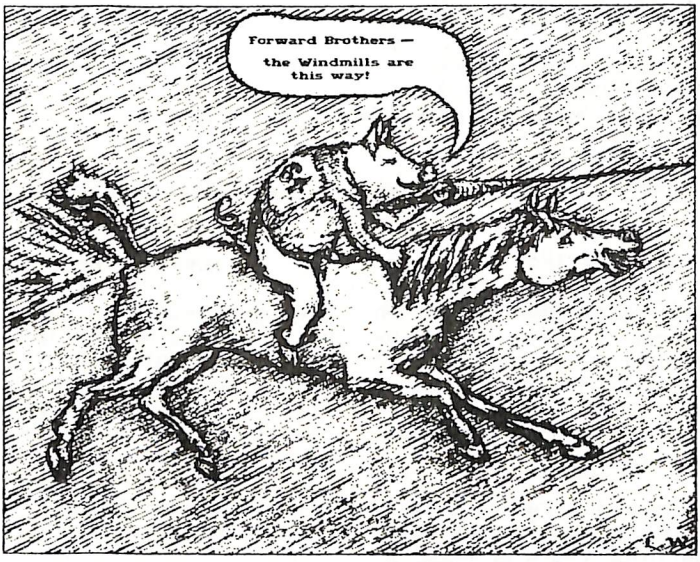
CURSOR

Registered by Australia Post
Publication No. QBG 3958

Vol.6 No.3 October 1989

COMMODORE COMPUTER USERS GROUP (QLD) INC.



LEIGH WINSOR
(Amiga and Deluxe Paint)

Our Next Main Meeting will take place on Tuesday, 3rd October 1989, at 8 pm (Libraries & Sales at 7 pm) at the Bardon Professional Development Centre

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C.C.U.G. (Q) - INFORMATION

MAIN MEETING

The Main Meeting is usually held on the 1st Tuesday of the Month at the Bardon Professional Development Centre, 390 Simpsons Road, Bardon, starting at 8 pm.
Library: 7pm - 8pm & 9pm - 9.30pm.
Sales: 7pm - 8pm.

Entrance through the Centre's Car-park in Carwoola Street. **Parking is not allowed in Centre's grounds!**

The dates for upcoming meetings are

Tuesday, 3rd October, at 8pm.
Tuesday, 7th November, at 8pm.
Tuesday, 5th December, at 8pm.

Details of this month's topic can be found in the relevant section of this newsletter.

WORKSHOP MEETINGS

C64/128 Workshop is held on the 2nd Sunday of the Month (1pm - 5pm) in the Guidance Officers Training Centre, Bayswater Street, Milton. Public Domain Disks available for copying & blank disks are for sale. Bring your own computer equipment!

The coordinator is Hugh Gravendyk Ph. 376 3154 (a.h.)

Amiga Workshop is held on the 2nd Sunday of the Month (1pm - 4pm) in the Ithaca RSL Hall, cnr. Nash and Elizabeth Sts, Rosalie.
Disk & Accessory Sales: 1pm - 3pm
Bring your own Amiga equipment.
For information ring 300 3477.

Details of this month's activities can be found in the relevant section of this newsletter.

REGIONAL MEETINGS

CANNON HILL: Last Saturday of the month (Noon - 12pm) in the Cannon Hill State School. Ph. Don Friswell - 343 1735 a.h.
KINGSTON: 2nd Saturday of the month (1pm - 12pm) in the Kingston High School. Phone Alan Hill - 290 0264 a.h.
PINE RIVERS: 1st Sunday of the month (1pm - 5pm) in the Strathpine State High School. Ph. Barry Bean - 269 7390 a.h.
SHERWOOD: 2nd Friday of the month (7.30pm) in the Graceville State School. Ph. Leigh Winsor - 379 2405 a.h./ Philip Parkin - 818 1172 a.h.
WAVELL HEIGHTS: 2nd Tuesday of the month (7.15pm - 9.45pm) in the Wavell State High School, Childers Street. Ph. Cor Geels - 263 2839

PLUS/4 SUPPORT: - Clarence Stock is acting as support coordinator for Plus/4 owners. Ph. 397 8894 a.h.

GOODS & SERVICES

(At Main Meeting or by Mail)

AMIGA SPECIFIC:

Public Domain Disks 3½" (Amiga - *Mail Order Only*): $5.00 ea (+$2.00 P & P for up to 5 Disks)
5¼" Blank Disks: $9.00 per 10 (+ $2.00 P & P)
3½" Blank Disks: $25.00 per 10 (+ $2.00 P & P)
3½" Disk Boxes (80 disks): $20.00 (+ $5.00 P & P)
3½" Disk Labels (68x68mm) 4 sheets (= 48 labels): $1.00 (+ $2.00 P&P)
A500 Dust Covers: $16.00 (+ $2.00 P & P)
Amiga Dos Summary: $3.00 (+ $1.00 P & P)
Amiga Beginners Guide: $3.00 (+ $1.00 P & P)

C64/128 SPECIFIC:

Public Domain Disks (C-64): $3.00 ea (+ $2.00 P & P up to 5 Disks)
Public Dom. Cassette Tapes (C-64): $2.00 ea (+ $1.00 P & P Per Order)
Commercial Library Catalogue Disk: $3.00 (+ $2.00 P & P)
5¼" Blank Disks: $9.00 per 10 (+ $2.00 P & P)
1541 'Drive & Disks Testing' Disk: $2.00 (+ $2.00 P & P)
1541 Drive Dust Covers: $10.00 (+ $1.00 P & P)
Disk Notchers: $8.00 (+ $1.00 P&P)
Turbo-Rom for C64 or C128: $40.00 (+ $2.00 P & P), or Customised Version: $45.00 (+ $2.00 P & P)
User Port Plug (Edge Connector): $8.00 (+ $1.00 P & P)
User Port Plug Backshell: $3.00 (+ $1.00 P & P)
User Port to Centronics cable: $35.00 (+ $1.00 P & P)
36-Pin Centronics Male Plug w. Backshell $10.00 (+$1.00 P & P)
Public Domain Instruction Book (C64): $5.00 (+ $1.00 P & P)
Starting With Disk Drives : $2.00 (+ $1.00 P & P)
C-128 Mem. Map: $2.00 (+ $1.00 P&P)
Macro Assembler Book: $5.00 (+ $1.00 P & P)
64 Sound & Graphics (by G.Perry): $10.00 (+ $2.00 P & P)

GENERAL:

Back Issues of *CURSOR* : $1.50 each

Address Labels (23 x 89 mm): $14.00 per 1000 (+ $2.00 P & P)

Ribbons for MPS-1000, GX/LX-80 Printers: $7.00 (+ $1.00 P & P)
Ribbons for MPS-1200/1250, Citizen 120-D Printers: $10.00 (+ $1 P & P)
Ribbons for Riteman C or F Printers: $12.00 (+ $1.00 P & P)

---> ***NOTE: Copying of Commercial Software is ILLEGAL, and is NOT ALLOWED at our Meetings.*** <---

MAILING ADDRESS

Please address all mail which is not related to *CURSOR*, including orders to:

C.C.U.G.(Q) Inc.
P.O. Box 274
SPRINGWOOD QLD 4127

Cheques to: C.C.U.G. (Q) Inc.

CHANGING YOUR ADDRESS?

Please advice our Secretary and *not* the Editor of *CURSOR!*

MEMBERSHIP

Membership Fees are as follows:

Joining Fee: $10.00

Annual Membership Fee:

Ordinary* Membership: $25.00
Country/Associate M'ship: $15.00
Pensioner Membership: $15.00
Family/Business M'ship: $35.00

(* Within the B'ne Metropolitan Telephone District)

Library Fee: $5.00

LENDING LIBRARY

It is a condition of use of our Book, Magazine & Software Lending Library that materials can only be borrowed for a period of 1 Month.

If unable to attend the next meeting, members can either mail the borrowed material to the Group's PO Box (see above), or they may leave this material with their nearest Management Committee member (but please ring first!).

By following these simple rules, you assist your fellow members who may want to borrow the books or software which you are returning.

COMPUTER ADDITIONS/MODIFICATIONS to C64/128 equipment are being carried out at our Milton Workshop Meeting (see Page 2) by Murray Hungerford (Ph. 848 2363 a.h.) and Philip Van Der Vliet (Ph. 848 5753 a.h.)

SERVICES OFFERED:

Reset Buttons: $6.00 - Device Number Change: $6.00 - Reset Reenable: $6.00 - C64/128 Computer Selection Switch: $6.00 - 40/80 Column Selection Switch for C128: $10.00, for C128D: $15.00 - Turbo Rom Installation: C64 with Socket or C128: $6.00 - Turbo Rom Installation: C64 without Socket or C128D: $10.00 - Write Protect Switches: $6.00 - Write Enable Switches: $6.00

YOUR NEWSLETTER

CURSOR appears 11 times annually and is dependant on members' contributions for its content.

Address all Newsletter Mail to:

The Editor "CURSOR"
P O Box 384
ASHGROVE QLD 4060

Deadline for the Nov. Issue is:

FRIDAY 29th SEPTEMBER!

Short articles (less than a page) and adverts for the *BYTE* column can be submitted in written or printed form, but we prefer to receive your articles on disk.

Please use *minimum* formatting in your articles. Do *not* indent paragraphs and use a *single* space after a full stop.

If a specific page layout is required, include a printout in the desired format. Disks will be returned promptly and we pay return postage.

AMIGA Specific:

Supply your articles on 3½" disk in the form of an ASCII file or a WordPerfect file with *minimum* formatting.

C64/128 Specific:

Supply your articles on a (1541) 5¼" disk in the following format (in order of preference):

SEQ ASCII file, SEQ PET ASCII file, SuperScript/EasyScript, PaperClip/-PocketWriter files in the SEQ save option, SpeedScript files saved with the SS converter program, option 2, (SEQ Standard ASCII file). Sorry, but we **cannot read 1571 formatted disks, and are unable to convert** GeoWrite, FontMaster or Bank Street Writer Files.

Alternatively, if you own a modem, you can upload articles, news, gossip, etc. to the Group's BBS (Ph.344 1833 - File Area 8)

Commercial Advertising

Rate is $30.00 per full page, per issue. This rate is for A-5 size camera-ready copy only.

Production Credits

WordPerfect 4.1.9 - PageStream - The 64 Emulator II - GP Term - Easy Ledgers - Epson SQ-850 Printer

MANAGEMENT COMMITTEE

PRESIDENT:
Greg Perry - Ph. 366 3295
SECRETARY:
Mike Williams - Ph. 209 9084
TREASURER:
John Van Staveren - Ph. 372 3651
CHIEF LIBRARIAN:
Phil Guerney - Ph. 378 9756
NEWSLETTER EDITOR:
Ralph De Vries - Ph. 300 3477
SUBGROUP LIAISON:
Alan Hill - Ph. 290 0264

COMMITTEE MEMBERS

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Leigh Winsor - Ph. 379 2405
AMIGA COORDINATOR:
Steve McNamee - Ph. 260 5827

SALES

C64/128 DISKS & ACCESSORIES:
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C64/128 PUBL. DOM. DISKS AND TAPES:
Doug Maclurkin - Ph. 358 4442
AMIGA DISKS & ACCESSORIES:
Ken Clem - Ph. 287 3698
AMIGA PUBLIC DOMAIN DISKS:
Mark Eckert - Ph. 891 5268

BULLETIN BOARD SYSTEM: (07) 8087694

SYSOP:
Graeme Darroch - Ph. 209 1999
ASSISTANT SYSOP - AMIGA:
John Dooley - Ph. 398 2774
ASSISTANT SYSOP - C64/128:
Craig Rawlins - Ph. 379 8957

Our BBS is part of the Opus Network (Node No. 3: 640/304), and can be accessed by our members at 300, 1200/75, 1200 and 2400 bps, using 8 data bits, 1 stop bit and no parity

Published by: Commodore Computer Users Group (Qld) Inc, P O Box 274, SPRINGWOOD QLD 4127

Printed by: TOWNSEND, P O BOX 857, BEENLEIGH QLD 4207.

EDITOR'S NOTES

As most of you will all know by now, your Management Committee has been re-elected for another twelve months. Although we all agree that a regular infusion of new blood can only be beneficial to a group such as ours, it appears that most of our members disagree with this statement, as nobody cares to nominate for committee positions!

So, the 'regulars' are back on deck, and I thought that it might be interesting to let you know what goes on at our Management Committee meetings.

These are usually held one week after the main meeting and are attended by the members of the Management Committee, the C64/128 and Amiga coordinators and the Sysop (their names are on the previous page). At times, should the need arise, we invite members who look after other aspects of the running of our group to these meetings.

After the reading of the minutes of the previous committee meeting by the President, we discuss the points raised by these minutes.

We follow this with the Treasurer's report and the Secretary tables incoming mail and new membership applications, and then the real business starts.

We discuss the program for upcoming Main Meetings with our C64/128 and Amiga Coordinators. Our Librarian reports on the Library, including proposed book, magazine and software purchases. Our Sub-Group Liaison Coordinator informs us about the latest developments in the subgroups. The Sysop reports on activities on the Group's Bulletin Board, and I report on *Cursor*.

On odd occasions arguments fly back and forth, but in the end consensus usually wins the day. If a very contentious issue comes up, we usually allow for a cooling-off period of one or more months, and often find that the issue has resolved itself, or can be modified to satisfy us all.

BBS

Because his work takes him away from Brisbane quite frequently, Greg Shea has relinquished his post as Sysop of our Bulletin Board. Our thanks go to Greg for the fine job he has done in maintaining our Bulletin Board.

We welcome Graeme Darroch as his successor, and hope that many of our members will make use of its facilities.

POSTCODE ARTICLE

In the first section of this issue you will find an article by our one and only Canberra Correspondent (and Oz *Amiga Transactor* publisher), Paul Blair. As this article concerns a SuperBase application which can be run on the C128 and the Amiga, I decided to play it safe and publish it in the General section!

COMPUTER GAMES

Games get a good innings in this issue. Not only do we have reviews from two Amiga sources, but we also have been approached by Matthew James who wants to review 64 games, as the Phillips brothers have become 'Amigatised'. Needless to say I haven't refused Matthew's offer.

Ralph De Vries

THE NEW COMPUTER

Words by C. Hindhaugh - to be sung to the tune of "Click Go The Shears"

```
*****************************************************************
*                                                               *
*    OUT IN HIS OFFICE THE YOUNG FARMER SITS                    *
*    LOST IN A WORLD FULL OF K'S BYTES AND BITS                 *
*    FIXED IS HIS GAZE AT THE COLUMNS ON THE SCREEN             *
*    STRUGGLING TO PUZZLE OUT JUST WHAT THE HECK THEY MEAN      *
*                                                               *
*    CLICK GOES THE KEYBOARD...CLICK CLICK CLICK                *
*    WILD IS HIS GAZE AND HIS HANDS MOVE QUICK...               *
*    HIS MISSUS LOOKS AROUND AS SHE BRINGS A CUP OF TEA         *
*    AND CURSES THE INVENTOR OF THE APPLE II E                  *
*                                                               *
*    DATA BASE AND DIF FILES, RAM AND ROM AND DOS               *
*    SETTING UP A SPREADSHEET GETTING HOT AND CROSS...          *
*    ESCAPE TO DESKTOP MENU, SELECT AND PRESS RETURN            *
*    COMPUTING LOOKS SO SIMPLE BUT IT'S JOLLY HARD TO LEARN     *
*                                                               *
*    CLICK GOES THE KEYBOARD...CLICK CLICK CLICK                *
*    HIS ELBOWS ARE ARCHING HIS NECK HAS A CRICK                *
*    HIS SHEEP DOG LOOKS AROUND AND IS BEATEN BY A BLOW         *
*    AND CURSES THE COMPUTER TO OBSESS HIS MASTER SO            *
*                                                               *
*    THE AFTERNOON IS OVER, THE KID COMES HOME FROM SCHOOL      *
*    RUNS TO THE COMPUTER AND DRAWS UP A STOOL                  *
*    "HAVING TROUBLE DAD!", HE SAYS, "CAN'T YOU MAKE IT GO?     *
*    VISICALC OR MULTIPLAN...WHAT D'YA WANNA KNOW?"             *
*                                                               *
*    CLICK GOES THE KEYBOARD...CLICK CLICK CLICK                *
*    FOR KIDS IT'S SO SIMPLE IT FAIR MAKES YOU SICK             *
*    COMPUTING WHEN YOU'RE OLDER IS MEDICALLY A RISK...         *
*    CURSING AT THE CURSOR MAY BRING ON A FLOPPY DISK!          *
*                                                               *
*****************************************************************
```

We thank Edgar Wilhelm of Laidley for his poetic contribution.

-ooOoo-

QUOTE OF THE MONTH

(From a review of PageStream by Chris Dickman in the July '89 issue of Amiga World)

"I refuse to serve as an unpaid beta tester for a company that ships virtually unusable software."

FROM OUR SYSOP

As the recently appointed Sysop of the Bulletin Board Service I felt it was an opportune time to do several things.

1. Let everyone, who uses the board, know that the National and International Amiga Echos have returned.

2. Appeal to anyone out there who has been thinking of getting in to the world of Tele-computing, to go for it. The Fidonet will connect you to a network which has 5562 bulletin boards spread around the world from the USA to Sweden and South Africa to Finland; not bad for the price of a local call plus an additional networking fee of 10c.

3. Assure everyone that the board is up and running and will continue to run for as long as the CCUGQ has a need for it. As a representative club of a large slice of the home computer market I feel that there is an obligation to take the members and computers as far along the track of development as possible.

Undoubtedly one of the biggest areas of expansion is in the field of telecomputing. Banks, those conservative pillars of society, will even let you carry on transactions on your accounts by remote link from your own computer, (but imagine charging you for it - they should pay you; it saves them effort), so it must be getting acceptance.

Anyway what I am trying to say is, get yourself a modem, get yourself a Coms program, get yourself plugged into a Telecom socket, and go for it. I'm sure everyone knows, that one of the best programs around has come from our own President who, it has been rumoured, will do a special discount for members for programs and modems. So as you can see there is no excuse if it interests you.

All the best.

Graeme Darroch

-ooOoo-

STAR CURSOR JOYSTICK

by Ralph De Vries

Would you pay $55.00 for a joystick? I did the other day and I consider it money well spent. (Actually it was for a present, but no matter.)

I bought the *Star Cursor* joystick, which is made by Multicoin Amusements, right here in Queensland at Labrador.

It's big, versatile, but above all, it comes with a three year guarantee, and that's something no other joystick offers. In fact I'm sure that it will outlast three 'ordinary' joysticks.

I purchased mine from United Computers who will give our members a 5% discount on production of their current membership card.

MAIL BOX

In response to the comments made about the problem of student members in the last issue, I would like to give an explanation, not a defence, of their actions as a whole and comment on the way the user group has handled this issue.

Isn't it natural for those members who used to fall into the category of student to want to do those things they find exciting? And students, with few exceptions, do not find word processing, spreadsheets, etc. exciting. On the other hand, games fall into this category precisely. Combined with this desire for the exciting is the quest for something new. Hence one or two games are not enough, they soon become tiring, so new games must be found constantly. This is where piracy enters. Very few people can afford to be constantly buying more and more software, so piracy is the very cheap alternative. Manufacturers are only too happy to oblige and spew out software continually, with new titles being released monthly. But they get caught in their own machinations, namely piracy.

The user group has shown us its solution to the problem of gamers by excluding them from sub-group meetings. This, combined with the removal of student membership, gamers are considered synonymous with student members, could see the exodus of a lot of student members from the group. This was the only action the group could have taken given its view on piracy.

The only alternative was to find something that could replace games, and would be both beneficial to the group and attractive to would-be gamers. But I think it is too late to find such an alternative. Games are too far entrenched in the computing world.

If the group is serious about eradicating piracy and therefore gamers it should be prepared to enforce the laws it sets and not just depend on the threat scaring the gamers off. Gamers are not just going to stop the supply of a large part of their computing experience. Gamers would just be more covert in their piracy in subgroup meetings.

Greg Hall (Kenmore)

Thanks for your comments Greg. May I point out the fact that we have made it quite clear in all our literature, for quite a few years now, that copying of commercial software is an activity that will not be condoned by our group.

By joining our group we expect that the new members, be they students or adults, abide by these rules.

If certain younger members don't find all the other aspects of computing (of which there are many) not exciting enough, then the group as a whole is better off without them.

BYTES

For Sale

Amiga 1000, Colour Monitor, 2 Joysticks, Good selection of Software, Disk boxes, Cleaning kit, Mouse, Manuals and Computer Desk.
Deceased estate - all equipment like new. $2000.00 the lot.

Contact Shirley Hezelgrave on (071) 445 984 (a.h.)

LIBRARY NEWS

by Phil Guerney

Missing things

It is all very well to have catalogues of books, magazines and software but they are no use if the items themselves have disappeared. I'm sad to say that things do go missing and a couple of disturbing losses have occurred recently.

Twin Cities 128 is a specialist C128 magazine, and an excellent resource, for which we have so far received just three issues. YET ALL THREE ARE MISSING! This must have happened in the last couple of months. PLEASE, if you find that you have these issues, return them. If you like, just put them in an envelope addressed to the CCUG, PO Box 274 Springwood 4127 and we'll even pay the postage.

When I went to make up the one-year bundles of old magazines, quite a few issues were not to be found. There should have been 2 or even 3 copies for many months of RUN, Compute! and its Gazette sibling. Shame.

A disk from the Amiga commercial library went missing, probably during the June meeting. TxEd Plus, with ARP and other system utilities in a red ring binder (I think), was Amiga Disk D-24. It was returned but was not borrowed, yet it has vanished from the system. Please could all Amiga disk borrowers check whether they accidentally acquired TxEd Plus and get it back to me - again it can be anonymously and even at our postage cost if you are so inclined.

If you find any of our magazines at home which you have not officially borrowed then bring them back and just leave them on the tables. Hopefully I will find fewer missing issues when we do a stocktake soon. I do not like the idea of ever having to initiate a security system with checks on the way out of the library area, indeed I'd rather give the library away.

New Amiga things

Fantavision: creates animated sequences including sound effects. The software does the "tweening" (creating intermediate steps between your successive drawings) and the transformations from one shape to another.

Butcher: manipulates IFF graphics files. Change pictures from one mode to another, change number of bit-planes, merge pixels of one colour to another colour, perform image processing including edging, density slicing and half-toning. Much more is mentioned in 50 pages of detailed instructions.

The Director Toolkit: expands capabilities of The Director (Amiga D-28) with new wipe routines, a palette optimiser, object movement over backgrounds, MIDI input module, text displayer, pie charts, sine/cosine functions and more.

GOMF! V3.0. Described as the solution to GURU meditation. The weird name actually stands for the even weirder name "Get Outa my Face!". Extracting the essential features of GOMF! out of the manual is rather hard for a non-Amiga user like me but buried on page 35 it says that it snoozes until the system scrams. When you select Cancel from the "Software Error - Task Held" requester you get a Gurubuster window with buttons labelled

Gomf, Whap, Boot, Guru and Scat. I think I'll stop there as my brain is hurting. This program obviously requires a good technical knowledge of the Amiga operating system.

PIXmate Total Image Processing: The objective of this program is image enhancement which means improving the ability of the eye to find the information in an image by such techniques as pseudo-colouring, median filtration, unsharp masking (in which a blurred version of the original is subtracted from the original leaving a sharpened version of the original strangely enough), local contrast enhancement, conversion to black and white according to chosen colour thresholds, and edge enhancement algorithms (Laplacian and Sobel included). All graphics modes are supported including overscan, ham and halfbright and conversions of mode and image size are possible.

B.A.D.:Claims to be the ultimate disk optimiser with access times down up to 500%. Not a cache, rather a program that reorganises the location of data on a disk so that AmigaDOS processes the disk much faster.

CygnusEd Professional: a text editor which seems to have everything. All editing functions including column cut and paste with word processing type functions (word wrapping and line centring) as well as programmer's functions (auto indent and find matching bracket). Searches text at 100,000 characters per second and uses the blitter to scroll text faster than you can read. It can recover an edit from when the Amiga crashed and has macros as well as an interface with AREXX.

Desktop Artist Vol 1: a bunch of clip art in IFF brush format in two-colour 640x200 resolution.

I did promise several people an updated Amiga disk list for this Cursor. As you can see by the lack of new numbers against the items above I haven't had time to catalogue them yet and as there is another batch of new software waiting it will be better to wait another month. The Amiga catalogues will again only have been available on the 5.25" C64 1541 format Library Catalogue Disk at the September meeting. Hopefully the 3.5" disk will be ready for October.

New C64/128 things

Video Title Shop with Graphics Companion Disk 1: Connect your C64/128 to your VCR and you are ready to use this program to add title screens to video tapes. Allows choice of fonts and borders, background scenes (with in-built painter program) and creation of a sequence of screens with fades/ scrolls/wipes/fizzles transitions.

Shanghai: A computer version of Mah Jongg. The 144 tiles with the strange Chinese characters are stacked in a pattern. You must remove matching pairs according to the rules while thinking two, five or twenty moves ahead to win. You can take on other players or play against the clock. Options like Undo, Find, and Peek and Lose!

Label Wizard with Bonus Graphics Disk: A very cute program that prints mailing labels with a picture on the left quarter of the label next to the lines of text. It uses Printshop 3-block ("Side A Non-Commodore Printer") graphics and it uses these on Commodore printers as well as Epsons, so no scrappy 2-block graphics for Commodore printers any more! Printmaster graphics are also OK. An accompanying disk contains a side of graphics in each of these two formats.

A nice extra is a graphics catalogue program that quickly prints out a picture-index to a disk of Printshop or Printmaster graphics 4-across the page and 7 rows per page with the graphic's name under each piccy. Another program will convert 2-block Printshop graphics to 3-blocks.

Certificate Maker and Certificate Library Vol 1: Another new printer graphics program for the library, but certainly not a new program in the C64 world as it has been around for three years. It is generally well-liked with the main criticism being its inflexibility as only pre-designed certificates can be prepared. However there are over 300 certificate designs to choose from, borders are chosen from a total of 48 and the words are up to you! The programs came with several packets of colourful stickers to decorate the certificates but as I could see no way to distribute these fairly amongst borrowers I have given them to the teachers of my three children who are all in primary school, so don't ask me for them!

Springboard software have come out with quite a range of educational and creative software for kids and I'd appreciate knowing if anybody reads or hears good words about them. The two packages bought here each contained a product catalogue with the one inside the Certificate Library box being rather more recent (1989). Many new programs were listed, but to use them you had to have a Mac (for most), or an MS-DOS or Apple II machine BUT NONE OF THE NEW PROGRAMS WERE FOR COMMODORE COMPUTERS! What does this say about support of our computers? I was also intrigued that the earlier catalogue contained an upmarket version of Newsroom for MS-DOS called Newsroom Pro at $129.95 but in the later catalogue this was listed at $39.95 because of an even newer program called Springboard Publisher for MS-DOS at, you guessed it, $129.95. Quite a sharp change in product positioning!

Zak McKraken and the Alien Mindbenders: the latest and best development in animated graphic adventures for the C64. I read a few excellent reviews of this and decided that it would make a good addition to that category of "games that require brains" which is the only sort of game on which I am prepared to spend your money and mine for the library. The humour is mostly American style corn but overall it is well-written and kids absolutely love it. Sentences are constructed by pointing to verbs from a list and objects on the screen or in your inventory table so there is no guessing for the words that the parser recognises. The puzzles are not too hard to solve (that means that I have been able to solve a few and yet quickly get stuck in Infocom adventures) and you don't get killed unless you try very, very hard so there is no need to keep saving the game before making another move! The game is not copy-protected but to reach about two-thirds of the destinations you need to enter a graphics code from a large sheet printed in black on very dark purple. I assure you that it is a very effective means of protection.

BASIC-128: a compiler for Commodore Basic 7.0 on the C128. This compiles to either a compact and fast P-code intermediate language or directly to machine code. It is said to have some problems but I compiled a few of the C128 BASIC programs on the RUN disks and all compiled smoothly with dramatic improvements in the speed of the resulting programs! There seemed to be very little difference in speed between P-code and machine code in

these cases, but the manual clearly explains where each has its advantages. Requested by several callers.

INFO: a magazine for both 8 and 16-bit users

I have not yet talked about any magazines in Cursor. This is probably because there is not much in Commodore magazines these days to interest anyone who has passed beyond the absolute beginner stage and is interested in more than favourable game reviews and simple type-in utility programs. Well INFO is a magazine that does not ignore games (thank goodness) but is refreshingly different in some ways. And Amiga people may not know we have it in stock as it is catalogued with the C64 collection, but it does cover both machines equally.

INFO is produced entirely with Amigas. It started off in 1983 being produced on a single C64, one disk drive and a dot matrix printer. Now, as they say on the inside front page, it is "the bimonthly effort of a handful of dedicated computer nerds holed up in Iowa with 14 computers, a massive monthly utility bill, and more fun software and toys than anyone deserves in a lifetime!". They also add "we have advertisers, but advertisers do not have us."

Some unusual aspects of INFO include: "Magazine Index" where under each of the other Commodore magazine logos they critically review the most recent issues contents; "Commodore in the Media" where instances of Commodore computers popping up in the background of TV shows and films are noted (it seems a C64 plays a big part in Police Academy 3), or special effects for events and shows that are created using Amigas; and even reviews of public domain material which supports their independence from advertisers! Still around a quarter of the magazine is devoted to game reviews with large screen shots and honest ratings. We have issues commencing January/February 1988 and I recommended it for borrowing.

Broderbund and other USA sourced C64/128 software

I have mentioned that we have bought most of our recent new programs for the C64/128 library from a mail order house in the USA. They have been fast and quite a bit cheaper than local suppliers, that is if there was local stock of what we wanted. However we have had problems with two programs that will not load.

After a replacement disk of The Arcade Game Construction Kit from Broderbund software failed to load in exactly the same way as the original disk, I sent a letter asking for another possible explanation mentioning that I suspected the copy protection method (it uses the method that flashes VMAX!.on the screen during loading). Their prompt reply was devastating. Broderbund simply said that none of their software now supported PAL computers and that because of this they could not even offer me an exchange for another program. I am still not sure that they were not getting my C64 problem mixed up with the Amiga problem where programs must be written for either PAL or NTSC TV systems, but it is not really a big problem for the Amiga as it only changes the window size and number of lines on the screen. For the C64 I thought that it was more likely that the copy protection was susceptible to the difference in the AC line frequency (50 Hz vs 60 Hz) but it could be that the protection uses a feature of the NTSC version of the VIC chip

that differs in the PAL version. Whatever, Broderbund have stated in writing that they will not sell programs that work in our country. To my mind that makes it clear that pirating a "freeze-framed" or similar version is the only way we can get a working version. If anyone gets their hand a working copy of this program please give a copy to me and we can then put it into the library. We paid for the program, it is not worth the postage cost to send it back to the USA, so my conscience is clear.

Chessmaster 2010 from The Software Toolworks similarly did not load and I now have received two replacement disks which also will not load on any 1541 or 1571. A related incompatibility is suspected so the same applies again. We have paid for the program so if anyone can help us get a working version into the library I would be grateful.

-ooOoo-

A DIVERSION

by Alan Hill

For those of you who enjoy a challenge have a go at solving this puzzle. Pass it on to your friends and see if they can beat your time. It took me about 2 hours. Good Luck Have Fun.

52 W in the Y	= 52 Weeks in the Year
26 L in the A	?
7 W of the W	?
1001 A N	?
12 S of the Z	?
54 C in a P (with J's)	?
9 P in the S S	?
88 PK	?
13 S on the A F	?
32 D F at which W F	?
18 H on a G C	?
90 D in a R A	?
200 D for P G in M	?
76 T in the B P	?
4&20 BBB in a P	?
6 W of H the E	?
16 P on this P	?

You will find the answers elsewhere in this issue!

-ooOoo-

POSTCODES FOR BULKMAIL

by Paul Blair

Consider the simple postcode. Four digits. Nothing more or less. Probably the most used group of 4 digits in our lives. You think I'm kidding? Try this, then. Last year Australia Post (AP) carried 4 billion articles. That's about 11 million a day. Every day. To help sort out what goes where, they use the postcode system in every way from the simple (handsorted mail) to the complex (OCR or optical character recognition). A lot of the mail we post is scanned and sorted by machine - look at your incoming mail for the tell-tale small yellow/-chrome stripes across the back. This will show you whether the article has been scanned and coded for automatic sorting.

The postcode system is simple. Four digits - grouped together with some 71 regional mail centres in mind. And if you have been (or are considering) producing some regular publication that is to be sent out at intervals, there is a "Registered Publication" scheme that you should be aware of. Once you have registered your publication ($45 a year at present), RegPubs (as AP calls them) qualify for hefty mail discounts if you do some of the sorting work for them.

All that AP requires is that you bundle together all articles according to the mail centres - they term it the National Pre-sort plan. So, if postcodes 3444 and 3500 are in the care of the Bendigo Mail Centre in Victoria, you collect mail to those regions together and lodge the mail with AP with the articles for Bendigo bundled together and labelled "Bendigo MC, VIC". Simple, huh?

AP issues a small booklet showing the mail centres around the nation, and the postcodes that each handle. The booklet is a good starting point, and you can get one of these from your local AP Sales Centre.

Because there are thousands of postcodes in use, you will need some system to help you with the job of preparing mail centre bundles. If you have a mailing list that is computer based, then the job is even easier.

For my part, I use a part-automatic, part-manual system. Given the large number of postcodes in use, a fully automatic system would be possible and convenient, but would it be worth the effort? I decided it wouldn't, and looked for something a bit easier.

What I decided to do was to give each mail centre a number - I simply numbered the mail centres from 1 to 71 as they are shown by AP. Then, in my mailing lists, I simply allow one field for "PSort".

When I make an entry to the mailing list, I enter the mail centre number that relates to the current record. Most mailing lists grow slowly after the initial set-up, so speed is not particularly essential. As I said above, this could be automated, but I use a simple lookup list that is pinned next to my computer, and find the number that way.

When it comes to print out the mailing list, the postcode "group" is used as the "index" (or field for sorting) as a preliminary to the actual printing.

The list that follows is in two parts. The first 2½ columns (down

to the ********* line) are the postcodes, grouped numerically, with their mail centre numbers - e.g., 2900-2920 is mail centre 11. The rest of the list is the actual mail centre names. If you look for number 11, you will get Canberra, who handle the postcode group 2900-2920. If you want to automate the system fully, there is enough room there for you to make up a table in your computer.

I go a step or two further. On the mailing labels, I also arrange to show the mail centre number in small print (this is a secondary check for me as I bundle the mail together).

AP requires a "front sheet" for each bundle, showing the mail centre name and State. Why not have the computer print this for you as well? As the labels print, my programs count the number going to each mail centre. At the end of the mailing list, there is a scan through the counts to find which mail centres are to have bundles, then a run of labels for the front sheets - mail centre on the first line, State on the second. It's little things like this that help you get a quick and accurate result for your labours.

As you would expect, I use *Superbase* for mailing lists. So what sort of things do I include? OK. At the database creation stage, I include two particular fields, "PCode" and "PSort".
"PCode" is a text field, 4 characters long. I forget why I made it a text rather than numeric, but there must have been a reason. The field holds the "true" postcode. "PSort" is another text field, 2 characters. This field holds the mail centre code number. The reason for a separate PCode field (rather than a simple inclusion in an address field) comes next.

To sort things out, I use a line like *sort on [PSort] [PCode] to "h8subs"* on the C-128. Strictly speaking, the [PCode] sub-sort is not required by AP. It is a courtesy that really adds only a small overhead to the job at your end, but makes life nicer for the AP sorters. I then pick from the "h8subs" to generate the printer list.

On the Amiga, the easiest trick is simply to create an index on PSort. After that, you need only select that index to have things all ready to go. This method doesn't allow the subsort on PCode, though.

If you prefer, you can plod through "Query Order". This will allow the sub-sort, but *Superbase* can get a bit slow here, often needing to set up temporary files as it goes along. If your file is relatively small, say less than 500 items, the delay will be short. Big files..... long waits!

I should also mention that there are some postcode utilities that you might find useful. The idea of the utilities is for "lookup" - you get a letter from Upottypotpon, with no postcode. You can heave out the AP booklet, thumb through it and find what you want. Or you can run a background utility and simply click in the window and do the same thing. I first saw this on a Mac, but there is an Amiga version (which retails for around $43) that works just fine. The good programs allow you to retain the postcode as a variable to carry through to your main program. But unless you automate your system fully, you will still have to enter the mail centre code yourself. That's probably not too much work, considering the savings that you could reap through cheaper mailing.

-ooOoo-

POSTCODE GROUPINGS / MAIL CENTRES

PCodes	MC	PCodes	MC	PCodes	MC	MC Location
2000-2005	01	3000-3010	23	5050-5099	49	24 Footscray West MC
2006-2009	06	3011-3046	24	5100-5199	50	25 Preston MC
2010-2011	02	3047-3100	25	5200-5319	51	26 Blackburn MC
2012-2020	06	3101-3148	26	5320-5399	52	27 Clayton Sth MC
2021-2030	02	3149-3210	27	5400-5599	53	28 Geelong MC
2031-2054	06	3211-3289	28	5600-5749	54	29 Ballarat MC
2055-2114	03	3290-3291	29	5750-5799	55	30 Bendigo MC
2115-2126	04	3292-3316	28	6000-6005	56	31 Seymour MC
2127-2144	05	3317-3319	29	6006-6049	57	32 Morwell MC
2145-2159	04	3320-3334	28	6050-6099	58	33 Brisbane City
2160-2202	05	3335-3341	24	6100-6149	59	34 Stafford Region MC
2203-2249	06	3342-3424	29	6150-6199	60	35 Brisbane Sth Subs
2250-2251	08	3425-3443	24	6200-6299	61	36 Gold Coast
2252-2254	03	3444-3454	30	6300-6399	62	37 Ipswich
2255	04	3455-3461	29	6400-6499	63	38 Toowoomba
2256-2263	08	3462-3463	30	6500-6699	64	39 Sunshine Coast
2264-2338	07	3464-3487	29	6700-6799	65	40 North Coast 4
2339-2412	15	3488-3599	30	7000-7004	66	41 Rockhampton
2413-2430	07	3600-3749	31	7005-7099	67	42 Mackay
2431-2459	14	3750-3764	25	7100-7199	68	43 Townsville
2460-2483	13	3765-3799	26	7200-7247	69	44 Mount Isa
2484-2490	16	3800-3811	27	7248-7250	70	45 Cairns
2500-2554	12	3812-3909	32	7251-7299	71	46 Adelaide City
2555-2574	05	3910-3920	27	7300-7499	69	47 Metro NW
2575-2599	10	3921-3925	32	**********		48 Metro SW
2600-2639	11	3926-3944	27	MC Location		49 Metro SE/NE
2640-2647	18	3945-3971	32	**********		50 Outer Metro
2648	20	3972-3978	27	01 Sydney City		51 Hills/SE
2649	10	3979	32	02 Rushcutters Bay		52 Barossa/U Murray
2650-2652	19	3980-3983	27	03 St Leonards MC		53 Quorn/Glad/Yorke
2653	10	3984-3999	32	04 Seven Hills MC		54 Northern
2654-2656	19	4000-4003	33	05 Leightonfield MC		55 Northern Territory
2657-2660	18	4004-4072	34	06 Turrella MC		56 Perth/W Perth
2661-2664	19	4073-4199	35	07 Newcastle MC		57 NW Suburbs
2665-2672	10	4200-4299	36	08 Gosford MC		58 NE Suburbs
2673-2707	19	4300-4349	37	09 Bathurst MC		59 SE Suburbs
2708-2714	18	4350-4499	38	10 Goulburn MC		60 SW Suburbs
2715	20	4500-4549	34	11 Canberra MC		61 South West
2716	18	4550-4601	39	12 Wollongong MC		62 Great Southern
2717-2719	20	4602-4618	37	13 Casino		63 Goldfields
2720-2730	10	4619-4699	40	14 Kempsey		64 Central Coast
2731-2739	20	4700-4736	41	15 Tamworth		65 North West
2740-2786	04	4737-4805	42	16 Gold Coast Qld		66 Hobart City
2787-2820	09	4806-4824	43	17 Dubbo		67 Hobart Suburbs
2821-2844	17	4825-4849	44	18 Albury		68 Hobart Country
2845-2877	09	4850	43	19 Wagga Wagga		69 Launceston(W/Cent)
2878-2879	17	4851-4899	45	20 Bendigo Vic Fwd		70 Launceston+Subs
2880	21	5000-5005	46	21 Broken Hill		71 Launceston(N/NE)
2890-2899	22	5006-5035	47	22 International		
2900-2920	11	5037-5049	48	23 Melbourne City		

GAMES COLUMN

by Reuben Phillips
& Matthew James

Greetings dudes, and welcome to the only games column with 100% more miracle ingredient Bovinokrapulon (tm) - guaranteed to kill most varieties of bathroom mould and permanently cure lycanthropy and assorted madnesses, acne and stubborn underarm stains. The Games Column (and me as well) is also very pleased to introduce Matthew James who will handle the C64 side of things [applause].

REVIEWS (Out of Four Stars)

*** SUPER HANG-ON (Amiga)

Sling your leg over a racing bike and hang on to your grommets, speed freaks as you race your way across the continents, streaking through Europe at 300+ K's with the nitro turned up and the really awful music turned off, only to end ingloriously wrapped around a billboard in an area looking suspiciously like California. No surprises here, all the usual race game stuff, although the scenery moves well and the other bikes seem to ride with some intelligence, cutting corners for instance. Worth getting if you're a hard core petrol head, worth playing a few times if you're not.

**½ GAUNTLET II (Amiga)

'Hey Elfie Babes, wanna go slay some ghosts an' wizards an' stuff and roam around uncharted dungeons?'

'Verily dude, I'll just strap on a quiver and don one of my cute little green peaked caps and be right with you, think you we'll be back in time for tea?'

'Oh sure, won't hurt to pack an extra jam doughnut though ...'

Gauntlet is the Sword and Sorcery theme at its most abstract level; the four characters are viewed from the top as they roam around the stylised (square) dungeon, bashing ghosts, ugs, wizards and dragons in the quest for treasure and food.

The four adventurers (which can all appear together with the addition of a printer port adaptor) all have different characteristic speeds, firepower, armour and magic abilities (in the form of ye olde Smart Bomb), for reasons best known to themselves the developers have left out the differing speeds of the characters in the Amiga version, for instance the Elf in the arcades could run rings around the lumbering but powerful fighter. This has upset the balance of the characters, but doesn't really affect the game. What Guantlet I & II lack is that compelling urge to go on.

[If you want to know how to build the adaptor contact us.]

** STARRAY (Amiga)

Remember Defender, the game with the bewildering array of buttons? The game most people avoided because it made them look bad? This is it minus the Elvis. The gut-deep growl when you first start is gone, the stark backdrop replaced with fluorescent forest, and the firepower and general atmosphere are weak. In short it doesn't play like, let alone better, than it's elderly predescessor. Plugging bugs with a piddling laser in a forest fails to grab me, although perhaps you'll disagree.

**½ BLASTEROIDS Amiga

Another resurrected blast-from-the-past, this time it's neo-asteroids, two player simultaneous, dockable ships, add-ons plus the inevitable addition of Mukor, the not so friendly end-of-level big bad alien. The graphics have been beefed up with solid, spinning asteroids and space photo type backdrops. If you've played the arcade version of Blasteroids you'll know how smooth it is, the Amiga version is a little rougher and the play area is smaller but it still plays well. I still prefer Asteroids ...

*** R-TYPE Amiga (C) 1987 IREM Corporation, Licensed to ELECTRIC DREAMS

reviewed by Ron Chernich

This one has been around a while, or so I'm told. Some careful checking in various public libraries (called News Agencies by their owners) reveals that R-TYPE began life as a coin-op, then appeared on the C64/128, ATARI ST and Spectrum. Also according to these sources, the game was great as a coin-op, but distinctly Ho-Hum in its first reincarnations. Now, at last, it has been released for the Amiga and for around 75 banana skins, you too can see what others have been yawning about for so long. If this is a flop, I'd just love to see a success.

No delusions of intellectual grandeur here. This is simply a horizontal scrolling shoot-em-up, with big mothers signifying level ends and lots of little brothers in between. You start out in a tiny, under-armed ship (type R9, we are told) with a laser that builds up charge while you hold down the fire button, then squirts it off when you release. Blasting certain nasties reveals weapons enhancements which are necessary to proceed. The Joystick controls the ship's movement within the relentlessly scrolling backdrop. Contacting the landscape is fatal. In fact, for me, just about Everything is fatal. The scrolling is super smooth. The graphic detail and use of colour is superb. The title tune, sound track and effects are great. The collision detect is pixel perfect. And the difficulty level is so high that even my 10 year old can't always get to mother #1. A player is given three ships per round and is allowed five rounds at whatever level you manage to achieve before being shot back to square one. The game records high scores and comes with them already filled in, adding that certain second-hand look. Not good.

Now (Are You Ready), for something completely different: a software review within a game review.

R-TYPE, like a lot of other new-generation games, takes over the Whole Machine. It can't be run from CLI or WorkBench because the disk is not even recognisable as a formatted disk. The bootstrap is a custom job. It requests all the FAST RAM it can get from Exec (which may be zero on a .5Mb machine), requests a chunk of CHIP RAM big enough to load 92 sectors into, loads the sectors and jumps into the load. That is the last we'll hear from the operating system. R-TYPE has totally taken over the hardware.

This Stage I code displays an alien that should have H R Geiger reaching for his lawyers, then loads three more chunks of disk. These areas, beginning on cylinder five are formatted as one sector per track, 5,968 bytes long, with a

non-standard Sync-mark. This is why DOS cannot recognise the disk.

Absolute block 440 is not readable by DOS. In fact, it doesn't even exist. This technique provides the game authors with extra disk storage that they don't need and a format that can't be easily copied.

Gripes? Yes, I have two or three. Most obviously, this disk cannot be backed-up by ordinary means. The non-standard sync mark even makes it proof against most extra-ordinary ordinary means too. This makes me angry. I paid good shekels for this thing. I believe that I am entitled to make a backup copy. Second, the need for an incessant fire rate lead to blood blisters under my index fingernail, followed by a new joy-stick which proved worse that the first!
The "Instruction Booklet" makes no mention of what the "special" keys are for the Amiga. You must determine these by trial and error. To add insult to injury, this informative little gem not only doesn't tell you what you need to know, it does it in four languages!

Finally, there is no way to save a position. You must start out from the beginning every time you load. This quickly leads to frustration and boredom, ensuring the you will go out buy another game, perhaps? Or am I becoming cynical.

On the positive side, this is a good piece of work. If you want to buy just one shoot-em-up, just for the sake of it, get this one.

Several of the Amiga specific 68000 programming techniques are worth study, if you're into that. The method used for displaying the credits is particularly elegant. Me, I'm still getting my money's worth pulling it apart, looking for the back door.

C-64 GAMES

by Matt James

Hi folks, from now on I'm going to be your new games reviewer for the 8 bit side of *Cursor*. Hopefully my methods of reviewing will save a lot of people a lot of money by advising them of games which will only last two minutes and the games that will be favourites for years.

REVIEWS (Out of four stars)

***½ LAST NINJA II (C-64)

Aahhh Konitchiwa, this game is my second favourite (Wizball is my first). You are Armakuni, the last Ninja and you live on the sacred island of Lin Fen. In times long past, you defeated the evil Shogun, Kunitoki, who has now fled to modern New York with the help of a magical time orb. He is now a modern business man who makes money from prostitution and drug dealing, and your rulers do not approve, so they send you to New York as well (using their magical powers). Now it is up to you to find Kunitoki and kill him. "That sounds easy enough!", I hear you say. Well, unfortunately it is not that easy. Everyone in N. Y. is against you!

There are six sections to the game: First, Central Park, next into the city to explore the streets, then into New Yorks sewerage system. After that there is the opium factory and finally, the shogun's island itself! I would recommend this game to everyone.

Excellent packaging, including 30 page booklet and other goodies. Great graphics (very fast drawing,-high resolution) with really cool animation. If there were sound effects added I would have given

sound 100%. The combination of martial action and puzzle solving is very good to play. Once you get past the first level you will be fired by an irresistible urge to keep on playing.

Note: Anyone who wants a few tips on playing this game, can ring me on 3005443.

**½ ROBOCOP (C-64)

You are Robocop, a very modern cop who is half human and half robot. You were made from the body of a freshly killed cop, and you're out to revenge your death!

The game starts with you in a street, shooting lots of baddies (tip: in some levels you can get above the level of the baddies' fire by pressing f, g, h and j all at once and walking forward) and picking up icons such as bottles with P written on them for more energy, a square with 3 bullets in it for killing baddies like flies, a square with a bullet in it for killing lots of baddies with one shot and another one that looks a bit like latticework for spraying bullets everywhere. You keep on going level to level shooting baddies and mostly being gory, until you get to the end and shoot Dick Mones (the executive of the company which is connected with your killing).

I have heaps of tips for this game, so just give me a ring. I would say this game is very playable, but it seems to lack something (anyone out there agree?) to make it better than the rest.

There are a few annoying control delays and quirks (it is a multiload). Good sprites and animation, but some fairly bad backdrops. Decent title tune but bad in game music and effects (at the beginning you can choose between music or effects). Pretty good fun getting your revenge, especially if you have seen the movie. You keep coming back for more even though it's pretty hard.

** OPERATION WOLF (C-64)

Yes, I know, this is a very old game, but just in case it's still on the shelves, or if it ever comes out in a compilation, I'm reviewing it. Ok?

This game is another 'game of the film' released by Ocean, which reached great popularity about a year ago.

The aim of the game is to kill all the enemies in certain sections of Vietnam (while keeping your energy from being depleted by enemy bullets from men, helicopters and tanks), rescue some American hostages and fly them back to the USA.

The graphics are blocky, but reasonably realistic. This game seems to retain all the main features of the arcade original - it has pickup sprites, a side border, fast scrolling, etc. (about the only thing it doesn't have is the pretend uzi machine gun!). You can control the crosshairs with a mouse or with a joystick, which I think is an extremely good idea.

Close to the arcade original and the mouse option is a good idea. Reasonable graphics and has good title screen tracks, but sound effects in the game are only machine gun chatter and explosions. Not very hookable; maybe if you have played the arcade version it might be more fun to play. After two days I got sick of it.

Note: I have a tip for this game, but it only works on the version of the game that will reset (mine

wouldn't, not even with the old paperclip and user port trick!), so ring me on 3005443.

½ AFTER BURNER (C-64)

Well, here we are with a review on one of the most rip-offy games of the century: After Burner. This game is meant to be a direct conversion of the arcade license - that is a load of *'=/ if you ask me. As far as I can see the whole game is a load of '*=>! The aim of the game is to complete several levels without being killed (which incidentally is very hard to do when you can't even see the baddies - the graphics are so bad). I was extremely annoyed when I saw the price of this game. For $20-$25 you get horrible graphics, no sound, game play that makes you want to chuck the game out the window and basically a load of (I won't say that horrible word!). Unfortunately, that's about all I have to say about this game. To me it looks like Activision made a rush job of this game. I wouldn't recommend it to anyone.

I have heard that the Amiga version is a lot better. I'd like to hear from an Amiga owner who has played his/her version of After Burner.

Well I was planning to do a review of CYBERNOID II, but this is pretty hard work (I've been on my processor for 4-5 hours!),so perhaps next time.

Next month I will have the assistance of a friend from Tamborine Village - that means more reviews! At the moment we are planning to do a review on Cybernoid II and maybe - wait for it - a review of the newest game on the market,Red Heat. If anyone has any queries or if they want to submit a C-64 games review, then call me on 3005443.

Impending Release: Speed Ball - This game is centred around future generations and a sport they play, called Speedball. It's a cross between all of our big football and soccer games, with but one exception - the opponents are allowed to kill to win. More about that when it comes out, or look in the June 1989 Zzap 64 magazine.

THE TIPS BIT

Thanks to Patrick Hallerman for phoning in the following tips, all for the 64:

NEBULUS: press 'uparrow','leftarrow','J','P' and everything should freeze, now press fire and you should have infinite time. Pressing '1'-'8' puts you on that level (bet you still can't get through the last level though)

PREDATOR: to get rid of the bad guys, run off the screen at the end of the level and flip the disk.

ROBOCOP: wait until the high score is flashing in the first section and type SUEDEHEAD. This will take you to the second level, to get to the final section use DISAPPOINTED.

Got some tips, hints, comments or reviews you need to get off your chest before the aliens suck out your brains? Send them to:

Games Column
PO BOX 95
Sunnybank Qld 4109

-ooOoo-

8 BITS & PIECES

THAT 'NEW' C-64 RUMOUR

Two issues ago I mentioned that there was a rumoured new C-64 (and C-128) in the wind. Well, according to two American sources (*INFO* and *Twin Cities 128*) there is talk about a new C-64, but NOT a C-128.

Some of the rumoured specs include: a built-in 3½" drive, 128K of RAM (expendable to 1 Meg), a high speed 4MHz 6502 processor, and will be able to run all existing C-64 software. Graphics resolutions are 320x200 and 640x400 with up to 8 bit planes, giving a possible 256 colours out of a palette of 4096. It will also be possible to read and save Amiga-type IFF graphics files.

Theoretically, this may sound very attractive, but the editors of both magazines consider this projected new computer as one of the most stupid and costly moves that Commodore is about to make (and about three years too late).

Consider the following; No software company is going to write software for a machine, unless it will also run on those 12 million existing C-64s - remember the C-128 saga? There's also the added problem of incompatible disk formats. It would have to be more expensive than existing C-64s, thus getting close to Amiga 500 pricing.

With that sort of negative reaction, we can only hope that Commodore will see the light and give up on this idea. If they go ahead with this move, it may well be the last computer which Commodore will ever release.

Editor

SEPTEMBER MEETING

Because of time constraints we were unable to report on the September meeting happenings. This will appear in next month's issue.

WHAT'S ON THIS MONTH

PHILIP PARKIN: hands-on practitioner with CP/M and the Z-80

One option of the 128 and to a lesser degree the 64 that most Commodore Users choose to ignore is CP/M. Inside the 128 along with a 64 mode and a 128 mode there is a Z80 chip which runs CP/M, a disk based operating system with a venerable history, and a vast resource of business and productivity software transportable between a variety of computers. It offers for example the only opportunity 128 users have to use DbaseII and Turbo-Pascal.

Seasoned 64/128 users have avoided it because the graphics are limited, the software pitched to a business market and expensive compared with the range of prices in the 64/128 market, and the community of shared knowledge and expertise developed in our user group revolved largely around the 6502 and Commodore DOS. The wily 8 bitter is reluctant to set off on his own if there is no one to talk to if he gets stuck.

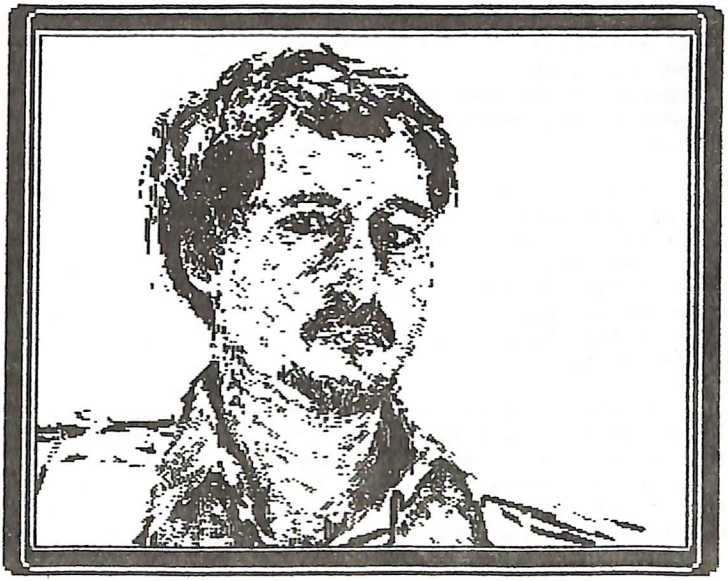
But fortunately this is not entirely true. Phil Parkin, along with his other talents, is a rare bird - a CP/M hacker, who met and fell in love with the Z80 chip before the advent of the 64. His interest has continued through the 128. (Nostalgia for the Z80 may be more widespread than we know - when this topic was mentioned Steve McNamee

became quite misty-eyed, calling CP/M his first love). Phil's demo will be a general tour of CP/M - everything you wanted to know but were afraid to ask. How to copy files and disks, how to find your way around the literature, how to configure a program that may have come from an Osborne or an IBM for the 128, how to use the Big Blue Reader to move files between Super

NEW COMMODORE PRINTER

Goodbye MPS 1250 and welcome MPS 1230 (Strange isn't it? Usually a new model carries a higher number, but this one has gone down!).

The MPS 1250 was really a Citizen 120D in disguise, but had the advantage of two built-in interfaces - a serial interface for C64/128



Leigh Winsor - Selfportrait

script and Wordstar, how not to be totally bewildered in finding out what is on the Public Domain disks. As we've said more than once before, the aim of our demos is to open windows of choice as well as to link people with common interests. And if CP/M is not for you then, after Phil's demo, at least you'll know what it is you don't want to know. [Leigh Winsor]

and a Centronics interface for use with Amigas or PCs. The new printer (made by Olivetti in Italy) retains the two interfaces, but has a lower R.R.P. than its predecessor ($399 against $525). It's a standard 9 pin printer without any fancy features, but appears to be a good buy at the price, and is particularly useful for people who own both a C64/128 and an Amiga or PC clone.

MIKE SINGLETON

Landscaping and the Art of Promotion

by Greg Hall

To make the title a little more meaningful let me say that the object of this article is twofold. It is to describe some good software I have come across over the years and the ingenious technique used to produce it and in doing so to show the lack of promotion that this software (and no doubt much other quality software from overseas) received when it was released in Australia.

Way back in 1984, a game called 'The Lords of Midnight' was released in Britain, and later in Australia. It was created by Mike Singleton, a relative unknown as far as programming went amongst other greats such as Tony Crowther and Andrew Braybrook.

The game was written originally by Mike Singleton for the Spectrum 48K then later translated to the 64. The game received accolades when it was released in Britain due mainly to the fact that it was a very innovative piece of software.

The ingenuity of the program was in its use of a 'new' programming technique called 'landscaping'. This allowed the program to display 32 000 different hi-res screens (although not multi-colour). The screens were to display scenes of mountains, lakes, hills, forests, etc in 'three-dimensional' views, getting larger or smaller depending on the distance away from them.

From what I can gather, this was achieved by storing the bit map design of the individual features in various sizes and then piecing the features together to form the scene. This meant that the 32 000 screens would not have to be stored at once (which is an impossibility memory wise) and that the screen was simply constructed as the game proceeded from a symbolic map stored in memory. The only disadvantage was speed. Each scene took several seconds to construct and display, which became a bit tedious after a while. As well, the scenes were only static. To 'look' in a different direction meant a new screen had to be constructed.

Despite the ingenuity of this program and the accolades it received in Britain, the response to its release in Australia was almost nil. I did not see one review or advertisement or any promotion of this software of any kind despite it being available in some chain stores. The only reason I got hold of a copy was because of a review and advertisement in a British magazine. Unfortunately, the program is no longer available in Australia.

Mike Singleton then wrote the sequel, called 'Doomdark's Revenge' again using the technique of landscaping and again with dismal promotion in Australia. The only evidence that the game even existed, that I saw, was in a price listing for some firm in an Australian magazine. But there was no review or self promotion of any kind. This game was available from the distributors ISD in Melbourne but I have heard they are no longer in business.

Then in 1986 Mike Singleton and Warren Foulkes produced 'Quake Minus 1' for the 64 which again received acclaim in Britain. The software used landscaping but a more advanced version. The scenes were again 'three-dimensional' but no longer static. The views could be scrolled left or right 360 degrees, not quickly, but not annoyingly slowly either. When moving forward or backward, the new scenes were constructed quickly and things scrolled past smoothly. Another big plus was the use of multi-colour graphics which would have made the scrolling all that more difficult to perform with the speed it was. However, it should be noted that the scenes were only displayed on half the screen compared with full--screen displays in 'The Lords of Midnight'. I have no idea whether this game is still available or not.

Predictably the response in Australia was underwhelming to say the least. Again, it was through a review in a British magazine that I found out about it. I did not see a single advertisement, let alone a review of the game in an Australian magazine.

If this has sounded like an advertisement for software by Mike Singleton, it's because I admire the ingenuity of the games mentioned above but mainly because I have been trying to show that quality games are not getting the promotion they should in Australia. Both 'The Lords of Midnight' and 'Quake Minus 1' got very good reviews in British magazines and this could and should have been a selling point for the game in Australia. It should not be left to people reading overseas magazines or by word of mouth for a game or any piece of quality software to become known. As for reviews, magazines tend to rely on programs being sent to them, so it really is up to distributors to try to get their product reviewed and advertise it.

It seems it is left to the sellers themselves to promote the software, when the distributors are more capable of doing so in this respect. Without promotion, quality software will be missed by those who may be interested in investing in some. This is to the distributor's advantage as well as the computing public's. To be fair, some distributors are quite helpful when contacted, and ECP down in Nerang are a good example of this who sent a comprehensive price list when I got in touch with them at one stage. But price lists are only any good if you know what you are looking for.

I am not saying that there should be blitz advertising for every piece of software that comes along, but when quality software is available it should be advertised as such, particularly in Australia where overseas software has had a chance to be separated out into the good and the bad.

-ooOoo-

MACRO MAGIC 1

by Denis Wright

Sometimes when I talk to Superscript users on the C64 or 128, I am surprised at how rarely they use the macro feature, which has got to be one of the best parts of the program. A macro is a little routine or program you can write yourself from within SS to save you time in word processing. You can force a key to do something it would not usually do. No, you don't have to know anything about programming at all to do this; if you know the basic SS commands, then you can do it, because the macro-maker in SS uses them too. All you need are a few simple instructions in how it works.

Hands on experience is best, so load up SS now. All set? Right! Let's write a few macros.

First, we've got to tell the computer that we want to write a macro. Here's how to do it.

1. Press the f1 key. You are now in command mode. Pressing any key now will execute a Superscript command.

2. Press the s key. The computer now knows that you want to do something on the SET sub-menu.

3. Press the c key. The computer now knows that you want to define a macro.
I could have used shorthand to explain this sequence to you. The shorthand is f1/s/c. When you write a macro, you use this shorthand - only shorter! If you wanted to define a key (that is, make a macro) to execute this macro-making command, it would be simple. We'll do it in a minute. Let's try something even easier first.

Now that you've pressed f1/s/c, the computer tells you, at the top of the screen, to Enter Command Key. In other words, choose the key you want to be a macro key. It could be practically any of the keys, either in lower or upper case.

4. We'll choose the letter m, so type m and press the RETURN key. A shorter way of telling you to do this would be Type m {RETURN}.

Now the computer is waiting for you to tell it what you want to do with the m key. Type these words:

It's a miracle!

up in the square where the cursor is, and hit {RETURN}.

You've done it! Created your first macro. Press the RUN/STOP key on the left side of the keyboard, just once. A firm tap, but don't leave your finger on it. By hitting RUN/-STOP, you have just told the computer that the next key you hit will execute a macro. So, hit the m key.

5. The words "It's a miracle!" ought to print themselves on the screen in front of you. Every time you hit RUN/STOP m the miracle recurs.

That's the simplest form of macro. It's unlikely that you need a key programmed to do exactly that, unless, perhaps, you are in the clergy! But if you wrote scientific papers on the platypus, you might define a key to write its Latin name (Ornithorhynchus!!) whenever you needed to refer to it.

You could reprogram your m key by following the same procedure above, i.e.,

f1/s/c m {RETURN} newword {RETURN}

(though you would have to use the DELETE or CLR/HOME key to erase the previous entry just before typing the new word.)

But the macro feature doesn't just do simple things like that, although this in itself would be quite useful. It can carry out commands as well, and not just one, but several, one after the other. That's where it really gets smart.

We could, for example, define a key to carry out certain tasks, such as to begin printing, or get a particular file from the disk drive, or even to define new macros. Take that f1/s/c command we just used to define a key. Instead of pressing those three keys to start the process, we could have one key programmed to do all three.

Let's try it. Press f1/s/c and the q key, and hit {RETURN}. Type in the following macro exactly like this:

```
/sc
```

and hit {RETURN}.

The slash (/) represents the f1 key, while the s and the c are the commands (as I said before, an even shorter shorthand than my f1/s/c.)

You have now defined the q key to write macros. Hit RUN/STOP q. It should have exactly the same effect as if you hit f1/s/c. Get out of it, if you like by hitting the RESTORE key.

You could define a lot of useful macros in this way. Commands that include the Control {CTRL} key have it represented in a macro by the up arrow (^) on your keyboard, next to the asterisk (*). For example, if you wanted to define a macro to reformat a paragraph that has lost its wordwrap, and then go to the end of the document, you could do it like this:

```
z=^z^g
```

My little formula means for you to hit f1/s/c z {RETURN} ^z^g {RETURN}

Got it? Now every time you hit RUN/STOP z, it will execute those two commands (reformat paragraph, go to end of document) automatically.

You can also make macros which carry out repetitive tasks. Try this one:

```
b=Bill Bloggs^m^&b
```

Hit RUN/STOP b and sit back. Your computer will type good old Bill Bloggs's name, until it runs out of lines, or until you hit the RESTORE key. Don't forget that one - if you define a repetitive macro, get out of it by hitting RESTORE. (Hitting RESTORE gets you out of practically anything in SS!)

What your macro did was to print "Bill Bloggs". Then, with ^m, it puts in a RETURN, and with ^&b does it all over again. The ^& sequence at the end of a macro means you are going to add it to either the same key or another macro. In other words, you could link a series of macros together with the ^& joiner, and get it to go on doing a long series of repetitive tasks. (Yes, there are times when this is useful, and not just a gimmick.)

This is all very well, but as soon as you turn off your computer, all those macros you put in disappear. Macros wouldn't be much good if you had to type them in every time you began a new word-processing session.

The good news is that you don't have to. That's what your defaults file is there for, along with defining your printer. Load up your defaults file into SS and have a look at it, if you never did before. It's going to make much more sense to you after playing with the macros we defined in this session.

More on that next time. Meanwhile, try defining a few more keys. Next time, I'll show you how you can save macros permanently, and later, how to use the macro feature to make yourself a memo desk accessory within SS.

Oh, one last point. Don't define lower case letters as anything too dangerous, because you might hit that key by accident while entering text. Let's suppose, for example, you defined a key to erase your document in memory (e=/ea^m). That could be a disaster, especially if you don't follow the first law of computing - SAVE YOUR DATA REGULARLY! In fact, I would never define ANY key in that way. If you must define a key that's likely to do some damage if pressed by mistake, then make sure you use an upper case (SHIFTed) key. You're far less likely to hit one of them accidentally.
So long for now.

-ooOoo-

HELP! COLUMN

This is the *HELP!* column for users of C-64, C-128 and other 8-Bit computers. If you would like to share your experience in the fields of programming, software, hardware etc. with your fellow members, submit your name with your area of expertise to the editor. Remember: the more names, the more knowledge can be disseminated amongst our members.

NAME	Help offered with:	PHONE NUMBER
Terry Baade	*Contact for M'borough/Hervey Bay Members*	071 215 059
Kerry De Baar	*Basic, Assembly Language*	379 5617
Cor Geels	*SuperScript, EasyScript, PaperClip, GEOS*	263 2839
Cor Geels	*C-64 Newcomers, Printers & Interfacing*	263 2839
Matthew James	*Basic, Logo, GEOS, WriteStuff, Games Tips*	300 5443
Ron Long	*SuperScript, Label Maker, Mailing Lists*	075 357 139
Ivor Laggan	*GEOS*	273 4212
Doug MacLurkin	*MicroSwift Spreadsheet, Basic*	358 4442
Peter Meharg	*Basic, Machine Language*	376 1621
Angus Norrie	*Simon's Basic*	371 2945
Vic Mobbs	*Contact for Sunshine Coast Members*	071 941 330
George Nelson	*EasyScript*	848 2456
Craig Rawlins	*Pascal, C, Machine Language, Modula-2*	379 8957
Greg Shea	*C-64 Hardware Modifications etc., Basic*	345 2799
Fred Turnidge	*Family Roots (genealogy), Write Stuff*	063 37 1124
Denis Wright	*Easy/SuperScript, CBM & Epson Printers*	067 751 793
Denis Wright	*C64 <---> Non-Commodore File Transfer*	067 751 793

Please be considerate - these are after hours numbers, so only ring our members between the hours of 6pm and 9pm during week nights. Thank you!

AMIGA MONITOR

MY IDEAL AMIGA

I have a confession to make - I don't own a computer. Currently I use my son's Amiga 500 - thank you, son! I am rather pleased that I don't own one at present, as with all those changes to fat/obese Agnusses and forthcoming changes to Denise, I am better off to wait a while longer before buying my next Amiga.

The big question is *'what to buy?'*. Based on three years of Amiga usage, I have formed some ideas of my 'ideal' Amiga, so here goes:

* - It must have 1 Meg of Chip Ram - I like 'fiddling' with graphics and to be able to handle and manipulate hi-res pictures in 16 colours the 1 Megabye of Chip Ram is a must.
* - To do everything I want to do comfortably I will need another 2 Meg of expansion Ram.
* - It must have two 3½" disk drives.
* - I would like a 40 Meg (SCSI) hard disk drive.

Currently, I can go two ways; A500 or A2000 - the problem is that I'm not happy with either solution. In the case of a 500, I end up with lots of assorted bits and pieces hanging off the computer, which is very messy. If I buy a 2000, I can stuff all the 'bits' in the main box, but I end up paying for a lot of extra slots (for MS-DOS expansion) for which I have absolutely no use.

If Commodore had any sense, they wouldn't bother with an upgraded 8 bit machine (see *8 Bits & Pieces*), but design an Amiga (1500?) which would basically be a 2000 without the MS-DOS bits. They could sell it in three configurations:
A)- a 1 Meg machine with two 3½" drives.
B)- the same, but with the extra 2 Meg of Fast RAM in place.
C)- as the previous one, but with the 40 Meg SCSI drive built in (both floppy and hard drives should be of 'superior' quality).
I will even give suggested retail prices: $1500 for the base model, $2000 for the model with the extra RAM and $3000 for the top of the range model!

Hopefully Mr. Gould will read this, sack his latest managing director and offer the job to me. After all, they can do with a bit of common sense!

AMERICA'S EFFICIENT POSTAL SERVICES

I have an ordinary (sea mail) subscription to the US magazine *Amazing Computing*. 'Normal' delivery time is about two months, but they really outdid them selves with the March '89 issue, which arrived after the April and May issues and took *five* months to get here!

1.3 AND PRINTERS

Lately I have had a lot of calls from members about printers. Apparently quite a few new members are unaware that using version 1.3 of the operating system will give much better performance when it comes to printing.

Particularly when trying to do graphics printing, you will find that the 1.3 system is on an average 5 times faster and gives better results.

So, if you have a printer and are still using the 1.2 operating system, go out and treat yourself to

the 1.3 Enhancer package (don't try to buy it from a chain store - go to a Commodore computer dealer). It's only $30.00 and well worth the money, because it includes a very good manual.

Some A500 users are under the impression that they cannot use these 1.3 disks, because they have a 1.2 Kickstart in their computer. THIS IS NOT TRUE. The 1.3 disks work perfectly well with the 1.2 Kickstart.

1.3 Kickstart is only required if you want to be able to re-boot from the Recoverable Ram Disk (RAD:); but this can only be done efficiently if you have several Megabytes of RAM. A 1.3 Kickstart is also required if you want to autoboot from a hard drive. If you don't have these goodies you may as well stick with the 1.2 Kickstart.

Editor

WHY, OH WHY?

We have just ordered our upgrade of Deluxe Paint III; this costs our Group $84.00 and can be considered a reasonable price by Australian standards.

However in the USA a new copy of DPaint III costs US$99.00 and in the UK we have seen it advertised for £55.00. Yet here in Oz it retails between $225.00 to $245.00!!!

If you want an 'original' copy and you are not prepared to pay our inflated local price, order it from the UK, as they sell the PAL version, which is not available in the USA. You should be able to land it here for about $150.00.

ABOUT PENPAL

PenPal is the new word processor which allows one to import graphics, while still using the printer's built in fonts. Enthusiastically reviewed in the May/June issue of *INFO*, several members have asked me why we don't have a copy as yet.

Well, we have tried to order it, but our suppliers tell us that the situation is similar to DPaint III, i.e. in the USA they have an NTSC version and a faulty PAL version. Apparently some importers have been selling one of these in Australia, but we would rather wait till the good PAL version is released.

SEPTEMBER MEETING

Because of time constraints we were unable to give you details of last month's Amiga meeting. To follow in next month's newsletter.

OCTOBER MAIN MEETING

Ralph De Vries will show us a few of the fascinating ways in which to use the Graphics Manipulation programs like *Butcher, Pixmate and Deluxe Photolab.*

AMIGA DISK & ACCESSORY SALES

We welcome Ken Clem, who has taken over from Bruce Wylie, as our new 'shop manager' of Amiga Disk and Accessory sales at our Bardon and Rosalie meetings.

WEDDING BELLS

Robert Googe, one of our Sound and Image Digitising Expert, has done it and got himself married on 9th of September to Donna Otto.

We wish them well for the future and (very selfish, this!) hope that Donna will still leave Robert some time to play with his Amiga.

UPGRADES

Proton have at long last released their auto-configuration module for their memory boards released prior to July '89. You have to send your memory board to Proton (cost is $95.00 plus postage and handling), and expected turn around is three working days. For more information contact Proton, 1 Pope Street, Beverley SA 5009.

WordPerfect Pacific have advised registered users that the Macquarie-based spelling checker for the Amiga version of WordPerfect is now available. Cost is $35.00 plus your original Spell/Thes disk.

MICROBEE & COMMODORE

Apparently Commodore has concluded an agreement with the financially ailing Microbee company, whereby Commodore will obtain Amiga conversion rights to Microbee educational software. Apparently this move was made to get greater Amiga acceptance in the educational area.

THAT NEW "OBESE AGNUS" CHIP

We hear that to have your A500 or A2000 upgraded with the new Obese Agnus chip which will address 1 Megabyte of chip ram (see last month's *Cursor*), will cost you about $200.00.

Contrary to the article in last month's *Cursor*, the new 1Mb Obese Agnus can be fitted to most A500's.

To do it yourself, you have to be really good with a soldering iron, as this is a very 'touchy' procedure. If you want full details on how to go about this operation, we would suggest that you purchase a copy of *MEGADISC*, issue 12, which gives full details of this tricky bit of surgery.

Prospective Amiga buyers should make certain that their new computer has this new Obese Agnus graphics chip fitted, otherwise they will find that at a later stage they will have to upgrade their computer again.

MEGADISC 12

Now available, and getting bigger and better than ever (and this has nothing to do because of a certain review by G.P. & R.D.V.!).

By using a 'squeezing' technique, they manage to get some 30 to 40% more information on this disk. This means that this latest issue is chockful of useful information.

We aren't chauvinists, but we really don't think that there's a better disk magazine around anywhere.

DIGITISED PORTRAITS

At our August workshop in Rosalie, Robert Googe brought his video camera and recorded portraits of some members of the management committee. Subsequently he digitised these portraits, and a disk with these noble profiles is now in the hands of your editor.

I will attempt to 'manipulate' these images with some of the graphics programs like *Butcher* and *Pixmate*. Hopefully the final result will appear in some form in future editions of this newsletter.

If I fail, I shall add this disk to our Public Domain Library, to give all our members the opportunity to own their personal copy of this handsome bunch. If need be, I'm sure that the 'victims' will be prepared to autograph your disk!

-ooOoo-

1.4 DEVELOPMENTS

DevCon, the Amiga Developers Conference, was held last June in San Francisco. The main topic of the conference was the forthcoming release of version 1.4 of the operating system. From a variety of sources we have been able to get some idea of what this version will have to offer - it certainly makes interesting reading!

The dreaded GURU is no more under 1.4. He will be replaced by 'System Messages', which won't crash the computer. (???)

The AREXX batch language will become part of the Amiga operating system and will work under the Shell.

A version of the ARP library, to be called the ASL LIBRARY, which contains a set of standard requesters that programmers can use easily, will be added to the Workbench.

C: Commands are all to be rewritten using the C language rather than BCPL.

AmigaDOS is being rewritten in C and assembly language. You will be able to cut and paste between console windows and will have ARexx support in the Shell.

You may be able to choose between the current form of scrolling history screen editing or between a form of PET screen editing - former Commodore 8 bit owners will feel vindicated about this superior type of screen editing which they cherished. Amiga owners who don't come from a CBM background will be in for a pleasant surprise.

The appearance of Workbench is going to be completely redesigned.

The user will be able to call up a list of files that don't have icons attached to them and can copy, rename or delete them. You can add menus to the Workbench, so that applications which you use frequently can be started by selecting their name from the menu.

New Workbench menu options will include:

New Drawer (no more copying of the Empty drawer),

Select All - which selects all icons in a drawer for deleting, copying etc.,

Quit - asks Workbench to quit and load a new Workbench.

A new Disk menu will include a *Reformat* option. The 'fuel gauge' bar will disappear, and will be replaced by a title bar with all the necessary information.

Workbench will do a better job with multi-tasking. If, for example, you save a file or use the *rename* option, you will no longer get the 'ZZ' icon, but can go on with other Workbench operations.

All these new features may seem to be merely cosmetic, but developers feel that this upgrade will do more for the Workbench than for any other part of the Amiga. Some are saying that it will give the Workbench enough power that they can actually use it properly for the very first time!

The Fast File System will work with floppies.

A disk font library is planned with bitmap scaling and outlined scalable fonts.

The Enhanced Chip Set consists of the new Obese Agnus chip #8372-R3 (already fitted to some new computers), and the new Denise chip #8373-R2a, which has not been released yet.

The new Agnus can address 1MB of chip memory, and can handle much larger blits for moving graphics etc.

The new Denise chip will allow for a new high resolution display (*on Multisync Monitors only!*) of 1280 pixels horizontally on both NTSC or PAL machines. The new Denise will also offer support for some new Genlock features.

These are some of the options mentioned, but it's quite possible that some, most or all of them won't be implemented in the final release.

In the meantime it appears that, if and when 1.4 hits the deck, we will all have to go back to school and re-learn the lot. That final release, incidentally, could still be twelve months or more away.

Some other interesting tid-bits of information from the Amiga Developers Conference:

Dave Haynie showed a prototype of the A3000. It will be based on the 68030 processor, but won't have a 'standard' 68000 chip as found in the A2500. No prices or release dates set.

Commodore US has a new President (again) - his name is Harry Copperman and his main aim is to increase Commodore's market share in the US. Appr. 30% of all Amiga sales (now over 1 million units) have been sold in America, which is about the same as the amount of Amigas sold in West Germany - this is not a very impressive US record.

It looks as if Mr. Copperman has his job cut out for him, particularly as Commodore lost money again (mainly in the American operations of the company) in their last financial quarter .

Additional staff is being hired for CATS, the Amiga Technical Support group in the US.

The American *Commodore Magazine* (published by Commodore) is going to be discontinued, but staff is being retained in Commodore's revamped education section.

Commodore and a third party (Imsatt Corp.) are working on an authoring system, which will allow a lot of non-programmers to become creative.

It uses an icon system for creation of a script to access art, sound, animations, text, speech or data bases. It interfaces with video disks, CD and CD ROM players, cassette players, genlocks etc. You end up with an editable program that works with user input.

Although primarily aimed at educational applications, the system lends itself as well to 'Hypertext-like' applications.

The next Developers Conference will take place in Paris during February 1990.

It looks as if the Amiga will reach adulthood with the release of 1.4, but Commodore has as yet not solved the major problem of the identity crisis of our favourite computer.

The marketing of the Amiga remains the weak chink in Commodore's armour - if this problem is not addressed in the near future, no amount of system development can save our 'girl friend'.

BASICS FOR LEARNERS - PART 3

by Mike Williams

This is the third article in a series which will try to explain in plain, simple English, how to use your Amiga computer to do other things than just play games.

I will assume that you have the basic system of an Amiga 500 with 512K of memory and no extra disk drives; and that you have little or no knowledge of operating the computer in the WorkBench environment.

I also hope that you have read the previous two articles (in the August and September *Cursors*) as they explain the basics of using the mouse, copying disks & programs etc. If you are a new member of the Club, back-issues of the Cursor are available for $1-50 each (which includes postage).

This month we will continue with our inspection of the WorkBench disk, and look at the different programs and commands contained in it.

Have you made a copy of your WorkBench disk yet? If not, make one NOW (see last months article) and boot up your computer with THAT copy, NOT from your original WorkBench disk.

Let's have a look at the other commands on the Workbench Menus :-

Remember:

1. To select an Icon you click once on it with the LEFT mouse button.

2. To see the menus you press and hold down the RIGHT mouse button.

WORKBENCH - "OPEN"

The first item in the WORKBENCH menu is "Open". This command is used to open a disk or drawer, or even run a program.

The fastest way to open a disk is to click on the disk icon twice, fairly quickly. But, just to be different, you could do the same thing by clicking once on the disk icon (the icon will change colour) and then selecting "Open" in the Workbench Menu.

Let's try it with your WorkBench disk. Click once on the Disk Icon, then select "Open" and release the right mouse button. The Disk Window should open showing a "Trashcan" and five pictures of "Drawers". Each of these Drawers hold files or programs (or they might contain other drawers, too).

Let's look inside the "Utilities" drawer, to see what goodies are hidden in there.

In case you haven't guessed yet, to get into a drawer, you have to open it first. So select the "Utilities" drawer, and choose the Menu item "Open".

Another window will open showing ten programs. How do I know they are programs and not drawers? Because, the pictures (Icons) don't look like drawers! Easy, isn't it!

Now we'll see whether "Open" will open (or run) a program too.

Select "Clock" and then choose the "Open" menu again.... Yes, it ran the "Clock" program, and put a Clock face on the screen.

While we have the Clock window open, lets look at the different parts of a window.

FEATURES OF WINDOWS

1. TITLE BAR ... is the horizontal bar at the top of the window. It shows the title of the program (or the drawer or disk). It is also useful to drag the window to a different place on the screen. You can do this by:-

(a) Put your red arrow on the Title bar.
(b) Press and hold down the right button.
(c) Move the red arrow to a different place on the screen.
(d) Release the right button.

2. CLOSE GADGET ... is the little square box (with a dot in the middle) at the top left hand corner of the window. If you click once with the left hand button on this gadget, the window will CLOSE down and disappear from the screen.

If you close a window, the only was you can get it back is to "Open" it again.

3. BACK/FRONT GADGETS ... are the two little boxes at the top right hand corner of the window. It is actually TWO gadgets, side by side.

The one with the BLACK square (the left hand one) is used to put THIS window into the BACKGROUND, underneath any other windows.

The one with the WHITE square (the right hand one) brings THIS window to the FRONT, on top of any other windows.

To use them, you put the arrow on either the black or the white square and click once with the LEFT hand mouse button.

Try it with the "Clock" program; click once on the black square. See how the clock window goes behind the Workbench and Utilities windows. Now click on the white square. This will bring it back on top again, so that you can see all of the clock.

4. SIZING GADGET ... is the little box at the bottom right hand corner of the window.

It is used to make the window larger or smaller, or to change the shape of the window.

To use it you put the arrow on the gadget, press and hold down the right button and drag the mouse downwards and to the right to make it bigger; or upwards and to the left to make it smaller.

Try it on the "Clock" window; but first of all move the clock to the top left hand side of the screen using the Title Bar (see 1. above).

Now you have room to make the clock any shape or size you want ... from a tall, skinny one to a large fat clock that fills the whole screen.

After you have finished playing with the clock, close it down (see 2. above) and let's have a look at the Utilities window. If you can't see all the window, use the back/-front gadgets on both the Utilities window and the Workbench window until you can.

Did you notice that there is no "Fuel Gauge" on the Utilities window? This is because a drawer can be any size at all, and be just big enough to hold everything in it. If you put more programs in a drawer, the drawer just grows larger. If you take some programs out, it gets smaller.

5. SCROLL BARS ... are the two bars, one on the right hand side, and one at the bottom of the window.

To see what they do, first use the sizing gadget to reduce the size of the "Utilities" window to about half its original size (see 4. above). You can't see all the program icons now, can you? And the scroll bars have changed ... there is now some blue sections in the white bars, instead of being all white. The white section represents that part of the window which is now showing.

If you see any blue section in these bars, it means that there is some part of the window which is now hidden.

To see it, you can use the arrows on either side of the scroll bars by:-

(a) Moving the red arrow onto the blue scroll arrow.
(b) Pressing the LEFT mouse button a number of times, until the window "scrolls" up or down or across, to where you want it. But be careful: the UP arrow will move the programs in the window DOWN and vice-versa.

The other way of scrolling (and probably the easier way) is to use the scroll bar itself by:-

(a) Moving the red arrow onto the middle of the white scroll bar.
(b) Grabbing the scroll bar by pressing and holding down the right button.
(c) Moving the arrow (and the white scroll bar) in the direction of the blue part of the scroll bar and releasing the mouse button.

WORKBENCH - "CLOSE"

The second item in the WORKBENCH menu is "Close". This command can be used to close the window of a disk or drawer.

It works exactly the same as clicking once on the "Close" gadget on the top left hand corner of the window.

To use the "Close" command, you must first tell the computer which disk or drawer to close. This is done by selecting or "Highlighting" a disk or drawer, and then choosing "Close" from the menu.

More than one window may be closed down at the one time by selecting two or more drawers or disks at the one time.

Try this now; but first get rid of your "Clock" program by clicking on the top left hand corner of the Clock window.

Now, open up another drawer window, let's say the "System" drawer, by selecting it first and then choosing the menu item "Open".

Move the windows around so that you can see the Workbench window that has the four drawer icons.

Now select the "Utilities" drawer (it will be become highlighted). If you now select the "System" drawer, the "System" drawer icon will be highlighted, BUT THE "UTILITIES" DRAWER WILL NOW NOT BE HIGHLIGHTED. You can see that each time you click on an icon, that drawer will be highlighted, but the previous drawer will become "de-selected".

You get around this little problem by using the "SHIFT" key to select more than one icon.

Try it now, as follows:-
(a) Click once on the "Utilities" drawer icon.
(b) Press and hold down the SHIFT key.

(c) Click once on the "System" drawer icon.
(d) Still holding down the SHIFT key, click once on the "Workbench 1.3" disk icon. You'll notice that both drawer icons and the disk icon are all "highlighted".
(e) Now select the WORKBENCH menu item "Close".
All drawer and disk windows will close down, leaving you with a blank screen.

WORKBENCH - "DUPLICATE"

The third item on the menu is "Duplicate" and has been covered in Part 2 of these articles where it was used to duplicate a disk.
You can also use "Duplicate" to make a copy of a program or a drawer.

Try this now, by making a copy of the "Empty" drawer as follows:-

(a) Open the Workbench 1.3 window by clicking twice on the disk icon.
(b) Select the "Empty" drawer by clicking once on its icon.
(c) Select the "Duplicate" menu item.

The computer will now copy the drawer and call it "Copy of Empty". If there were any programs or files in the drawer, it would also have copied them too, at the same time.

If you had a problem selecting "Duplicate", check the Workbench 1.3 disk. Is it write-protected (can you see through the tab hole)? If it is write-protected, then that's your problem. The computer can't make a copy of a drawer if you stop it from writing to the disk, now can it! So it tells you that some thing's wrong, by not allowing you to choose the "Duplicate" command. Pretty smart Computer, hey. Try getting an IBM machine to be that "User Friendly".

Well, that's all for this month. I hope you're getting as much out of reading them as I'm getting out of writing them. Let me know if you are (or even if you're not). See you next month ... Mike

-ooOoo-

ANSWERS TO OUR "DIVERSION" ON PAGE 15

52 W in the Y	= 52 Weeks in the Year
26 L in the A	= 26 Letters in the Alphabet
7 W of the W	= 7 Wonders of the World
1001 A N	= 1001 Arabian Nights
12 S of the Z	= 12 Signs of the Zodiac
54 C in a P (with J's)	= 54 Cards in a Pack with Jokers
9 P in the S S	= 9 Planets in the Solar System
88 PK	= 88 Piano Keys
13 S on the A F	= 13 Stripes on the American Flag
32 D F at which W F	= 32 Degrees Fahenheit at which Water Freezes
18 H on a G C	= 18 Holes on a Golf Course
90 D in a R A	= 90 Degrees in a Right Angle
200 D for P G in M	= 200 Dollars for Passing Go in Monopoly
76 T in the B P	= 76 Trombones in the Big Parade
4&20 BBB in a P	= 4 & 20 Black Birds Baked in a Pie
6 W of H the E	= 6 Wives of Henry the Eight
16 P on this P	= 16 Puzzles on this Page (correct - the first was solved)

Alan J Hill

MOVIESETTER V1.OP

reviewed by Steve Hovelroud

MovieSetter (MS) is described in its manual as a WYSIWYG Animation and Video Program - this is not far from the truth. I have been using this program for about a month now and although I have not yet explored all the possible avenues of animation I have used most of them. When you buy this program you get a Program disk and a Clip Art disk. The manual suggests you make a backup of both disks as the copy protection is of the PAGE 2, LINE 5, WORD 6 variety. The clip art disk contains various graphics for use in the MS program itself. The program consists of three parts, MovieSetter itself, the Set Editor, and a combined MovieSetter/Set Editor which can be used by people with more than 512K of ram. If you were to make your own movie from scratch you would start with the Set Editor first.

SET EDITOR.

This is where you make your animated brushes to be used in the MovieSetter Program. An animated brush (or SET as it is called in MovieSetter) is basically a series of flipped IFF brushes (or FACES as they are called in MovieSetter) made either by using the Set Editor entirely or by using DPaint, etc. to draw each brush then importing the brush into the Set Editor. The Set Editor is like a mini paint program with the ability to page flip. You can draw lines, freehand, circles, boxes, magnify, fill, rotate, undo, clear, zoom, flip brush, airbrush and use different size brushes. To the left of this screen is the animation menu with commands such as: Go to beginning of SET, Go to end of SET, Previous FACE, Next FACE, CUT, PASTE, INSERT FACE, DELETE FACE, Preview SET Forwards, Preview SET backwards. These last two options will animate your brush in real time either forwards or in reverse. There is also an option for grabbing a piece of an IFF picture to use as a brush. The entire MovieSetter program is usually run with 32 colours although less can be used. A palette must be chosen initially and all your brushes should use this palette (including your backgrounds to be used). Now, once you have saved your SET you can create more SETs or go on to the next step.

BACKGROUNDS.

Many backgrounds may be used through out the movie and a background may be blanked to leave only a blank colour 0 screen. The background picture should be a LO-RES, NON-INTERLACE, PAL, OVERSCAN, IFF picture using the same palette and number of colours as your sets. This palette can be changed during the movie but all the SETS palettes will now be wrong, so you either stick with the same palette or make new SETS with the new palette to be used after a palette change.

SOUNDS.

Sounds are all digitised IFF sounds; once digitised put them on disk to be used later. Ideally they should be small in size, around the 5k mark. In the MovieSetter program you can specify the play back speed and channel.

These are all the basic pieces you need to make your own movie as the program MovieSetter itself really only assembles these pieces into your final masterpiece.

MOVIESETTER.

All the hard work has been done and now it is time to assemble your pieces together. All of your pieces are loaded from disk and stored in ram, from there they are used by the program. Every time you want a new piece you are presented with a file requester showing you the files in ram and giving you the option to load another from disk. In the case of Backgrounds and Sets your are shown a shrunken picture of the currently selected piece.

STEP 1. Load in your background (if you want one). You are then asked for the type of wipe, usually you select none for the first background. Your background is now displayed on screen.

STEP 2. Load in a Set, the first face of the selected set appears under your mouse pointer. The options here are to either draw freehand or to use a guide. In freehand, every time you click the left mouse button, the current face will be drawn where the pointer is and the next face will appear under the pointer; you are free to draw wherever you like. There is a HISTORY option which will show you the previous faces of your sequence (you specify the number of faces) to enable you to see the previous motion path you have drawn. If you use a guide, a requester will come up giving you options for either vertical or horizontal movement, or whether you want to use a linear or elliptical guide. Simply click and drag a line in the direction you want the Set to go then set the speed and acceleration of the Set. Another two options are now given:

1 - Manual. The guide is shown and it is up to you to click a face in each position.
2- Automatic. Set's faces are drawn automatically in each position.

This sounds the same but when drawing a Set in manual mode you can stop it from cycling to the next face and freeze the same face for a while or you can even make the Set cycle backwards; this can't be done in automatic mode. Every time you stamp a face a different frame in your movie is created and each frame has a number and a time position in the movie which is displayed in a box along with VCR style controls allowing you to view your movie forwards or backwards one step at a time or at full speed. This moving Set which now has a starting frame and position is called a TRACK. Tracks are individual self contained animations with all their details including speed, direction, starting frame and depth. Now that you have created a track you can move an entire track in the X or Y direction, you can copy an entire track or you can delete an entire track.

STEP 3. Create as many tracks as you want using any set you like. A track of a plane moving across the screen can be copied with no effort changing each tracks X & Y position giving you a whole squadron of planes flying across the screen. Each track once it is completed will stay on the screen from now on allowing you to see every thing as it will appear in the final movie. If you want to add more movement onto the end of the track just click on the select gadget,click on the track you want (it will become highlighted) and add away. The program will remember what Face to start using. You can load in any background at any frame. Loading in a new background gives you a choice of wipes to display the new background, you can blank a background, you can scroll a background in either X or Y direction (not both at once) at any speed.

STEP 4. Once you have created your tracks you can then step through the frames so that you can add sound. Adding sound is a simple matter of finding the frame you want a sound to start, load in the sound, play the sound. Adding sound to a frame brings up a window with controls in it, allowing you to change the sound over 3 octaves, specify left or right channel, both channels, pan from either side to the other and volume control. Clicking the event button makes that sound start in that frame and continue on during the following frames until the sample finishes or another sound takes over that channel. The sound control window stays up until you close it so you can step on any number of frames and create the same sound event to simulate a repetitious sound, (such as footsteps).

STEP 5. View your movie, fine-tune it, add bits here and there, save your movie. A freely distributable MoviePlayer program comes on the main disk so you can give your movie to anyone.

There are many menu items available to ease editing your movie; a Story Board which will bring up miniature screens of you movie showing you key story changes such as frame starts, background changes, scrolling changes, sound starts. Simply click in the desired picture and you are transported to that frame. REPEAT, will repeat a sequence of frames for a specified period. Insert frames before or after other frames. There are even colour cycling events that can be added. Keyboard shortcuts enable quicker editing as well as giving you a much greater control over certain functions.

Conclusions: The best thing about the program is its user interface; everything you do is quick and painless, the Amiga's window environment is used to full advantage to create an easy to use but complex animation creating program. I have skipped over many details and functions of other options as there are to many to mention and only with months of use will the full potential of this program be realised. Making a simple animation is easy, making a great animation will require time and patience and a lot of initial work in creating Sets. With a library of Sets you can create many different movies all with the same characters. Another great advantage of this program is the way that it stores animation. By not storing animation frame by frame but by storing it as individual tracks, movies of over 1000 frames may be created on a 1 meg machine. Once a Set, Sound or Background is in ram they may be used a multitude of times as only their positional information is needed to reconstruct a frame. To draw a frame, the background is drawn on a back screen and then each track's face is drawn until all the track's faces have been layered onto the background. This back screen is then flipped to the front along with any sound events that should happen. This layering of track's faces can be changed so that any object can appear in front. The only real problem is, when there are lots of tracks occurring at once or with large faces, these will tend to slow MovieSetter down, as each frame has to be set up in memory before it is displayed. The overall timing of the movie can be changed by 1/60 sec and it is advisable to slow the movie down to where frame speed does not change during the complex parts. Timing may also be speeded up by limiting the number of colours displayed. Full speed of 60 frames per second is usually only achieved in 2 colour mode.

A word of warning! When viewing your movie backwards strange things happen because events like scrolling forward which should be going backwards won't scroll at all, because the scrolling event hasn't happened yet!!! This is when the dreaded GURU is likely to appear; otherwise I haven't struck any bugs. There is extra information on the program disk to help 512K users, as well as information about PAL screens and limiting the amount of colours to enable quicker playback speeds. Regrettably backgrounds on the Clip Art disk are only NTSC size.

Specifications:

Program:	MovieSetter V1.0P
Producer:	Gold Disk
Price:	$79 (local discount), RRP $150
Minimum System:	1.2 OS, 1 Drive, 512K (1 Meg rec.)

Features:

Stereo digitised sound.
Up to 32 colours on screen.
Full control over palette.
Full control over colour cycles.
Number of tracks only limited by available ram.
Tracks may be added with a single click of the mouse.
Timing is adjustable anywhere in the movie.
Frames can be looped.
Completed tracks can be moved in any direction.
Overscan (Limited)
Background wipes.
Cut and paste tracks.

-ooOoo-

HELP! COLUMN

This is the *HELP!* column for users of Amiga computers. If you would like to share your experience in the fields of programming, software, hardware etc. with your fellow members, submit your name with your area of expertise to the editor. Remember: the more names, the more knowledge can be disseminated amongst our members.

Name	Help offered with:	Phone Number
Dave Apelt	*Vector Graphics*	366 4761
Ellen Appleby	*Using Amigas in Education*	369 4629
Bob Devries	*OS9 Operating System*	372 7816
Ralph De Vries	*Dot Matrix printers - WordPerfect*	300 3477
Robert Googe	*Video & Audio Digitising*	288 8863
Steve Hovelroud	*Audio Digitising*	298 5128
Gary Lloyd	*C Programming (Beginners)*	269 7818
Brendan Pratt	*Modems, Telecommunications, Sidecar*	(075) 463 317
Grant Robinson	*AmigaBasic*	359 4315
Michael Thomas	*Forth, Prolog, C, and Modula-2 Programming*	800 4511
John Van Staveren	*Easy Ledgers Accounting Program*	372 3651
Mike Williams	*AmigaBasic (Beginners), Sound*	209 9084

Please be considerate - these are after hours numbers, so only ring our members between the hours of 6pm and 9pm during week nights. Thank you!

STATE OF THE ART

AN EDUCATIONAL PACKAGE FOR THE AMIGA

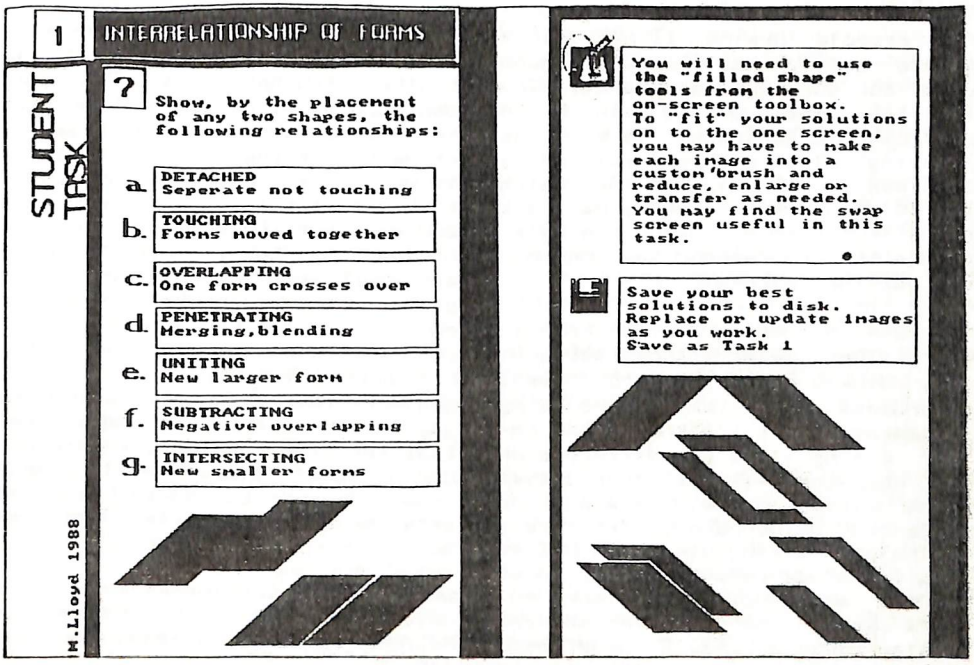
by Ellen Appleby

Deluxe Paint II has excited Art Educators as a versatile, open-ended art medium and teaching tool. Margaret Lloyd, a high school Art Teacher has developed a package based on DPaint II for high school students and art teachers called "State of The Art".

State of the Art is a resource for teachers. It shows how DPaint II can be used as an Instruction Medium, a drawing/painting/graphic arts medium and as an analytical tool for the student and teacher of the visual arts.

The kit consists of:

* a video, which shows how computers are being used by teachers and students in Art Education.



* a booklet covering the educational rationale for using com puters in art, other considerations (e.g. copyright in digitising) and teacher notes on computers as teaching and art tools and their use in wider electronic learning.

* student worksheet masters. The sheets take the students through art exercises using DPaint II.

* a disc containing drawn and digitised images that can be used in analytical exercises and explorations or as demonstration material for the teacher.

I have seen Marg Lloyd present the package using images on the disc as an introduction to the Use of Computers in Art Education. There is a good selection of useful images on the disc that can be used to illustrate many art concepts.

For example DPaint II can demonstrate easily how images are made up of contour lines or planes. The digitised image of the "Violin and Jug" by George Braque is a cubist painting. The planar forms can be outlined in a bright colour using the polygon tool. Then by making a stencil of this colour the background can be removed leaving only the outlined planes.

The use of the gradation tool in the colour palette shows students very quickly how shades are formed, a process that takes hours using pigmented paints. Although the colour mixing laws are different on the computer (it is an additive light mixing process whereas the pigmented paint are subtractive), the colour mixing window in DPaint II gives students an indication of how the amount of the primary colours vary in the different shades. It also gives an easy to understand analysis of hue, saturation and value.

The booklet and images in the package cover *point, line, plane, tone, colour, symbols in graphic design.*

For a teacher with little experience in using computers in Art Education this package gives a good cross section of ideas and starting points. I would hope that individual teachers would adapt the package to suit their needs, adding sheets and images to cover the material they were teaching.

The main plus for this package is that it has been produced by a teacher with the needs of her students in mind. It has been successfully tried and tested with year 11 students. If there is a criticism it would be that the package is very specific in what it addresses and does not indicate the potential of the computer in other areas of art education. The package does not pretend to be comprehensive and can only scrape the surface of what is possible using the computer as an art tool. I think it is a useful addition to a classroom using Amigas in their Art Program and hope that the effort Marg put into producing the package will inspire other teachers to add to the available teaching material using the Amiga.

State of the Art package is available from Centre 2000, 671 Samford Road, Mitchelton, Q 4055. for about $30.

-ooOoo-

EXPLANATION OF A SORT

by Reuben Phillips

The Quicksort was invented in 1962 by C.A.R Hoare, since then it's become very widely used by some and very widely avoided by the rest - the main reason being its use of recursion. Recursion is a subtle but powerful concept that involves a function calling itself. Sort of like (but not quite) defining an apple as something that looks like an apple or perhaps writing a C compiler in C. Recursion lends itself to use in problems that can be decomposed into smaller problems, the smaller problems being similar to the original. The use of recursion can simplify the solution of these problems greatly, for instance the Towers of Hanoi problem, a recursive solution for which can be expressed very simply indeed, an equivalent solution using more conventional methods is crude in comparison. Some caution is advised though, recursive algorithms can take a fair bit of overhead to run and debugging them is not a job for the faint hearted.

The Quicksort has many other advantages, not the least being its speed in comparison with it's rivals. Take for example the Bubblesort vs. Quicksort (not the fairest of comparisons, the Bubblesort is the computer equivalent of a blind postman with one leg), in sorting a list of 10 items there isn't much difference in sorting times, however when the list is increased to 50 or 100 items the time taken by the Bubblesort blows out exponentially (proportional to the number of items squared, that is, double the items - quadruple the time) whereas the time taken by the Quicksort increases only linearly (twice the items - twice the time). Attempting to sort a very large list with a Bubblesort might conceivably take hours.

Given a list and told to do it's thing, Quicksort will split the list into two roughly equal sized lists with the criteria that the values in the first list are smaller or equal to those in the second. This is where the recursion comes in (assuming that the condition isn't met, ie. second list smaller). The two new lists are treated likewise, and so on until the lists being sorted either conform to the conditions stated above or consist only of pairs of numbers (which can be sorted easily). Quicksort then retraces its steps back up and out of the heirarchical mess.

Suppose we want to sort the following list

3 7 5 1 6 4 8 6 2

we arbitrarily pick the 6 as the split variable, the job is now to rearrange the list so that those numbers larger than the split variable (6) are moved to the right of the split, and those smaller are moved to the left. To get this arrangement we search from the left of the list (3) for a number greater than 6

3 is smaller than 6
7 is larger than 6 (O.K. hang on to the 7)

we now search from the right for a number smaller than 6

2 is smaller (hang on to this too)

we now have a pair of values (7 and 2) that aren't in ascending order, so swap them and then continue as before (from the left, skipping the first two)

5 < 6
1 < 6
6 is equal to 6

continuing the search from the right from the second last value

6 is equal to 6 (this is the second six)

swap the two sixes then continue the left/right searching after skipping those already checked

4 < 6
8 > 6

and from the right

8 > 6
4 < 6

the two searches overlap so no swap is made, we now have two lists, those in the first all less or equal to the second.

3 2 5 1 6 4 < 8 6 7

both lists are now Quicksorted independently (ie. Quicksort is called again - recursion)

Lastly a few points about the three implementations of Quicksort below. Both Pascal and C are well suited to programming recursive algorithms, BASIC however was never designed to accomodate recursive algorithms - for what it's worth the C64 BASIC version has been included. I think it would also run under AmigaBasic with little modifiation - work through the program and replace all the line numbers in GOTOs and GOSUBs with labels, putting those labels in front of the lines referred to, then remove all the other line numbers.

The comments (REM basic,(*Pascal*),/* C */) needn't be typed in.

If you think about it, you'll see that using an expression like A=B B=A to swap the values of A and B won't work, you'll lose the A value, rather you'll see that all three programs use a cute trick called buffering, viz: TEMP=A,A=B,B=TEMP

The Basic version uses two unusual devices, namely the S%(X) array and the ON GOTO construct: the % means that S%(X) is an array of integers, ON

X GOTO 15,20,25 means GOTO line 15 if X equals 1, line 20 if X equals 2 and so on.

An interesting point, the Pascal version is probably the most readable, followed by the C and lastly the BASIC which is pretty mind-scrambling, however, the C will compile and execute easily the fastest, followed by Pascal and lastly the interpreted BASIC.

```
PROGRAM QuickSort (input,output); (*PASCAL*)
CONST
 ListLimit = 10;
TYPE
 DataType = integer;
 List = ARRAY[1..ListLimit] OF DataType;
VAR
 Item      :List;              (*list of items to be sorted*)     Temp
:DataType;          (*temporary item read*)
 NumItems,i:integer;           (*no. of items & index*)
PROCEDURE Split (VAR X:List; Low,High:integer; VAR Mid:integer);
 (*properly position one item*)
VAR
 Left,Right:integer;           (*search indices*)                  Temp-
Item  :DataType;          (*temporary item for swaps*)
BEGIN (*Split*)
 Left := Low;                  (*initialize indices for*)         Right:=
High;                (* left & right searches*)
 (*continue searches until they meet*)
 WHILE Left < Right DO
      BEGIN
           WHILE X[Right] > X[Low] DO (*right search*)
            Right := Right - 1;
         WHILE (Left < Right) AND (X[Left] <= X[Low] DO
            Left := Left + 1      (*left search*)
         IF Left < Right THEN
            BEGIN          (*swap if searches don't meet*)
               TempItem := X[Left];
               X[Left] := X[Right];
               X[Right] := TempItem;
            END (*IF*)
         END (*WHILE*);
 (*end of search so place item in proper position*)
 Mid := Right;
 TempItem := X[mid];
 X[Mid] := X[Low];
 X[Low] := TempItem;
END (*Split*);

PROCEDURE Sort (VAR X:List; Low,High:integer);
 (*Sort X[Low],...,X[High]*)
      VAR
      Mid  : integer; (*final position of selected item*)
 BEGIN (*Sort*)
      IF Low < High THEN       (*list is > one item*)
```

```
          BEGIN
               Split (X,Low,High,Mid);  (*Split into two *)
Sort (X,Low,Mid-1); (*sort 1st sublist*)
               Sort (X,Mid+1,High);(*sort 2nd sublist*)
          END (*IF*)
 END (*Sort*);
 BEGIN (*main program*)
      NumItems := 0;
      writeln ('enter nos., -9999 to end');
      read (Temp);
      WHILE (Temp<>-9999) AND (NumItems < ListLimit) DO
          BEGIN
               NumItems := NumItems + 1;
               Item[NumItems] := Temp;
               readln (Temp)
          END;
      Sort (Item,1,NumItems);
      writeln ('ta da');
      for i := 1 to NumItems DO
          writeln (Item[i])
 END (*main prog*).
```

```
void partition (array,split,lower,upper,new_l,new_u) /* C */
   int *array ;        /*  array of integers to be grouped */
   register int split ;   /*  split value                    */
   int upper , lower ;    /*  array index limits             */
   int *new_u , *new_l ;  /*  new array limits               */
{
   register int i = lower , j = upper , temp ;
   do {
       while ( array [i] < split )  i++ ;
       while ( split < array [j] )  j-- ;
       if ( j >= i ) {
          temp = array [i] ;
          array [i] = array [j] ;
          array [j] = temp ;
          i++ ;  j++ ;
       }
    } while ( i < j ) ;
    *new_l = j ;
    *new_u = i ;
}
void quicksort ( array , upper , lower )
   int *array ;                    /*   array of integers  */
   int upper , lower ;             /*  array index limits  */
{
   int  split , new_up , new_low , temp , i ;
   if ( upper - lower > 1 ) {    /*  at least three elements */
      split = array[(upper+lower)/2] ;
      partition (array, split, lower, upper, &new_low, &new_up) ;
      quicksort ( array , upper , new_up ) ;
      quicksort ( array , new_low , lower ) ;
   } else                          /*  do nothing for one  */
```

```
      if ( upper - lower == 1 )      /*  two elements        */
         if ( array[upper] < array[lower] ) {
            temp = array[upper] ;
            array[upper] = array[lower] ;
            array[lower] = temp ;
         }
}
int bigg[10] = { 207, 14, 102, 195, 75, 200, 140, 4, 109, 43 } ;
main ()
{
   int i ;
   for ( i = 0 ; i < 10 ; i++ )
       printf("%6d" , bigg[i]) ;
   printf ("\n" )
   quicksort ( bigg , 9 , 0 ) ;
      for ( i = 0 ; i < 10 ; i++ )
       printf("%6d" , bigg[i]) ;
   printf ( "\n" ) ;
}
```

```
0 REM BASIC
100 FOR I = 1 TO 10:READ D:N1 = N1 + 1:BIGG(I)=D:PRINT BIGG(I):NEXT
105 DATA 207, 14, 102, 195, 75, 200, 140, 4, 109, 43
110 GOSUB 130
115 FOR I = 1 TO 10:PRINT BIGG(I):NEXT
118 END
120 REM                              QUICKSORT
130 IF S=1 THEN 150
140 DIM S%(N1):S = 1:REM                    DECLARE STACK
150 AA = 1:BB = N1:S%(0) = 1:PP = 1
160 X = AA:Y = BB:Z = BIGG(BB):REM          SPLIT
170 IF X >= Y THEN 210
180 IF BIGG(X) <= Z THEN X = X + 1:GOTO 170
190 IF BIGG(Y) >= Z THEN Y = Y - 1:GOTO 170
200 TEMP = BIGG(Y):BIGG(Y) = BIGG(X):BIGG(X) = TEMP:GOTO 170
210 BIGG(BB) = BIGG(X):BIGG(X) = Z
220 IF X - AA <= 1 THEN 260:REM             SORT
230 S%(PP) = X:S%(PP + 1) = BB:S%(PP + 2) = 2:PP = PP + 3
240 BB = X - 1:GOTO 160
250 PP = PP - 3:X = S%(PP):BB = S%(PP + 1)
260 IF BB - X <= 1 THEN 290
270 S%(PP) = 3:PP = PP + 1:AA = X + 1:GOTO 160
280 PP = PP - 1
290 ON S%(PP - 1) GOTO 300,250,280
300 RETURN
```

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Fish Disk 229

AlarmingClock - A simple alarm clock program with a very alarming "ring", particularly if you hook it up to your stereo and turn up the volume. Includes source. Author: Brian Neal

DrawMap - A program for drawing representations of the Earth's surface. Can generate flat maps, mercator maps, a globe view, or an orbital view. Includes source. Author: Bryan Brown

Emporos - You are living on the island of Emporos, where several countries exist. Your goal is to make one of these countries your own. There is only one way to do this, and you have to find it out. Binary only. Author: Roland Richter

esuoM - A little screen hack that causes the mouse pointer to move in the opposite direction of the mouse Incl. source. Author: R. Eisenhuth

LeftyMouse - Swaps the functions of the left and right mouse buttons so that Lefties can use the mouse with their left hands. Includes source. Author: Rob Eisenhuth

Shuffle - A basic screen shuffler. Re-defines the key combination Left-Amiga-M to push the FRONT screen to the back, instead of pushing the Workbench screen to the back. Includes source. Author: Rob Eisenhuth

Sim - A simulator for register-transfer nets, which are used to describe hardware systems. This version also provides a compiler to define new devices in addition to Sim's internal devices. Version 4.0, binary only. Author: Gotz Muller

Fish Disk 230

AskTask - Allows you to examine various bits of the task structures of all tasks in the system, from the lists attached to ExecBase. Displays priority, state, flags, stack, signals, etc. You can also remove tasks, change the priority of a task, or send arbitrary signals to a task. Version 2/4/89, includes source. Author: J. Bickers

Fedup - A random access, byte oriented file-editor that gives you the option of viewing and editing any file (binary or ASCII) using either ASCII or hexadecimal notation. Version 2.1, binary only. Author: Martin Lindemann

FileIt - A simple database program, written in DRACO. It is meant to be portable, thus it does not use any of Intuition's facilities. Version 1.0, includes source. Author: John Davis

NComm - A communications program based on Comm version 1.34, by DJ James, with lots of very nice enhancements. This is version 1.8, binary only. Author: DJ James, Daniel Bloch, Torkel Lodberg, etc.

PrivHndlr - A privilege violation handler for the 68010 cpu. Like Decigel, but survives a reboot so you can use it with copy protected programs that run from boot. Version 3, includes source in assembly code. Author: John Veldthuis

Quattro - Another Tetris like program. Has three levels of play difficulty, sound effects, a 43--color background, next stone preview, and joystick or numberpad control. Version 1.0, binary only, source available from author. Author: Karl-Erik Jenss

Fish Disk 231

Diff - Yet another diff program. This one implements the algorithm from Communications of the ACM, April 78. It produces output which might be considered to be a little more user friendly than the standard Unix style diff programs. Includes source. Author: Donald C. Lindsay

File - A program that recognizes various types of files and prints what that type is. Recognizes font files, icon files, executable files, standard object files, compressed files, command scripts, C source, directories, iff files, LaTeX source, modula II source, arc files, shell commands and scripts, TeX source, dvi files, uuencoded files, yacc files, zoo archives, etc. Version 1.0, includes source. Author: Edwin Hoogerbeets

NoClick2 - A program which silences the clicking of empty drives on the B2000 under AmigaDOS 1.3. It should also work on an A500. Binary only, source available from author. Author: Norman Iscove

Plot - A package for making 2D and 3D plots conveniently. AG Baxter wrote the intuition interface program (Plot) and Tim Mooney wrote the MultiPlot and ThreeDPlot programs, which are called from Plot. This is version 1.2 and includes source to Plot. Author: AG Baxter, Tim Mooney

Sed - This is the GNU sed (stream editor) program, ported to the Amiga. Sed copies the named files, or the standard input, to its standard output, while performing certain editing operations specified in the command line script or in a scriptfile. Version 1.02, includes source. Author: Unknown, ported to Amiga by Edwin Hoogerbeets

Fish Disk 232

BallyIII - Amiga port of the former arcade game named Click. This version fixes some minor bugs and is faster than the previous versions. This is version III, an update to the version released on disk 221. Binary only, shareware. Author: Oliver Wagner

Dbug - Machine independent macro based C debugging package. Provides function trace, selective printing of internal state information, and more. This is an update to the version released on disk 102, and now includes a machine independent stack use accounting mechanism. Includes source. Author: Fred Fish; profiling support by B.Banerjee

ReSourceDemo - A demo version of ReSource, an interactive disassembler for the Amiga. This is a complete version except that the save features have been disabled. This is version 3.06, an update to version 0.36 from disk 192. Binary only. Author: Glen McDiarmid

Fish Disk 233

Brik - A general purpose program that calculates both text and binary cyclic redundancy codes (CRCs). Text mode CRCs calculated by brik are portable across systems for files that are in the usual text format on each system. Binary mode CRCs are portable for files that are moved from system to system without any change. Brik can be used to verify and update an embedded checksum header in files. It runs under MS-DOS, UNIX system V, BSD UNIX, VAX/VMS, and AmigaDOS. This is version 2.0 and includes source. Author: Rahul Dhesi

CacheCard - An accessory to SetCPU for use with A2620 cards or 68030 systems. It modifies the MMU table set up by SetCPU to selectively

control caching for each expansion card. It's also an example of how an accessory program can track down and modify the SetCPU MMU table without having to read all kinds of MMU registers and figure it out for yourself. Version 1.00, includes source. Author: Dave Haynie

CrcLists - Complete CRC check files for disks 001-231 using the brik program also on this disk. These were made directly from my master disks. I have switched to brik, from the crc program used to make the lists on disks 133, 146, and 173, because it has more features and because source is available. Author: Fred Fish

Fish Disk 234

KwikBackUp - A harddisk backup program that writes data track by track onto multiple floppy disks. Uses the archive bit, saves and restores comments and protection flags, and skips over bad spots during restore. Version 1.0, includes source in Modula-II. Author: Fridtjof Siebert

MuchMore - Another program like "more", "less", "pg", etc. This one uses its own screen to show the text using a slow scroll. Includes built-in help, commands to search for text, and commands to print the text. Works with PAL or NTSC, in normal or overscan modes. Supports 4 color text in bold, italic, underlined, or inverse fonts. Version 1.8, includes source in Modula-II and assembly code. Author: Fridtjof Siebert

NetWork - Another program in the long tradition of "screen hacks" for the Amiga. Won't spoil the surprise by saying what it does. Version 1.0, includes source in Modula-II. Author: Fridtjof Siebert

PrintIt - A program to print IFF pictures on Epson compatible 9-pin printers. Prints in many resolutions, with many ways to convert color pics to black and white. Version 1.0, includes source in Modula-II. Author: Fridtjof Siebert

WBPic - Replaces Workbench's color 0 with an IFF hires non- interlaced picture, in 2 or 4 colors. Version 1.0, includes source in Modula-II. Author: Fridtjof Siebert

XHair - Replaces the mouse pointer with a screen wide crosshair, which is useful for positioning things vertically or horizontally. Version 1.0, includes source in Modula-II. Author: Fridtjof Siebert

Fish Disk 235

CalcKey - A basic four function, memory resident, pop-up calculator which uses only about 24K of memory and can automatically type the answer to any calculation into the program you were using when it was popped up. Version 1.0, binary only, shareware. Author: Craig Fisher

Ct - An Amiga program to display images from a CT scanner, along with several new interesting sample images of scans of real people. The display software, though it has a primitive user interface, is quite powerful, including functions like convolutions, averaging, laplacians, unsharp masking, edge detection, gradients, etc. This is version 2.2, an update to the version on disk 137. Binary only. Additional image disks available from author. Author: Jonathan Harman

MirrorWars - A new game featuring sound, title music, and two player mode. You fight your opponent via laser rays, but beware of the mirrors reflecting your shots. Binary only. Author: Oliver Wagner

Fish Disk 236

AmigaBench - Optimized Amiga assembly versions of the Dhrystone benchmark. Includes 68000 and 68020 versions. Author: Al Aburto

DiskHandler - A sample implementation of a file system that reads and writes 1.2 format diskettes. Includes source. Author: Software Distillery

Heart3D - A program to find left ventricle outlines in the output of an Imatron CT scanner, and display wireframe animations of the beating heart. Includes several sample CT scan outputs. Binary only. Author: Jonathan Harman

Ls - Version 3.1 of the popular UNIX style directory lister. This is an update to version 2.0 from disk 178, and includes some bug fixes, support for multiple wildcard pathnames, quicker sorting, a best-fit output, new output width and height options, and some other new features. Includes source. Author: Justin V. McCormick.

Proc - Example program of how to create a full-fledged DOS process without needing to call LoadSeg first. Based on an idea presented at BADGE. Includes source. Author: Leo Schwab

XprZmodem - An Amiga shared library which provides ZModem file transfer capability to any XPR-compatible communications program. Version 1.0, includes source. Author: Rick Huebner.

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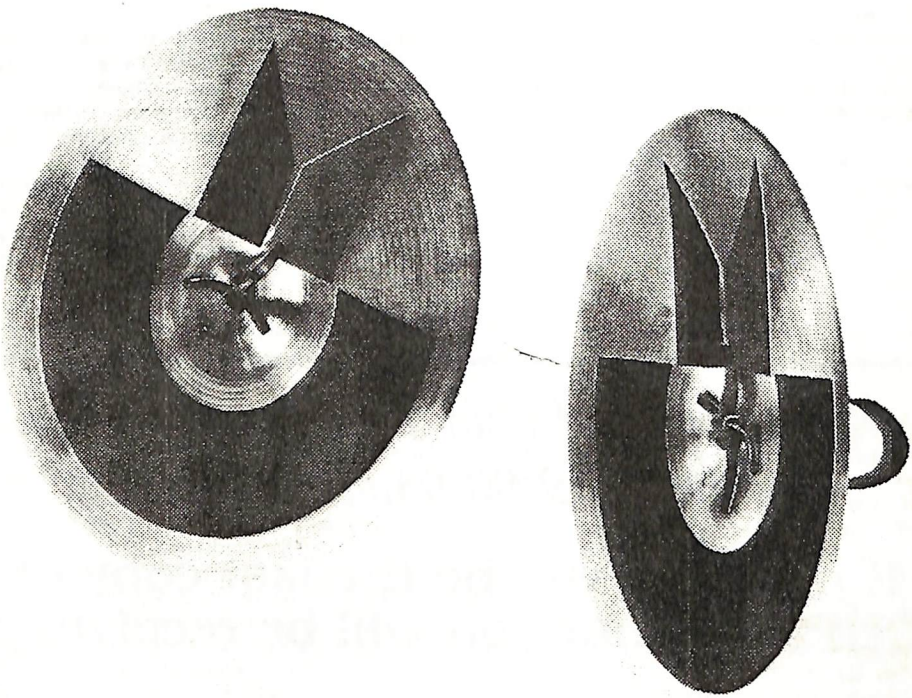

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