Disk * EGA/VGA * 286 or better

VIRTUAL REALITY comprises a collection of games

which allow you to interact in real time within a small environment or "virtual world".

MAZEWARS is a maze game coupled with adventure. You must exit the maze to win and go on to a harder level. Level 0 ... is the slowest, and is for the beginners. Level 10... is the final level, and is very difficult.

Before you are allowed to exit, you must destroy all the monsters. The monsters behave like land mines. They move at will and if one touches you, you blow up and lose the game.

SUPERSCAPE Version 1.1 is an interactive demonstration allowing you to interact within the environment of your computer which becomes a "virtual" environment. After loading the program the use of pre-defined keys allows you to move your viewpoint forwards into the environment, change your view to either left or right, explore and alter locations and objects within the virtual world created.

RUNVGA is a demo of Virtual Reality Studio. Apart from being a demo program it is also a full-fledged adventure game in which your goal is to get off the planet.

BBUG NO 2927 COMMANDER KEEN IV - CGA (Disk 1 of 2, also 2928) GOODBYE GALAXY!

CLASSIFICATION * Games * CGA * Hard Disk * Joystick/Mouse * Sound Card

Eight year old Kid genius, Billy Blaze, is in his backyard fort testing out his newly built Photachyon Transceiver. Simply put, it's an instantaneous radio that can pick up signals anywhere in the galaxy.

While listening to an alien sitcom, "My Favorite Garg", Billy hears a disturbing message. Bzzt...grdddz...blow up...ferrrrt...zzz...galaxy and... buzzt...rule...pzzzr...bipl! "So the Shikadi are planning to destroy the galaxy, huh?", thinks Billy. "Sounds like a job for... Commander Keen!"

In this episode, "Secret of the Oracle", Keen rockets to an alien planet to rescue the Keepers of the Oracle, who are the only ones capable of helping Keen find out more about the Shikadi. Who are the Shikadi and why are they planning to use our Galaxy as target practice!

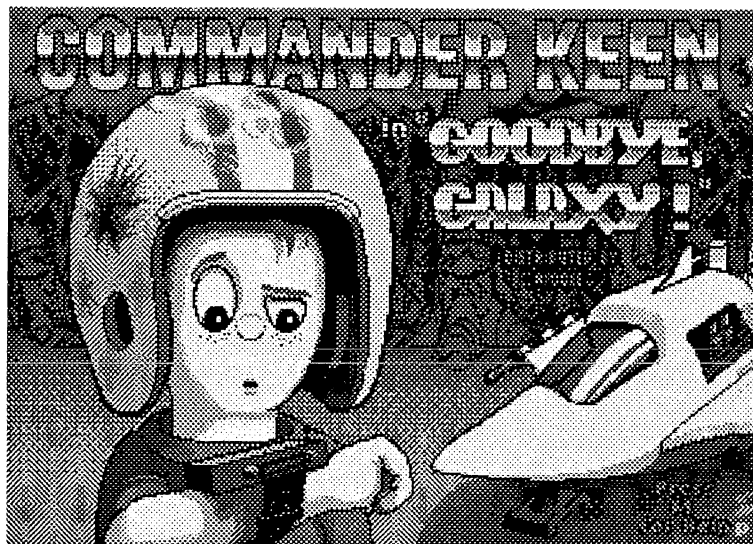
"Secret of the Oracle" is packed with exciting features which include: Incredibly smooth scrolling and animation, Titled perspective—gives all levels the appearance of depth. 1.6 Megs graphics for episode one, Ad Lib soundtrack. Episode one has 5 songs, 14 creatures in episode one, Three skill levels, which can add new creatures to the game! You can finally save ANYWHERE in the game, even inside levels. Amazing ending animated sequences. Star Wars-style text scrolling! Terminator-style opening sequence! Hundreds and hundreds of screens to explore, with HUGE levels. Keen has new abilities, such as hanging onto ledges and pulling himself up. Self-running demonstration mode. Joystick support. More fun than you can probably live with!

BBUG NO 2928 COMMANDER KEEN IV - CGA (Disk 2 of 2, also 2927) GOODBYE GALAXY!

BBUG NO 2948 PC-SHERLOCK Ver 1.0

CLASSIFICATION * Games * Floppy Disk * Herc/EGA/VGA/SVGA

PC-SHERLOCK is a "brain" game involving logical reasoning and deduction. You and your PC play against each other to deduce each other's secret number.



PC-SHERLOCK presents your PC as an extremely intelligent player who is tough to win against. Of course, every advantage is given to the human player to ensure that good players can really win against the PC. Surprisingly, the game becomes more and more exciting as you learn to apply your logic in a more skillful manner. Of course, PC-SHERLOCK is random and there is no fixed strategy or formula to win. So it remains exciting even after thousands of plays.

BBUG NO 2975 THE ANCIENTS I - THE DEATHWATCH Version 1.2

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

ANCIENTS I: THE DEATHWATCH is a fantasy role playing game similar to the games like EYE OF BEHOLDER and BARD'STALE.

You can create and save your own characters. There are four classes and three races (elf, dwarf, human), as well as several face portraits (both male and female) for displaying your character on the screen.

The game a three dimensional viewing screen for exploring the town and the dungeon as well as a dialogue box for encountering other characters or special areas of the town and dungeon. The town has an inn, an equipment shop, guild, a temple, and a casino. All commands are performed by clicking the mouse on one of several screen icons or on a particular line of text in dialogue box - rarely will you ever need to touch the keyboard.

Weaponry, armor and the inventory of each character can be displayed and manipulated on the screen using the mouse. In combat the monsters are displayed on the screen, and each character can attack, defend, use an item, cast a spell, or flee. Only magicians and friars can opt to cast spells. In the game your party of characters will be set on various missions, and clues will be given on the way. Games can be saved and then restored at a later date.

BBUG NO 8960 SECRET AGENT Ver 1.0

CLASSIFICATION * Games * EGA/VGA * Floppy Disk

SECRET AGENT -THE HUNT FOR RED ROCK ROVER.

To agent 006 - For your Eyes only

Government scientists have been working on a secret project: A ruby powered laser satellite with ability to pinpoint and fire on any target from Earth orbit, code named RED ROCK ROVER. Two weeks ago the blueprints were stolen by the Diabolical Villain Society (DVS) which will then use them to build the ultimate terrorist threat.

You've been chosen by the bureau to infiltrate DVS headquarters and secure the blueprints. The headquarters are located on a series of islands in the Pacific basin.

Your mission, should you chose to accept it, is to bring back the secret blueprints to the "Red Rock Rover" project. You will be isolated from outside help.

You should be warned that this misson is of global importance and must succeed in order to maintain a balance of world power.

We do not have a file on the head of the DVS, but he is suspected to be very cunning and dangerous. DVS headquarters are built up as an elaborate series of fortresses on three hell guarded islands.

As always, should you be caught the Bureau will disavow any knowledge of your existence.



BBUG NO 8909 BATTLES ON DISTANT PLANETS Version 1.0

CLASSIFICATION * Games * Windows * Hard Disk * EGA/VGA * Sound Blaster

STARDATE 2140.2: BATTLES ON DISTANT PLANETS The objective of this First Battle scenario, is to destroy all the opposing force units before the opposing force destroys all of the unit you control. There are BLUE and RED units in this scenario, which mostly conform to the technology of warfare found in 20th century planet Earth armies. There are Main Battle Tanks, Recon Tanks, AFVs (Armored Fighting Vehicles), MLRSs (Multiple Launch Rocket System), Attack and Transport Helicopters and Ground Support Jet Aircraft. And of course, squads of armed troops (Mech Squad). The battlefield is a world of several islands in a planet covering ocean. The BLUE forces are occupying the north east island, called Northland. The RED units have landed two tanks on Northland in an attempt to take control of the island from the BLUE forces. BLUE Air support is available from the BLUE base on the island of Centerland, which is in the center of this planet's ocean. RED Air support and assault infantry are available from the RED base on the isle of Homeland, which is due east of Northland.

BBUG NO 8910 COSMO'S COSMIC ADVENTURES (Disk 1 of 2, also 8911)

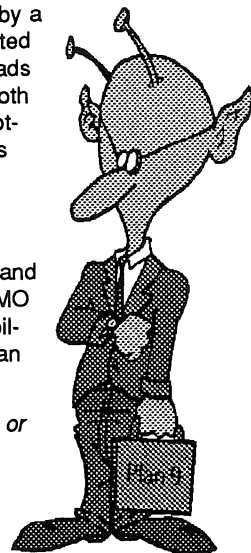
CLASSIFICATION * Games * Hard Disk * EGA/VGA * Joystick * 286/386/486

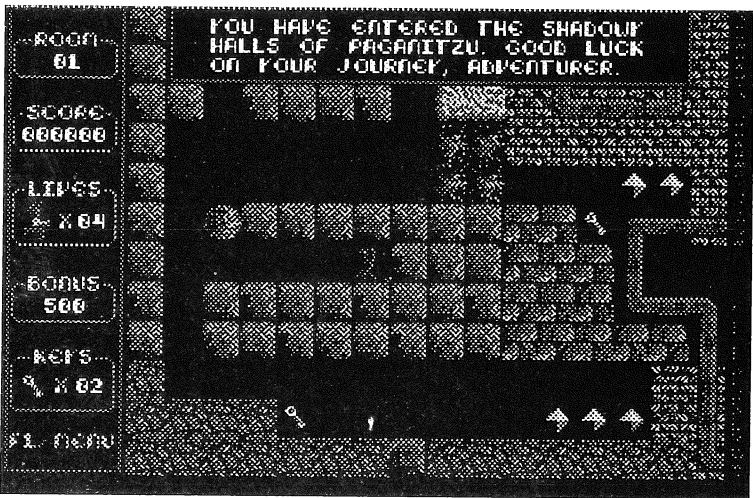
What's green with red spots, has suction hands, and has an overbite like Bart Simpson? Of course, the answer is COSMO! A young alien on his way to visit Disney World with his parents. That is, until their ship is struck by a blazing comet, forcing them to land on an uncharted planet. While his Dad repairs the ship, COSMO heads off to explore the strange planet. Upon returning, both his Mom and Dad are gone—and big, scary alien footprints are all around his ship! Oh no...has COSMO's parents been taken away? Possibly to be eaten?! Well, COSMO is off to the rescue.

COSMO's Cosmic Adventure is an epic journey across a forbidden planet full of dangers and surprises. Can he save his parents in time? COSMO is a lovable extra-terrestrial (alien) with a special ability, he has hands that work like suction cups! He can cling to walls, ledges, and all sorts of things.

*** NOTE: COSMO REQUIRES an 80286 or better system to run. ***

BBUG NO 8911 COSMO'S COSMICADVENTURES (Disk 2 of 2, also 8910)





Paganitzu

BBUG NO 8942 PAGANITZU Episode 1

*CLASSIFICATION * Games * CGA/EGA * L/Floppy/ Hard Disk * Joystick Optional*

Journey into an Aztec pyramid and survive the adventure of a lifetime! No other game forces you to die in order to complete it! That's just one of many incredible plot twists in this excellent puzzle-oriented arcade/ adventure game.

In Paganitzu you'll guide your character, Alabama Smith (Al), into a vast and dangerous Aztec pyramid. Indiana Jones never had it so tough! Inside, you'll confront traps of increasing perplexity, and creatures you never dreamed existed.

In episode one, "Romancing the Rose", Al discovers that the ancient Aztec pyramid, known as "Paganitzu", holds many dark secrets. Al inadvertently releases a spirit of immense power, who's desire is to ravage the world.

This is a genuine adventure—not just a series of levels to conquer. You can follow different routes to achieve the winning goal. In fact, you can finish Paganitzu and still have missed many of the game's intriguing situations or animated sequences.

Phenomenal animated sequences carry you through the entire pyramid and to a dramatic conclusion.

Paganitzu is an innovative arcade game. It tests your mind more than your finger speed. Each part has new puzzles, new graphics, and stunning story surprises. You won't be bored!

Exciting features: _ High-speed animation _

Many full-screen images _ Dramatic animated sequences
_ Arcade quality sound effects _ Over 1 Meg of graphics.
_ Built-in hints _ Often hilarious game _ Save and restore up to five games _ Many secret rooms and treasures

By the way: "Paganitzu" is Aztec for "Temple of the Gods".

BBUG NO 8944 WOLFENSTEIN 3-D (Disk 1 of 2, also 8945)

*CLASSIFICATION * Games * Hard Disk * VGA Only
* Mouse/Joystick * Soundblaster * 80286/386/486 system*

WOLFENSTEIN 3-D is simply a technology breakthrough! The first person perspective 3-D gameplay you'll be viewing is the fastest of any PC game game—much faster than that seen in Origin System's The Stygian Abyss!

Incredible Sound Blaster digitized sound effects are used throughout the game.

You're William J. "B.J." Blazkowicz, the Allies' bad boy of espionage and a terminal action seeker. Your mis-



Wolfenstein

Hugo III Jungle of Doom

sion was to infiltrate the Nazi fortress Castle Hollehammer and find the plans for Operation Eisenfaust, the Nazi's blueprint for building the perfect army. Rumors are that deep within the castle the diabolical Dr. Schabbs has perfected a technique for building a fierce army from the bodies of the dead. It's so far removed from reality that it would seem silly if it wasn't so sick. But what if it were true?

You were never given the chance to find out! Captured in your attempt to grab the secret plans, you were taken to the Nazi prison, Castle WOLFENSTEIN, for questioning and eventual execution. Will you be able to escape and finish your world-saving mission?

As an escaped prisoner in a Nazi war prison, you will move smoothly through a 3-D world full of amazing detail and animation. Unlike other 3-D games, you'll move SMOOTHLY through a sensational and realistic 3-D environment, with intelligent moving guards and opponents.

This is a high-action game. Use your rapid fire machine gun to mow down a line of enemies, or sneak up on a guard with your knife so you don't waste your limited ammunition.

PARENTAL WARNING: WOLFENSTEIN 3-D, due to its intensely realistic visuals, is recommended for children above 12 years of age. For younger players we recommend parental approval. We have voluntarily rated this game PC-13, (Profound Carnage!), which equates to violence seen in a PG-13 movie.

BBUG NO 8945 WOLFENSTEIN 3-D (Disk 2 of 2, also 8944)

BBUG NO 8951 HUGO III - JUNGLE OF DOOM! (Disk 1 of 2, also 8952)

*CLASSIFICATION * Games * Hard/L/Floppy Disk * EGA/VGA*

Once again, Hugo is in trouble. Having survived a crash in the jungles of South America, his beloved Penelope is bitten by a giant tree spider. Hugo must find the antidote and save his lady friend.

HUGO III, JUNGLE OF DOOM! is the third and final episode of this hugely popular trilogy of colorful 3-D animated EGA adventure games. Having successfully outwitted the evil occupants of HUGO'S HOUSE OF HORRORS in episode one, and having solved the murder mystery in HUGO II, WHODUNIT? we join our intrepid heroes once more.

HUGO III, JUNGLE OF DOOM! features spectacular graphics, a new "turbo" button and built-in hints. Will HUGO outwit the evil Witch Doctor, find the mysterious Pool of Life and finally defeat his arch-enemy the old man? The answer is yes, and much more besides!

BBUG NO 8952 HUGO III - JUNGLE OF DOOM! (Disk 2 of 2, also 8951)

BBUG NO 8953 COMMANDER KEEN IV - GOODBYE GALAXY! (Disk 1 of 2, also 8954)

*CLASSIFICATION * Games * EGA/VGA * Hard Disk * Joystick/Mouse * Sound Card*

Eight year old Kid genius, Billy Blaze, is in his backyard fort testing out his newly built Photachyon Transceiver. Simply put, it's an instantaneous radio that can pick up signals anywhere in the galaxy.

While listening to an alien sitcom, "My Favorite Garg", Billy hears a disturbing message.

Bzzt...grdddz...blow up...ferrrt...zzz...galaxy and...buzzt...rule...pzzzr...bip! "So the Shikadi are planning to destroy the galaxy, huh?", thinks Billy. "Sounds like a job for... Commander Keen!"

In this episode, "Secret of the Oracle", Keen rockets to an alien planet to rescue the Keepers of the Oracle, who are the only ones capable of helping Keen find out more about the Shikadi. Who are the Shikadi and why are they planning to use our Galaxy as target practice!

"Secret of the Oracle" is packed with exciting features which include: Incredibly smooth scrolling and animation, Titled perspective—gives all levels the appearance of depth. 1.6 Megs graphics for episode one, Ad Lib soundtrack. Episode one has 5 songs, 14 creatures in episode one, Three skill levels, which can add new creatures to the game! You can finally save ANYWHERE in the game, even inside levels. Amazing ending animated sequences. Star Wars-style text scrolling! Terminator-style opening sequence! Hundreds and hundreds of screens to explore, with HUGE levels. Keen has new abilities, such as hanging onto ledges and pulling himself up. Self-running demonstration mode. Joystick support. More fun than you can probably live with!

BBUG NO 8954 COMMANDER KEEN IV - GOODBYE GALAXY! (Disk 2 of 2, also 8953)

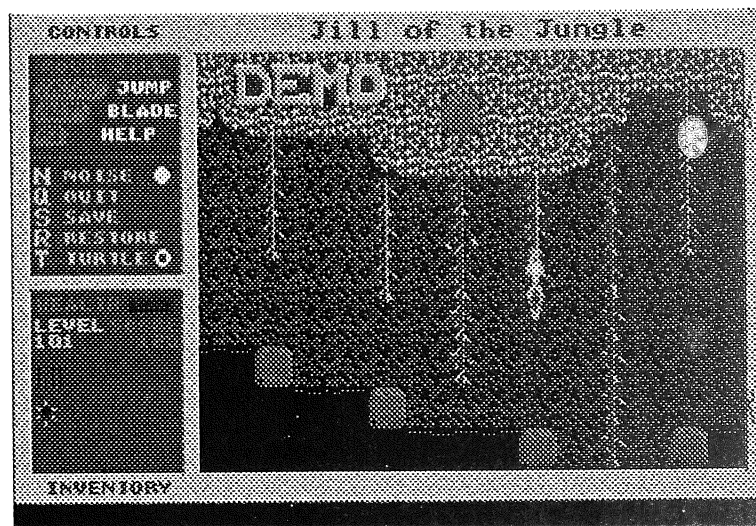
BBUG NO 8955 JILL OF THE JUNGLE Version 1.0

*CLASSIFICATION * Games * Hard Disk * CGA/EGA/VGA * Sound Card optional * 80286 or faster processor recommended*

JILL OF THE JUNGLE is the hottest shareware game release ever! Epic MegaGames brings you a new era in computer entertainment with this 256-color VGA arcade-adventure game which is up to par with the top Sega Genesis and Super Nintendo hits. Features digital sound effects and a musical soundtrack for the Sound Blaster and compatible cards!

Guide the beautiful Jill through sixteen huge smooth-scrolling levels, each filled with vivid new scenery and animated creatures. Not only can Jill run, jump, and use objects — she can also magically transform into other creatures such as birds, fish, and frogs. In fact, you will do quite a bit of hopping, flying, and swimming to solve this game.

Jill also supports CGA and EGA cards, but the real thrill of this game is the spectacular 256-color VGA artwork and animation. In fact, games like Duke Nukem could learn a few tricks from the smoothly-animated Jill.



Merry
Christmas
from
Brisbug

**BBUG NO 8962 DENARIUS AVARICIUS
SEXTUS Version 1.5**

*CLASSIFICATION * Games * Hard Disk * EGA/VGA
* Mouse (optional)*

DENARIUSAVARICIUS SEXTUS - A Roman Graphical Adventure Game. Back in good old A.D. 79, there lived a patrician Roman named Avaricius (Avvy to his friends.) He was about 26 years old and about six foot three. He had married a woman named Arkata, which was a mistake he lived to regret- she never stopped nagging him. His few slaves were so lazy he hardly ever saw them, except for one named Crapulus, who was always at least inebriated, if not downright drunk - apart from reading Avvy's mail (amazing! he could read) and doing the washing-up, he preferred to spend his time with an amphora of wine down at the "Canis et Anas" (his local).

You'd think Avvy had problems enough. However, he also lived in a pleasant seaside resort you may have heard of, called Pompeii, and he was unaware that in a few hours' time he would be buried alive. Well, maybe. Perhaps, with the guidance of his guardian angel from the twentieth century (that's where you come in) he might escape both Arkata and the volcano. The date is... 24th August, A.D. 79.

The aim of the game - To escape from Vesuvius (and Arkata.)

Cast List: -

Denarius Avaricius Sextus : our hero
Arkata : his wife
Crapulus : his slave
Gaius Lupus Malus : a rival of Avvy's
Compactus Discus Romulus : an old
friend of Avvy's in the army
Titus Nervus Pecunia : a worried official
Gedalodava : a very beautiful slave girl
Sinistrus : a left-handed barman
Julius Selfimportantius Noxius : a big-headed
guard

Didymus Tonitrusdeus Hicesse : someone
who got on the wrong side of Lupus Gaius
Quicphingus Haruspicis : a sly soothsayer

AND... a star guest appearance from an Olympian god...
(plus his guest).

**BBUG NO 8968 GALACTIX Version 1.2
(Disk 1 of 2, also 8969)**

*CLASSIFICATION * Games * Hard Disk * EGA/VGA
* Mouse * Sound Blaster*

ATTENTION TERRANS!

The XIDUS have come to conquer your world and

enslave its people. Nothing can withstand the power of the XIDUS. Prepare now, your DOOM is at hand.

GLACTIX is a space orientated arcade game, containing rapid fire, missiles, megabombs and more. GALACTIX presents animation that rivals most commercial games and first rate graphics never before seen in shareware.

Your Mission: To stop the tyrannical overlord and relentless XIDUS armada - Fighters, Command Ship and finally the evil overlords Flagship - while avoiding being dispersed into your component atoms. To keep yourself alive you are given a High-Tech Defense Fighter - and Epsilon-Class Stellar Interceptor - armed with: Molecular Displacement Shielding, Hyper Ion Drive, a Manipular Hydraulic Arm (with claw), Particle Accelerator Cannons, Optical guided Mark 11 Thermal Burst Missiles, High yield, area affect Tactical Nuke Smart Bomb, Comfortable Reclining Leather Bucket Seats and an Acme Toothpick Dispenser.

BBUG NO 8969 GALACTIX Version 1.2 (Disk 2 of 2, also 8969)

**BBUG NO 8973 KILOBLASTER Version 1.0
(Disk 1 of 2, also 8974)**

*CLASSIFICATION * Games * Hard Disk * EGA/VGA
* 286 or better * Sound Blaster optional * Joystick optional*

KILOBLASTER - New from EPIC MEGAGAMES - is a fast-action animated arcade game reminiscent of Galaxian with lots of innovative, high-tech features! This game features digitized and ray-traced backgrounds in 256-color VGA which are truly out of this world! If you have an EGA you can still play the game, but you're missing a heck of a show!

In Kiloblaster, you'll also find an Megacool musical sound track and digitized sound effects if you have a Sound Blaster card. Kiloblaster also features some wild sound effects through the tiny speaker in your PC.

Fasten your seatbelt and prepare to be warped into another dimension of game playing!

The makers of JILL OF THE JUNGLE have returned to bring you even more *excellent* entertainment. Yes, those Epic folks are back again, and this new game is COOL... No, wait... It's HOT...

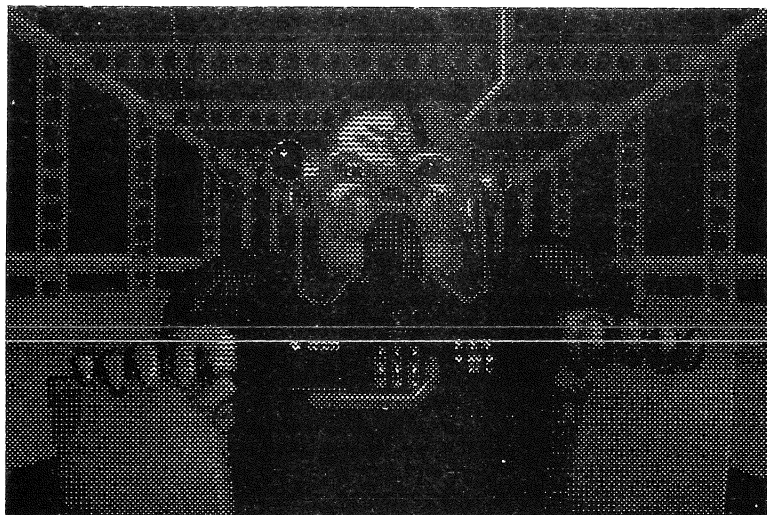
BBUG NO 8974 KILOBLASTER Version 1.0 (Disk 2 of 2, also 8973)

**BBUG NO 8982 MEGATRON Version 3.05
(Disk 1 of 2, also 8983)**

*CLASSIFICATION * Games * Hard Disk * VGA/
SVGA * Modem * Mouse * 286/386/486 Computer*

The year is 3015 and as the commander of an elite unit of MEGATRON BattleMechs, you've been chosen to enter the labyrinth combat zone and hunt down the adversary. At your disposal are two standard omni-field mechs (Mad Cat and Vulture) equipped with high yield Thorn Missiles and Pulse Disrupters.

Enter the world of MEGATRON and experience the highest level of virtual reality combat available to date. MEGATRON uses a combination of ray traced and hand drawn imagery coupled with AdLib/SoundBlaster synthesized sound effects to bring to life the ultimate modern combat experience. Use your skill at piloting your mech and your raw courage to defeat your adversary and bring glory to your unit.



This is a 2 player game, but it can be played in a single player mode with a synthetic adversary generated by the computer. For the best results it is recommended to use two computers.

The object of the game is to hunt down and destroy your adversary. This is not an easy task, as at the start of each game, both you and your adversary are placed in the labyrinth at random positions. You don't know where your adversary is hiding. All you have to work with is a 3-D view of the corridor you are standing in, a top down view of the labyrinth, and a changing sonar blip that can guide you to your adversary if you interpret it properly. If you are in a hurry, you can use your area radar to search for your adversary. The down side to using radar is that you don't always locate the enemy, but the enemy always locates you.

To win the game, you must hunt down your adversary and attack him with your lasers and rockets until he runs out of energy and is destroyed. There is only one problem, this is a real-time game, and while you are shoot-

ing at your adversary, he gets to shoot back at you. Whoever is fastest with their weapons and has the strongest nerve wins. If you lose your nerve, you can turn and run away. Sometimes this is not a bad idea.

To play in head-to-head combat you need an open serial port with a modem or null-modem cable connect to your adversaries computer.

BBUG NO 8983 MEGATRON Version 3.05 (Disk 2 of 2, also 8982)

BBUG NO 8985 COMMANDER KEEN 5

*CLASSIFICATION * Games * Hard Disk * EGA/VGA (HIGH DENSITY DISK)*

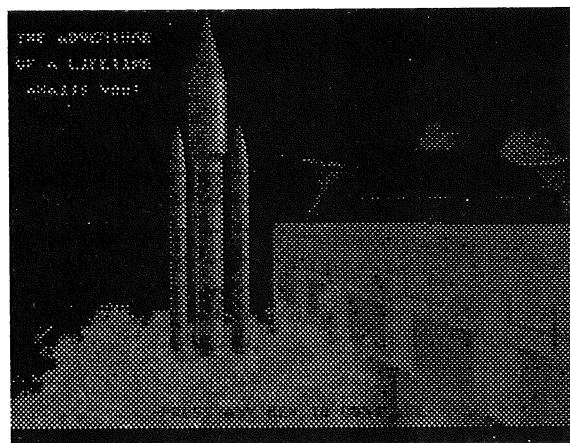
COMMANDER KEEN 5 - THE ARMAGEDDON MACHINE

Last episode, our hero Billy blasted off in search of the mysterious Shikadi, who serve "the Gannalech" and plan to destroy the galaxy! After a short delay, Keen rocketed to Gnosticus IV, only to find the Council Members missing. The Shikadi kidnapped 'em!

Keen flew to the Shadowlands, faced horrible foes, and rescued the kidnapped ancients.

After Keen freed them from their imprisonment, the immortal Council Members activated their source of galactic wisdom, the Oracle. The Oracle informed Keen that the Shikadi had nearly completed a machine to obliterate the galaxy!

This episode finds Keen in stealth mode, sneaking his Bean-with-Bacon Megarocket up to the Omegamatic. Securing his Attach-O-Ray to an exhaust port, Keen enters Omegamatic and begins his most dangerous adventure yet!



BBUG NO 9044 CLYDE'S ADVENTURE Version 2.0

*CLASSIFICATION * Games * L/Floppy/Hard Disk * EGA/VGA * Sound Card*

CLYDE'S ADVENTURE - Help Clyde on his quest for lost treasure through 16 deadly castles. Game play features four way smooth scrolling, animation, traps, puzzles, twists and hilarious surprises at every turn. Challenging and amazingly addictive! This game requires EGA/VGA graphics and a 286 processor or better. Supports the Adlib music card. Digitized voices and sound effects for Sound Blaster — don't miss this game!

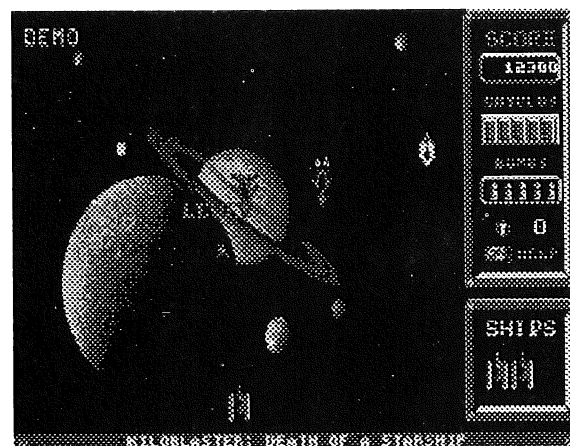
BBUG NO 9001 KEEN DREAMS

*CLASSIFICATION * Games * Hard Disk * EGA/VGA * Sound card supported*

Only you can help Commander Keen overcome killer vegetables and fruits which have conspired to spoil his day and "clean his plate" in this action-packed **KEEN DREAMS**, the "lost episode."

Armed with plenty of Flower Powers and Boobus Bombs, you must defeat King Boobus Tuber, evil ruler of the vegetarian Land of Tuberia — and one heck of a spud! Tater Troopers, Sour Grapes, Broccolashes, and Asparagustos have joined forces with a host of other organic foes in a quest to "clean your plate."

Chock-full of action and lively animations—a must-play hit from the award-winning creators of Commander Keen!





Merry
Christmas
from
Brisbug

BBUG NO 9002 COMMANDER KEEN 6

*CLASSIFICATION * Games * L/Floppy/Hard Disk * EGA/VGA * Sound Card support*

While out in his backyard clubhouse, Billy's baby sitter, Molly, calls him for dinner. He continues working on his new wrist computer. Suddenly, a loud noise sounds outside! Rushing out, Keen finds his baby sitter gone and a note on a patch of scorched grass... The Bloogs of Fribulux Xax are going to make a meal out of Molly! You've got to rescue her, because your parents would never believe you when you tell them... "Aliens ate your Baby Sitter!"

Episode 6 of the COMMANDER KEEN series is not shareware. However this is the next best thing - a Demo Version of ALIENS ATE MY BABY SITTER which gives you a taste of the full version. Various levels are unavailable, but even so, the version give you plenty of scope for practice.

BBUG NO 9009 MAJOR STRYKER Version 1.3 (Disk 1 of 2, also 9010)

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

In the not-so-distant future the calamity of World War III led to eventual world peace. But it did not last... Earth was invaded by alien marauders—the Kretons. Earth's united military force, still depleted after the mighty onslaught of WWII, was not nearly sufficient to repel the numerous Kreton attacks.

It was discovered that the Kretons had used a worm-hole to invade our region of space from their home worlds. And with that knowledge Earth called into action Major Harrison Stryker, hero of WWII, to travel back through the worm hole and destroy the Kreton's home world headquarters.

With almost no chance of success, you accept the mission...

Major Stryker is the first Apogee game with "triple-parallax scrolling", adding to the illusion of depth and danger. Your mission is to pilot a high-powered, armored space ship through dozens of stunning scenarios, such as space stations, lava caves and alien cities.

Exciting features include: Ad Lib music and Sound Blaster digitized effects. EGA/VGA high-speed animated graphics. Cinematic sequences. Unlike any other Apogee game yet. Full of bonuses and secrets to discover. Save and restore up to 10 games. Play with joystick or keyboard. Exciting demo mode.

If you're into action-filled, heart pounding shoot 'em ups, then Major Stryker is your ticket to adventure.

BBUG NO 9010 MAJOR STRYKER Version 1.3 (Disk 2 of 2, also 9009)

BBUG NO 9020 MONSTER BASH! Ver 1.0

*CLASSIFICATION * Games * Hard Disk * EGA/VGA * Sound Card Supported (HIGH DENSITY DISK ONLY)*

JOHNNY DASH! A name of legendary proportions. A name that strikes fear into the hearts of monsters everywhere today.

Johnny's new Dalmation puppy, Tex, has been missing for two days, and on the night of a fearful storm of supernatural proportions, Johnny is visited by a pair of green eyes from the world beyond who tells Johnny that his pet and all the other cats and dogs of the normal world had

been kidnapped by THE EVIL COUNT CHUCK.

Armed with only his trusty slingshot. Johnny ventures into the underworld to rescue Tex and free all the other captured animals. He encounters monsters, skeletons and other creatures and with your help frees the pets.

Over 2 Megs compressed graphics (Apogee's biggest game yet!). With a full Ad Lib soundtrack and nightmarish Sound Blaster digitized effects and two cinematic scenes.

This is absolutely the most animated game Apogee has created to date. Three skill levels. Joystick support, save/restore, hints, etc. Don't let the gruesome graphics give you nightmares—it's only a game!!!

BBUG NO 9028 CORNCOB 3D Ver 2.0

*CLASSIFICATION * Games * Hard Disk * 286/386/486 * VGA*

Welcome to CORNCOB, the shareware air combat flight simulator. To fly a mission a pilot first chooses which theater of operations he wishes to fly in. A theater of operations is a terrain filled with airports and areas of enemy concentrations. A pilot selects his mission by taking off from an airbase, and flying to one of the enemy areas to engage in combat.

Most theaters of operation have 9 airbases from which the pilot can take off and land in. Each airbase has intelligence information about the enemy forces in the vicinity. Intelligence info can be gotten from entering the control tower on foot, or by using your radio when in the air. The information you receive will always be from the last airport you were in.

One of the most important things about theaters is that they have a history capability. This means that any-thing a pilot has destroyed will stay destroyed forever.

Planes are a precious resource which should not be wasted. Each time you crash a plane beyond repair, there is one less in your theater. Even a heavily damaged plane can be repaired simply by landing and strolling over to the control tower on foot.

If desired, some older model planes can be brought out of storage, but this should be used only when desperate. These planes have reduced performance specs, and are a brown color.

CORNCOB provides: Training Missions, Friendly Objects, Airplanes, Control Tower, Radar Unit, Runways, Rescue Van, Enemy Defenses, Force Fields, Barrage Balloons, Bee Swarms, AAA Batteries, KLA's Deathballs Spitballs, Generator Orbs, TRFRU (Tetrahedral Radio Frequency receiving units), Mortars, Mind Benders, Aliens, Ground Transports, Flying Saucers, Portals, infact everything that you will need to complete your missions.

BBUG NO 9064 ZONE 66 (Disk 1 of 3, also 9065, 9066)

*CLASSIFICATION * Games * Hard Disk * VGA * 386 or better*

You have landed in a clearing. Frantically, you rush through the woods toward the lights of the city far off in the distance. A vision of your family dances in your head — your wife and the newborn daughter you have not yet seen. You must save them. As you finally scramble to a bluff panoramically overlooking the city, you see the lights in the sky and you realize it is too late. The flash nearly blinds you, and when vision returns, you feel nothing but anger as the massive mushroom cloud looms over the city. You are too late to save your home, but other cities remain, and they are vulnerable. It is up to you alone to unravel the

plot and hold back the enemy attackers.

ZONE 66 is an ultra high-tech 32-bit arcade game for 386 and faster computers. You pilot your fighter jet through a huge 360-degree scrolling playfield that's jam-packed with 256-color enemies and terrain. Inflict massive damage on the enemy bunkers, artillery, and industrial sites, leaving craters and devastated earth in your wake.

Featuring a state-of-the-art digital sound track for the Sound Blaster and Gravis Ultrasound cards.

Note: You must have a 386 or better to run this program, and the system cannot be under the control of a protected mode program! You must have 640k total low memory to run this program, and have at least 512k of extended memory free. This program can not run with an XMS driver!

BBUG NO 9065 ZONE 66 (Disk 2 of 3, also 9064, 9066)

BBUG NO 9066 ZONE 66 (Disk 3 of 3, also 9064, 9065)

BBUG NO 9067 PHYLOX

*CLASSIFICATION * Games * Hard Disk * VGA*

As your crippled space ship heads for the barren planet of PHYLOX, you safely eject and land on the surface only to find that the surface is unstable and you sink into the caverns below. Your trusty space suit is equipped with steerable jets and your laser gun is fully charged.

Armed with your laser gun and a small supply of grenades you proceed to explore the underworld caverns in search of the guardians.

This version of the game PHYLOX is limited to only two levels. The registered version provides you with all the levels with full Sound Blaster support. It is a true shoot-em-up featuring 256 colour graphics (Real ones!) and some of the best animated characters you have ever seen.

It is a blast from the past with a 90's feel about it. Play it with the lights out to get the most out of it.

BBUG NO 9074 THE CATACOMB ABYSS 3-D

*CLASSIFICATION * Games * Hard Disk * EGA/VGA * Sound Card * 286/386/486 (HIGH DENSITY DISK ONLY)*

THE CATACOMB ABYSS is a captivating tale of wizards and fantasy trips into other dimensions. Among the very best 3-D perspective graphics and animations available on the market today! You are the mighty wizard who has been called upon to perform feats of magic and courage against the workings of your arch-rival, Nemesis.

Your quest will lead you into the dark realms of the underworld where you will discover a myriad of bizarre and intriguing creatures set against you. Armed with your wit and the power to hurl powerful magic weapons at your opponents, you embark on an unforgettable adventure into the 3-D realm of the Abyss.

BBUG NO 9121 JETPACK Version 1.1

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

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

Use your JETPACK model L1069-E to explore 100 treacherous levels of dungeons! Equipped with Jet Tur-

bines and armed with a powerful Phase Shifter, you quest for precious gems through dungeons full of treasures and peril without getting killed. When you collect all the gems for each level, the portal to the next level will open. Collect treasure on the way to earn extra lives.

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

BBUG NO 9122 SPACE CHASE Ver 2.02D

*CLASSIFICATION * Games * EGA/VGA * Hard Disk * Sound Card Supported (HIGH DENSITY DISK ONLY)*

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

After taking control of Capital City, Evil Guys have mobilized their forces against you in the hopes of eventually overthrowing the government and taking control of the Planet!!

Your mission, should you choose to accept it, is to capture the leaders, destroy their forces, and end their reign of terror.

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

BBUG NO 9125 HALLOWEEN HARRY Version 1.0

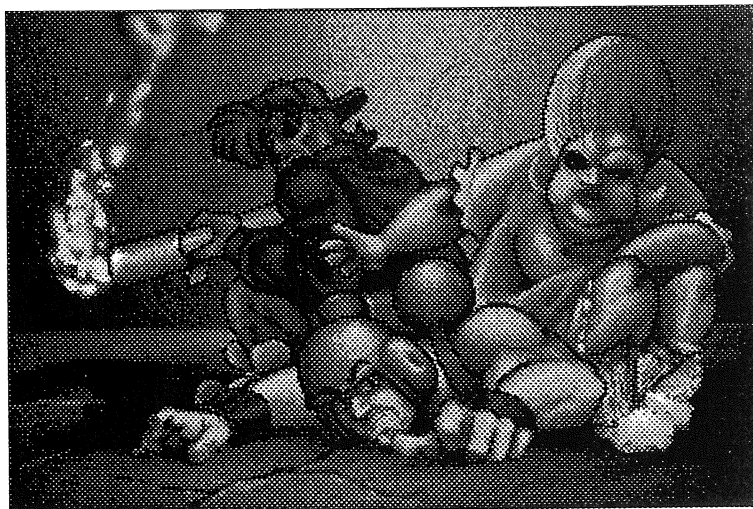
*CLASSIFICATION * Games * Hard Disk * VGA * Sound Blaster 3½" HIGH DENSITY DISK ONLY*

It is the year 2030 A.D. Space Station Liberty drifts high above Earth's surface. An Earth that is no longer at war with itself but has found peace a more practical alternative. Manned by members of an elite squad of high tech commandos, Liberty's sole purpose is the protection of Earth's people from possible alien threat. A threat that until now has seemed very distant.

Led by HALLOWEEN HARRY, the most respected and experienced agent, the task force must pull out all stops in wiping the alien scum from the streets of New York. To make matters worse, the aliens have taken hostages and are using them to create an army of genetically engineered zombies.

Time is running out. The longer the aliens have to

Halloween
Harry -
MADE IN
QUEENSLAND



establish a foot hold on our soil, the higher the risk of further invasion forces breaching Earth's defenses. HALLOWEEN HARRY and his team may be the last chance for our survival. It's dirty work, but someone needs to save the world!

Guide Harry through the many levels in search of hostages held by the aliens. Blow away zombies and aliens while avoiding death traps.

The future of Earth is in your hands.

SEE BBUG # 9155 and # 9156 for 5¼" Version

BBUG NO 9157 SPEAR OF DESTINY Version 1.0

*CLASSIFICATION * Games * EGA/VGA * Hard Disk
* Sound Card HIGH DENSITY DISK*

SPEAR OF DESTINY brings virtual reality to the PC, hurling you into an intense battle between good and evil in which only you can save the world! A breathtaking musical soundtrack sets the mood, while amazing "first person" visual perspective and spectacular digital stereo sound effects give an experience like no other game you've ever played!

It's World War II and you are B.J. Blazkowicz, the Allies' most durable agent. In the midst of the German Blitzkrieg, the Spear that pierced the side of Christ is taken from Versailles by the Nazis and secured in the impregnable Castle Wolfenstein! According to legend, no man can be defeated when he has the Spear. Hitler believes himself to be invincible with the power of the Spear as his army of destruction sweeps across Europe.

Your mission is to recapture the Spear from an already unbalanced Hitler, with the hope that the loss of his most coveted weapon will push him over the edge! You must infiltrate the heavily guarded Nazi stronghold and time is running out!

In your quest to recover the Spear, you will encounter the exciting and hazardous challenges, secret doorways to hidden passages, gruesome mutants, and powerful monster-like "bosses". All this in the midst of the massive fire-power of well trained enemy soldiers throughout the castle! See if you have the "right stuff" to accomplish the most dangerous mission of the war!

This is a complete two-level playable version of SPEAR OF DESTINY - a Wolfenstein 3D Graphic Adventure. Your mission is to make your way safely through each of the levels to find the elevator to the next floor. On the way, you'll have to fight your way past the guards - they'll kill you if you don't get them first!

BBUG NO 9160 BIO MENACE Ver 1.0

*CLASSIFICATION * Games * Hard Disk * EGA/VGA
* Sound Card HIGH DENSITY DISK*

You are Snake Logan, a top CIA operative who likes to do things his own way. Metro City has fallen under the attack of hideous mutants and your mission is to fly recon over the city and report back. While circling over the city you're shot down by hostile forces and forced to crash land on the streets of Metro. Grabbing what supplies you can find you are out to discover the source of these mutants and especially the guy who shot you down!

Intelligence reports indicate that a man calling himself Dr. Mangle is responsible for the mutants and the destruction of Metro. You will have to battle your way through many levels packed with evil mutants and robotic guards to finally infiltrate Mangle's fortress and defeat him. You think to yourself that this will be your most dangerous mission of your life.

Arcade Games

BBUG NO 2162 MORAFF'S PINBALL Version 5.0

*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

If arcade pinball is your game, then try MoraffWare's MORAFF'S PINBALL with all the elements of regular pinball including bumpers, side traps, double scores, flippers, and lots of lights and noise. Try to beat your best score and enter your name into MORRAFF'S PINBALL Hall of Fame.

BBUG NO 2224 SHOOTING GALLERY Version 1.1

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

SHOOTING GALLERY is a colorful arcade game with several different levels to test your shooting skill.

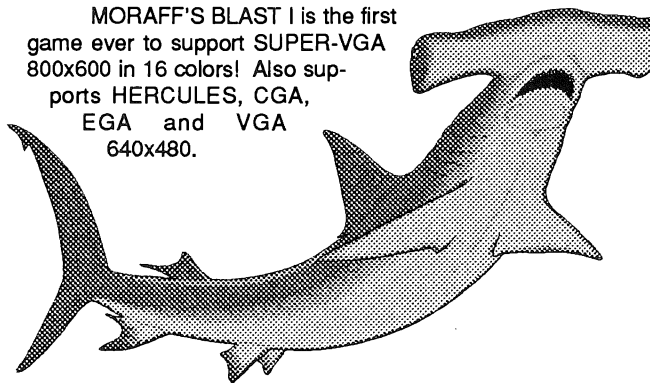
Try your luck with traditional CARNIVAL SHOOTING. With 13 targets to test your aim. Shoot a whole row and get special points. Next is SKEET SHOOTING. Good aim is needed for this one. QUICK DRAW is the third round. Shoot when you get the green light. You'll need fast reflexes to get a good score here. Mouse Required.

BBUG NO 2227 MORAFF'S BLAST I Version 1.1

*CLASSIFICATION * Games * Hard Disk * CGA/EGA/
VGA/SVGA*

Remember the old Pong game? Use a paddle to hit a ball against a wall of bricks. MORAFF'S BLAST is the pong game of 90's. With 21 levels, you can have up to 14 balls in play at once! The game has many special effects such as changing the size of the paddle, splitting the ball into four, faster play, slower play, and advance to the next level when a special brick is hit.

MORAFF'S BLAST I is the first game ever to support SUPER-VGA 800x600 in 16 colors! Also supports HERCULES, CGA, EGA and VGA 640x480.



BBUG NO 2230 VGA SHARKS Ver 1.0

*CLASSIFICATION * Games * Hard Disk * VGA*

An underwater action arcade game that utilizes unique Artificial Intelligence, simulation and classic animation techniques to transform your computer screen into a realistic ocean floor. This is the VGA version of ALIVE SHARKS. You are the Frogman and your mission is to collect rare marine creatures and recover lost treasures from the bottom of the sea. Armed with your trusty stun-gun, you can retreat to your electromagnetic base that repels sharks and the rest of your dreadful enemies. Your diving uniform is state-of-the-art, but you can survive only a few shark bites and it is useless against the poison of the deadly jellyfish.

BBUG NO 2231 ALIVE SHARKS Ver 1.0*CLASSIFICATION * Games * Hard Disk * CGA/EGA*

ALIVE SHARKS is the same program as referred to in #2230 above, but is designed to work on monitors other than VGA.

**BBUG NO 2326 PHARAOH'S TOMB
Version AN AR***CLASSIFICATION * Games * Floppy Disk * CGA/VGA*

On an expedition far within the icy mountains of Norway, you discover a crevice that leads you deep into the jagged rock. You find yourself inside a vast underground empire — an enormous network of caves, passages and chambers. Local legend speaks of a famous mythological deity who once ruled these peaks. Have you stumbled onto his kingdom? You decide to find out.... As you explore, you must overcome the many creatures that patrol this place. Use your gun (with unlimited bullets) to shoot creatures and creature generators. Other hazards to overcome are: underground streams flowing with currents that can drag you away, bubbling lava pits and lakes, and the very dangerous Thor Beast, which creates creatures with devastating speed!

BBUG NO 2327 CAVES OF THOR Ver 1.1*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

On an expedition far within the icy mountains of Norway you discover a crevice leading deep into the jagged rock. You find yourself within a vast underground empire — an enormous network of caves, passages and chambers. Local legends reveal that a famous mythological deity once ruled these peaks, could you have stumbled across the mystical ruler's kingdom? You decide to find out....

CAVES OF THOR is a brilliant 16 color arcade/graphics game with a 4-way scrolling playfield. You'll need to explore seven huge levels for the three Symbols of Virtue. These three virtues are needed to finish CAVES OF THOR.

As you explore the empire you must overcome the many creatures that patrol it. Use your gun (unlimited bullets) to shoot creatures and creature generators. Other hazards include underground flowing streams (with currents that can drag you away!), bubbling lava pits and lakes, and the very dangerous Thor Beast, which creates creatures with devastating speed. This program features some of the best music yet heard in a shareware game. Other notable features include a save/restore option, easy keyboard controls, a demonstration mode, permanent high score, and an easy playing cheat mode!

For those players looking for a game similar to the Kroz games-this is it.

**BBUG NO 2647 MORAFF'S ENTRAP
Version 2.0***CLASSIFICATION * Games * Floppy Disk * Graphics Card*

MORAFF'S ENTRAP is a game of mental skill to entrap the enemy robots which block your path. The player is provided with a spectacular three dimensional view of the maze-like playing field guarded by enemy robots that are programmed to capture you. Your object is to reach the far end of the pathway and avoid capture.

**BBUG NO 2648 MORAFF'S SUPER BLAST
Version 1.1***CLASSIFICATION * Games * Floppy Disk * Graphics Monitor*

Here is the sequel to the ultimate bricks and paddles game. SUPER BLAST has 34 levels and up to 17 simultaneous balls. The game contains many special bricks that do things like move, multiply, eat balls, and explode into eight balls. Also included are one way bricks, tunnels to other levels, and paddle expansion and contraction bricks.

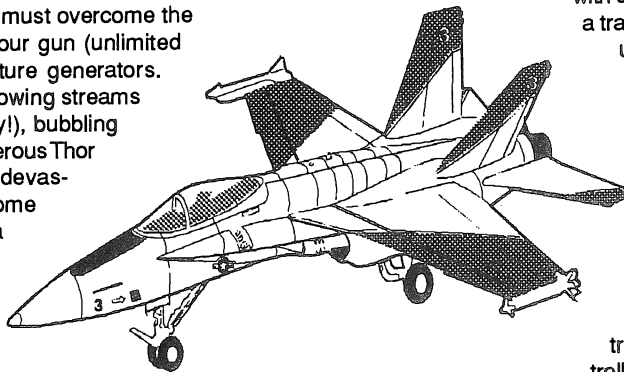
BBUG NO 2673 EGL_RISE Version 6/91*CLASSIFICATION * Games * Floppy Disk * Graphics Monitor*

EGL_RISE comes is made up of two large games. Twenty game levels are similar to other arcade games such as Pac-Man, Donkey Kong, and Space Invaders. Each level is different enough to be a game in itself. The 25-level adventure series is called the "Rise & Fall of the Human Race". Both games offer excellent graphics

On each level you have a different objective to accomplish — collect all the treasures or objects, find your way to a certain destination, destroy all the monsters, defuse a bomb, etc. The level ends when you are hit by a monster or trapped so that you cannot escape. Some levels have a timer and you must complete the level before the time runs out. Some games are played like an arcade game, but in others you must take your time in order to plan your strategy.

BBUG NO 2712 TRAINBALL Version 6/90*CLASSIFICATION * Games * Floppy Disk*

TRAINBALL is a model train layout similar to pinball. A game for all age groups. You can create layouts with switches, tunnels, bumpers, and other features. Three trains can be designed with up to seven cars to a train. Objects on the user-designed screen affect the direction of the trains, which can fire missiles at other trains. Switching is randomly controlled by the computer but train speed is controlled by the user. If any of the trains collide, there is an explosion and the game ends.

**BBUG NO 2813 MIRAMAR - JET FIGHTER
SIMULATOR Version 2.0***CLASSIFICATION * Games * Floppy Disk * CGA*

Climb aboard an F-18 jet fighter and launch your aircraft from the deck of an aircraft carrier. You are in full control - all the speed and firepower is at your fingertips. Learn how to climb and dive - master the instrument panel - switch the radar to a combat fighting scope - destroy the enemy aircraft with your 20 MM cannon or use the sidewinder missiles. Return and land on the carrier to refuel and rearm. MIRAMAR is an excellent combat jet simulator.

BBUG NO 2844 3 BALL JUGGLER Ver 1.12*CLASSIFICATION * Games * Floppy Disk * EGA/VGA*

Here's a program for those wouldbe jugglers who've kept putting off breaking those eggs or tossing those balls. But now there's no excuse. Learn how to juggle with your computer. You say, "MY Computer?" That's right. 3 BALL JUGGLER, a rather unique program, uses animation to teach you the basics of three-ball juggling, common mistakes made by beginners, and some techniques of advanced juggling. A challenging arcade game is thrown in for more fun.

BBUG NO 2873 SNARF Version 2.02*CLASSIFICATION * Games * Floppy Disk * EGA/VGA*

SNARF's are nasty little characters. They chase you round and round the various mazes trying to tag you. Each time you're touched by a SNARF, you're "tagged". You start with a "tag count" of 50. Each time you're tagged the count is decremented. If you get tagged when the count is 0, the game is over. You can get "healed" at a first-aid station (your tag count is pumped back up to 50). First-aid is only available every two to four mazes.

Your part in all this is you have to run around through various mazes (levels) picking up treasure (rings and crowns) while avoiding the SNARF's. You can shoot the SNARF's, but you only get points for the treasure, not for the SNARF's.

This version of SNARF allows you to create new levels for the game.

BBUG NO 2878 ORION ODYSSEY Version 2.0 (Disk 1 of 2, also 2879)*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

ORION ODYSSEY is a graphical arcade adventure style game which involves a space flier (Wally, as he has become to be known) who flies around using a jetpack strapped to his back and tries to accumulate as many points as possible while destroying alien beings, finding and using artifacts, and monitoring his life status, fuel consumption, ammo, etc.

The Ankh has been stolen by the overlord Bytor. For it is said that whosoever controls the powers of the Ankh controls the universe. Bytor has assigned his supreme wizards to the task of unlocking its magical powers. Your job is to find the Ankh before Bytor and his supreme wizards discover its powers.

The fate of the universe lies in your hands....

BBUG NO 2879 ORION ODYSSEY Version 2.0 (Disk 2 of 2, also 2878)

BBUG NO 2950 XMAS LEMMINGS Version 1991*CLASSIFICATION * Games * L/Floppy/Hard Disk * CGA/EGA/VGA * Mouse/Joystick * Sound Card supported*

Lemmings are little rodents known for their collective consciousness. They travel in dense groups and seem to move as a mass rather than as individuals. They're infamous for following each other off cliffs or into the sea to their death. In the video world, Lemmings have much the same personality. They aren't predispositioned to do anything but follow. They will do whatever they're told, and follow that until you tell them to do something else. Since

you're in charge of where the lemmings go and what they do, it's up to you to save the Lemmings from falling to their death.

As "hoards of roaming rodents" are released from a chute at the top of the screen, you use the mouse to tag them for a certain job as they scurry around the screen. You can make them walkers, climbers, diggers, or builders. You can even have one lemming stop the lemmings behind him from continuing in that direction. The way you control each lemming determines if the other lemmings will continue to move toward safety.

BBUG NO 2984 FIRST EXPEDITION Version 4*CLASSIFICATION * Games * CGA/EGA/VGA * 2/ Floppy/Hard Disk*

FIRST EXPEDITION is a real-time, first-person adventure which takes place on the fictitious ocean world of Yorland with you at the helm of an explorer craft navigating to known islands and searching out unknown islands.

Your task, as the Captain of the craft, is to locate and retrieve the three sun spheres which protect the planet from the destructive effect of a passing comet.

From the bridge of your craft, which is similar to the cockpit of an aircraft, your ship's instrumentation and horizon is displayed for you. Your ability to manage your finances, fuel, health and ships supplies is important if you are to succeed. You will battle with pirates, trade with islanders, and use celestial navigation to complete the mission.

FIRST EXPEDITION is an involved adventure and provides many interesting challenges for you to solve.

BBUG NO 3022 FAIRY GODMOTHER Version 4.0*CLASSIFICATION * Games * CGA/EGA/VGA * Floppy Disk*

As the FAIRY GODMOTHER you are on a mission to free fifty of your fellow fairy godmothers. Armed only with your wits and your magic wand of transformation, you must make your way across fifty levels while avoiding killer crabs and dangerous dimensional implosions. If you succeed, your fellow fairy godmothers will celebrate in your honor with music and dancing. If not, it's curtains for you.

BBUG NO 8972 SIMTREK Version 2.1*CLASSIFICATION * Games * Herc/CGA/EGA/VGA * Floppy Disk * Mouse*

SIMTREK simulates a tour of duty as the Captain of a STAR TREK type starship. The objective is to become one of Starfleets finest by successfully completing as many missions as possible before your tour of duty is over.

You are seated in the Captain's Command Chair on the bridge, and the screen shows the bridge of your starship. A viewing screen occupies the upper center of your monitor. Helm, Navigation, Sensor, Tactical, Communications, Engineering functions etc. are strategically placed around the screen.

Starfleet Command will give you your orders, both written and verbal, and from there on the mission is in your hands.

Good Luck - Captain!

BBUG NO 8990 EMERALD HUNT

*CLASSIFICATION * Games * Floppy Disk * EGA/VGA*

The object of EMERALD HUNT is to collect as many emeralds and diamonds as possible without being killed in the process. Once your score reaches the goal amount you then proceed to the exit. You score 1 point for an emerald and 5 points for a diamond.

Events that will kill you are: Any falling object hitting you on the head, or A bomb or grenade exploding next to you, or A bug being within a 1 unit radius of you. Objects that fall due to gravity are: boulders, emeralds diamonds and bombs. Any piece of dirt, bricks, stone and yourself will support any number of these objects. However, some objects on top of other objects are unstable and thus they roll off each other. An object is unstable if it is resting on a non-flat surface, and there is nothing supporting the object either to its left or its right.

EMERALD HUNT is an Australian game curiously addictive, not a shoot-em-up or mindless action game, but it requires some intelligent moves and skill and is essentially simple to understand.

Suitable for disabled players.

BBUG NO 9124 DEFENDER

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

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

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

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

Bonus ship and bomb awarded every 10000 points.

CARD & BOARD GAMES

BBUG NO 2154 CHESS TUTOR Ver 11/89

Learn the subtleties of famous chess games. Not a lot to read, but lots to learn as you play. CHESS TUTOR is an original and is meant to supplement PRAXIS I, although it is not necessary to run CHESS TUTOR. Improve your game painlessly.

BBUG NO 2185 NINE MEN MORRIS

Try a game that has its origins in ancient history! Layouts have been found in manuscripts and tombs, including one cut into roofing slabs in Germany (Muhle). Similar to the game Noughts and Crosses or Tic Tac Toe, it was most popular in the 14th Century, acquiring the name Morris in England. This was possibly due to the board resembling patterns made by Morris dancers.

Play takes place on the 24 intersecting points on the board. Each player attempts to arrange three of his pieces in a line on the board. Such a line is called a Mill. This entitles a player to remove any one of his opponent's

pieces from the board, including any that are themselves forming a mill. A player who can reduce his opponent to two pieces or block him from making a legitimate move wins the game.

BBUG NO 2223 PEG SOLITAIRE Ver 1.00

PEG SOLITAIRE is played on a playing board shaped in the form of a plus sign. The board has 33 holes with 32 pegs. (The center hole of the board is left empty.) The object is to remove all but one of the pegs from the board jumping one peg at a time.

COLOR PEG is a second game. This board has 24 pegs divided into different colored groups of 6 pegs each. The object of this game is to jump pegs until all peg groups have exchanged positions. You win when the top and bottom peg groups have swapped places and the right and left peg groups have done the same.

Both of these games are simple to operate, but difficult to master.

BBUG NO 2232 VGA CONCENTRATION Version 1.1

This is a fun and challenging picture matching game with novice and advanced levels. It tests the player's memory and concentration skills. This game has superb VGA graphics in 256 and 16 colors, derived from GIF files. There great quality pictures. This is a special VGA version of CRAZY SHUFFLE.

BBUG NO 2381 ROULETTE EGA Ver 1.00

This game is for casino players, gamblers, and game players. The casino game of Roulette is played on a layout consisting of 38 spaces numbered 1 through 36, 0 and 00 with 8 different types of wagers that can be made on the Roulette layout. They include a Straight Bet, Split Bet, Street Bet, Square Bet, Line Bet, Column Bet, Dozen Bet, and an Even Money Bet. There are 154 different betting locations on the Roulette layout which vary in payoff odds.

BBUG NO 2418 CRAPS COMPLETE Version 1.0

Craps is one of the most popular gambling games found in casinos throughout the world. Now craps can be played from your computer! CRAPS COMPLETE offers the player the same action as you would expect to find at the crap table. All the various wagers are explained in the documentation. These include: pass line, pass line odds, don't pass, don't pass odds, place bets, don't place bets, big 6 & big 8, field bets, come bets & come odds, don't come & don't come odds, proposition bets, hardway bets, craps/eleven, any craps, and the horn bet.

This is one way to become familiar with the game before going to the casinos and learning it the hard way. Enjoy it in your home with others or by yourself!

BBUG NO 2421 CD DOT CHALLENGE

CD DOT CHALLENGE is an easy-to-play game with over 75,000 different game variations. As easy as it is to play, it requires great strategy to win and is very addictive!

The game board consists of a grid of dots. The object of the game is simple... to draw a line between any two dots. Each time a player draws a line that "closes" a square, that player earns a point and another turn. As simple as this sounds, the strategy can be quite complex!



Merry
Christmas
from
Brisbug

BBUG NO 2248 SCRAMBLE Version 1.1

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

SCRAMBLE is a word game very similar to the well known Scrabble. To play scramble, you must choose letters from your tray and put them on the board to make a valid word. It features a 33,000 word dictionary, along with utilities to modify the dictionary or use your own dictionary.

There is a cursor that looks like a little hand on the board. Use the mouse or the arrow keys to move the hand cursor around. To choose a letter from the tray, press that letter on the keyboard, or choose the letter with the mouse. Or you can use the number keys to choose the tile: 1 is the first tile, 2 is the second letter, etc. If you choose the blank tile, Scramble will prompt you to tell it what letter the blank tile is supposed to represent.

Games can be played by one to four human or computer players. If all the players are computer players, Scramble will play against itself. You've really got to see this one!

BBUG NO 2468 CRIBBAGE BY CROSBY & MASTERMIND

CRIBBAGE BY CROSBY Version 05/90. If you've beaten everyone you know at cribbage or are looking for someone who doesn't make mistakes counting —CRIBBAGE BY CROSBY is here. Just start up the program and CRIBBAGE does the rest. With attractive color graphics, CRIBBAGE does the shuffling and deals the cards. Just cut for deal and your playing cribbage. Select cards for the "crib," play for points, and then the official will count'em up, keeping score on the on-screen cribbage board. Even though CRIBBAGE BY CROSBY doesn't teach you how to play, it can operate in either a fast or slow mode. Card fun has never been this easy.

MASTERMIND Version 1.0. How many guesses would it take you to figure out a secret six- or seven-digit number? How about if you got clues? Have fun and test your logical thought process with MASTERMIND. MASTERMIND determines the secret number and you have to guess it. Each time you guess, it tells you how many digits were correct, but not which ones! You take it from there and try to solve the secret in the fewest guesses. Three different versions are included for all skill levels. MASTERMIND is easy to use, includes all the game instructions on help screens, and supports a mouse.

BBUG NO 2493 YAHT, SHUT THE BOX and OTRA

*CLASSIFICATION * Games * Floppy Disk * Mono/Color Monitor * Mouse*

MICROLINK YAHT Version 2.2 is the traditional dice game Yacht, popularized as Yahtzee. Since the Yahtzee version of Yaht is the one which most people know, this computerized version follows the Yahtzee rules.

In this version, a multi-player game, the object is to finish the game with the highest score. If you play alone, your object is to beat your "personal best" score. As each player receives a turn, the player rolls five dice in the attempt to gain the highest score in any one of the set categories. The player has three attempts to achieve this score. A game for both children and adults.

MICROLINK SHUT THE BOX version 1.2 is a computerized implementation of the traditional board game of the same name.

From coins covering numbers scratched into the deck of a fishing boat to the high-tech glitz of the TV game

show High Rollers, Shut The Box in its many guises has been around since the 18th century, when it is thought to have been invented by fishermen in the Channel Islands. Its simplicity (very young children easily understand and enjoy it), coupled with the fun of trying to "beat the odds" have made it an old standard, especially in the British Isles, where it remains a popular pub game to this day.

Each player rolls a pair of dice and shuts numbered doors which add up to the total displayed. The total of all the shut doors is added to the player's score if a roll cannot be used and the play is passed to the next player. After five rounds, the player with the highest score wins. A great game for both adults as well as children as young as 5 years old as the game encourages mathematic skills.

MICRO LINK OTRA version 1.2 is a memory game similar to the game "Simon" which was a hand-held electronic game, introduced in the mid 1970's. In it, you were challenged to reproduce an ever-growing sequence of flashing lights and musical tones, using four colored buttons. Players take turns replaying an ever-longer sequence of flashing squares generated by the computer. After four rounds, the player with the highest score wins.

BBUG NO 2501 LAS VEGAS EGA CASINO Version 2.0

*CLASSIFICATION * Games * Floppy Disk * EGA * Sound Card (Optional)*

Visit a casino and maybe you will get cleaned out (your money, that is), but take home LAS VEGAS EGA CASINO and you could be a winner.

LAS VEGAS CASINO Blackjack is a simulation of the table game, as played in the casinos, Video Poker is a re-creation of the popular video poker machines also played in casinos, while Dollar Slots (MicroBucks) is a colorful visual game of the three-across one-armed bandits.

BBUG NO 2520 REVERSI Version 4.1

*CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA*

The ancient game of REVERSI developed over the years to become today's well known game - Othello. A wise player who once commented "Othello - A minute to learn, a lifetime to master!" never played this computerised version of REVERSI.

The original game started on the same 8X8 board as Othello, but with none of the centre squares occupied. The rules of REVERSI state that the first four moves must take place in the four centre squares, which gives rise to either the parallel formation or the checkered centre formation.

In this computerised version of REVERSI, the game will instruct a beginner or frustrate a master with many hours of enjoyment. The game provides three levels of play which make the game more interesting as you progress from beginner to "?" master. A great game of strategy for all ages.

BBUG NO 2522 UNOSCORE

*CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA (* Not DOS 5)*

UNOSCORE is a another version of UNO also known as ONE. The game loads four sets of numbered cards, each set having a different colour and both the computer and the player are dealt seven cards each. The fifteenth card is dealt face up and the object of the game is to match the card either by number or colour. If you cannot

match the card, you must draw a card from the remainder of the deck. To win, you must be the first to discard all your cards.

UNOSCORE is easy to learn, and a challenge for players of all ages. It can be used to teach small children how to match patterns and colours, while still having fun.

Who shall triumph, Computer or Human?

NOTE: This game does not run under DOS 5.

BBUG NO 2534 SIC BO Version 1.0

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

You've played all the western gambling games, now is the time to play one of the eastern variety. SIC BO is one of the predominating Oriental casino games found in many of your major gambling establishments. The game is played with three dice.

The object of the game is to select the individual numbers or combinations of numbers that will appear on the dice after they're shaken and exposed. The betting layout of SIC BO has a variety of 50 different possible wagers and the payoff for each. The payoffs vary from even money to 150 to 1. A player may bet on a single die outcome, on two of a kind, on three of a kind, or on different combinations of two or three of the dice.

BBUG NO 2558 POWER CHESS Ver 6.0

*CLASSIFICATION * Games * Floppy Disk * Herc/CGA/EGA/VGA * Mouse*

So you think you can play chess - eh! Well you haven't tried POWER CHESS. POWER CHESS is one of the best chess playing games on the market today. Conforming to the international rules of chess with exceptionally clear screens, POWER CHESS can be highly recom-

mended for chess classes.

POWER CHESS is filled with outstanding features. It obeys international chess rules, en passant, 50-move drawing rule, three repetitions of a position recognizes stalemate, and technical draw. The screen displays the chessboard, as well as playing time for both Black and White, with an index of both the last 21 moves, and all possible moves concerning the position on the board, announcement of a check mate in N moves, and computer hints for the next move.

You can even have the computer play against itself, if you want to, and chess moves can be forced and even taken retracted, if you change your mind. Depending on your skill, you can change different levels of difficulty, from beginner to highly advanced. The chess board can be set up in special positions so you can experiment with different types of play.

POWER CHESS provides a library of games and interesting positions which can be easily extended. POWER CHESS can be your own private chess tutor, providing you with hours of enjoyment and learning.

BBUG NO 2705 MEMORY and SYMBOL-QUEST

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

MEMORY Version 2.0, is a very old and well known game of memory and concentration. At the beginning 50 cards (two series with each 25 pictures) were shuffled and layed out face down. Both players have to try to find two matching cards.

After the deck of cards is layed out, the first player has to move the cursor around to turn a card over. The player repeats this procedure to turn over a second card. If the two cards match, one point is awarded and both cards will be removed; the player tries again. If both cards don't match, the other player tries to find a matching pair and so on. MEMORY shows always the score of both players and which player has to choose cards. Play against a friend or five different levels of the computer.

SYMBOL-QUEST Version 1.0, simulates the mathematical problems you know from many magazines. The PC computes a problem and encodes it by replacing every number by a symbol; your task now is to solve this problem. In the horizontal direction there are three additions, in the vertical direction three subtractions.

BBUG NO 2710 TECHSTAFF GAMES Volume 1

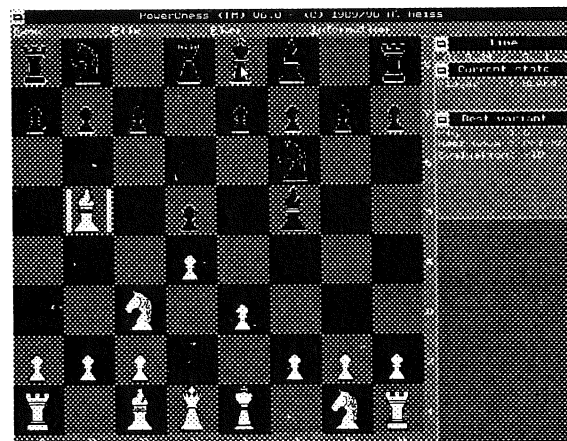
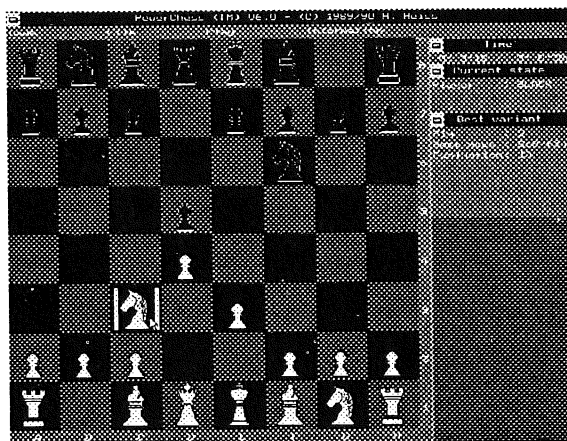
*CLASSIFICATION * Games * Floppy Disk * Graphics Monitor*

TECHSTAFF GAMES is a collection of four games plus a small file viewer program, which includes:

KENO — A game where the computer chooses twenty random numbers from a possible eighty. A player may choose from one to eleven numbers, and after each turn, the number of successful guesses is displayed.

WILDCATTER — An oil drilling game. Guess where and how deep to drill, based on available geology reports. Site location is random, but the depth you drill to is determined by the reports.

SEA BATTLE — A battleship game where you must seek and destroy a submarine located in the depths below. Fire three depth charges for each torpedo fired on your ship.



BBUG NO 2711 TECHSTAFF GAMES Volume 2

*CLASSIFICATION * Games * Floppy Disk * Graphics Monitor*

TECHSTAFF GAMES contains a collection of popular games for all ages including:

HIQ1 — A puzzle with 32 pegs arranged in a cross with the center position empty. The object of the game is to remove all but one peg by jumping across pegs horizontally or vertically.

PCMAN1 — Another version of the popular game PacMan. Choose between one to four ghosts.

WHEEL3 — A version of the game Wheel of Fortune, for one to three players. A hidden phrase is given, and each player is given a turn to guess a consonant or buy a vowel.

STATES1 — A States and Capitals quiz game. Questions can be True -False, multiple-choice, or fill-in-the-blanks.

ERULET1 — The game of European Roulette for one to four players. Thirty-six possible outcomes are on the wheel and each player makes bets on which number might come up next.

BBUG NO 2722 BACCARAT PROFESSIONAL Version 3.0

*CLASSIFICATION * Games * Floppy Disk * Colour Monitor*

Most gamblers are very conversant with Poker, Black Jack and most other card games, but when it comes to Baccarat, this game is almost unknown outside of the European Casinos. Now you have a chance to learn the game without loosing your shirts!

BACCARAT PROFESIONAL is a computerised version of this game. Baccarat is normally played with eight decks of cards. Each deck consists of a standard 52 card deck, making a total of 416 cards. The cards are dealt from a shoe. There are only three bets available on the Baccarat layout. A player can wager on the Banker hand, the Player Hand or on the Tie bet.

BACCARAT PROFESSIONAL will teach you all you need to know, with detailed instructions and clever graphics, you'll soon become an expert, ready to take on the computer for high stakes and still 'keep your shirt'.

BBUG NO 2737 POKER SLOT Version 2.00 (Disk 1 of 2, also 2738)

*CLASSIFICATION * Games * Hard/L/Floppy Disk * EGA/VGA * Mouse supported*

POKER SLOT is a gambling game widely played in casinos in Nevada and New Jersey. Playing one of these slot machines is easy, but before playing **POKER SLOT**, you should choose one of four variations of the game — Second Chance Poker, Joker Wild, Deuces Wild, or Double Down.

The object of the game is to get a poker hand of Jacks or better before you can win any money. You will be paid off according to your poker hand. The better the hand, the more money you'll win. Just like the real **POKER SLOT** machine you must first insert some money. You'll be playing the dollar Poker Slot, so each coin will be worth \$1.00. You will be dealt five cards in each round and you may choose which ones to hold or discard.

Have fun and WIN!!!

BBUG NO 2738 POKER SLOT Version 2.00 (Disk 2 of 2, also 2737)

*BBUG NO 2759 THINKING MAN'S SOLITAIRE
Version 1.0*

*CLASSIFICATION * Games * L/Floppy/Hard Disk * EGA/VGA*

Are you familiar with the standard Solitaire game that builds a stack of cards from Ace to King? It's not so hard, especially if you don't have to stick to one suit. **THINKING MAN'S SOLITAIRE** presents a new twist: the order isn't as simple as Ace, 2, 3. In fact, you build four different stacks, each in a different order. Have trouble remembering what card comes next? Ask **THINKING MAN'S SOLITAIRE** to keep the order posted on your screen.

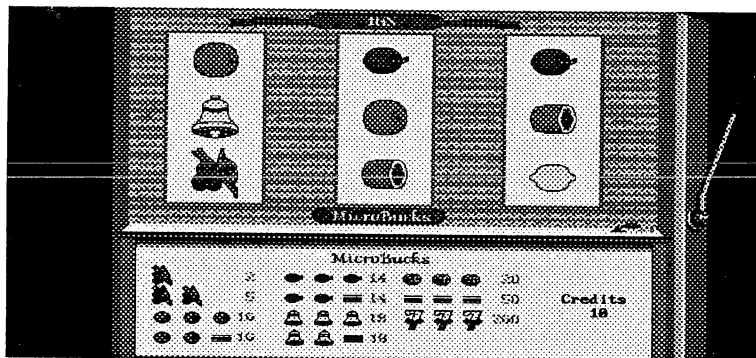
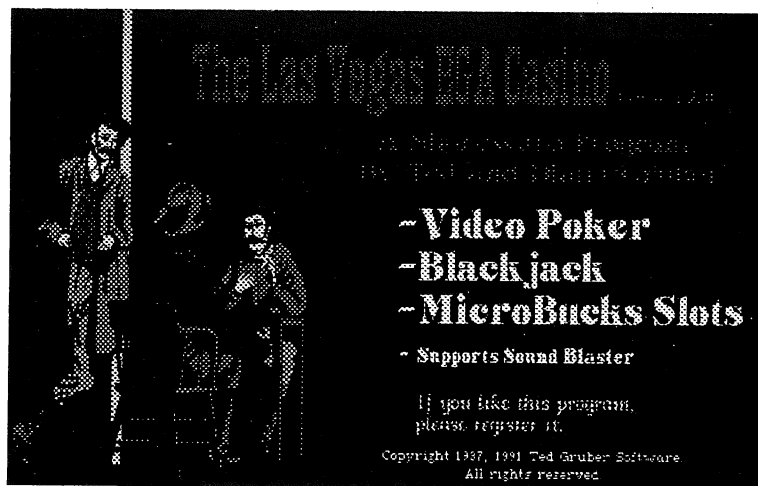
The documentation on the disk makes it easy to get started. Watch the colorful deck magically shuffle three times, cut, and stack. Deal the cards one by one, and see each one move to the stack you designate as your score mounts. If you have a mouse, you may use it. Otherwise, the keyboard does just fine. The hardest part of this entertaining game is stopping.

BBUG NO 2876 MULE'S END POKER 21 Version 1.0

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

MULE'S END POKER-SLOTS is the typical poker slot machine with a difference - check out the cards! Check out the machine itself! Besides the great graphics, this game comes complete with instructions, easy-to-use (and learn!) keypresses, and support for a Microsoft compatible mouse. Drop a buck in the slot and give it a try!

MULE'S END 21 has all the options of a Las Vegas



21 game without any of the headaches. Double-down, split a pair, take an insurance bet - it's all there. And there's a difference between this game and all the other 21 games on the market - besides terrific graphics, it tells you all the options you have at any given moment! If you have a pair, it asks if you'd like to split. If you have the money to double-down, it will ask if you want to! Insurance? Just a yes or no will do it! Same great graphics as MULE'S END POKER-SLOTS!

BBUG NO 2922 MAH JONGG VGA Ver 3.0

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

MAH JONGG VGA is a high-tech simulation of the ancient Chinese game of Mah Jongg. Some historians date Mah Jongg back to the time of Confucius—over 25 centuries ago!

It's believed that sailors and fishermen played Mah Jongg as a diversion from the monotony of their long voyages. The game was originally played with cards, but eventually bone and bamboo tiles were substituted since these were less likely to be blown off the deck. The object of the game was to match tiles, but the tiles had to first meet certain criteria.

MAH JONGG VGA recreates the beauty and addictive pleasure of Mah Jongg, but uses modern data processing techniques and high-resolution graphics instead of bamboo tiles.

BBUG NO 2942 PRO-PLAY BLACKJACK Version 1.0

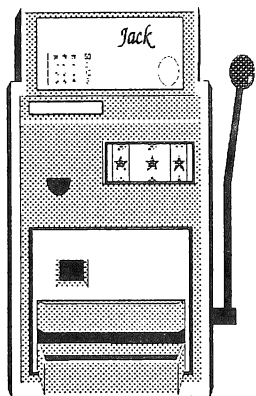
*CLASSIFICATION * Games * Floppy Disk * CGA/EGA*

You have a King and a seven and the dealers has a nine showing. What do you do? I'll take another card! "Never hit hard 17 or more." That's something the advanced blackjack player knows and that something that PRO-PLAY BLACKJACK will remind you of. Have fun and learn the advanced concepts of blackjack with PRO-PLAY BLACKJACK; a blackjack simulation with great graphics.

If you have a basic understanding of blackjack, but want to take the next step and play like a "pro," here's your chance. PRO-PLAY includes all the help screens and the tables of strategies you'll need. PRO-PLAY uses the rules found in most casinos on the Las Vegas Strip to teach you concepts of hard/soft hands, splitting, double downing, and more. Once you have skills improved, invite six other friends to play and PRO-PLAY will keep the score.

BBUG NO 2953 DELUX YAHT Ver 1.1

*CLASSIFICATION * Games * Floppy Disk * EGA/ VGA * Mouse Supported*



DELUXE YAHT is a very fast moving version of the famous Yahtzee dice game. Up to four people may play, each trying to obtain the highest score. Players throw five dice and try to match certain combinations (all sixes, full house, straights, etc). Different points are awarded for different combinations, and the player with the most points after the last throw wins! The computer rolls the dice and you choose the combinations.

Old Yahtzee players

will enjoy this version because the program tracks the scores on-screen with a score sheet that looks like the original paper version. Deluxe Yaht is easy to use, and great fun for adults and children.

BBUG NO 8965 SIMPLE PLEASURES Version 1.01

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

SIMPLE PLEASURES is a collection of six challenging and addictive solitaire games in one easy-to-play, integrated program. All the games share a smooth, elegant, and consistent push-button interface and the same powerful, enjoyable features.

A few of the many features of SIMPLE PLEASURES are the following: A flexible multi-player capability that can accommodate up to ten player's statistics and preferences. A five-level undo capability. A "move alert" option lets the player know if any more moves are possible. A "Hint" button. Fully-configurable screen background and border colors. Eight full-color card back designs to choose from. Enhanced sound options.



BBUG NO 9003 WHEEL OF LUCK Ver 1.1

*CLASSIFICATION * Games * Windows * Hard Disk*

After playing other "Wheel of Fortune" games in Dos, you can now try your luck with WHEEL OF LUCK under windows.

WHEEL OF LUCK is a game similar to the TV game show 'Wheel of Fortune'. Settings can be changed and preferences saved to disk. Sound is supported through Windows MCI, if a sound board is installed.

Enter more than one player and the countdown timer is automatically activated (it doesn't make sense to time yourself). You get 10-seconds to decide if you want to spin the wheel, buy a vowel or guess the phrase. If you choose to spin the wheel, you get 10-seconds after the wheel stops to pick a letter. If you choose to buy a vowel, you get 10-seconds to pick a vowel. If you choose to solve the phrase, you get 30-seconds to pick the missing letters. Be aware that once you've picked a letter, you can't go back if you make a mistake!

BBUG NO 9099 LOTTOPROF Version 3.1

*CLASSIFICATION * Games * Hard Disk * Printer*

Increase your winning chances. Leverage your playing power with the LOTTOPROF advantage!

LOTTOPROF examines any bet combination you might play and tells you your chances of winning. Then shows you in a graph how it compares to others. That way, for however much money you want to wager, LOTTOPROF shows you the best play for your betting dollar.

LOTTOPROF supports almost any 5-ball or 6-ball game, making it easy to keep track of your lottery's winning numbers. You can view the winning numbers in a graph, see which ones are hitting most often, and save your favorite numbers for later play.

Keep track of the wagers you make in your own Player Program. When the latest drawing results are in, LOTTOPROF will easily find your winning tickets. And quickly tally your winnings.

Eliminate the tedium of marking bet slips by hand. If you have a LaserJet printer, LOTTOPROF will print your

bet slips for you!

LOTTOPROF is your complete lottery playing companion. Without it you are wasting money!

BBUG NO 9130 HONG KONG MAHJONG

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

MAHJONG is played around the world, by various cultures in many forms, with variations in play and scoring that may differ from house to house. The precise history of the game is incomplete, but it is clearly a Chinese game, and, since the People's Republic frowns on all forms of gambling, the most common version today is surely that which is played in Hong Kong, where it is as large a part of daily life.

HONG KONG MAHJONG is fashioned in the Hong Kong mode, using tile images copied from the plastic sets one would find in the typical Kowloon household, adhering to locally accepted rules.

The game consists of 4 rounds: East, South, West, and North. Within a round, each player rotates through being in the seat corresponding to each Wind. The East player retains his seat through winning hands and dead hands. Once he has lost, the Winds rotate. A complete hand, then, will last a minimum of 16 hands, and often many more. The object is to accumulate 13 tiles with which a 14th tile would result in 4 sets and a pair. A set will either be Chow or Pong or Kong. With Kong, you are allowed to pick another tile to even up your hand.

CHILDRENS GAMES

BBUG NO 2366 EGA MOUSE PAINT Version 3.0B

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

If your children like to color pictures, EGA MOUSE PAINT will introduce them to using a mouse while coloring 17 pre-made pictures with 42 brilliant colors. A very nice feature is the ability to save a picture and restore it later. (This comes in handy when it's bedtime for the artist.) The program is very easy to use. Just point to the picture you want to color, choose a color, and have fun!

BBUG NO 2527 DAVE'S GAMES

*CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA * Mouse optional*

DAVE'S GAMES is a collection of mind-taxing games for both adults and children of all ages.

PENTRIX version 1.32 is a strategy game for two players which will test your thinking. Based on the game of GO-MAKU, two players pit their abilities to place five pieces in a row. Sounds easy, but it's not. Help screens explain all the rules. Works with or without a mouse and is great on EGA/VGA monitors.

DOUBLECROSS Version 4/91 is another strategy game for two players. The object of the game is to build a bridge that connects your sides of the board while preventing your opponent from doing the same. Works with both mouse and keyboard.

BOGGLER Version 4/91 is a word game for any number of players. The game displays a 4x4 square of letters. All players must try to build the longest and most

unique words in three minutes time. Great for get-togethers —very addictive!

BBUG NO 2669 BRANDON'S BIG LUNCHBOX Version 1.0

*CLASSIFICATION * Educational * Games * Floppy/Hard Disk * CGA/EGA/VGA*

The entire BRANDON'S LUNCHBOX series on one diskette! 18 fun educational modules for children ages 3 to 7.

Beginning and pre-readers learn keyboard skills, drill on upper/lower case alphabet, number sequences (greater than/less than), counting, problem solving, memory games, simple arithmetic, sight word drills with 184 different "sight" words — you can create your own custom word lists! Practice counting by two's or fives, learn US geography, watch your little ones discover deductive reasoning! Plenty of flashy colors, wild sounds, and fun rewards like dancing bears Mardi Gras parades!

BBUG NO 2709 BALLOONS and DRAWSOME

*CLASSIFICATION * Games * Floppy Disk * CGA/EGA/VGA * Mouse optional*

BALLOONS Version 3.8 - is a simple, easy to use program designed to help young children become familiar with the computer and have fun at the same time. It provides visual delight for children 18 months and up and hands-on experience with the computer. Balloons appear as any key is struck and may be enlarged until they pop into a rainbow as "Twinkle, Twinkle Little Star" plays. This program is designed to be your child's first program and to provide hours of enjoyment.

DRAWSOME Version 2.4 - is a simple, easy to use program designed to help young children become familiar with the computer, mouse, and mouse operations and to have fun at the same time. Children from 18 months experience visual delight as they draw lines on the screen by moving an image of a hand with the arrow-keys or with the mouse. Line color is selectable by keys or by clicking the mouse buttons. The program also draws various flowers, circles, triangles, and squares. An excellent program for developing mouse skills, finding the location of certain keys, and learning basic geometric shapes.

BBUG NO 2831 THE ANIMATED ALPHABET Version 4/90 (Disk 1 of 2, also 2832)

*CLASSIFICATION * Games/Educational * EGA/VGA * L/Floppy/Hard Disk*

THE ANIMATED ALPHABET combines colorful graphics with appealing animation to teach children the letters of the alphabet. After choosing the correct letter for the graphic shown, for example a monkey, the monkey starts jumping around and the word "monkey" is written near the bottom of the screen. This is a fun program designed to hold the attention of children preschool to the first grade.

BBUG NO 2832 THE ANIMATED ALPHABET Version 4/90 (Disk 2 of 2, also 2831)

BBUG NO 2929 WUNDER BOOK Ver 1.0

*CLASSIFICATION * Games * Floppy Disk * EGA/VGA * Mouse Optional*

WUNDER BOOK is a collection of five colorful and

fun games for children 3 to 10 years old to learn and explore WUNDERFUL objects, numbers, alphabets, words, shapes, and 4 different languages (English, Spanish, French, and German) using the universal language of graphics. 40 pictures are included.

WUNDER BOOK stimulates and encourages children to develop memory, perception, pattern and word recognition, and language efficiency at the same time makes learning an interactive activity of fun. Different topics and subjects can also be easily added later as additional libraries as children continue to expand their knowledge.

The games are totally child-friendly, symbol-menu-driven, supports mouse, music, and scores.

BBUG NO 2991 GIANT SPACE SLUG & RINGWIELDER Versions A.2

*CLASSIFICATION * Games * Floppy Disk * Printer*

GIANT SPACE SLUG is excellent for building eye-hand coordination, especially among children. Similar to the game WORMS but with one exception - speed, which is able to be adjusted from ridiculously easy to absolutely impossible and makes the game more fun to play.

Using either keyboard or joystick, you can utilize all four directions of the screen, rather than the typical two directional motion of most other arcade games.

A great game for parents who want something different for the children. It works on monochrome as well as color monitors.

RINGWIELDER is an incredible non-computer role-playing game that features the worlds of both fantasy and science fiction!

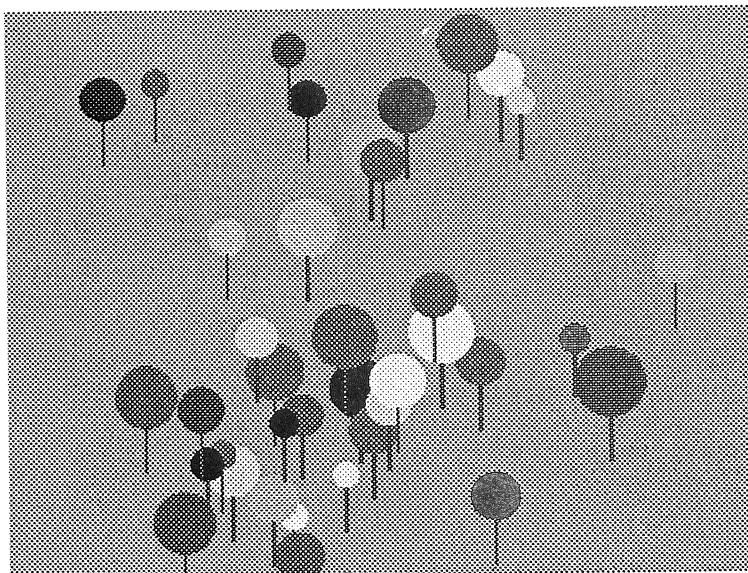
A "role-playing game" allows you to take on the characteristics of someone (or something) from the realm of fantasy or science fiction and play the game as if you are that character. While RINGWIELDER uses both the worlds of fantasy and science, occult and extreme violence is omitted.

RINGWIELDER is easy to play and fast-moving. The rules are easy to understand, but interesting enough to hold the interest of even the most advanced gamer.

BBUG NO 3034 TALKING ABC'S - DAY AT THE BEACH(Disk 1 of 2, also 3035)

*CLASSIFICATION * Educational/Games * CGA/EGA/VGA * Hard Disk*

TALKING ABCs teaches very young children the ABCs with arcade quality graphics and a digitized voice that actually talks over your computer's speaker. The program presents a picture of a beach and then a letter is displayed, "d" for example. The player presses the letter on the keyboard and a picture of an object that starts with



Balloons

that letter (dog) appears. The computer then speaks the word (dog).

TALKINGABCs includes a couple of different variations to work on ABCs.

This is a great educational game for preschoolers.

BBUG NO 3035 TALKING ABC'S - DAY AT THE BEACH (Disk 2 of 2, also 3034)

BBUG NO 8959 PALLANDA Version 1.6

*CLASSIFICATION * Games * EGA/VGA * Floppy Disk * Mouse optional*

This is a fun game for the "little people", with enough strategy to make it challenging for Dad and Mom. Prince Pallanda can be included as one of the four players. The name, PALLANDA, comes from 'Pal Land' where everyone plays happily together and King Pallanda makes sure everyone plays fair. PALLANDA is designed so even youngsters that aren't reading yet can learn to play well.

The object is to land in the winner's circle by moving to the closest color shown on the spinner. It sounds simple. However, the nearest matching color is often in the wrong direction and sometimes you must choose between squares that are the same distance away. There are hidden surprises along the way with pictures you can watch being drawn.

BBUG NO 9015 VGA FUN PAK (Disk 1 of 2, also 9016)

*CLASSIFICATION * Games * Hard Disk * VGA * Mouse*

VGA FUN PAK is a series of programs for computers that support VGA graphics.

Some of the Programs provided include:

ALARM/DIGITAL CLOCK which maintains a clock on the screen using high-resolution VGA graphics. Alarm setting is possible.

ART/CHRISTMAS TREE/FLYAWAY/POLAR FLOWER are graphics demonstrations that produce interesting images on the video display. These are just fun programs that are nice to leave running when not using the computer.

BULLS & COWS is a variation of Mastermind. The program options ask you to designate the length of the

mystery number (3 or 4 digits), and the numbers that appear in the mystery number (1 thru 5, 6, 7, 8 or 9). The computer selects the mystery number based on the options selected. The number will be three or four digits long, contain only the numbers selected by the option, and NO NUMBER WILL BE REPEATED. After you select a guess, the computer will grade the guess. A BULL is a correct number in the current location. A COW is a correct number, but in the wrong location. Using the grades (BULLS/COWS), you make successive guesses until you have correctly guessed the mystery number, or after 10 tries, the computer will tell you the answer.

VICTORY AT SEA is modeled after a childhood game played on paper. The first step is to place your ships (2 battleships of 4 squares each, 2 cruisers of 3 squares, and 2 submarines of 2 squares). The ships may be placed horizontally, vertically, or diagonally, but must be in consecutive squares. The computer will not allow you to place too many squares for a given type and will prevent you entering the same square more than once; in either case you will get a beep. You will see a running chart of the squares used for each boat of each type (B1, B2, C1, C2, etc.) in the center of the screen.

BBUG NO 9016 VGA FUN PAK (Disk 2 of 2, also 9015)

BBUG NO 9133 COLORING BOOK Ver 1.4

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

COLORING BOOK is an electronic version of the classic children's coloring book. It presents the user with 10 pictures (35 pictures in the registered version) that can then be colored in using a palette of 15 colors.

Features include: All graphical controls, Easy color selection, Color Erase, Undo, and Quick picture selection.

The program is very easy to use. All the necessary commands are on the screen at all times. Children can learn to use the program with little or no help from adults. They can be coloring pictures less than a minute from the time the file download is completed.

Give COLORING BOOK a try. It's a great way to keep the kids busy for a while, and provides a nice diversion for you.

EDUCATIONAL GAMES

BBUG NO 2344 MATH & LOGIC GAMES FOR KIDS Version 2.01

MATH AND LOGIC GAMES FOR KIDS presents six programs that challenge a child's mathematics and thinking skills. The programs are aimed at grade levels K-6, but can be enjoyed by all.

TARGET MATH and JELLY BEANS are competitions between two players, or one player versus the computer. In TARGET MATH, take turns adding numbers trying to reach a target sum. In JELLY BEANS, take turns removing beans from a jar. (The one who takes the last bean loses!)

I SHOT AN ARROW is a simple simulation of an arrow flying through the air until the program introduces estimation and answer refinement skills.

LEAKY TUB simulates filling a leaky bath tub with hot and cold water, and is just plain fun while teaching logical thinking.

In MATH RACE, up to four players take turns answering arithmetic flash card problems. The faster you answer your problem, the further down the track your car travels. Each player can race at a skill level pretty pictures using the ideas of Fractal math.

BBUG NO 2581 FIGMENT - THE IMAGINATION PROCESSOR Version 2.46

*CLASSIFICATION * Games * Graphics Card * Hard/L/Floppy Disk*

FIGMENT is multi-media authoring system for interactive fiction. It is a tool for manipulating text under computer control either to present information or to create an illusion. This makes it good for developing certain types of simulators, role-playing trainers, and certainly for entertainment. FIGMENT has special features for modeling character development which makes it a unique tool for character and plot modeling as well.

FIGMENT is a spread-sheet/word processor/debugger for interactive fiction. You can write, play, and debug your work all in one package. No tedious compiling or loading is required. You can run your work immediately. FIGMENT brings the logic out to the user level where you can modify it or do whatever you want with it. The editor displays all the data structures for you to modify.

Play roles in existing interactive fictions or write them yourself. FIGMENT does all the hard work of developing an interactive story so you can concentrate on the creative aspects. You declare the objects, define the attributes, write the appropriate messages, and develop the logic. Programming is easy and quick with the full-screen editor and complete Help system.

BBUG NO 2640 ANIMATED SHAPES Version 8/90

*CLASSIFICATION * Educational * Games * EGA/VGA * Hard Disk * Mouse*

Teach your child to identify shapes and colours with ANIMATED SHAPES. The colorful menu system is designed for children pre-school through the first grade. Each shape correctly identified combines with other shapes to create a picture. When complete, the picture becomes an entertaining cartoon.



BBUG NO 2903 BERT'S DINOSAURS
Version 12/91

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

BERT'S DINOSAURS is an enjoyable coloring program for children of all ages, but is especially useful for introducing young children to the computer. BERT'S DINOSAURS was designed by educators to be used by young children with a minimum of assistance by adults. As a coloring program BERT'S DINOSAURS is superior to many other children's coloring programs in that it allows the user to place the various dinosaurs, all in four different sizes, on a variety of backgrounds. This encourages children to create their own picture before coloring and gives them something to take pride in.

When first started, BERT'S DINOSAURS displays a title screen and then the drawing surface with eight buttons on the left. Children can operate the program with the mouse alone. A window is provided which allows children to write a short story about their picture using the keyboard. The fact that they created the picture will help provide the motivation to write about it. One of the best ways for children to learn to read is to write, even if their initial attempts include phonetic spelling. They will love creating a setting, writing their own story, and printing out a copy.

BBUG NO 2930 ANIMAL QUEST Ver 1.00

*CLASSIFICATION * Games * Floppy Disk * EGA/
VGA/SVGA * Mouse*

You are about to experience Nature through very different eyes. ANIMAL QUEST is a Fun Game for any age. First you select what animal you like to become and then you try to cross your habitat collecting as many Energy Tokens as possible by capturing your prey while avoiding your Predators and outsmarting your Competitors.

ANIMAL QUEST is a never ending adventure in the fascinating world of Nature. All animals are placed randomly at different screens so that each game is unique and unpredictable, challenging you every time.

ANIMAL QUEST is also a realistic simulation of Food Chain Ecology. The rules of the game are based on factual Prey and Predator relationships. A truly Educational game that balances Gaming with Learning. To play the game you must first learn what is your prey and who are your predators.

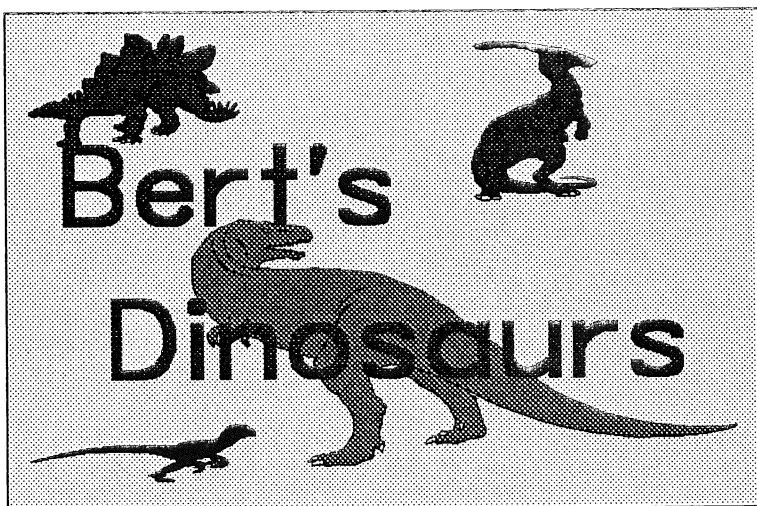
Three Difficulty Levels to choose from, each providing increasingly more challenging games, score-keeping, on-line help, easy icon-based user input and extensive information on each animal and plant. Its Colorful graphics and realistic sound effects will surprise you !!!

BBUG NO 3023 FLASH CARD FISHING
Version 1.0 (Disk 1 of 2, also 3024)

*CLASSIFICATION * Educational/Games * EGA/VGA
* Hard Disk*

FLASH CARD FISHING is an educational game for children which allows them to catch fish by answering basic addition questions.

Different user levels allow them to choose the difficulty level of the questions, and how quickly they must respond. They can get bonus points by avoiding bugs, sunburn, water skiers, and alligators, but watch out if they answer too slowly, or incorrectly! The program includes easy-to-use menus, including a "How to Use the Program" section.



FLASH CARD FISHING is recommended for ages 6 through 12, and is also useful for remedial students.

BBUG NO 3024 FLASH CARD FISHING Version 1.0
(Disk 2 of 2, also 3023)

BBUG NO 3041 MORAFF'S MATHER

*CLASSIFICATION * Educational/Games * Floppy
Disk * CGA/EGA/VGA*

MORAFF'S MATHER is a different kind of game/learning tool. This program allows the user to win all manner of wonderful and not-so-wonderful prizes by answering a few simple math problems! When the problems are answered correctly, the questions become tougher and the prizes become bigger.

MATHER is designed to challenge anyone with the will to achieve.

BBUG NO 8908 WORD RESCUE

*CLASSIFICATION * Games * EGA/VGA * Ad Lib/
Sound Blaster * Joystick*

WORD RESCUE - APOGEE'S FIRST EDUCATIONAL GAME! Built with a similar system that was used to create Duke Nukem, WORD RESCUE is an incredible adventure for kids who want to rescue all the stolen words from the mean ol' Guzzles. The Guzzles can't read, and they don't want anyone else to read. So, they've stolen the words out of all of our books! Benny Bookworm needs your help to stop the Guzzles. He needs you to reunite the stolen words with their meanings. Once you join all the words with their pictures, Benny will put them back into the books. Even "grown-ups" will like WORD RESCUE!

WORD RESCUE is designed for a range of players of all ages: Easy level: Ages 4 - 7 (Even pre readers can play the game.) Medium level: Ages 7 - 10 Hard level: Ages 10 and up (A challenge for adults, too!)

Play as either a girl, or a boy! You get to choose you which character you wish to play, either male or female. Either way, you'll visit amazing locations on your word finding adventure. As you hunt for all the missing words you'll visit dark caves, rocky cliffs, deserts, happy towns, scary haunted houses, funny factories, creepy dungeons, and many others.

PUZZLE GAMES

BBUG NO 2144 JIGSAW MANIA Ver 2.00

Jigsaw puzzle fans rejoice! JIGSAW MANIA provides colorful fun for all who enjoy the challenge of a good jigsaw puzzle by scrambling an image on your screen and asking you to piece it back together. You set the difficulty level by dividing the puzzle into a few big pieces or lots of little square pieces. The program mixes the pieces up and you put them back together. That may sound easy, but you know better.

JIGSAW MANIA counts the number of moves it takes to complete the puzzle. The shareware version contains two different puzzles, while the registered version contains twelve. The puzzles are great for either children or adults, simply just adjust the level of difficulty.

BBUG NO 2173 INSANITY Version 2.0

A huge maze based adventure game where INSANITY rules. Find clues, solve puzzles, and try to stay alive in a place where the unexpected is common, and pandemonium is found at every turn.

As you try to find the exit from INSANITY you'll encounter many strange things. You'll meet a wizard. Pass through the stars. Collect ammunition to defend yourself against little red men. Explore a castle and a church along the way. Play games like seven card challenge or a fast paced soccer match. Most things won't make sense, but if you can find a method to the madness, you could find the key to end your search for a way out of INSANITY.

BBUG NO 2229 VGA JIGSAW PUZZLE Version 1.5

VGA JIGSAW PUZZLE is game alive with color and brilliance in the 256 color mode that only VGA can produce. It loads a picture on the screen and then shuffles the pieces around. Your goal is to assemble the original picture!

The program includes three great quality jigsaw puzzles and features: Easy-to-use menu-driven operation. Keyboard or mouse option. Four levels of difficulty. Music. Scorekeeping.

Also provided is information on how to create your own VGA jigsaw puzzles using the popular .GIF and .PCX file formats in the 320 X 200 X 256 colors.

BBUG NO 2261 BATTLE FLEET Ver 2.3

A game similar to the Milton Bradley's Battleship. Deploy your BATTLE FLEET, and sink your opponent's ships before yours are destroyed. The program has nine levels of difficulty. Play against the computer, or another person via a modem.

BBUG NO 2437 DOUBLE TROUBLE AND NYET Version 1.0

Anyone who loves puzzles will spend many hours trying to figure this one out!

DOUBLE TROUBLE is a deceptively simple, yet challenging puzzle for young or old. Starting from a scrambled position, the user rotates two intersecting circles of colored balls, grouping them into four color groups. As the color groups are formed, the two intersecting circles promptly break up color groups already formed. Eventually, the balls will be grouped into their proper positions, completing the puzzle successfully. Try again, but for a lower score! The program counts each key press taken to move the balls into position. Help is available at a key stroke!

NYET Version 1.1 If you haven't yet acquired Tetris, here's your chance to buy a "Tetris"-like program through shareware. The object of the game is to pack a 2-dimensional box with block-shaped figures as they come falling down from the computer sky. Try hard not to leave any spaces, but don't despair. You'll get it in time!

This game appeals to both computer game veteran and novice alike (it is quite addictive!). Once you think you're pretty hot stuff, NYET challenges you to make the game harder — drop those blocks faster! Now see what you can do!

BBUG NO 2500 BASS CLASS Ver 1.1

*CLASSIFICATION * Games * Hard/Floppy Disk * EGA/VGA * Mouse (optional)*

BASS CLASS is not only a fishing game but a tutorial, as well. Even if you've never been fishing in your life, you will find BASS CLASS both educational and fun to play. The game has three skill levels from which to choose. Select your experience level and then take command of a modern, fully rigged bass boat.

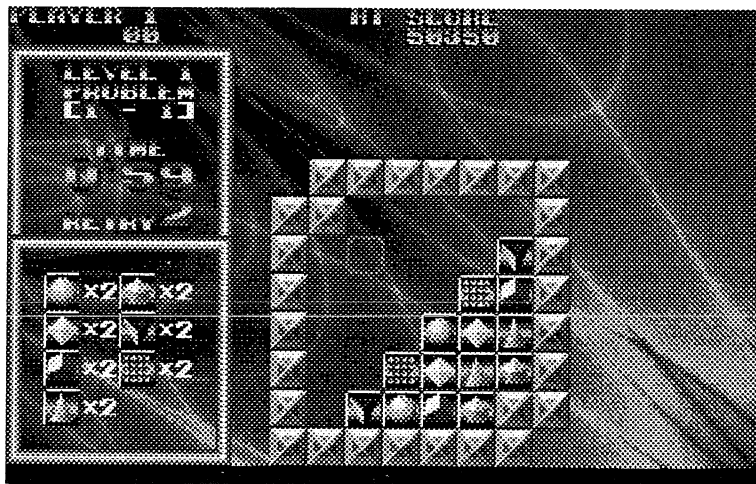
Aboard the boat you'll find six different fishing rods at your disposal, over 2300 lure/color combinations, a nifty LCD depth finder, a trolling motor, and lots of other accessories. With the powerful outboard motor, you can zip to the far end of the lake, or scoot back to the weigh in area before the six hour time limit expires. Better wear your life jacket though! If you're good enough (or lucky) you might even catch a fish big enough to be engraved upon the BASS CLASS HONOR ROLL PLAQUE where the top ten fish are listed.

BASS CLASS comes complete with six different fishing areas from which to choose. Select your rod and lure, navigate around the lake, and search for the bass. You can decide when to use the outboard motor and when to use the trolling motor, or when to paddle, where to fish, which fishing poles and baits to use, and more.

BASS CLASS uses superb graphics to show you the lake and even includes weeds and submerged objects to confuse you. Remember, you are in a contest. If you don't make it to the weight-station before the end of contest, you lose.

Remember to wear your life jacket — some of the fish are incredibly big.

Brix



BBUG NO 2670 CARR'S GAMES

*CLASSIFICATION * Games * Floppy Disk * VGA * Joystick*

MINELAYER Version 1.2. A colorful fast-scrolling arcade game with on-line documentation. Your high speed minelayer can move in eight directions across a huge 24-screen ocean. Your mission: destroy (by ramming) all of the enemy bases. Your only defense against the enemy rammer ships are the mines you deploy. The advanced version has many variations that will keep you challenged, busy, and addicted for a long, long time.

If you liked Tetris, you'll love **MIX AND MATCH** Version 1.2. In Tetris, the goal is to arrange the blocks in the time allowed. In **MIX AND MATCH**, the goal is to match the random color in the fewest tries. Match the color by choosing the correct intensity of the three primary colors of light (red, green, blue). A game the whole family will love! You'll also learn something useful — how the colors of light are made. A great 640 by 480 high-res VGA game!

ISLANDS OF DANGER Version 3.1. Your mission — Take your killer hovercraft, pass the Twenty Islands of Danger (and their missile launchers), and rescue Jean. Sound easy? Guess again, Rambo! Control your ship's path with one hand and shoot missiles with the other. Dodge enemy missiles and attack their launchers. The game can be played at different speeds for different abilities and also supports a joystick. Arcade fun at home!

BBUG NO 2767 MORAFF'S STONES Version 1.0

*CLASSIFICATION * Games * Floppy Disk * Graphics Monitor*

Here you are in a tavern on Moraff's World, the only Terran in the place. Don't worry, discrimination is against the law on this world. You're sure that the players (?) - Aliens, ETs, BEMs, or whatever... beckoning you to play **STONES** - a strategy gambling/barter game - with them are nice enough creatures who just need a fourth player. You join the game and take a seat at the **STONES** table.

After playing a couple of games - you've done quite well and you've just wiped out one opponent who leaves the game. Who's this taking her place? You gradually realize that each time one player gets wiped out, it gets replaced by somebody smarter and nastier.

BBUG NO 2880 QUATRIS II Version 1.0D

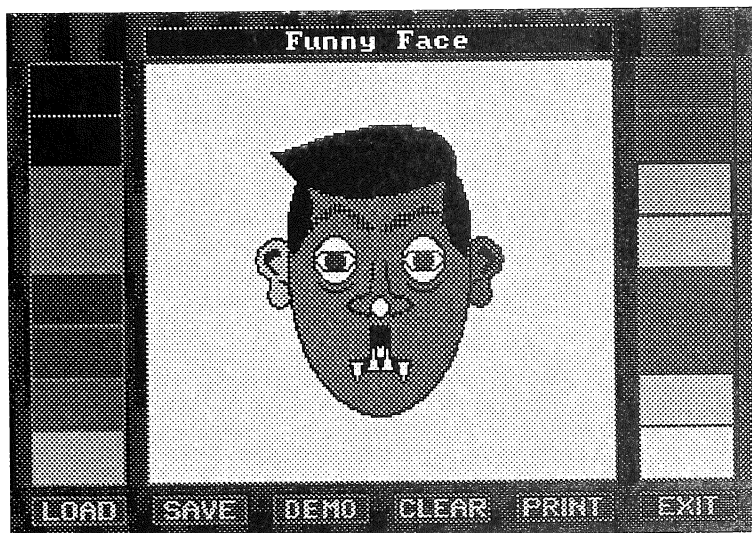
*CLASSIFICATION * Games * Hard/Floppy Disk * EGA/VGA*

QUATRIS II is not like any other games where you play just for the fun or the pleasure of it. **QUATRIS II** can actually exercise your brain in visualizing objects. Once your brain is trained to visualize each of the blocks shown and its four rotated forms, **QUATRIS II** becomes easier to play.

QUATRIS II is a Tetris-like game, easy to operate and play while at the same time exercising your brain to visualize and measure objects and space. If you know Tetris, **QUATRIS II** shouldn't be any problem for you.

This game has 3 complete levels and 40 extended shapes to play with. **QUATRIS II** will automatically save your game, allow you to redefine your keys, track both your score and the number of lines left, and is provided with a grid to help you more accurately drop the blocks.

A unique feature that can improve your score by giving you another chance is the ability to enlist bombs



that will either wipe out a line, wipe out particular pieces, or wipe out everything on the screen, provided you have enough "energy." Challenge of the playing field changes from level to level with the fluxuation of the two-dimensional "well" where the blocks fall.

QUATRIS II will provide you with more fun and addiction than Tetris or any of the other tetris-like programs.

BBUG NO 2989 FUNNY FACE II Version 11/90

*CLASSIFICATION * Games * CGA/EGA/VGA * Hard Disk * Printer*

FUNNY FACE II is designed to provide kids with a creative form of amusement by creating funny faces from a collection of mouths, noses, eyes, ears etc. and then colour them in.

The program is simple to use for even the youngest computer enthusiast. Using the cursor, select any one of dozens of different noses from the collection, highlight the selected nose and it is immediately transferred to the picture. No artistic skills are needed, it's just a lot of fun.

Once the face is completed, the image can be saved to a .PCX file or printed to any printer.

FUNNY FACE II will provide hours of fun for all.

BBUG NO 3036 TILE MATCH Ver 1.0

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

TILE MATCH is a colorful game based on concentration solitaire or memory. It's played with colorful tiles and the object is to find pairs from the tiles placed face down on the playing board. Options include solitaire play, multi person play for 2 to 4 players and single player against the computer plus many scoring and difficulty level settings.

Use the playing card tiles or create your own with the included Tile Maker utility. Several other different tile sets are included and many more are available.

BBUG NO 9006 THE INCREDIBLE MACHINE

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

Greetings fellow inventors, puzzlers, and gamers!! Welcome to the wacky and wondrous world of "THE

INCREDIBLE MACHINE". This interactive demo version lets you get a taste of the game to see for yourself if you want to buy the full version.

For this interactive demo, there are only eight puzzles, but in the real version there are over 100 puzzles. The goals of each puzzle are described on the Control Panel. In each puzzle there will be some parts that are already positioned on the playfield.

This demo version does not support PC speakers, it does support most major sound cards.

BBUG NO 9023 WORD SEARCH PUZZLE MAKER

*CLASSIFICATION * Games * Hard Disk * Printer*

WORD SEARCH PUZZLE MAKER generates word search puzzles and prints them on your printer. WORD SEARCH PUZZLE MAKER can make at least 24 different variations of the popular word search puzzle.

WORD SEARCH PUZZLE MAKER comes with an editor so you can shape and customize your puzzles. It can also save puzzles in ASCII files so that you can import the puzzles you create into text editors and word processors. This means that you can work puzzles into newsletters and do many other exciting things with them.

BBUG NO 9032 HERO'S HEART Ver 1.1

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

HERO'S HEART is a puzzle game requiring careful, logical thinking. High resolution color graphics provide a friendly user interface and a large playfield upon which many different types of objects are carefully arranged. You control the movement of the Hero. Each time you move the Hero, all of the other "objects" on the playfield get a chance to move; some will, some won't.

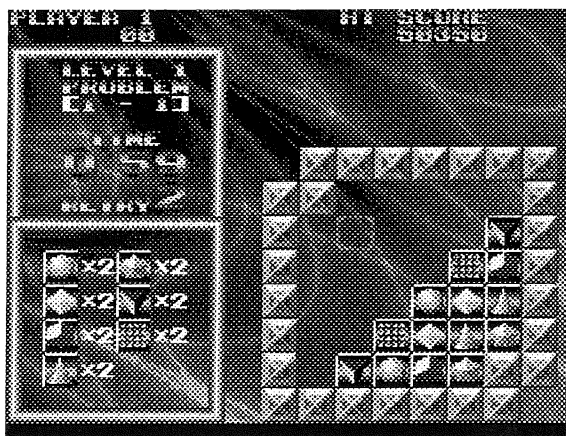
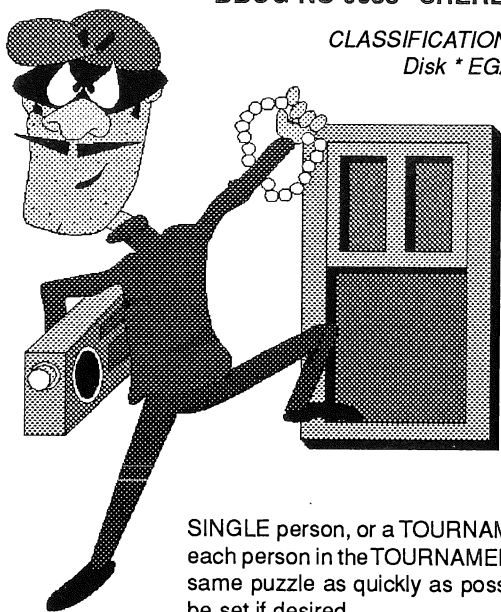
Your goal is to pick up all of the Hearts and then reach the Exit. Each level is a stand-alone puzzle. There are 25 different levels in the game, and an editor is built into the program for you to create new puzzles with which to challenge family and friends. Quick reflexes are not needed (nor will they do you any good). A sharp mind, however, and the ability to see relationships and causes & effects WILL help.

BBUG NO 9033 SHERLOCK Version 1.50

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

SHERLOCK is a game of deduction. It is your task, based upon the information available in provided clues, to determine the locations of 36 blocks. Every puzzle can be solved by using the clues to eliminate possibilities until the location of a specific block can be determined.

SHERLOCK may be played by a SINGLE person, or a TOURNAMENT may be set up, with each person in the TOURNAMENT attempting to solve the same puzzle as quickly as possible. A TIME LIMIT may be set if desired.



BBUG NO 9073 BRIX

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

Hey puzzle fanatics! BRIX is a new, mind-warping, and terribly challenging game. You'll progress through the 112 unique levels of BRIX by moving blocks around, utilizing elevators, lasers, acid pools, teleporters, and many more tricks and traps.

BRIX presents a new style of game, which requires fast thinking and a good brain in addition to fast reflexes. Tetris meets Mario Brothers!

With the smoothly-animated 256-color VGA graphics and excellent Sound Blaster music and digital sound, you'll be amazed at the beauty and complexity of this game. The first few levels are easy for any beginner to learn, and the last 112 levels will drive you nuts!

BBUG NO 9123 FLUX Version 1.1

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

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

You start with a simple 7x7 playing grid (49 squares). Inside the playing grid are 2 red flux pieces (human player) and 2 blue flux pieces (computer opponent). Also inside the grid are four or more blocks. These blocks serve no purpose, other than to limit movement and occupation by the flux pieces.

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

BBUG NO 9134 BITBOP II

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

BITBOP II is an incredible, mindblowing game for gamers with a thirst for adventure. It features: * 256-color graphics and art! * real time 3D rotation effects! * raytraced game pieces * hypnotically flowing backdrops! * DIGITIZED ANIMATION!

BITBOP II Supports mouse or keyboard, and has over half a meg of graphics data (compressed, for your convenience and our sanity), has a built in screen saver on a time delay and a great plot that's so subtle, you won't even know it's happening.

TEXT GAMES

BBUG NO 2299 SON OF STAGEFRIGHT Version 1.0

*CLASSIFICATION * Games * Floppy Disk*

This is a text adventure game with a theatrical twist. Things just aren't going right for you. For starters, you're locked inside an old abandoned theater. The little voice inside you is screaming, "GET OUT OF HERE!" As you try to get out, you'll encounter creaky catwalks, raging rivers, mini-mazes, rogues, rats and a zookeeper. You'll also endure puns, perils, pratfalls, word play, bad jokes, and some mild innuendo.

This game was written using the Adventure Game Toolkit (BBUG Disk # 1231,1232) and was the winner of the text adventure contest sponsored by the authors of the Toolkit.

BBUG NO 2691 T-ZERO Version 1.02

*CLASSIFICATION * Games * Floppy Disk*

T-ZERO is Time Travel - a text adventure in the grand style, mixing elements of fantasy and science fiction while exploring the nature of time. Scenes take place in a rustic but disturbing present, a bustling prehistoric era, and a damaged, bureaucratic future. Your task is to locate six round objects scattered across eras and landscapes, transport them to progressively future time-zones, and manipulate them in a fashion that will right the troubled times.

This game is dedicated to all gamers saddened by the premature death toll sounded for text adventures.

BBUG NO 2742 THE CASE OF CRIME TO THE NINTH POWER Version 1.5

*CLASSIFICATION * Games * Floppy Disk*

THE CASE OF CRIME TO THE NINTH POWER is the first in the series featuring Cliff Diver, a hard-boiled, ex-cop private eye who lives and works in San Francisco. You must help Cliff escape from the Zamboni crime family's secret headquarters. Along the way, you and Cliff will face snarling Dobermans, two of Zamboni's goons (named Flash and Bonzo), and many other twists and turns. A captivating mystery to solve.

This is THE ADVENTURE TOOLKIT's 1990 Text Game Winner. The game features a 400 + word vocabulary, a pop-up Help system, and a Save/Restore feature.

THE ADVENTURE TOOLKIT is contained on BBUG # 1230 and # 1231.

BBUG NO 2746 QUESTMAKER Version 2.1

*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

Welcome to an exciting new program where you can play, modify and make your own Animated Adventure games. QUESTMAKER is a program that allows you to create your own adventure games using the QUESTMAKER editors in conjunction with a graphics editor like PC PaintBrush for the creation of graphic screens with a .PCX format.

QUESTMAKER is the first integrated graphics-based adventure game creation tool of its kind. QUESTMAKER uses EGA 640 X 200 16-color resolution graphics. Most other Adventure Games use only 4-color graphics or the lower EGA resolutions. QUESTMAKER also makes an

excellent educational tool where you can create subject specific games that make learning fun for your family and friends. The adventures you create are limited only by your imagination.

You will find QUESTMAKER packed full of functions that would normally cost you hundreds of dollars. In just a few hours you can learn to modify the existing game to create your own exciting, graphics based adventure game. It takes a team of programmers almost a year to create a complete game from scratch, but you can create a complete game with QUESTMAKER in a matter of days. No programming experience is required to create your own games. However, a working knowledge of DOS is recommended as well as a little experience with a .PCX format Paint program.

QUESTMAKER comes with a complete sample tutorial game called the "Adventures of Hero Harry." This game demonstrates most of the program functions. You won't need to worry about details such as Save and Restore operations, character movements, game Help, speed control, and inventory management since they are already built in. These automatic functions will reduce your game development time. Create a complete game in a couple of days instead of a couple of years.

BBUG NO 2796 SKYLAND'S STAR Ver 3.2

*CLASSIFICATION * Games * 2/Floppy/Hard Disk*

SKYLAND'S STAR is a science fictional text adventure game which draws its inspiration from classic prose adventures.

The Earth is in desperate peril. The rapid growth in population and need for energy has all but depleted the world's fossil fuels. Science has been unable to replace them with a safe and reliable alternative.

The player, a member of a small group of scientists, is recruited to travel into the future to witness how the problem was solved - in the past. The bulk of the game takes place here, in a major metropolis of the future. The player must discover how the future solved the problem and retrieve the necessary information and items for the present to survive the crisis, so that the future he witnessed can exist.

The game is intended for anyone who wants a challenging, intelligent diversion from reality.

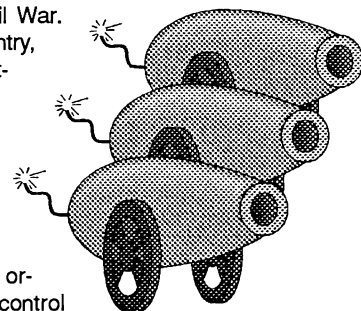
WAR GAMES

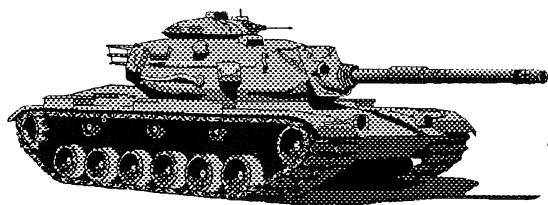
BBUG NO 2430 CIVIL WAR BATTLE SET Version 1.1

Remember when you played "war" with your friends? CIVIL WAR BATTLE SET can help you relive those days, in the comfort of your home or office!

CIVILWAR is a one-player re-creation of various battles from the American Civil War. Choose either side and command infantry, cavalry, artillery, and general units. Battles are affected by unit type, terrain, leadership, morale, attack type, and other factors. You may modify the game difficulty and the aggressiveness of the enemy, as well as visibility and artillery range.

"Spy" on enemy troops, override orders of subordinate commanders, and control





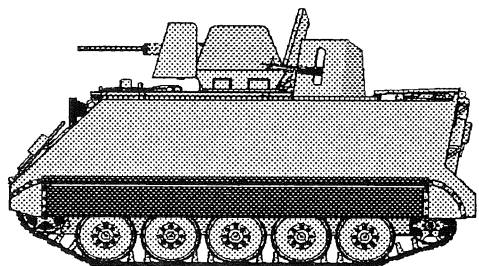
intensity of encounters. You can create or modify battle scenarios, including battle map, army type, strength, and other factors. Name units according to historical

battles or choose your own names. And, if you get interrupted during an intense battle, save it and come back to it during your coffee break!

BBUG NO 2765 MINE FIELD Version 1.0

*CLASSIFICATION * Games * Floppy Disk * VGA * Mouse*

MINE FIELD is a graphical game of logic and deduction. Your job is to mark all of the mines in a mine field so that your troupes can make it through safely. There are 15 different boards to choose from and you can select how many bombs to put on each board.



You have to figure out where all of the bombs are and mark them by clicking on them with the right button. This turns the tile red and prevents you from uncovering it with the left button. If you change your mind about whether or not there is a bomb under a red tile then you can click on it again with the

right button and it will turn back to a normal square and you will then be able to uncover that tile with the left button.

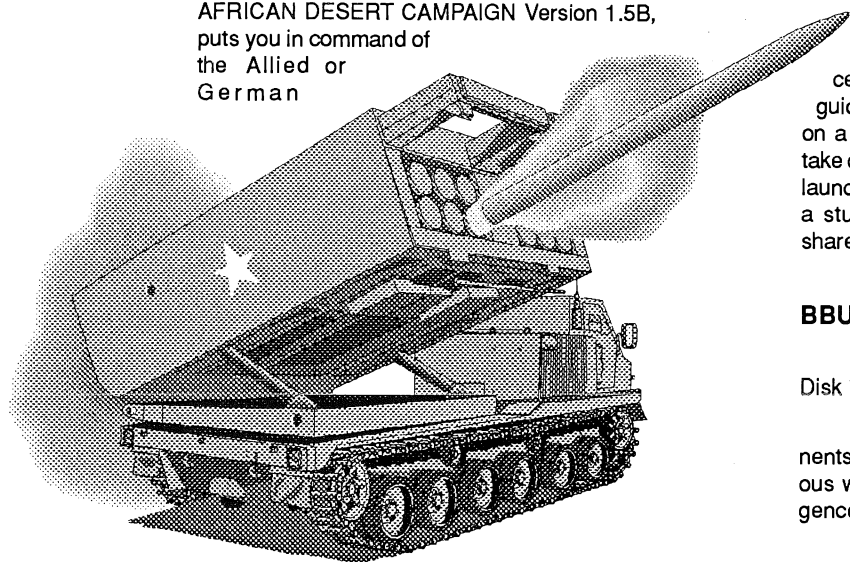
The game is over when you mark all of the bombs or when you uncover all of the safe tiles.

BBUG NO 2972 AGGRESSION and AFRICAN DESERT CAMPAIGN

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

AGGRESSION Version 1.0, is a board game that combines some of the aspects of checkers and backgammon. Like checkers, each player's game pieces start at opposite sides of the board. You alternate moves, and each player tries to be the first one to get all their pieces to the other side. You can surround an opponent's game piece and return it to its starting place. Play against a friend or the computer. A fun game with sharp graphics.

AFRICAN DESERT CAMPAIGN Version 1.5B, puts you in command of the Allied or German



armies in a World War II fight over the Suez Canal. In this game you're given an equal number of troops and equal amounts of supplies. You can split your forces, move your troops, and attack your opponent. This is a strategy-based game with limited graphic displays.

BBUG NO 2973 CONQUEST Version 1.6

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

CONQUEST has much in common with other "Conquer the World" games. Up to 8 players can play, any or all of whom can be computer controlled.

The goal is to defeat all of the opposing armies and occupy every territory on the Map. The game objective can be different depending on selections made in the game set-up menu.

CONQUEST is different from other games in this genre because of its point & click user interface and the strength of the rule-based algorithm used by the computer opponents.

BBUG NO 2980 WORLD EMPIRE Ver 9/91

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

WORLD EMPIRE is a strategy game based on a time in the not too distant future when nationalism is on the decline. The people of the world are tired of the weakened nationalist governments that are constantly bickering with one another over trade restrictions and border disagreements.

Up to four people take on roles of dictators and compete to conquer the world. Each player is given an equal number of armies, and takes turns moving them from country to country, attacking, and being attacked. An interesting twist of this game is that each dictator is assigned a political ideology and, as you conquer countries, the occupants may be friendly or unfriendly. Friendly countries take less troops to occupy, and unfriendly countries can rebel and throw your troops out.

Your mission? Not less than to conquer the entire planet and institute a worldwide government under the auspices of your beloved ideology.

BBUG NO 3025 SAND STORM Version 2.0

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

If you like shoot-em-up, high-octane graphics arcade games, then Sand Storm is for you! Fire up your mouse for non-stop action as you try to intercept Scud and jet attacks with your Patriot missiles, then guide your Tomahawk missile through enemy AA fire while on a search and destroy mission. Can you successfully take out enemy chemical weapons plants and mobile Scud launchers? Includes 20 missions, digitized graphics, and a stunning Gulf War Map. This is the fully-functional shareware version of the popular retail game.

BBUG NO 3042 TANK WARS Version 3.2

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

TANK WARS is a game for 1 to 10 players. Opponents attempt to destroy each others tanks by firing various weapons at them. There are also 7 computer intelligences available to compete against.

TANK WARS can be played in Windows or OS/2.

BBUG NO 9103 BATTLES IN A DISTANT DESERT Version 1.0

*CLASSIFICATION * Games * Windows * Hard Disk*

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

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

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

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

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

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

WINDOWS GAMES

BBUG NO 2455 WINDOWS BOARD GAMES

*CLASSIFICATION * Games * Windows * Hard Disk*

PUZZLE Version 1.0. This program is a sliding tile PUZZLE game that you can play with the mouse or keyboard. In order to complete a scrambled image, the player slides tiles up and down or sideways. The first tiles are easy to place, but as you get to the last tiles, it becomes harder. There are three levels of play to keep you interested, and new images can be imported to make new puzzles.

CHECKERS Version 1.1. Nothing fancy about this one, it's just good old fashioned CHECKERS. But now you have a computer partner to help you pass an idle afternoon. The game can be played with either one player or two, and it has five levels of difficulty.

TAIPEI Version 3.10 is an ancient oriental game of skill and chance. The game is played on a board and the object is to remove matching tiles. It is much harder than it sounds as the board can be up to five tiles deep, and you will not always have a matching tile easily available. The game has two modes, easy and expert. Beginners will appreciate the hint function to get them going, and experts can play the more than 60,000 different game boards for a real challenge. You can also save your game so you can play at a later time.

BBUG NO 2456 WINDOWS ARCADE GAMES I

*CLASSIFICATION * Games * Windows * Hard Disk*

ATMOIDS Version 07/90. People with happy trigger fingers will love this Windows version of Asteroids. Your mission is simple, blast the boulders away until they get pulverized out of existence. Your trusty interstellar ship is guided with the cursor keys. This game will challenge even the most experienced players, since there is no hyper-space key to dodge out of the way at the last second.

LANDER Version 1.1. You're on the final approach one thousand meters above the moon, do you have what it takes to land the Lunar Excursion Module without creating another crater?

On this real-time simulation you must safely guide your lander with the mouse before you run out of fuel, or accumulate too much horizontal and vertical speed. You can change the settings for gravity, fuel, and thrust if you desire another level of difficulty.

KLOTZ Version 2.09 is an interesting Tetris clone from Europe. As in the original Tetris, polygons fall from the top of your screen and it's your job to pack them neatly at the bottom before they stack up. It has 11 levels of play, optional multi-windowed displays, a look-ahead to the next piece, and even a statistical bar-line chart depicting fallen pieces. If you've never played this type of game, watch out, it's quite addicting.

WINTRIS Version 3.1 is another Tetris-like game in which falling blocks must be rotated and dropped to form solid lines. This program has all the standard features; you can select the level, number of lines to begin with, speed up, slow down, sound, and music. All these features can be preset or changed on the fly. A unique feature of the game is "The Extended Set". The "Extended Set" is an extra set of block shapes not found on any other game. This feature is worth checking out, especially if you have become adept or bored with the same shapes which are prevalent in similar games.

BBUG NO 2663 CHESS FOR WINDOWS Version 1.01

*CLASSIFICATION * Games * Windows * EGA/VGA * L/Floppy/Hard Disk*

CHESS FOR WINDOWS - Just what the Windows user wanted - a simple attractive chess program to tempt your skills as a chess master. CHESS FOR WINDOWS features four skill levels and although there is no on-line help, a hint feature has been included which can suggest the next move for you to try.

CHESS FOR WINDOWS appeals to both the experienced and beginning players. But it's also for the novice C programmer. Source code is included, and if you so desire you can modify the program.

BBUG NO 3040 HEARTS and YACHT

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

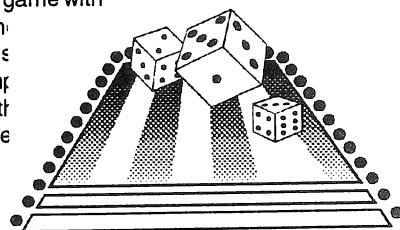
HEARTS Version 1.2 for Windows is a four player card game in which the goal is to get as few points as possible. Cards of the heart suit are worth 1 point and the queen of spades is worth 13 points. You want to avoid these 14 cards. The highest card of the lead suit takes the four cards in the trick and the player that does this gets to lead for the next trick. You must play the lead suit if you have it, or else you can play any card. After 13 tricks are played, the points are added up and cards are dealt again. The game is over when a player gets 100 points (he is the loser).

YACHT Version 2.0 is the Windows version of Yahtzee. The object is to finish the game with the highest score. If you play alone the object is to beat your "personal best". The player rolls five dice in the attempt to gain the highest score in any one of the set categories. The player has three attempts to achieve this score.

A game for both children and adults.



Merry
Christmas
from
Brisbug



BBUG NO 9081 DARE TO DREAM

*CLASSIFICATION * Games * Windows * Hard Disk
* Sound Card Supported (HIGH DENSITY DISK ONLY)*

Over the past few evenings, Tyler has been having extremely vivid and detailed dreams, dreams in which he meets odd characters and gets into very strange puzzles. Tonight Tyler falls asleep after a particularly bad day. Suddenly he awakens in a deserted alleyway in an unfamiliar city. He wipes himself off, stands up, and begins to piece together the puzzles that will unlock his happiest and most sinister thoughts, resulting in a confrontation with evil that lurks in all of us.

DARE TO DREAM is a graphical adventure game for Microsoft Windows. Set in the style of other popular adventures, such as King's Quest and Leisure Suit Larry, you explore many vividly-illustrated areas, solving puzzles and using objects you find along the way. DARE TO DREAM is very easy to learn, yet it's quite a challenging game once you get past the first few puzzles. Detailed cinematic animated scenes, as well as an ever-changing sound track make DARE TO DREAM quite enjoyable for both novices and experienced adventure gamers.

BBUG NO 9082 CONFOUND

*CLASSIFICATION * Games * Windows * Hard Disk
* Colour Monitor*

CONFOUND is a strategy game - you against the computer, but the computer has the advantage. You and the computer start off with 2 "pegs" and 2 home squares. Each move you make gives you a choice - build or move. To win the game, you need to get one of your pegs onto one of the computers home squares.

BBUG NO 9090 SOLITAIRE GOLF

*CLASSIFICATION * Games * Windows * Hard Disk
* EGA/VGA*

Are you tired of the Windows game of Solitaire? Maybe a change is in order. SOLITAIRE GOLF is a very simple solitaire game that, while making no great demands, offers some chance for skill.

Five overlapping rows of seven cards are dealt face up to form the Tableau. One card is dealt below these to start the wastepile. The remaining cards are placed face down on the left.

The object is to clear away the Tableau by building cards onto the wastepile. Building is in sequence, up or down, regardless of suit.

BBUG NO 9092 CASTLE OF THE WINDS Version 1.0

*CLASSIFICATION * Games * Windows * Hard Disk
* EGA/VGA (HIGH DENSITY DISK ONLY)*

CASTLE OF THE WINDS is a fantasy role playing game. Your quest begins with A Question of Vengeance, as you try to discover the secret of your mysterious past, and why it has proven so deadly to those you love. It then continues with Lifthransir's Bane, as you attempt to vanquish the dark forces of evil which plague the land and are after your life!

Set in the world of Norse mythology, this game has plenty of surprises. Nearly a hundred unique monsters oppose your quest, and there are hundreds of enchanted objects to aid you. CASTLE OF THE WINDS presents a new style of adventure game. While the anchor points of the story remain the same, most of the adventure is created

anew every time you play, so the game can be enjoyed again and again.

Fans of fantasy and adventure games will love this one. With over three years in development, this game beats commercial Windows games hands down, and extensive online help gets you off to a great start on your journey.

BBUG NO 9093 SLIDER Version 1.0

*CLASSIFICATION * Games * Windows * Hard Disk*

SLIDER - "Save the Earth" Sliding Block Puzzle for Windows is another puzzle designed to reduce productivity in Windows. In this case you are presented with the task of moving the Earth from one side of the playing field to the exit on the other side. Filling most of the intervening space are blocks of various sizes that have to be jockeyed around like cars in a tightly packed parking lot.

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

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

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

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

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

BBUG NO 9117 SUPER VIDEO POKER Version 1.0

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

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

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

BBUG NO 9118 WINTREK Version 1.00

*CLASSIFICATION * Games * Windows * Hard Disk
* VGA * Sound Card (HIGH DENSITY DISK ONLY)*

STARTREK now comes to Windows in WINTREK.

Join the crew of the USS Enterprise as they "Boldly Go Where No One Has Gone Before". Choose your own rank from Admiral to Crewman and take command of this galaxy class starship - You will receive your orders from Starfleet Command at the commencement of your mission.

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

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

"SIGNIFICANT BITS" - BACK ISSUES

OUT THEY GO !!!

Brisbug has boxes of old issues of Significant Bits which are taking up much-needed space. I have just spent several happy(?) evenings sorting them out and putting them in order, and for the next 3 months you can order copies of any which are available—after that its off to the recycling bin with the remainder.

Cost

\$1.00 per copy for issues dated before the December 1992/January 1993 issue, and \$3.00 for 1993 issues up to September, 1993.

To Order:

1. Circle the issue(s) you want. If you need more than 1 copy indicate so, e.g. June 26
2. Drop this form in the "Significant Bits" box located in the Software Shop during the November, December, or January meetings, or

Mail the form (no money please!) to me at:

Brian Sanborn
29 Menzies Street
Bethania Q. 4205

3. You may collect and pay for your order at the Software Shop at the next month's meeting.

NOTE: Orders will be filled strictly in the order in which they are received. If stocks of a particular issue run out, that's all there is. The last orders to be accepted must be in my mail box on the Friday before the February meeting. The Monday morning after the February meeting all the remainder will go to the dump.

No phone orders will be accepted.

SIGNIFICANT BITS BACK ISSUES

ORDER FORM

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Please circle any issues you wish to order:

| | 1993 | 1992 | 1991 | 1990 |
|-----------|------|----------|------|------|
| January | 64 | 56 | 55 | 11 |
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| April | 5 | 106 | 33 | 12 |
| May | 5 | 53 | 40 | 15 |
| June | - | - | 4 | 49 |
| July | 2 | 1 | 71 | 3 |
| August | 9 | 4 | 27 | - |
| September | 19 | 95 | 93 | 35 |
| October | - | 66 | 23 | 37 |
| November | - | 53 | 59 | 4 |
| December | - | combined | 12 | 2 |

Dec92/Jan93 issue:64

No orders will be posted, you must collect and pay for them at the December, January, or February meeting. Any orders remaining to be collected after the February meeting will probably be disposed of 'cause once the Shop stock is loaded in my car for the meetings I seldom have room for anything else.

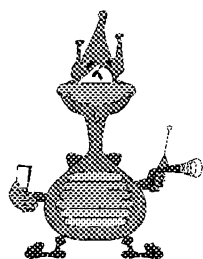
The OS/2 Column

Continued from page 103

OS/2 will set the swap file to start at 2 megabytes.

I've been trying an experiment of increasing the starting size of the swap file. On the Brisbug machine, I've increased it from the default 4 megabytes to a figure of 8 megabytes. I've also tried the same on one of the machines at work. In both instances, the results aren't really in yet, but so far, appear to be interesting. On the Brisbug machine, the swap file will seldom increase in size (it does not run WPS, and does not run many PM applications, which is one prime area in which available free memory can be seen to decrease). However, even without any sign of writing

to the swap file, both machines appear to be running a bit quicker than they normally do with the default swap file size. Next step is to try the same experiment on a machine with a good deal more RAM. It should be interesting to see if similar results are obtained, and also to see if this change has any effect on the gradual reduction of free memory as applications are run and terminated. I've set the starting size of the swap file on my machine to 8 megabytes, which will come into affect the next time the machine is restarted. I'll pass on the results of this experiment in the next column. ○



The Candidates

Graeme Darroch - Candidate for Re-Election as Vice President

Working in AutoCAD

At present I work on a high end system using Autocad R12 for windows where I make drawings which illustrate the systems which our sales engineers quote to customers.

Previously I have been employed as a Project Engineer, Unix Cad System manager and Draughtsman.

Installation Experience

In my role as a Project Engineer I was called on to install Machinery, commission the equipment and train operators, throughout Asia and the Pacific basin.

Computerisation Committee at Work

In addition to my work in Autocad I am a member of the Computerisation Committee, which sets standards for all the PC's and Networks used in our company.

Small Business Computing

Run small business which specialises in supplying computers to people with no current computer literacy. Supplying support and back up for the first few months, when most disasters happen.

Previous Committee Experience

I have had extensive committee experience both in Scotland and in Australia, having served on the committees of an Art Club, a Local Festival, the Commodore Computer Users Group of Qld Inc and finally in Brisbug where I have been a committee member since June 1993.

Commodore Computers

At the Commodore Computer Users Group Qld Inc I helped organize a Geographic SIG for the Kingston/Woodridge/Springwood area. I ran the Hardware modification shop where upgrades to Commodore 64s and Amigas were performed.

BBS Experience

While active in the Commodore Computer Users Group I took over the running of their BBS system. Initially run on an XT I converted the system from the

Opus Software it then ran on to another BBS program called Osiris. The club then purchased an Amiga 2000 and the BBS was then set up as a two line system running on the Amiga.

Certificates Held

Cn 404 Train the Trainer
St Johns Ambulance Senior First Aider
Royal Life Saving Society Senior Resuscitation
Royal Life Saving Society Oxygen Equipment Resuscitation

As can be seen from my short Resume of Experience I have extensive experience in dealing with people in a wide variety of situations. My installation experience, 3 months of which was spent in China has taught me to think on the run, in adverse situations. My training in a commercial environment has given me good business skills, and the ability to work within budget constraints.

I feel I have a lot to offer Brisbug and ask that you vote for me as Vice President in the upcoming election.

Carl J. Planting. B.Com, LLB, MBA

Candidate for Development Director

A) Professional/Business Career

1. Qualified and admitted as a solicitor.
2. Spent 20 years in a corporate career, embracing :
 - a) legal and corporate-finance executive with conglomerate groups
 - b) Managing Director, Hertz Rent-a-Car & Thomas Cook Southern Africa,
 - c) Operations Director, Granada TV Rental UK
3. Owned, operated & sold Residential Home/ Nursing Home in UK
4. Owned, developed & sold Hostel/Retirement Village in Australia
5. Started Computer Gym - Mobile Computer Classes for children & adults

The following candidates for election at the AGM have supplied resumes in support of their nominations

B) Extramural & Community

1. Founding Chairman - Gold Coast PC Users Group - Brisbug SIG.
2. RVAQ - Retirement Villages Association of Queensland - President
3. AFORVA - Australian Federation of Retirement Villages Assoc - V. President
4. Chairman - Body Corporate - Riverlea Waters Estate
5. Manager - Gold Coast Junior Hockey - U13 & U15
6. RNHA - Registered Nursing Homes Assoc - UK - National Executive
7. BFCHP - British Federation of Care Home Proprietors - National Executive
8. SAVRA - South African Vehicle Rental Association - Chairman
9. South Africa Foundation - Trustee, South Africa, UK & Australia

C) Sport & Leisure

1. Running - Marathons & Triathalons - medals in 3 Comrades Marathons (90km) & 40+ marathons & half marathons
2. Played league hockey for 20 years
3. League & club tennis
4. Computers & Classical Music
5. Speak 4 foreign languages

D) Personal

1. Married
2. 4 children -3 graduates & 1 in high school

Ron Lewis

Candidate for Magazine Director

I believe I have demonstrated my ability to manage, not only in my year as Vice President, but in two years as President of Brisbug.

By professional qualification a metallurgist, I spent 24 years in customer technical support and product development, followed by three years managing a technological research establishment, finally "graduating" to Computer Consultant for the past six years.

As editor of "SigBits" for the past 7 months, I have come to realise just how much of its potential for advancement of Brisbug, and its pure

entertainment and education value, is still to be realised.

As President I resisted the element in Committee who would "donate" your magazine to so-called private enterprise, for production at "no cost" to Brisbug. As the officer who actually investigated this proposition on Brisbug's behalf, I am convinced that the cost savings are illusory if we are to maintain control of content and the role of SigBits as a communication medium for our club.

This year we have already instituted a number of improvements in format, content and presentation. In the role of Magazine Director I would seize the opportunity to build the team to put together a better "SigBits".

We *can* reduce nett costs and we *can* improve our magazine without turning it into a Gabba Dogs program. I ask for your support in my efforts.



BRISBUG PC USER GROUP Inc.

Call for Nominations

Nominations are hereby called for the following positions comprising the Management Committee of Brisbug PC User Group Inc for 1994.

President

Vice President

Secretary

Treasurer

Membership Secretary

Development Director

Education Director

Magazine Director

SIG Director

Nominations must be on the Nomination Form available from this issue, or from the Secretary.

Nominations must be lodged with the Secretary at least 14 days prior to the AGM.

The Nominee, Nominator and Secunder must all be financial members of Brisbug on election day.

Candidates may nominate for a maximum of two positions, and can not hold more than one position on the Management Committee.

The OS/2 Column

Paul Marwick

Anti-OS/2... NO!

To start this months column off, a quick comment. I had a couple of people say that they thought last months column was less than favourable towards OS/2. I guess it could be read that way, since I was (and am) somewhat critical of some aspects of the OS/2 installation procedure. However, I don't really believe that last months column should be read as "anti-OS/2" in any fashion.

While I'm committed to using OS/2, and to promoting its use by others, I don't think that this commitment should make me blind to the fact that OS/2, like every other bit of software I've ever used, is not perfect. In anything as complex as OS/2, there are always liable to be problem areas, or areas which could benefit from greater thought and further development. That development is only likely to occur if the problem areas are identified and users push the developers to find solutions to the problems.

I'm very happy with the way OS/2 performs, and with the way it allows me to make use of my PC hardware. By the same token, I can see a number of areas where it could still be improved, and would like to see those improvements take place. So I'm liable to be critical of any area in OS/2 where I feel that insufficient thought has been put into the design.

In case that isn't entirely clear, I intend to continue writing about OS/2, but I do not intend to stop criticising aspects of the operating system that I think are less than ideal.

File systems

This month, I want to look at file systems and some related areas. OS/2 offers both the conventional FAT file system, and HPFS (the High Performance File System), and allows the user to chose one or both of these systems.

In OS/2 2.0 and later versions, FAT is now referred to as "SuperFAT". So far as I can see, this is due to improvements made in the way that the inbuilt OS/2 FAT cache works. Certainly, the very marked difference in performance between FAT and HPFS which could be seen under OS/2 1.3 is nothing like as

marked in OS/2 2.xx. Under OS/2 2.xx, FAT file systems will provide very close to the same level of disk performance that HPFS will provide. There have also been a number of bugs in the OS/2 2.xx HPFS implementation which have affected some users.

Choosing between FAT and HPFS

Apart from the pure performance aspects of the two file systems, there are several other factors to take into account when choosing between FAT and HPFS for a file system.

First, there is a certain amount of overhead involved in using HPFS. This is reflected both in memory used by the Installable File System driver, and also in disk space reserved by the system on an HPFS volume. As a result, in machines with small amounts of available memory, it may be more useful to avoid the use of HPFS. In addition, IBM suggests that for partitions under 100 megabytes, using FAT is probably a better option, since it will make more efficient use of the drive space available. While this is certainly true, there are other factors to consider as well.

When I repartitioned and set up the system on the 1.3 gigabyte drive, I divided the drive into a 58 megabyte partition, plus 5 250 megabyte partitions. All partitions are formatted as HPFS. On the 58 megabyte partition, I end up losing over a megabyte of space, which is reserved for system use. On the 250 megabyte partitions, that figure grows to around 4 megabytes per partition. As can be seen, the relationship is not linear, so the bigger the partition, the lower the percentage of space reserved by the system. Obviously, with bigger partitions, you are going to be making more efficient use of available disk space.

I did consider keeping the 58 megabyte partition as a FAT partition, thus cutting down on the overheads involved and getting a bit more useable space available. My decision to make it HPFS was based on a different concern - that of memory usage for cache.

OS/2 implements two separate caches. CACHE is the cache for HPFS partitions, DISKCACHE is the cache used for FAT partitions. Both use memory. By sticking entirely to HPFS, I was able to maximise the memory used for HPFS cache, allowing more efficient

use of memory resources. So, I'm trading a bit of usable disk space for better memory utilisation.

Controlling cache memory requirements

There are two statements in the OS/2 *CONFIG.SYS* which control cache memory allocation. The first is normally found as the first statement in *CONFIG.SYS*:

```
IFS=C:\OS2\HPFS.IFS /CACHE:1024 /CRECL:12 /  
    AUTOCHECK:CDEFGHIJ
```

This first of all installs the HPFS installable file system, then it sets the parameters for the HPFS cache. In this instance, I'm using a megabyte of cache memory. The */CRECL* statement sets the maximum record size for caching, where the number is a multiple of 2 kilobytes.

Autocheck specifies the drives to check in the event of an improper shutdown of the operating system (such as a power outage or a reboot without first going through the normal shut down procedure).

As well as the size and record size parameters, a number of other parameters affecting cache performance can be altered. Entering "cache" from an OS/2 command line will provide a display of the characteristics that are in operation, many of which can be changed:

```
DiskIdle:    1000 milliseconds  
MaxAge:     5000 milliseconds  
BufferIdle:  500 milliseconds  
Cache size: 1024 kbytes  
Lazy writes are enabled.
```

The display above reflects the defaults that OS/2 uses. *DiskIdle* sets the minimum time that the disk must be idle before it accepts data written from the cache. *MaxAge* specifies the maximum amount of time that data can remain in the cache without being written to disk. *BufferIdle* sets the maximum amount of time that the cache can be idle before data it contains is written to disk.

The OS/2 defaults

The defaults set by OS/2 are conservative. Greater performance can be gained by increasing the *DiskIdle* parameter and also increasing the *MaxAge* parameter. Obviously, doing so also increases the chances of data loss should the system crash or should a power failure occur. For maximum data security, turning Lazy Writes off will ensure that the cache acts as a "write through" cache. Doing so will also decrease disk performance.

In order to modify the default behaviour of the HPFS cache, it is necessary to use a "RUN" command

as part of *CONFIG.SYS*. An example is provided below:

```
RUN C:\OS2\CACHE.EXE /MAXAGE:7000 /  
    BUFFERIDLE:700 /DISKIDLE:2000
```

This increases the time that data can remain in cache from the default 5000 milliseconds to 7000 milliseconds, sets the minimum time that the cache must be idle before data is written to 700 milliseconds and sets the minimum time that the disk must be idle before cache data is written to 2000 milliseconds.

The command to turn Lazy Writes on or off must be entered as the only command on a command line. Its format is */LAZY:<state>*, where *<state>* is either *ON* or *OFF*.

The second cache related command in *CONFIG.SYS* is as below:

```
DISKCACHE=64,LW
```

This controls the FAT cache. In this instance, since I'm not using any FAT file systems (with the exception of floppy disks, where you don't currently have any choice), it has been left at the default minimum figure. If I was booting from a FAT partition, I could also add a "AC:C" command to the line above, which would invoke the autochecking function described above for HPFS partitions on the FAT boot drive.

In the case of the FAT cache, the "LW" on the command line tells OS/2 to use "Lazy Writes" for the cache (which means effectively that the cache becomes a "write behind" cache, as disk writes are made asynchronously to make more efficient use of processor time and to improve disk performance. In addition, a "T" parameter provides the equivalent of the */CRECL* command that applies to the HPFS cache.

In theory, since I'm not using FAT for any of the hard drive partitions, I could *REM* out or remove the *DISKCACHE* line from *CONFIG.SYS* and save another 64K of memory. However, I'm far from sure that doing so actually frees up that memory. In a number of instances, if a figure is not specified, OS/2 will simply use a minimum default value. I suspect that this is the case here as well.

Minimum allocation unit size

There are some other aspects of HPFS versus FAT file systems that should be considered before making a choice between the two file systems. FAT file systems have a minimum allocation unit, which means that, however small a file may be, it will occupy a minimum of amount of space. That minimum allocation changes depending on the size of the hard drive partition concerned. Below 16 megabytes, the minimum allocation unit will be 4K. From 16 megabytes to 128 megabytes, that minimum allocation unit

will be 2K. Above 128 megabytes, the allocation unit goes to 4K. There is also another break point, where the allocation unit will change to 8K, but I'm not quite sure where that break point falls.

HPFS, on the other hand, has a minimum allocation unit of 512 bytes. This is constant, so the size of the partition doesn't affect it at all.

This difference in the way space is allocated can have quite significant effects on efficiency of hard drive usage. If you have a large number of small files, HPFS is going to provide much more efficient space utilisation than is FAT. Even if your files are large, it will still provide more efficient usage of space (though the effects will not be as marked as they are in the case of small files). Under almost all circumstances, HPFS will make more efficient use of available storage space, leading to less "slack space".

File fragmentation

The other factor to consider is file fragmentation. While a number of people seem to have the mistaken idea that HPFS is fragmentation-proof, it is certainly much more fragmentation resistant than a FAT file system. The file system itself attempts to keep files as contiguous as possible. This is something that there is no provision for under a FAT file system (hence the growth of disk optimisers such as Norton *Speeddisk*, *Optune*, etc).

This difference can be clearly seen in the case of the Brisbug BBS machine. That machine runs a pure FAT file system (due to memory constraints and due to the necessity to boot DOS for backup purposes). The message files used by the BBS are stored on a single partition. While the message system uses a database-style storage method (unlike the earlier systems which would have a single file for each message stored), there are still a large number of files involved in the message areas. These files are written to frequently, as new messages come in, or as users enter messages. In addition, they are "packed" twice a week to eliminate empty space which tends to grow as messages are added. The result on that machine is that the partition used to store the message areas needs to be optimised frequently. There are something like 560 files involved in the current message areas. When optimisation is performed, the majority of those files are fragmented and need to be moved to make them contiguous.

On my machine, the message files are stored on an HPFS partition. There are somewhat more files involved (since there are more message areas on my machine than there are on the Brisbug machine). However, there are seldom more than 60 or 70 files which are non-contiguous and require optimisation.

In many ways, this example is a worst case.

The files involved are written to frequently, and the operating system has no way of predicting how large the files will be (where file sizes are predictable, OS/2 will preallocate space, making fragmentation less of a problem). The fact that the HPFS partition displays so little fragmentation is a good indication of just how resistant it is to fragmentation.

Given these factors, it should be relatively easy to make a choice between FAT and HPFS. While there does not seem to be all that great a difference in pure performance terms between the two file systems, HPFS will generally provide a small but not insignificant performance boost as well.

32-bit HPFS

One other aspect of HPFS file systems that should be mentioned is the existence of a 32-bit version of the HPFS installable file system. This implementation is provided by LAN Server Advanced (and appears to be the only difference between LAN Server Advanced and Entry level). HPFS386 provides some extra security and a greater degree of fault tolerance (both obviously useful in a LAN environment). IBM has argued that there is not a great deal of performance difference between the 16-bit and 32-bit versions of HPFS, but a number of user reports suggest that HPFS386 might well provide a performance boost for non-LAN systems as well. Maybe a future upgrade to OS/2 will provide the 32-bit version of HPFS.

While on the subject of disk performance generally, there is another item that I've been asked about a couple of times. This applies only to IDE drives, and is only supported by some IDE drives (the current Maxtors and Western Digital drives do support it, I'm not sure what other drives may also support it).

There are a number of command line parameters which can be used with the driver provided by IBM (IBM1S506.ADD). One of them is "Set Multiple Support", which will improve the performance of some IDE drives.

To enable this feature, the following additions need to be made to the "BASEDEV=IBM1S506.ADD" line in *CONFIG.SYS*:

/V (turn on verbose mode, so that the operating system will display the results of the later commands).

/A:0 (inform the operating system that the command applies to the first adaptor installed - if you have more than one controller installed, you may have to change the number from 0 to 1...)

/U:0 (inform the operating system that the command applies to the first unit on the adaptor identified by the */A:n* command)

`/SMS` (enable Set Multiple Support).

As an example, the command below applies to a system with a single IDE controller, with 2 IDE drives attached to the controller:

```
BASEDEV=IBM1S506.ADD /V /A:0 /U:0 /SMS /U:1 /SMS
```

When the system is booted, it will display several lines of information due to the `/V` switch. If the IDE drive does support the block write method invoked by the `/SMS` switch, the final line for each drive will state that Set Multiple Support has been enabled. If the drive does not support it, the command is ignored, so no harm should be done.

How much difference this makes to performance is something I can't really estimate. While I use a couple of machines that are using it, I don't use them enough to be able to say that I've really noticed much difference in drive performance. I guess the best thing is to try it yourself and see what sort of results you get. As already mentioned, not all drives support this mode. In addition, if you use a hardware cache IDE controller, it may override this setting.

Printing under OS/2

On a completely different topic, I'd like to touch briefly on printing under OS/2. There have been a number of people who have encountered problems with printers under OS/2, so some explanations may be of help.

OS/2 provides a wide range of printer drivers for various printers. To some degree at least, these are dependant on printer manufacturers, since there is little hope that IBM will be able to provide drivers for all the diverse printers that are available. So there may be instances where it is not possible to get the best possible results from a printer, since there isn't a specific driver for it. Usually it should be possible to at least make it work, since most printers will emulate common units such as the IBM Proprinter or one of the Epson printers (less than ideal in a number of instances, I know, but better than nothing...).

However, even when a suitable printer driver has been selected, a number of people have reported problems in getting printers to work under OS/2. There are a couple of reasons for this, and several things that you should check if you are having problems getting printed output from OS/2. These may well apply even if you can use the same components to print from DOS.

First, few if any DOS applications use IRQ's when addressing a printer. While each printer port will have an IRQ line assigned to it, under DOS there is little likelihood that the IRQ line will be used. As a result, under DOS, it is quite possible that other things

may make use of that IRQ line. For instance, it is quite common for sound cards to make use of IRQ 7, which is the standard IRQ line for the first parallel port in an IBM compatible machine. While this will most likely not cause any problems under DOS, it will certainly cause problems under OS/2, since it does make full use of the IRQ when driving the printer. So, if you have problems with printing, the first thing to check is that there is nothing else trying to use the IRQ line that is assigned to the printer port that you're using.

Most of the other problems with printing under OS/2 stem from the same source. Printer cables may not necessarily connect all lines from the machine to the printer. Usually not a problem under DOS, but certain to be a problem under OS/2. So, if the first step (checking for possible hardware IRQ conflicts) doesn't help, try changing to another printer cable.

In addition, some printer cards do not properly support the use of IRQ's when driving a printer. Usually not a problem under DOS, but once again, certain to be a problem under OS/2. If the two steps above fail, the next thing to try is a replacement printer card.

One of these steps should fix the majority of printing problems under OS/2.

Memory loss over time

One other item before closing this month's column. There have been persistent problems (which seem to be machine specific, since they don't affect all machines by any means) with OS/2 gradually losing free memory over time.

I've seen such problems since the last few beta's before the release of OS/2 2.0, and still see them in a somewhat less marked fashion now (to provide an example, my machine has now been running for 22 days since its last shutdown - the amount of free memory reported by Memsize has gone from around 5.9 megabytes free to around 3.5 megabytes free in that time). While the effect is not crippling, it should not be happening either. It appears that some applications do not correctly deallocate memory when they are terminated. The operating system should prevent this from happening, but does not seem to be able to in all instances.

While there is a new update to the OS/2 kernel, which may help clear this problem, there have been several reports that increasing the size of the OS/2 swap file may reduce the problem.

OS/2 allocates the starting size of the swap file depending on the amount of RAM fitted to the machine. For a machine with 8 megabytes of RAM, OS/2 will set the starting size of the swap file to 4 megabytes. For a machine with 16 megabytes of RAM,

New Library Listings

The Software Library will close for three weeks from 20th December. Orders will not be filled in that period.

BBUG NO 3051 BD/PATCH Version 1.0

*CLASSIFICATION * Utilities * Hard/Floppy Disk*

BD/PATCH is a versatile new utility from Breakthrough Designs for viewing or editing files, and other file-like objects such as disk drives, directories and memory. Patch supports various display formats to help interpret the data being edited, but removes the usual restrictions on file and disk manipulation usually imposed by DOS or applications programs. For this reason it is both a powerful and useful tool, and a good way to mess up data if you're not sure what you're doing. This program is a tool for patching files and data; the intelligence for what you are accomplishing is provided by you.

PATCH is also a useful file or object viewer, to examine the structure of files or other data without making changes, and provides a good tool for seeing "what's inside" the data you examine.

BBUG NO 3052 VP ROUNDUP and QUICK CHANGE ARTIST

*CLASSIFICATION * Desktop Publishing/ Utilities * Hard Disk * VP*

Most users of Ventura Desktop Publisher agree that it's a great program that has many powerful desktop publishing features. Most Ventura users also agree that the way it manages files is a royal pain. Here's where VP ROUNDUP comes to the rescue.

VP ROUNDUP Version 3.6, automatically catalogs all of your Ventura chapters and style sheets and keeps tracks of the complex interconnections between the different files. With VP ROUNDUP, you can copy a chapter to another drive or directory and the program will update the Ventura files to reflect the location (path) change — this is something that Ventura doesn't do.

VP ROUNDUP lets you delete a chapter (it deletes all associated files), cross-reference chapters and style sheets (this lets you identify unused style sheets), find and delete unused paragraph tags in your style sheets (it will check all related chapters), and copy paragraph tags from one style sheet to another. It also lets you change

typefaces and point sizes globally within any style sheet and make global changes to the typography (e.g. automatic kerning) of paragraph tags.

V P
ROUNDUP
uses straight-
forward pull-
down menus
and a point-
and-shoot

design to make these features easily accessed. VP ROUNDUP is a must for the serious Ventura user.

Authors and publishers will love this program. Have you ever wanted to change a word or phrase in a program, but your favorite word processor didn't have that capability? Did you forget to capitalize a particular word? QUICK CHANGE ARTIST (QCA), Version 1.2, is an industrial strength search and replace program that will let you perform changes on up to 100 different text files at one time (registered program) with up to 100 translation tables. Each translation table may contain up to 100 search strings and 100 replace strings, and each string may have up to 100 characters.

And when you've completed your modification, QUICK CHANGE ARTIST also allows you to view certain files to make sure the changes were what you really wanted. Movement to this area of the program and to its other functions is easily done through the main menu. And help is immediately available for each function below the main menu of items.

BBUG NO 3053 INTUNE and MUCH MUSIC

*CLASSIFICATION * Music * Hard Disk * EGA/VGA * Sound Card * Mouse*

INTUNE Version 2.5, is a very versatile and easy to use program that plays AdLib ROL format music files in a variety of ways: (1) via command line mode in which songs to play are specified on the command line at the DOS prompt, (2) via the full screen mode in which all files are listed on the screen and you use the keyboard and/or mouse to select songs to play, and (3) via the script mode where songs to play, and additional commands are specified in a file.

INTUNE supports playing of ROL files from within compressed PKZIP files, saving valuable disk space (most ROL files compress up to 80% using PKZIP). INTUNE also supports 43/50 line display mode on EGA/VGA displays, allowing display of up to 240 songs per screen. INTUNE can play songs at random, and you may also mark multiple songs to be played in any order you desire.

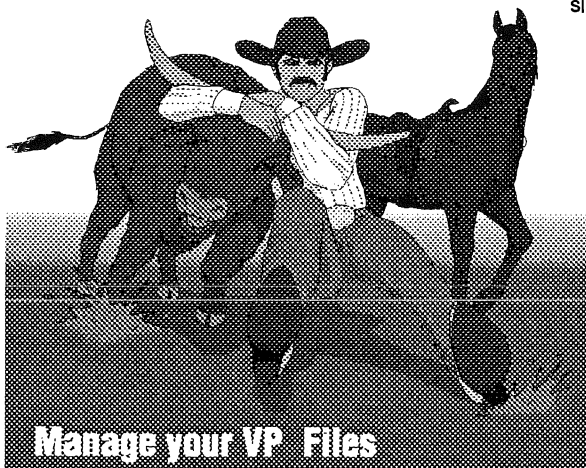
Requirements - AdLib music synthesizer card (or equivalent) with SOUND.COM driver from AdLib, Inc. Sound Blaster card requires SB-SOUND.COM driver from Creative Labs, Inc.

MUCH MUSIC Version 1.11 will play Adlib ROL and Sound Blaster CMF music files and ZIP files that contain ROL and CMF music files.

BBUG NO 3054 CM_FILER Version 5.22

*CLASSIFICATION * Utilities * Hard/Floppy Disk*

CM_FILER is a small, fast, powerful file manager featuring side-by-side display of file listings OR directory trees, full suite of file and directory services, built-in editor, print spooler, file finder, file notepad, application launcher, access denial, recovery of files after unintended deletion, and MUCH more.



Tree module is not just a display, but offers services to copy, move, delete individual directories or entire directory structures with same ease as file services module does for individual files. Transparent architecture, intuitive one-touch mnemonic commands and extra convenience features, such as a one-stroke directory freshener, make CM_FILER the most versatile file manager in the market today.

For beginners and developers alike.

BBUG NO 3055 LOGIT! Version 3.02S

*CLASSIFICATION * Utilities * Hard/L/Floppy Disk*

LOGIT! is a RAM resident program that tracks all computer activity and usage on the computer. For each program or application LOGIT! will record the elapsed time and the amount of keystrokes. By pressing a hot key you can change the user's name or record text information for any activity, even while running an application.

Information recorded by LOGIT! includes total keystrokes, keys per hour, elapsed time per activity, user account, and the program name or DOS activity.

LOGIT! takes up less than 8K of memory.

BBUG NO 3056 THE MULTIMEDIA WORKSHOP Ver. 4.21 (Disk 1 of 2, also 3057)

*CLASSIFICATION * Multimedia * Hard Disk * CGA/EGA/VGA * Mouse * Sound Card Supported*

THE MEDIA WORKSHOP was created for anyone who has something to say. Use it to make professional-quality disk-based illustrated catalogs, teaching tutorials or employee training materials, electronic books, multimedia presentations, retail or shareware products. It will also function as a general drawing program resulting in pictures you can save on disk or print onto paper.

For teachers, artists and authors, it's powers are obvious. For everyone, you'll find it is easy to create disks that get your ideas to the public. In fact, this instruction manual will not only cover all the basics of using The MULTIMEDIA WORKSHOP, but will also explain how to write and market your products as shareware.

THE MULTIMEDIA WORKSHOP is a drawing program that does a whole lot more than any other drawing program. It allows you to incorporate sound effects, music and speech into pictures without special equipment. Sound Blaster is also supported. You can create animation with it and has a simple word processor built in. There are features found in CAD programs, such as Grid and Coordinate Display so that you can make very precise pictures.

THE MULTIMEDIA WORKSHOP will also work in Windows.

BBUG NO 3057 THE MULTIMEDIA WORKSHOP Ver. 4.21
(Disk 2 of 2, also 3056)

BBUG NO 3058 PC-INDEX Version 4.3

*CLASSIFICATION * Word Processing * Hard Disk*

PC-INDEX is designed to produce the type of an index that you would find in the back of a book or reference manual. Some high-end word processors include this feature, but PC-INDEX is a high-speed version available to all word processors.

You can create indexes that are either word based or phrase based. Word-based indexes list words and the

page numbers they occur on. In phrase indexes, words and associated phrases are listed with their corresponding page numbers.

Once you've completed the index, you can have PC-INDEX print it or import it to your favorite word processor for printing. PC-INDEX can also extract proper names (great for genealogists), create word frequency lists, and import documents from WordPerfect, Microsoft Word, WordStart, and MultiMate, as well as standard ASCII format.

BBUG NO 3059 JUMBLE FEVER Ver 2.0

*CLASSIFICATION * Education * Windows * Hard Disk*

JUMBLE FEVER is a Windows program to test your vocabulary and spatial skills. Play against the clock to record the highest scores.

Select from three levels of play; Easy, Intermediate, and Expert. You can peek at answers, but it will cost you! You can Save, Retrieve, or Print a game or review your previous highest scorers. The sound can be turned on or off and the program provides on screen help.

BBUG NO 3060 AROUND THE HOUSE Version 1.1

*CLASSIFICATION * Home/Personal Information * Hard Disk * Printer*

AROUND THE HOUSE is a home and personal information manager. You can track names, addresses, and phone numbers as well as recording important dates such as birthdays, anniversaries etc. AROUND THE HOUSE contains an appointment calendar, an income and expenses module, a household inventory module, and an easy-to-use word processor complete with mail-merge.

You can print pre-defined labels and the reporting facility allows users to define their own reports, and much, much more.

BBUG NO 3061 SHAREWARE TRACKER Version 2.0

*CLASSIFICATION * Database * Hard Disk * Printer*

SHAREWARE TRACKER is a program designed specifically for the Shareware author. With it, you can track users, registrations, site licenses, shipping, submissions, income, expenses, profits, and more.

SHAREWARE TRACKER comes with a world wide database of over 540 ASP approved vendors. Customer data can be quickly and easily recorded and has pull-down menus with context sensitive on-line help. You can create an unlimited number of user-defined reports. A small word processor mail-merges letters to users and vendors, and much more.

BBUG NO 3062 PCXDUMP Version 7.10

*CLASSIFICATION * Graphics * Hard Disk * EGA/VGA/SVGA * Mouse*

PCXDUMP is a program which saves the images on the screen of your PC to a disk file. PCXDUMP is memory resident, which means that having executed it once, the program is always waiting in the background, while you continue to run other programs. You tell PCXDUMP to capture the image currently displayed on the screen by pressing a combination of keys which PCXDUMP reserves for itself.

The saved images are put on the disk in the PCX-

format. A large variety of word processors, desktop publishers and paint programs are capable of importing PCX-files, e.g. WordPerfect, PageMaker, Ventura Publisher, PaintBrush and many, many more.

Also included in the package is utility, PCXVIEW, which will show all the images that PCXDUMP can produce (2, 16, 256 or 16.7 million color PCX files) on any EGA, VGA or SVGA display adapter.

BBUG NO 3063 CLOCKMAN Version 1.1

*CLASSIFICATION * Utilities * Windows * Hard Disk*

CLOCKMAN is the Intelligent Alarm Clock for Windows. Now you can set reminders for yourself to occur sometime in the future, AND you can schedule unattended operations complete with automatic keystrokes, all in one very powerful program!

Also included is SUPERLOAD which is a separate Windows application from Graphical Dynamics. It's a little application that makes Windows start-up much more flexible and powerful for the user.

BBUG NO 3064 ULTIMATE FRENCH

*CLASSIFICATION * Educational * Floppy Disk * Mouse*

ULTIMATE FRENCH is one of the family of Ultimate Language Tutors designed to help you learn words from foreign languages.

You'll find ULTIMATE FRENCH has a wide array of quizzing features and is very expandable through its library system.

Test your knowledge of French from the selected libraries. These libraries are segmented by Nouns, Verbs, Phrases, Verb conjugations and miscellaneous.

The program times your response and if you get it wrong you will be given the correct answer, but the mark goes against you. ULTIMATE FRENCH allows the user to take the quiz individually or up to 9

can participate. Scores for each player can be viewed or a graph prepared.

This is the Ultimate way to learn French.

BBUG NO 3065 THE AUTO DOCTOR Version 1.0

*CLASSIFICATION * Motor Vehicles * Hard/FloppyDisk * Graphics Monitor*

THE AUTO DOCTOR is for those people who repair their own car and need a quick and easy way to diagnose a problem. THE AUTO DOCTOR has a database of 76 symptoms and 576 causes. The causes are listed in order based upon frequency of occurrence, difficulty of repair, and the cost of repair.

Categories addressed by THE AUTO DOCTOR include the following: engine, fuel, starting system, ignition, brakes, power steering, cooling system, air conditioning, clutch, manual transmission and automatic transmission.

Even if you do not repair your own car, THE AUTO DOCTOR will help you become more informed when you have your car repaired by a mechanic.

BBUG NO 3066 TURBO OVERDRIVE Version 1.4

*CLASSIFICATION * Programming * Turbo Pascal*

TURBO OVERDRIVE Package provides a variety of routines for Turbo Pascal 4.0 (or greater). They include:

~ Pop-up a color selection smorgasbord ~ Pop-up an ASCII character selector ~ Parse a complex mathematical expression ~ Pop-up an on-screen pocket calculator ~ Save and restore screens ~ Hide the cursor and change its shape ~ Edit and read strings or numbers from the screen ~ Pop-up scrollable list windows ~ Draw boxes with the arrow keys ~ Install Pop-up box menus ~ Generate Lotus 1-2-3 style menus ~ Use sophisticated two-level pull-down menus

TURBO OVERDRIVE Package is written almost exclusively in standard Turbo Pascal with as little inline machine code as is possible. And TURBO OVERDRIVE Package is modular so that you don't have to use the entire package if you only like one piece.

BBUG NO 3067 REAL NUMBERS Ver 1.1

*CLASSIFICATION * Business * Floppy/Hard Disk*

REAL NUMBERS is an incredibly powerful calculator and report generator! Maintain your home-business books, compile scientific data, or do your math homework with this wonderfully easy-to-use program. The on-screen tapes (up to 15) scroll much like a desktop calculator. Entries can be arithmetic, financial, or scientific formulas of almost unlimited complexity.

The spreadsheet features allow you to use variable names to update multiple tapes. Data can be saved and imported into a Lotus 1-2-3 spreadsheet. The word processor features allow descriptive text for data entries and formatting of reports.

Pull-down menus and extensive on-line help make REAL NUMBERS easy to learn and use. Sample tapes are included which clearly show the program's capabilities.

REAL NUMBERS is a thoroughly professional product!

BBUG NO 3068 A-S-P

*CLASSIFICATION * Statistics * Hard/Floppy Disk*

A-S-P is a STATISTICAL PACKAGE FOR BUSINESS, ECONOMICS, AND THE SOCIAL SCIENCES.

The various statistical and data management routines are organized in such a way as to minimize the amount of instruction and/or trial and error needed to understand how they operate.

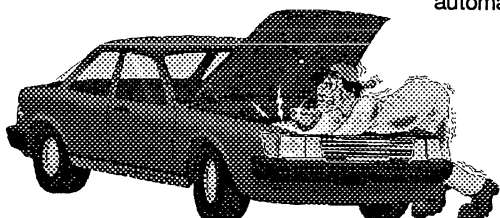
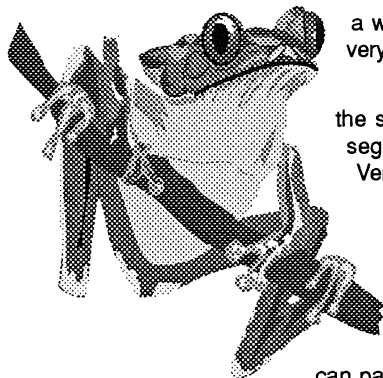
All statistical routines are accessible through the MAIN MENU which is displayed when ASP is first loaded, and all data management routines are accessible through the ALT COMMANDS MENU which is displayed when F1 is pressed at the MAIN MENU or at any menu one level below the MAIN MENU.

The user interacts with ASP through bounce bar menus, binary options, by entering numbers and character data, and through displaying and printing output.

BBUG NO 3069 CUTZIT Version 1.1

*CLASSIFICATION * Utilities * Hard/Floppy Disk*

CUTZIT is a program to help you CUT large files into smaller pieces. This program has most of the tools that let you make your text or binary files what you want



them to be.

It not only lets you cut up your files into smaller pieces, but it lets you cut them vertically as well as by lines or phrases. You could easily cut out data tables using the vertical cutting process. You will need some knowledge of the placement of text by bytes (or, the character position in the file).

ASCII text files can be divided into a specified number of smaller files, or by a specified number of lines to be in each file, or by a specified size in kilobytes for each file. Binary files can be cut into a specified ratio or by specified file size in kilobytes. Files can be merged, appended, or pasted together side by side. You can also extract multiple vertical slices from a text file. Many other text manipulation features are included, such as search and replace text in a file, padding or trimming characters on the right side of the file, create a new file upon a phrase occurrence, and output of various statistics on a text file.

BBUG NO 3070 VB ICON BROWSER and EXTRACTOR

*CLASSIFICATION * Utilities * Windows * Hard Disk*

VB ICON BROWSER, Version 2.0, gives you a simple way to view, maintain, and print Windows icons. With drag-and-drop ease, you can view, copy, rename, and delete icons. VB ICON BROWSER really excels at printing. With it, you can print out one to 1,000 icons per page by varying titles, margins, and spacing. VB ICON BROWSER uses Windows to help you manage your Windows icons.

The VB ICON EXTRACTOR, Version 1.11, is a clever little program that will extract icons that are embedded in Windows.EXE or .DDL files. As it extracts them, it converts them to .ICO format. Once they are in .ICO format, they can be edited and customized by a number of different icon editing programs. The altered icons then can replace the program's original icons on your Windows desktop or be used for other purposes.

BBUG NO 3071 VISION EDIT Version 3.3

*CLASSIFICATION * Text Editor * Hard/L/Floppy Disk*

Tired of using your old text editor and are looking for something different? Or, maybe your present editor does not handle all the files that need to be edited.

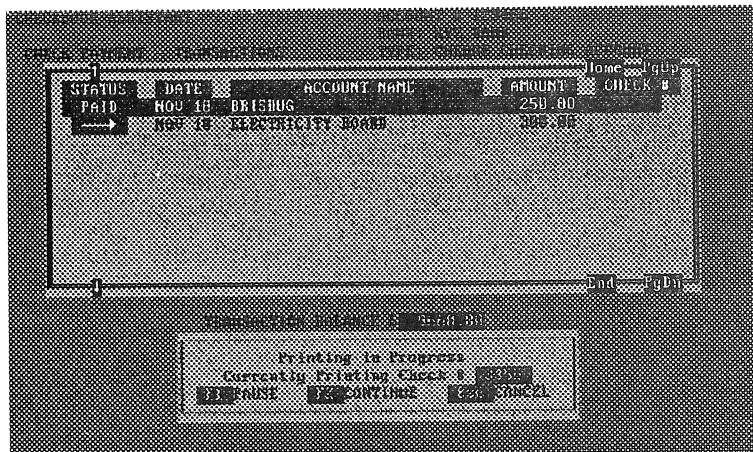
VISION EDIT can provide all the features you may be looking for. VISION EDIT provides for multiple files editing with movable, resizable windows. On-line, context-sensitive help has been provided with mouse support, pull-down menus and Word Star key binding.

The usual facilities - block commands (cut, copy, paste, delete), search and replace, change directory, DOS shell, clear, save and retrieve desktop, customizable colors, file printing are provided as well as additional gadgets such as a calculator, calendar and ASCII table. File name (wild cards allowed) can be specified as a command-line parameter, the screen mode can be changed to 43/50 lines for EGA/VGA, as well as a powerful macro facility.

Extremely large files (up to 4Mb) can be edited using virtual memory.

If you have EMS installed, VISION EDIT will automatically use it for overlays, what will improve efficiency of the program. If you have a disk cache program installed the performance of VISION EDIT can increase significantly especially when editing very large files.

BBUG NO 3072 CES MOUSE TOOLS LIBRARY Version 1.26



*CLASSIFICATION * Programming * C * Hard Disk * Mouse*

The CES MOUSE TOOLS LIBRARY is something that every C programmer has a need for and provides a library of mouse functions that can be easily incorporated into your own programs. Over 50 functions are included for use with a Microsoft compatible mouse, and some functions are included for use with a joystick. Each function has been written for speed, not for size.

Libraries are included on this disk for the following compilers: Borland Turbo C 2.0, Turbo C++, Borland C++, Microsoft Quick C 1.0, Microsoft C 6.0, and Mix Power C 2.0.

BBUG NO 3073 CHECKBOOK ASSISTANT Version 1.2.4

*CLASSIFICATION * Accounting * Hard/L/Floppy Disk * Printer*

The CHECKBOOK ASSISTANT is not an overpowering accounting system that needs an accountancy degree to operate. This fully menu driven accounting system is the non-accounts dream with features like maintaining as many as 99 home or office bank accounts, covering balances and reconciling. The online help and the windowed menus make CHECKBOOK ASSISTANT very easy to operate, and complete documentation is provided with a manual on disk.

The CHECKBOOK ASSISTANT always has your account register up to date and checks and year to date reports are easily printed. You can even display your accounts with bar graphs.

ATM transactions are no problem for this system, just fill in the spaces and you'll have no more surprises. Also provided with the CHECKBOOK ASSISTANT is a credit card management and financial budgeting function to guide you along in keeping close tabs on that plastic money. This is an easy to use no-nonsense accounting system.

BBUG NO 3074 BIBLE VIEW CLIP ART Version 1.02(Disk 1 of 2, also 3075)

*CLASSIFICATION * Desktop Publishing/Religion * Hard Disk*

BIBLE VIEW CLIPART is a unique collection of high quality Biblical Clip Art for your Church and Christian ministry. Our family business has brought to you some of the finest Pen and Ink line art available today, to enhance your current ministry. The use of these works in your Sunday School, Bulletins, Overhead Transparencies, News Letters, Vacation Bible School, Posters, Letter Heads, Computer Multi-Media or Slide Show.

Chequebook Assistant

Merry Xmas from Brisbug





Paul's Escape From Damascus

Bible
View



and Christ, Pagans and armies.

BBUG NO 3075 BIBLE VIEW CLIPART Version 1.02
(Disk 2 of 2, also 3074)

BBUG NO 3076 STEREO SHELL Ver 4.00

*CLASSIFICATION * Utilities * Hard/L/Floppy Disk*

STEREO SHELL is a dual windowed dos shell. It provides exceptionally fast, simple, and powerful file managing capability in a small package. The program includes support for internal and external file viewers, a text editor, up to eight file compression utilities, ten launchable applications, ten user defined utilities, and a 4DOS (tm) compatible file comment system. DOS never sounded this good!

An added extra included on this disk is RAT Version 2.40. RAT stands for Resident Ascii Table, a small TSR which can pop-up the ASCII table at the press of a key.

To hot key RAT, hit the <Alt> key twice. The table will appear on the screen in the upper right hand corner. The left column display is fully scrollable using the cursor pad, and will display all available ASCII codes in decimal, hex. or octal format. Decimal is the default mode, however a tap on the <Ins> key will switch between modes. The remainder of the table contains some frequently used codes that I have attempted to arrange in a logical fashion. This area is static and will always appear in decimal.

Ideal for programmers.

BBUG NO 3077 TRANSCAN Version 3.08

*CLASSIFICATION * Virus Scanner * Hard Disk * McAfee's SCAN*

TRANSCAN provides an easy way to scan compressed files for Viruses using ViruScan by McAfee and Associates. It supports the nine most popular compression programs including ZIP, ARJ, LZH, ARC, etc. It will convert files to your default compression method, delete unwanted files, add selected files, and insert ZIP and ARJ file comments.

TRANSCAN also supports imbedded compressed files and will also retain directory structures saved in ZIP, ARJ, and LZH files. TranScan will test TeleDisk files, convert GIF files to JPG, covert JPG files to GIF, and GIFLite



BIBLE VIEW CLIPART has cataloged clip art in these categories: maps, Egypt, the Temple and Tabernacle, Old and New testament - people, places and things, Apostles

and GifTest GIF files. Also works with version 3+ of the Wildcat BBS.

BBUG NO 3078 SITBACK LITE

*CLASSIFICATION * Utilities * Hard Disk * Windows*

SITBACK LITE is the simplest backup and storage management program on the market today. The program consists of 4 powerful and indispensable backup and storage management utilities. SITBACK LITE makes backup as easy as it can get. You don't have to be an expert or read a 200 page manual to backup your valuable information.

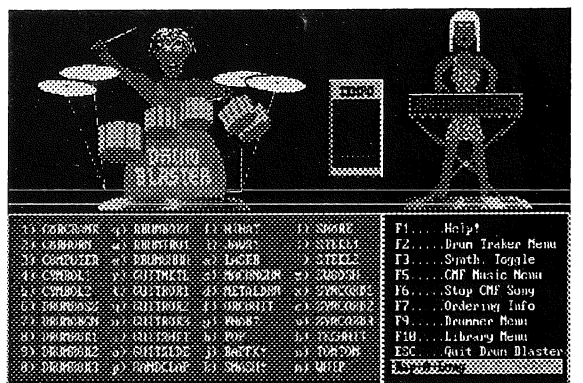
SITBACK LITE incorporates all of the utilities you will need for your data protection and storage management needs. One step is all you need to perform each of these invaluable utilities.

Features include: 4 powerful, comprehensive and flexible backup and storage management utilities; Backup, restore, move and purge programs One step for each feature; Comparable feature set as compared to more expensive programs such as FastBack or Norton Backup; Network compatible.

BBUG NO 3079 DRUM BLASTER VERSION 3.0

*CLASSIFICATION * Music * Hard Disk * Sound Card*

DRUM BLASTER turns your PC's keyboard into a drum pad — each key produces a unique digi-



tized drum sound, allowing you to tap out drum rhythms. After enjoying that, you can also turn your keyboard into a piano and play your favorite tunes. DRUM BLASTER includes 40 digital sound samples including drums, voices, sound effects, and instruments. (Note: Our favorites are the room-shaking bass drum and the sliding electric guitar!)

You can also bring up one of several background tunes from the disk, and drum along with the rhythms. DRUM BLASTER can play any CMF music file, the standard for Sound Blaster music (Note: the background tunes require a Sound Blaster!) Bundled with DRUM BLASTER are ten complete and specially-designed tunes.

_ Play earth-shaking sound effects! _ Loads of fun for your whole family! _ Annoy your neighbors!

DRUM BLASTER also works with the tiny built-in speaker on plain old PC's, but the sounds won't shake your house nearly as much.

BBUG NO 3080 IRIS: ELECTRONIC BOOKS MADE SIMPLE Version 1.2

*CLASSIFICATION * General * Hard/Floppy Disk*

Binding sheets of paper together to form books was a landmark idea. Papyrus scrolls were suddenly obsolete. The book format made a table of contents and index practical. Steering the reader to another part of a book was as simple as citing a page number. Best of all, you never had to rewind a book. This was the beginning of random access.

IRIS has taken books one step further. Instead of citing page numbers, authors can cite topic names. Readers can select the names directly from the screen, or from a menu. Electronic books can ask questions and respond to the answers. Readers can jump from one topic to another with the flick of a key. Windows can change color and size, and be accompanied by pleasant tones.

Standard ASCII text files can easily be converted to a virtual book in a snap. IRIS does not include an editor, you must use your own text editor (or ASCII-capable word processor).

Features List: For readers: selectable screen colors, borders, and CPU speeds, sound switch, bookmark, topics list, view list, DOS shell. For authors: color, sound, windows, variables, arithmetic and logical operators, procedural commands, external programs, user input, link topics via menus or "hotwords".

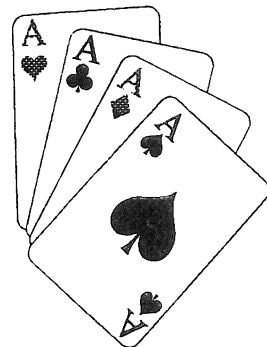
BBUG NO 3081 STELLAR EXPLORER Version 1.10

*CLASSIFICATION * Games * Hard Disk * EGA/VGA*

A mysterious alien vessel is trapped in a decaying orbit. Your mission to rescue the crippled spacecraft becomes a desperate race to discover their sinister secret — STELLAR EXPLORER is an intelligent, highly interactive science-fiction role-playing experience combining action, mystery, and adventure with a rich, intriguing plot that will keep you spellbound for many hours. Talk to alien crew members, pickup and use various items and equipment, review clues, buy and sell items, and so much more!

STELLAR EXPLORER is a mystery that needs to be solved, with underlying hidden plots that will unfold as you proceed into the game. You can have interactive conversations with other aliens and your own crew members. With aliens you will have to deal with their primitive English, or use a universal translator in order to communicate at all.

Some aliens will be friendly, others hostile, and others will behave friendly but secretly plot against you. Most will be indifferent and will regard your behaviour as quite strange. But you will need to form your own judgement to determine who to trust, for what you thought was an ordinary mundane mission will turn out to be quite a surprise — who knows? Perhaps an alien will hatch out of your PC.



BBUG NO 3082 EM SOLITAIRE GAMES

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

EM SOLITAIRE GAMES comprises 3 great games of solitaire.

KLONDIKE Version 3.0, also known under a variety of local names such as Fascination and China-Man, is probably the best known solitaire card game.

POKER SOLITAIRE Version 2.0, sometimes called Poker Squares, is a solitaire card game that rewards both lucky guessing and accurate calculation of odds.

PYRAMID Version 1.04 is a very challenging version of solitaire. Remove pairs of cards from the base of the pyramid that total 13 to win the game. Play the game singly or in tournament with others.

BBUG NO 3083 SWORD QUEST I Ver 2.1

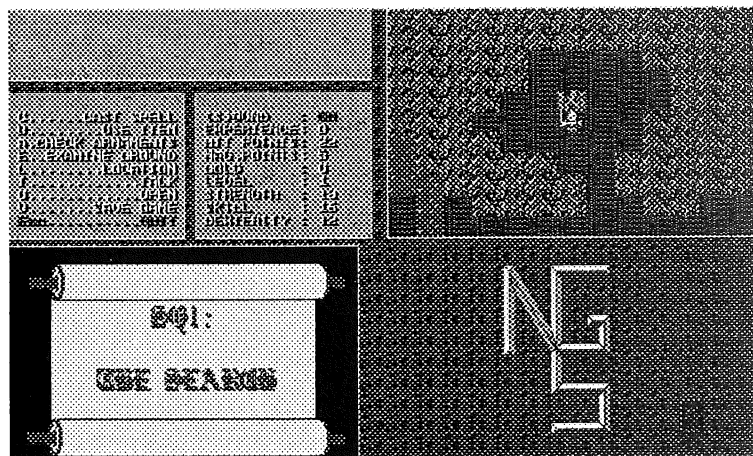
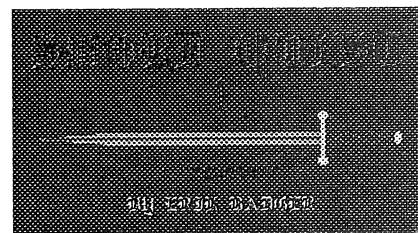
*CLASSIFICATION * Games * Hard/Floppy Disk * EGA/VGA*

SWORD QUEST I is a graphical adventure game where you, as the Royal Jester, are the kingdom's last hope to rid the land of evil monsters created by an evil warlock.

The objective is to find the magical sword, armour and shield and defeat the warlock.

Your character encounters many different monsters to fight, towns and caves to enter, and people to talk to. As the game continues the character will get hints from people in the towns, learn magical spells, and find hidden items, all of which help in the quest. A map with islands, castles, dungeons and shops is provided to help you in your quest.

In each game you can create a new character or restore one saved from a previous session.



BBUG NO 3084 JPUZZLE Version 1.1

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

JPUZZLE is a windows puzzle game which lets you read in any .BMP file, scramble it into from 4 to 400 pieces and put it back together. There are two different modes (and therefore games) for moving pieces in JPUZZLE, one is called Jigsaw and the other Sliding. With jigsaw you select two pieces and exchange their positions, with Sliding there is one empty position into which adjacent pieces can be moved to.

JPUZZLE keeps track of how many moves you have taken and how much time has elapsed. You can save an unfinished puzzle to work on later. While you are working on the puzzle you can view the picture (i.e. solved puzzle) by selecting the "Picture" menu item from the "View" menu. You can also stretch or shrink the picture by selecting "Size to Window".

BBUG NO 3085 MONEY SMITH Version 2.0

*CLASSIFICATION * Accounting * Windows * Hard Disk * Mouse*

MONEY SMITH is a Home and Small Business Accounting program for Windows which offers an alternative for those who want more than a checkbook program but less than a multi-module accounting system. A graphical toolbar and intuitive interactive interface combine to give you double entry accounting in real time.

MONEY SMITH reports and graphs feature 'hot spots' and that let you jump instantly to the most commonly used functions. MONEY SMITH is packed with features including an integrated financial calculator, investment tracking, budgeting, check printing, account category grouping, international currency support, and automatic recurring transactions.

The new interactive reports and historical graphs let the smallest business owner track accounts like a fortune 500 executive.

BBUG NO 3086 VOICE BLASTER Ver 1.1

*CLASSIFICATION * Sound Utilities * Hard Disk * Sound Card*

VOICE BLASTER a program that provides an easy to use operator interface. Being nearly CUA (Common User Access) compliant, this program was intended to provide you with the capabilities to create SoundBlaster voice files, and to Play both SoundBlaster voice and CMF music files. With List boxes, radio buttons, and scroll bars, even the novice with no knowledge of DOS can run this program.

VOICE BLASTER will record RAW Voice files, but can play both RAW and Creative Labs Compressed Voice files.

On-line help is provided to accelerate learning the various menues and dialog boxes.

BBUG NO 3087 IMPULSE! ONE

*CLASSIFICATION * Business * Hard Disk*

IMPULSE! ONE is a shareware version of a powerful contact management system designed for the sales & marketing professional.

Its features include: contact maintenance, querying, report generation, letter writing, scheduler, tickler, timer & auto-dialer. You can custom design form letters and reports, mail-merge and print envelopes. The program includes expense tracking, mail-merge, timezones, to do lists, 9 indexes, 1000 fields for user info, much more.

What Will IMPULSE! Do For You? IMPULSE! will help you succeed because you can: - access vital information efficiently, - target your hottest leads productively, - sell your products and services more competitively, - handle potential clients more effectively, - increase repeat business more aggressively.

The bottom line is that IMPULSE! will help you increase sales, profits, customer satisfaction, referrals, etc.

BBUG NO 3088 ADDRESSIT (Disk 1 of 2, also 3089)

*CLASSIFICATION * Mailing List * Hard/L/Floppy Disk*

ADDRESSIT is a general-purpose program for maintaining address lists, printing lists and mailing labels, and keeping track of contributions or payments. It is easy to use but powerful and flexible, and is well suited to the needs of individuals, organizations, clubs, churches, and small businesses.

Major features include: Number of addresses limited only by available disk storage; Notes of any length can be appended to each address; Addresses can be divided into any number of categories, including overlapping categories; Many pre-programmed options for output list and label formats; Produces address and telephone lists which can be used directly by your organization, plus custom formats for lists and labels; Labels and lists can be printed in alphabetical or post code order Contributions or payments can be tracked by contributor, with ADDRESSIT preparing receipts, deposit slips, and summary reports, and much more.

BBUG NO 3089 ADDRESSIT (Disk 2 of 2, also 3088)

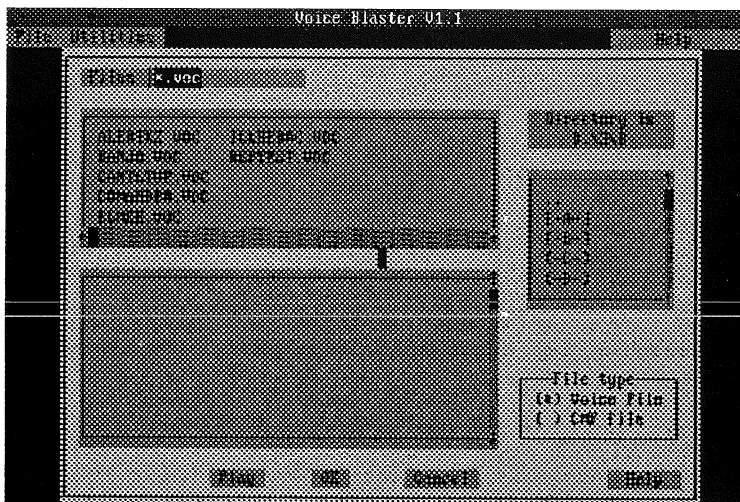
BBUG NO 3090 SUPER SHAREWARE SYSTEM Version 1.0 (Disk 1 of 2, also 3091)

*CLASSIFICATION * Business/Database * Hard Disk * Printer*

The SUPER SHAREWARE SYSTEM (SSS) is a comprehensive system for shareware authors, enabling them to track customers, prospects, distributors, contacts, products, sales, and expenses. SSS allows you to quickly and easily target mailings to customers, prospects, or distributors using the mailing label or postcard options.

SSS creates 24 reports, some of which include: Customer, Distributor, and Contact Listings and Directories, Geographic Summaries for Customers and Distributors, Income over a specified time period with subtotals by day, month, or year, Expenses subtotalled by date or ex-

Voice
Blaster



pense category, Balance Sheet, Payments Due, Tickler, and more. Use the Querying capability of SSS with the postcard, label and report options for further customization.

SSS allows you to easily enter customer registrations and to print invoices with accompanying labels. Import data in dBASE, Delimited, or SDF formats. Export data for use with existing software. SSS was designed specifically for shareware authors. It's power and flexibility make it a tool that most shareware authors will not want to be without!

BBUG NO 3091 SUPER SHAREWARE SYSTEM Version 1.0
(Disk 2 of 2, also 3090)

BBUG NO 3092 MAIL ORDER MANAGER **Version 1.02**

*CLASSIFICATION * Business * Hard Disk * Printer*

MAIL ORDER MANAGER is an easy to use order entry program which combines invoicing, inventory control, and a salesperson file for tracking commissions. Although designed for use in a mail order type business, it can be used in any kind of business requiring order entry management. Some of the many features are, abilities to save all orders to disk which can be recalled by invoice number, name, phone, or zip code. An inventory window which allows you to search your files by number or description and "paste" items to the invoice you are working on. A mailing list which allows you to locate names and place on an invoice and is automatically updated when new orders are entered.

MAIL ORDER MANAGER will print invoices with address labels, or can use preprinted forms if you wish. Some of the many printed reports are inventory lists, items below reorder level, item price list, sales personnel list, and customer mailing labels.

The program has file capacities of 65,000 inventory items, 65,000 names in the mailing list, and up to 65,000 orders on file.

BBUG NO 3093 CRAYON BOX Version 2.0

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

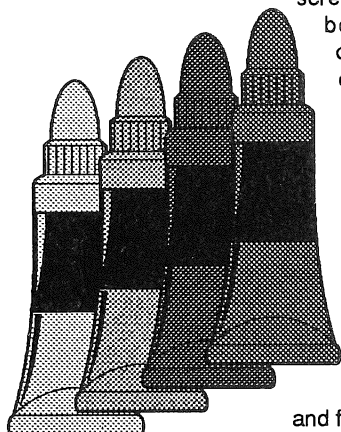
CRAYON BOX is a computer coloring and sketch book and learning tool for young children. Over 450 different colors and patterns can be used to paint different nature scene drawings, or drawings that the child creates. In addition,

CRAYON BOX tests the child's math, counting, and color identification skills. The math feature displays large 1" high numbers and prompts the child for answers. 10 different skill levels from easy ($2+3=?$) to difficult ($45 \times 13=?$).

The counting and color identification feature displays a

screen of randomly numbered and randomly colored marbles. The child must identify and count the number of each group when prompted. Spirographs can be created which can likewise be painted on the screen.

Very easy user interface (with large colorful point and click buttons) makes CRAYON BOX simple and fun to use.



BBUG NO 3094 GORDO'S CASINO Ver 111

*CLASSIFICATION * Games * Floppy Disk*

GORDO'S CASINO is just the place to visit if you want to win (or loose) some money. Your credit is unlimited, and on entering your name, a house account will be opened for you, and the doors to the CASINO will open and you will be confronted with all the tables where the most popular games are ready for you to enjoy.

At the first table are the SOLITAIRE games - SPIRDER - NAPOLEON and KLONDIKE. The next features POKER SLOTS and beside it is the CRAPS table. The BLACKJACK and the POKER tables are in the high rollers room at the rear. To complete your visit, you have to play KENO to complete your tour of the CASINO.

The master program loads the game files on demand, and records the results and can record a running balance for each game for any number of players. This program uses keyboard input only, and is intended to run on any PC-compatible.

BBUG NO 3095 THE POKER PROGRAM **Version 2.1**

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

THE POKER PROGRAM is a high resolution graphics program specially for the gamblers.

THE POKER PROGRAM not only contains a complete Poker tutorial, but also a Texas Hold'em tutorial and the game of Texas Hold'em.

POKER TUTORIAL - This teaches the basics of poker. The tutorial explains the ranks of poker hands, shows examples of each rank and tells how ties are broken. At the end of the tutorial, there is a practice drill which deals pairs of poker hands and asks you to determine the rank of each hand and to tell which is the better hand. The program shuffles and deals random hands and keeps track of your score.

TEXAS HOLD'EM TUTORIAL - This teaches the rules for Texas Hold'em, the version of poker that is steadily gaining in popularity. The tutorial explains the structure of the game and how betting is done. After explaining the rules, the program walks you through the play of a hand of Texas Hold'em. This is done using the graphics of the Texas Hold'em program.

GAME OF TEXAS HOLD'EM - You play in the game against 1 to 9 computer controlled opponents. Next you choose how many opponents you wish; from 1 to 9. Your opponents each have unique playing styles. They are programmed to play (fold, bet, raise or re-raise) according to the cards they hold, the cards on the table, the actions of their opponents and the size of the pot. As the game progresses, the program tracks statistics for each player. These are available for your review at the end of each hand. Colorful graphs and 3-D bar charts tell how well you and each of your opponents are doing.

BBUG NO 3096 DEFENDER OF BOSTON **Ver. 1.1 (Disk 1 of 3, also 3097,3098)**

*CLASSIFICATION * Games * Hard Disk * VGA *
Mouse * Sound Card supported*

DEFENDER OF BOSTON is a Fantasy Roleplaying game. You play the role of an investigator in 1921 Boston, who must go to a strange little island known as Rock Island to solve mysterious disappearance.

After creating your investigator you will start on Rock Island. Your goal is to solve the mysteries of Rock Island

BRISBUG Registered Software

Price List

Business

| | |
|-------------------------|--------|
| Alite | 45.00 |
| Ample Notice | 55.00 |
| AsEasyAs | 105.00 |
| Basil | 450.00 |
| Business Graphics II | 25.00 |
| Budget File | 90.00 |
| Cheque It Out | 115.00 |
| Construction Estimator | 35.00 |
| Draft Choice | 105.00 |
| EnVision Publisher | 90.00 |
| ExpressCalc | 90.00 |
| ExpressCheck | 55.00 |
| ExpressGraph | 55.00 |
| Ez-Forms Executive | 190.00 |
| Ez-Forms Lite | 85.00 |
| Fastbucks | 75.00 |
| File Express | 140.00 |
| Floorplan+ for Windows | 125.00 |
| Form Fill | 55.00 |
| Form Gen II | 85.00 |
| Graphtime II | 45.00 |
| PC-Fastype | 35.00 |
| PC-File | 150.00 |
| PC-Key Draw | 150.00 |
| PC-Write | 90.00 |
| Protocad 3D | 90.00 |
| P&S Home Manager | 55.00 |
| Taking Care O' Business | 280.00 |
| 3D Design Plus | 140.00 |
| * WagezBook | 26.00 |
| Wincheck | 110.00 |
| Winedit | 90.00 |

Computer Utilities

| | |
|---------------------|--------|
| Automenu | 105.00 |
| Command Post | 85.00 |
| Direct Maintenance | 35.00 |
| Disk Spool II | 65.00 |
| 4Dos | 105.00 |
| Frac | 17.00 |
| Fractal Graphics | 95.00 |
| Galaxy Pro Lite | 90.00 |
| HDM IV | 85.00 |
| Hyperware Speed Kit | 75.00 |
| LQ Print | 55.00 |
| Neoshow | 55.00 |
| NeoPaint | 70.00 |
| Onside | 35.00 |
| Overkill | 45.00 |
| P&S Backup/Restore | 55.00 |
| Phantom Screen | 35.00 |
| Pivot! | 27.00 |
| Powerbasic 3 | 200.00 |
| Powermenu V6 Plus | 160.00 |

Games

| | |
|--------------------------|-------|
| Baron Baldrick | 35.00 |
| Bio Menace | 45.00 |
| Captain Comic | 45.00 |
| COMMANDER KEEN | |
| * Aliens | 65.00 |
| * Galaxy | 45.00 |
| * Vorticons | 40.00 |
| * Cosmo's Cosmic Advent. | 40.00 |
| Crazy Shuffle | 35.00 |
| Crystal Caves | 45.00 |
| Dare to Dream | 40.00 |
| * Duke Nukem | 45.00 |
| * Halloween Harry | 45.00 |
| Jill of the Jungle | 45.00 |
| Kens Labrynth | 45.00 |
| Kiloblaster | 45.00 |
| Lotto Prophecy | 27.00 |
| Mahjong | 45.00 |
| Major Stryker | 45.00 |
| * Monster Bash | 40.00 |
| Paganitzu | 40.00 |
| Phylox | 27.00 |
| Secret Agent | 40.00 |
| Solar Winds | 45.00 |
| Spear of Destiny | 80.00 |
| Wolfenstein 3D | 60.00 |
| Wolfenstein Hint Book | 16.00 |
| Zone 66 | 65.00 |

Educational

| | |
|----------------------|-------|
| * Adventure Maths | 45.00 |
| Book of Spells | 65.00 |
| Count and Add | 65.00 |
| Hooray for Henrietta | 65.00 |
| * Math Rescue | 40.00 |
| Spellbound | 65.00 |
| * Word Rescue | 40.00 |

Computer Utilities continued

| | |
|---------------------|--------|
| Procomm Plus | 145.00 |
| Procomm for Windows | 230.00 |
| * QEdit (TSR) | 105.00 |
| * QEdit (OS/2) | 85.00 |
| Quickmenu III | 140.00 |
| Quickmenu V1.07 | 55.00 |
| Reachout | 90.00 |
| Save on Calls | 27.00 |
| Wildcat BBS | 200.00 |
| Winbatch | 105.00 |

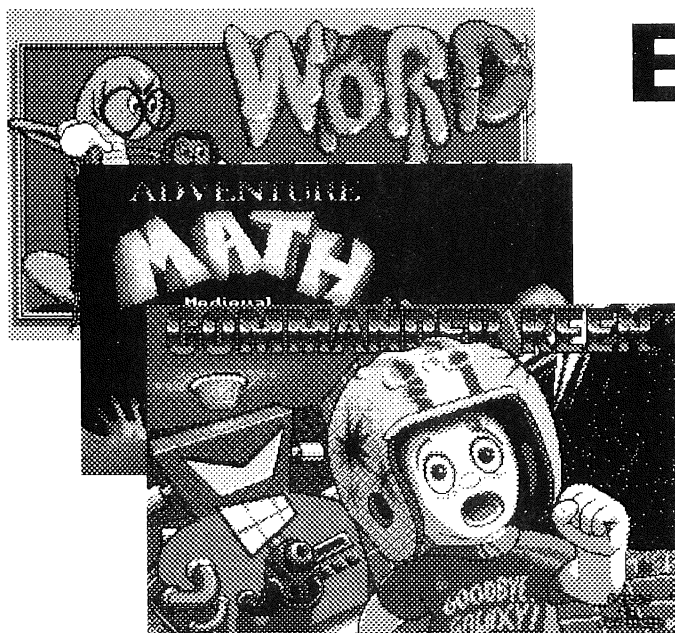
Note: Prices subject to Change without notice
Items marked * currently in stock - all others must be ordered.

Packing & Postage \$5.00 extra

Order NOW!

BRISBUG *Registered Software*

Now Available from the Software Library



Educational Business Games

Games

Educational

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| Book of Spells | \$65.00 |
| Count & Add | \$65.00 |
| Hooray Henrietta | \$65.00 |
| Math Rescue | \$40.00 |
| Spellbound | \$65.00 |
| Word Rescue | \$40.00 |

| | |
|-----------------------|---------|
| Bio Menace | \$45.00 |
| Commander Keen - | |
| Aliens Ate My | |
| Babysitter | \$65.00 |
| Goodbye Galaxy | \$45.00 |
| Invasion of Vorticons | \$45.00 |

| | |
|-----------------|---------|
| Cosmo's Cosmic | |
| Adventure | \$40.00 |
| Duke Nukem | \$45.00 |
| Halloween Harry | \$40.00 |
| Monster Bash | \$45.00 |



Business

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|--------------|----------|
| Scan/Clean | \$ 75.00 |
| WagezBook | \$ 26.00 |
| Virus Buster | \$120.00 |

Packing & Postage \$5.00 extra

ORDER NOW!

and return to Boston alive.

There are many things you will discover and learn as you play. Half the fun of an adventure game like this is finding out just how to play the game.

BBUG NO 3097 DEFENDER OF BOSTON Ver. 1.1 (Disk 2 of 3, also 3096,3098)
BBUG NO 3098 DEFENDER OF BOSTON Ver. 1.1 (Disk 3 of 3, also 3096,3097)

BBUG NO 3099 SOUNDS LIKE A... (Disk 1 of 2, also 3100)

CLASSIFICATION * Games * Hard Disk * VGA * Mouse

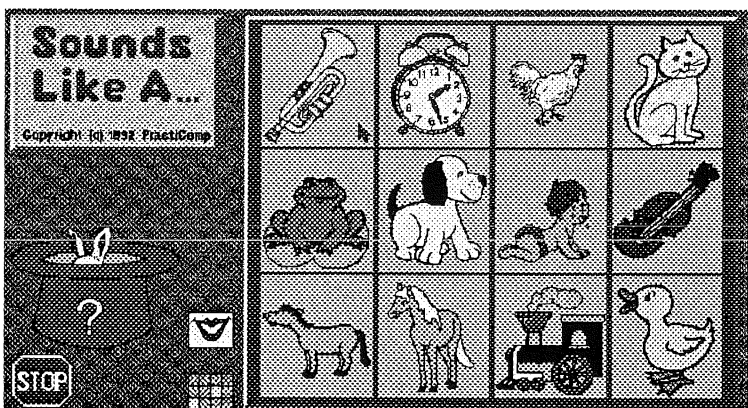
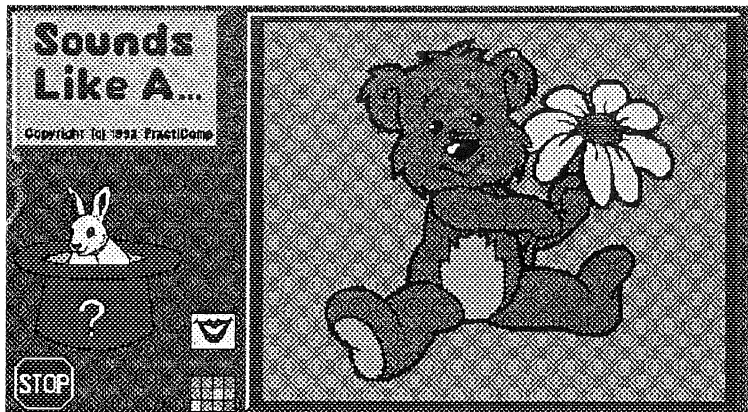
SOUNDS LIKE A... is a unique and entertaining game for children ranging in age from 1 1/2 to 7 years of age. The program uses colorful graphics and a variety of high-quality sounds ranging from a clock "ticking" to a dog "barking".

In the first of two games, the child must find the picture which matches a sound. Your child may hear, for example, a cow "mooing". He/she will then click on a square containing the picture of a cow. A game consists of 12 sound/picture pairs.

As each picture is matched with the accompanying sound, parts of a larger underlying picture are revealed. The second game is a matching or memory game with a slight twist. The child must match a picture with the appropriate sound. For example, if the child clicks on a block revealing a picture of a donkey, he must find the block which contains the "Hee Haw" sound in order to make a match.

The program does not require any keyboard input - all activities may be performed entirely with a mouse. No additional speech cards are necessary. The program uses the speaker already located in each personal computer.

BBUG NO 3100 SOUNDS LIKE A... (Disk 2 of 2, also 3099)



A new category of disks has been introduced to our library. These disks will be known as WINSIG disks and are compiled and assembled by members of the BRISBUG Windows SIG. All disks in this category will only be available on HIGH DENSITY DISKS at \$8.00 per disk.

New Category

WinSIG

High Density Disks ONLY

BBUG NO 6801 WINSIG DESKTOP PROGRAMS #1

CLASSIFICATION * Windows * Desktop/Graphics/Utilities * Hard Disk (HIGH DENSITY DISK ONLY)

This disk contains a collection of Desktop, Graphics and Utilities programs for use with Windows. These programs were collected and tested by the Windows SIG.

ASTRONOMY CLOCK Version 1.1 (ACLOCK!) displays local mean time, universal time, local sidereal time, and Greenwich sidereal time for your location. Make sure your computer is running at correct local time and then set location and Longitude -eg BRISBANE is 153 : 03 East.

ANTS Version 1.0 (ANTS!) provides a whole bunch of ants crawling around on the desktop. They will go behind all open windows and icons. The ants will not go beyond the screen boundary. They will also run away from any other ants they encounter. Every once in awhile a slice of bread appears. When an ant "eats" it the bread will disappear and all the ants will go on their merry way. Perhaps they should stay there.

AUTOWALLPAPER Version 1.1 (AUTOWAL!) allows for easy changes of the desktop wallpaper through both manual and automatic means. Users can select a menu item to randomly change the wallpaper, can select a button on the setup dialog to browse the directories for a new bitmap, can drag-and-drop a bitmap onto the AUTOWALLPAPER icon, or can set the AutoChange feature to automatically change the wallpaper at a specified time interval.

BALL (BALL and BALLSVR) are pretty screen savers. Load BALL.SCR or BALLSVR.SCR to the Windows directory and its available with the rest of the screen savers through the Desktop selection.

BARCLOCK Version 1.32 (BARCLK13) (formerly WinClock) is a utility that displays information in the caption bar of the active window. This approach is less obtrusive than having the information in a window which is always on top or that can be covered by other windows. Initially, BARCLOCK displays the date (lots of options here apart from the American way) on the left of the bar and the time on the right. Short clicks on either the time or the date will toggle the display of free memory, the percentage of free resources available, the disk space available on drive C. Click and hold the mouse button to display a menu. Chimes for the quarter hour, hour etc can be arranged and sound cards accentuate this facility. A neat tidy utility that should prove popular. (Sound Card optional).

BMP TO BGI Version 1.0 (BMP2BGI!) is a utility to convert BMP graphic images to BGI format. This utility will convert 16-Color BMP images, like the ones drawn with MS Windows PAINT, to BGI format, so that the BGI image can be accessed through your Borland programs. Any image of any size can be accommodated as long as its size does not exceed the size of your video card. 1024x768 images will not be converted if your video card can only show 640x480. These are Windows defaults but the program runs independent of Windows. The advantage of this is that you can use a paint program better than one you could create yourself and convert the image to use in Turbo Pascal, C, or C++ programs via the getimage or putimage functions.

BITMAP LOADER Version 3.01 (BMPLD301) proposes to load a bitmap for wallpaper design onto the desktop and also to give the option of keeping all these bitmaps in a separate directory. Rather than calling the DeskTop manager up every time you want to change the background, you can simply change the bitmap through this program. BITMAP LOADER will also randomly display a different bitmap every time Windows is loaded. Extra options such as a bitmap slide show are available in the registered version of the program.

BITMAP SAVER Version 1.0 (BMPSAV100) is a lively colourful screen saver that is loaded to the Windows directory by the BMPSAVER.SCR and a couple of DLL files supplied on the disk. LUNCH.BMP and NEPTUNE.BMP are two wallpaper files also included in the archive. "Gone to lunch" display has strong colour.

BUTTONSTAR PLUS Version 2.2 (BSTAR22) was designed to make the Windows Desktop easier to use. Programs that you use most often are just a mouse click away. Program manager can be very clumsy, and its icons have a tendency to move around. You can use BUTTONSTAR PLUS as a Windows shell replacement, or as an alternative program launcher. BUTTONSTAR would be more convenient to use if it is loaded at the start of your Windows session. Starting of executable programs on any drive/directory can be placed under the control of a mouse click on a button bar icon.

CAPCLOCK Version 1.1, puts a digital clock after the caption text of the active window so that time can always be seen. Change of time display intervals can be set at minutes or seconds. A handy inconspicuous current time display.

CONFIGSAVE is a stand-alone Windows application that attaches itself to the Program Manager by adding a Save Configuration item to the Program Manager's File menu. When you select Save Configuration, the cursor changes to an hourglass for a couple of seconds while the configuration is saved. You remain in Windows during the entire operation, and none of the active Windows or DOS applications running at the time are affected. This one-step operation is simple and gives the feeling that CFGSAV is a natural part of Windows.

CLOAK Version 1.0, is an icon tidier upper. If you are like lots of other Windows users your desktop is full of useless icons just getting in the way. What CLOAK does is hides all the icons you tell it to hide, well most of them - simple. You can get them back if they are in the system menu of CLOAK. CLOAK will remember which icons you want hidden so it will always clean up your desktop.

CRITO'S CLOCK Version 4.1, places a lettered time/date clock in the top right hand of the screen. Click on the clock display with the right mouse button to change the structure, size, typeface and colours.

CLOCK Version 5, presents a clock on the desktop. Colours of the dial, hands and surrounds are all configurable. There are also facilities for visual or audible alarms at hourly and half hourly intervals. One bong per

hour. CLOCK can be minimised to icon size if desired. Note this program is a 'demo' version and indicates this on the clock face.

CLOCK/CAL program presents a clock that appears as a small icon. Time and date are displayed. To denote PM time, a small dot appears in the upper right-hand corner of the icon time display, but you can select a 24 hour display and whether the icon remains the topmost window via the program menu. CLOCK/CAL is Freeware.

CLOCKMAN Version 1.2, or Clock Manager is a Windows automation utility. CLOCKMAN lets you take back control over time itself! Automate backups, disk optimizations, virus scans - all those things you know you should be doing regularly. Simply set the times to suit yourself (eg hourly, weekly, every 2nd Friday at 5am etc) - set the programs or controls you want executed and leave it to CLOCKMAN to do the rest. Use CLOCKMAN for handy reminder messages. See the date & time, all the time, with ClockMan's DateBar and TimeBar.

Included with CLOCKMAN are details of WIL (Windows Interface Language). This is a powerful, yet easy-to-learn, procedural language, which provides a rich set of functions to Windows users. A WIL program like a DOS batch file is simply a list of commands for the computer to process. This on-line user's guide is a reference for the WIL language itself, as well as a guide to creating basic WIL programs. The WIL Language for Windows is not a stand-alone product. Rather, it is an accessory to a range of Windows applications such as CLOCKMAN.

HIDEAPP Version 1.00, lets you start an application hidden. This is very useful for some little tools which run in the background but still have an icon on your desktop. HideApp is very simple to use, simply add 'HideApp' to the beginning of the commandline eg. 'HideApp calc.exe' will start and hide the calculator. You may also add parameters to the call of the application.

HIDER Version 1.0, is a small Windows utility that allows you to remove from the screen (hide) any Window or Icon, but still have the application active. The primary purpose of Hider is to hide those icons of some useful Windows utilities that you want running while Windows is active.

HOTPOP Version 1.0, provides an easy to configure pop down menu. HotPop can start normal applications or associated files eg. (Readme.txt. or Bill.crd). The menu can be accessed through a hot key combination or mouse button, which is completely configurable. The menu also features a built in task list and a Run option so applications or associated files not on the menu can be opened immediately. The menu items can be easily added or removed through the HOTPOP setup dialog box. The setup features a built in find file.

BBUG NO 6802 WINSIG DESKTOP PROGRAMS #2

*CLASSIFICATION * Windows * Desktop/Graphics/Utilities * Hard Disk (HIGH DENSITY DISK ONLY) FRACTALS.*

This file contains 100s of fractals. If your into fractals check these out for yourself.

GRABIT PROFESSIONAL Version 3.1, is a screen capture program for Windows. By using GrabIt Pro to capture and save images, you will save many megabytes of hard disk space since only the crucial information about your bitmap is saved to disk. This results in very small bitmap's that load faster and are much easier to view and store. The program uses the Multiple Document Interface so that you may work with a large number of screen captures at the same time, each in its own window. Captures

may be saved as a bitmap in both BMP and RLE format. The number of screen captures is limited only by your available system resources.

GRAFFITI Version 1.0, automatically changes your wallpaper at regular intervals. It offers a wide variety of configuration options that allow you to customize its operation to suit your personal needs. Graffiti requires VBRUN100.DLL.

HOTSPOT Version 1.0b, is a small program that simplifies the invocation of Windows 3.1 screen savers. With Hot Spot! you can immediately start or disable your screen saver by placing the mouse cursor in the corners of your screen. You no longer have to wait for your screen saver countdown timer to expire or wade through the dialog boxes in the Windows Control Panel. In an office environment Hot Spot provides added security by allowing you to immediately start your screen saver before you leave your desk. Hot Spot lets you designate up to two "hot" screen corners. One corner can be designated as an "activate" corner. This is the corner that you will use to immediately execute your screen saver. If you have a password associated with your screen saver it will still work just the same. Another corner can be designated as a "prevent" corner. When you place the mouse cursor in this corner the screen saver will not execute, even if the countdown timer expires.

HOUSE Version 2.0, is an advanced desktop for use with Windows and MS-Dos programs. House provides a user friendly file manager and menu system.

HOT SPOT Version 1.0, lets you quickly launch your most often-used programs from the Hot Spot icon's system menu. Launching your program from Hot Spot takes less time than restoring Program Manager and the appropriate group from their icons. There is also an Exit Windows Now! function which will take you out of Windows immediately if desired. Hot Spot is not as fully-featured as some of the Windows launchers in circulation now, but Hot Spot is free and in the public domain.

ICONBAR Version 1.51, is a NeXT's dock-like application working on MS-Windows 3.1. It allows you to setup your own applications as icons in a bar and launches any program you like by double-clicking the left mouse button. You can setup 50 window applications. This application is designed for those who love icons. IconBar takes about 40 KB memory to run yet is full-functional.

IMAGE CONVERT, Demo Version, is a true Windows Drag and Drop application. It allows you to convert one or several images from one file format to another in one step! Regardless of what the image format is, the Image Convert will convert it to the target image format. Formats supported are: TIFF, BMP, TARGA, PCX, GIF, WPG, WMF, TIFF G3, TIFF G4, TIFF Mod Huffman, TIFF LZW, EPS, BMP Compressed.

IMAGEPREP Version 3.1, is a program for capturing processing and enhancing graphic files. It handles most file formats.

ISOMEDIA UTILITIES Version 1.1, applet operates from inside the Windows 3.1 Control Panel. The utilities include deletion tracking and a trashcan, drive and memory watch options as well as a system analyser and icon launcher.

JURASSIC PARK LOGO is a bitmap image of the famous logo from the movie Jurassic Park. Easy to use as wallpaper, or easily converted for any other use you may think of. Warning... the image itself is most likely copyright so be careful exactly how you use it.

KALEIDOSCOPIC SIMULATION SCREEN SAVER Version 2.0, features good results on standard VGA and takes advantage of 256 colors, and HighColor, and TrueColor modes when available. Also takes advantage of accelerated Graphics cards. For best results, experiment with the settings. It's fun, and can give totally different results. Note however that the fastest display is not always the most stunning.

RESISTOR COLOUR CODES is a simple little program which will determine the ohm value, tolerance and reliability of a resistor from the colour banding. NB This is not a Windows 3.x program.

KOLOR KRUNCHER MK IV allows you to select from an infinite variety of Windows color schemes, it provides many schemes you might never have thought of yourself. The process is much faster than using Control Panel.

BBUG NO 6803 WINSIG TRUETYPE FONTS #1

*CLASSIFICATION * Windows * Utilities * Hard Disk * Printer (HIGH DENSITY DISK ONLY) TRUETYPE FONTS for use with Windows printing programs are included on this disk along with TRUE TYPE FONT installation program.*

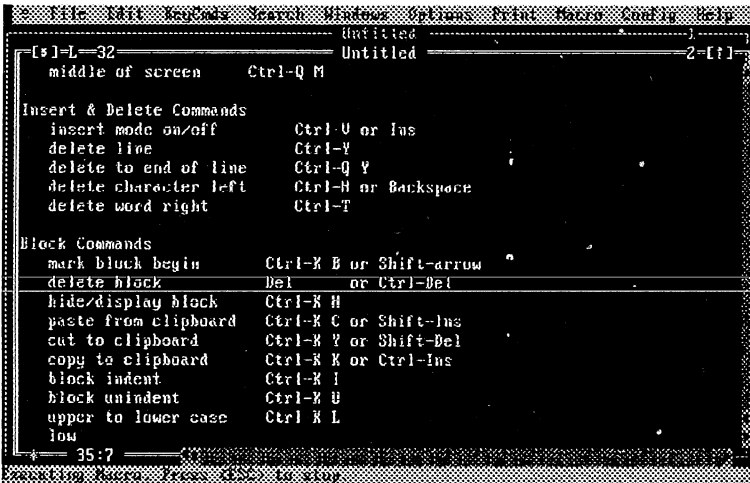
TRUE TYPE FONT INSTALLER (TTInstal) was created to provide one major feature that is lacking from the font installation feature of the Windows Control Panel - mainly the ability to preview fonts before they are installed.

Features include: Previews TrueType fonts before they are installed; Supports network font installation; Supports compressed TrueType font files (those that use Microsoft-standard compression with the standard .TT_ file extension, such as used on the Microsoft True Type Font Pack for Windows); Includes full Windows-based setup program with network support; Allows you to preview fonts in any desired size; Prints font specimen sheets; Indicates whether or not a previewed font is currently installed; Shows currently installed fonts via a separate dialog box.

Also included are various fonts which can be installed for your use. These include: KASHMIR, PIE4MAP, TREKFONT, CRILLE, TNGMONI, TTF13, AACROVER PLAIN, ANDES, ARCHITECT, ASHLEY, HARQUIL, IGLESIA-LIGHT, ISADORA, LEFTYCASUAL, LETTERGOTHIC, LITHOGRAPH, LUMPARKSKY, LUXEMBOURG, MAZAM, NEUVARESE-BOLD-ITALIC, NORDIC, BELLBOTTOM LASER, BENJAMIN CAPS, CARAWAY BOLD, CARRICK CAPS, CHINE MEN, CRACKFIR, DOWN WIND, DUBIEL PLAIN, ELGAR, GOOD CITY MODERN PLAIN, GOUDY HUNDRED, GREENCAPS, HORSTCAPS, IGLOO LASER, INTER, KASTE, KINIGKAP, KONANURKAPS, PREMI, RHYOL, ROUNDERS, WINDSOR DEMI, ULTRA BLACK, UNIVERSITY ROMAN.

KEYBOARD KEYS comprises a set of 5 keyboard key graphics - KEYBOARD KEYS BT (bold), KEYBOARD KEYS CN (condensed), KEYBOARD KEYS EX (expanded), KEYBOARD KEYS HO (hollow) and KEYBOARD KEYS WD (wide).

Vision
Edit
3071



BBUG NO 6804 WINSIG UTILITIES #1

*CLASSIFICATION * Windows * Utilities * Hard Disk
(HIGH DENSITY DISK ONLY)*

This disk contains a selection of utilities for Windows. Included are:

2DO Version 1.0, application is a Personal Task Manager enabling you to create, display, and manage your "to do list". The 2DO application works with tasks. Each task has a title, and can be assigned a due date, time, and priority. Tasks can also be grouped by types, be assigned a contact, and even ring an alarm when they come due. You can assign as much or as little detail to any task as is necessary for that task. Once a task has been completed, the task is thrown away in the Trash Can or may be placed into a folder which allows you to keep a record of all finished tasks.

You check off the items on your to-do-list as you complete them and any that are not finished by the end of the day stay on the list for tomorrow. All tasks normally remain on your list until completed but can be rescheduled or deleted. 2DO is a comprehensive program and the Window's aspect is well developed even to the extent of button-bar icons. Documentation for the program is very good and an on-board tutorial is included. Only complaint is that the American date format is used.

4A LAUNCH Version 1.0, is an application launcher for Windows. With 4A LAUNCH'S specially modified 'Open' dialog box, you can browse all your floppy and hard drives for applications to run. As an added bonus, you can choose how you want your application launched (either maximized, normal, or minimized). The VBRUN200.DLL file is required to run this program.

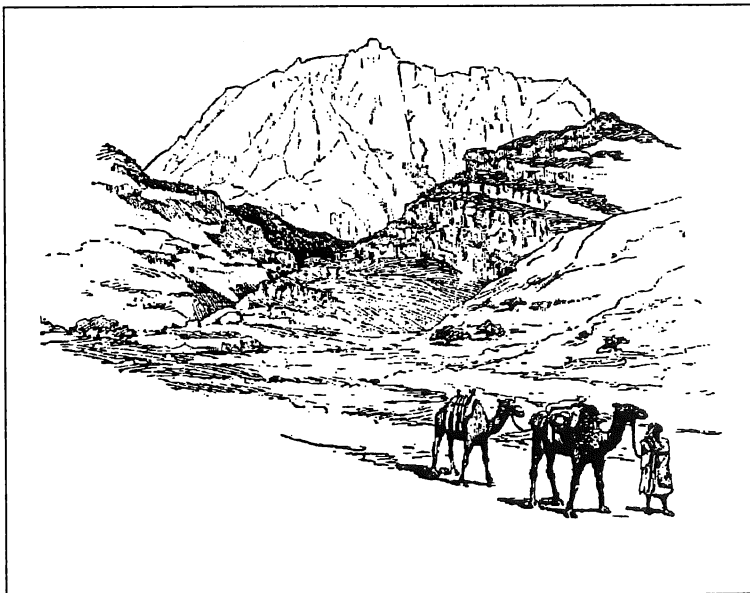
ABOVE & BEYOND Version 2.1, is a powerful system for planning, managing, and tracking business and personal activities. Innovative dynamic schedules manage workflow effectively. All types of recurring activities need be entered just once. You can print schedules to take your plans wherever you go. ABOVE & BEYOND also includes a pop-up calendar, alarms, task and event timers, week-and month-at-a glance, contact database, and much more.

ABOVE & BEYOND is for workgroups where workstations are connected via a LAN, managers can balance the work-load of staff members, assign new items, prioritize work, as well as check task completion status without interrupting on-going work. ABOVE & BEYOND automates the process of arranging meetings for group members, posting meeting notices to all attendee's schedules. Secretaries can post phone messages for calls to be returned, and monitor multiple schedules to know who is where when. ABOVE & BEYOND is well documented, has button-bar control for ease of use etc. On the negative side it uses the American date pattern.

ACK CLIP Version 3.1, is a Text format Clipboard Stack saver that operates in the Windows environment. It saves multiple copies of data pasted to the Windows clipboard. When you copy information, ACK CLIP "receives a message from the Windows Clipboard" and if there is Text pasted to it, ACK CLIP copies that to a "Stack". ACK CLIP will review its data and scroll an older copy of the data to the top of the stack if a duplicate copy of the same data exists. The stack can maintain a list of 2 to 400 previous copies to the clipboard. AccClip does not save Graphics but will not interfere with the Graphics pasted to the primary Windows Clipboard.

ACK CLIP will also perform simple math calculations and builds and uses an ACCESSES.INI file if one does not exist. This program is not the easiest to operate and control.

ACHART Version 1.2, can display character charts



in the form of a 16x16 table for the following : IBM PC character set. Smiley faces and all. ANSI character set using names NUL, SOH, STX, etc. ANSI character set using ^A, ^B, ^C, etc. EBCDIC character set for IBM mainframes. Default Palette selection in a Windows program calling for PALETTEINDEX(num) without having created a logical palette.

A handy program to have tucked away somewhere.

ALLINI Version 2.1, is a program to point and click your way to a cleaner WIN.INI file. Did you ever load a program that you later took off your system? This can leave unwanted commands in your WIN.INI file. ALLINI can help you get rid of the extra sections that are lying there doing nothing. ALLINI shows all the Sections (Main Topics) of any INI file (it defaults to showing the WIN.INI file) and allows you to either View them or Delete the Section out of the file. You can also edit the Section to change any Item that needs updating or insert a new Section or an Entry. That's it and every user who varies their Window's programs should have a copy.

BBUG NO 6805 WINSIG GAMES #1

*CLASSIFICATION * Games * Windows 3.1 * VGA *
Sound Card optional (HIGH DENSITY DISK ONLY)*

Relieve the boredom of work! Get into some of the great games for Windows after a tiring session on your computer.

CARDSHARK-HEARTS Version 3.7, is an addictive and interesting four-handed game (no partners). You play one hand and the computer plays the other three hands individually. "Individually" means that the computer does not "cheat" — it does not look into other hands or play any differently against the human opponent than it does against the other computer hands.

The goal in HEARTS is to have the lowest score. You get one point for each Heart that you take and 13 points for the Queen of Spades ("QS"). Since you want to have the low score, the goal is to avoid taking Hearts and, at almost all costs, avoid taking the QS. With this background you may have played HEARTS under the names of Old Maid or Rickety Kate. HEARTS wants access to VBRUN100.DLL to run and is an entertaining program that can be topped up with an optional sound card to handle the .WAV files.

CORNERSTONE Version 1.0, is a Rubick's-Cube-

Bible
View
Clip art

type of puzzle, except that it's round and it's only two-dimensional. The object of the game is to put the pieces back into their original place to form the original color pattern. This is not a five minute puzzle. If it took you forever to finish the original cube then count on about the same time for this one.

DRAUGHTS is a board game for players and has a great tutorial system. You can play the computer or another player; save games; annotate, notate and print out the moves of a game. Caters for beginners to experts (even bends the rules for novices and lets you win some at this level). Very good graphics on a VGA monitor but will be slow on any machine less than a 386. The menu system is comprehensive and easy to follow but the overall picture and game procedures are in a .WRI file. If you like playing draughts or want to improve on your game this one is a must.

LOOPZ Version 1.1, aims are similar to the TETRIS goal to play as long as possible. Whereas in TETRIS you place the pieces to make horizontal lines to destroy them in LOOPZ you try to make...loops! This game comes as freeware and has .MID and .WAV sound files to colour the game's progress.

CAT! and TOPCAT! create small animated cat image/s that chase the WINDOW'S pointer over the screen. CAT! supposedly runs on the desktop and TOPCAT! runs on the current top window. An interesting oddity that tends to loose its novelty in a short time but would make prank material for installation on someone else's computer.

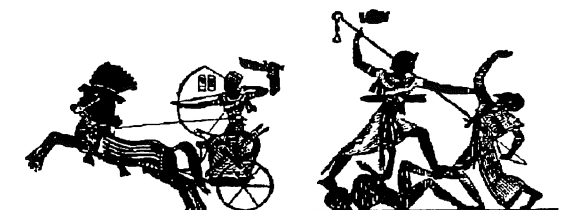
ROULETTE Version 1.0aS, as played in the CASINOS. Comes complete with the rules of the game and some strategies to practise before taking on the real thing. Runs well on a 386 with VGA monitor.

SOKOBAN Version 2.2.5, is a classic puzzle game in which you assume the role of an overworked stockboy (stockperson?) in a large warehouse. To earn your wages, you must neatly pack a set of crates onto the platforms provided on each of the 50 increasingly difficult levels. Pushing heavy crates around is hard work, so it's in your best interest to minimize the amount of moving and pushing you do to finish a level. Games can be paused and saved at the various levels that have to be completed in order from game 1. It will take days of fun to complete all levels and its freeware.

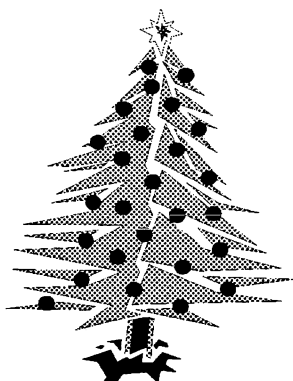
TILES and TRIBULATIONS Version 1.0, is an action arcade game. The goal of the game is to catch falling tiles with a keyboard-controlled paddle, and then drop the tiles into the tile bin at the bottom of the screen. The paddle can hold up to five tiles, and the tile bin is a 5x5 matrix that will hold 25 tiles. You get three lives at the start of the game, and lose a life whenever a falling tile is not caught. Points are awarded based on your ability to create various patterns of same-colored tiles in the tile bin, this gives you extra lives. Some functions are disabled.

WINFIGHT Version 0.8, lets you compete in far west style with a Bad Guy by engaging in a gun fight with him. To fully enjoy WINFIGHT you need an audio card capable of playing .WAV files. BANG! BANG!

WHEEL OF LUCK Version 1.1, is a game similar to the TV game show Wheel of Fortune. Settings can be changed and preferences saved to disk. Sound is supported if a sound board is installed for .WAV files. WHEEL OF LUCK requires VBRUN200.DLL to be in your Windows SYSTEM directory or in a path directory.



Bible View Clip Art



BRISBUG HELP LINES

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

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

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

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

| | | | |
|------------------------------------|-----------------------|------------|----------------------|
| Meta 5 | David Shaw | 870-3633 | 9-9 all days |
| MS Word | Chris Raisin | 379-1415 | Any time |
| Multimate | Frank Mehr | 397-3984 | Anytime |
| Multi-user DOS | David Shaw | 870-3633 | 9am-9pm |
| Novell Netware | Dan Emerson | 288-6070 | Evenings |
| Open Access 2 | Cec Chardon | 870-1812 | Evenings |
| OS/2 | Alan Gibson | 207-2118 | 6:30-9:30pm |
| Paradox 4 Win | Geoff Dancer | 294-6976 | Evenings |
| PostScript | Danny Thomas | 371-7938 | M-F 5-9 & W/E |
| PowerBase | Mike Lester | 275-1742 | (343-5703 A/hrs) |
| Project Manage- ment & planning | Brian Doyle | 355-1328 | 9am - 9pm all days |
| Quick-BASIC 4.5 | Harry Strybos | 288-5145 | 4pm-7pm Weekdays |
| Quicksilver | Ian Haly | 870-1463 | M-F after 5:30 & W/E |
| R-Base | Tony Luck | 279-3033 | 9-9 all days |
| Spreadsheets | Sylvia Willie | 393-3388 | Evenings |
| SQL | Cec Chardon | 870-1812 | Evenings |
| System Manager | David Shaw | 870-3633 | 9-9 all days |
| True-Basic | Bob Gurney | 355-4982 | Mon-Sat 8-8 |
| Unix | Paul Watts | 892-2226 | Mon-Sat a/hrs & Sun |
| Windows | Bernard Speight | 349-6677 | 6pm-9pm |
| Wordstar (all ver) | Neil McPherson | 075-971240 | A/hrs |
| Wordstar-2000/4 | Bob Boon | 209-1931 | Mon-Fri 8-5 |
| Xenix | Paul Watts | 892-2226 | Mon-Sat a/hrs, Sun |
| | Mike Lester | 275-1742 | (343-5703 a/hrs) |

MEETINGS

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

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

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

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

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

Program for Sunday, 16th January, 1994

10:00am CLASSES

| | | |
|---------------------|------------|---------|
| Introduction to DOS | John Tacey | R315 |
| BASIC Languages | Rex Ramsey | R309 |
| Hardware | Ron Lewis | Theatre |

10:00 JUNIOR GROUP Les Cathcart R301

12:00 Training Videos ADA Gold Dist Services Theatre

12:15 NEW MEMBERS ORIENTATION R309

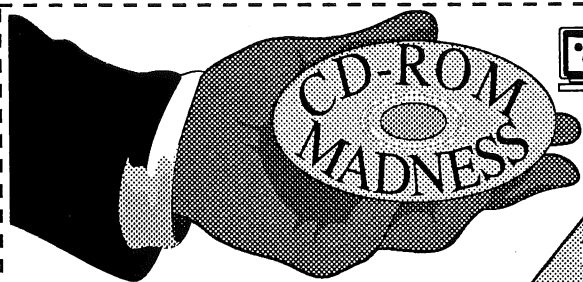
1:00 CLUB MEETING Theatre

1:30 Annual General Meeting Theatre

2:00 Applied Micro systems AutoCAD Suite Theatre

3:00 New Users Course Chris Raisin R309

SIGs (Check noticeboard for locations)



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BRISBUG PC USER GROUP INC.

P.O. Box 985, TOOWONG QLD 4066

PROXY

This form must be deposited with the Secretary prior to the commencement of the meeting.

I, _____

PLEASE PRINT CLEARLY

Brisbug

being a member of

the abovenamed Association, hereby appoint: _____

of _____, or failing him,

_____ of _____,

as my proxy to vote for me on my behalf at the ANNUAL GENERAL MEETING of the

Association, to be held on the Sixteenth day of January 1994,

and at any adjournment thereof.

Signed this _____ day of _____, 199 _____

Signature _____ Membership No. _____

This form us to be used * in favour of the resolution * against the resolution.

[* Strike out whichever is not desired.]

(Unless otherwise instructed, the proxy may vote as he/she thinks fit.)



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