

"Possible" rendered with RayDance

RayDance.....	2
Benefits of Membership.....	5
Further Forth.....	6
Fuzzy Mice.....	9

A.U.G. News

<i>Music SIG</i>	11
<i>NWAUG</i>	11
<i>The Fred Fish Disk Collection</i>	12
<i>Calendar</i>	16
<i>Art SIG?</i>	16

AMIGA USERS GROUP INC.

P.O. Box 684E Melbourne 3001, Victoria Australia.

Who Are WE?

The Amiga Users Group is a not-for-profit association of people interested in the Amiga computer and related topics. We DO NOT condone software piracy. We can be reached via an answering machine at: **527 1995**

Membership

Membership of the Amiga Users Group is available for an annual fee of \$30. Membership forms are available from AUG and in this Journal. Send completed form with a cheque or money order for \$30 to the address above.

Disk and Book Library

AUG has an extensive collection of Amiga Related Books, Magazines and Tapes. Disks from our Public Domain library are available for \$2 each on your own disks or for \$4 each on AUG supplied disks, which includes postage. Details of latest releases are printed in this Journal and a catalog disk is available.

Member's Discounts

AUG negotiates discounts for its members on hardware, software and books. Currently, Technical Books in Swanston Street in the city offer AUG members 10% discount on computer related books, as does McGills in Elizabeth Street. Kev's Computer Shops in Coburg and Prahran offer 10% off RR items. MVB Croydon and Computer Magic Moonee Ponds offer good deals while Maxwells of Abbotsford offer 10% off all software.

The Bulletin Boards

The AUG operates Bulletin Boards devoted to the Amiga. They can be accessed 24 hours a day on the numbers listed below: Parameters should be set to 8 data bits, 1 stop bit and no parity.

AmigaLink-I = 792-3918

Ratz = 553-0305

Amiga Central

Line 1 (2400/9600) = 376-3887

Line 2 (2400/9600) = 376-7375

Line 3 (300/1200/2400) = 376-6385

CLUB EVENTS

For details of club events and meeting dates, check inside the back cover and the A.U.G. calendar on page 16.

An entry fee is charged by the groups to cover the cost of hall rental and light refreshments. Meeting times and directions are listed in the rear of the Journal.

Back Issues of Workbench

All back issues of Amiga Workbench are now available, for \$2 each including postage. Back issues are also available at meetings.

Workbench Contributions

Articles, papers, letters, drawings, cartoons and comments are actively sought for publication. Contributions may be sent in on disk, paper or uploaded to Amiga Central in the area set aside for this purpose. Please send your contribution in text-only, non-formatted if they are on file and remember to include your address for return of disks. Deadline for articles is the first week of the month preceding Publication. Contributions can be sent to: The Editor, AUG, PO Box 684E, Melbourne 3001.

Copyright and Reprint Privileges

Amiga Workbench is copyright 1991 by the Amiga Users Group Inc. Articles herein that are copyrighted by individual authors or otherwise explicitly marked as having restricted reproduction rights may not be reprinted or copied without written permission from the Amiga Users Group or the authors. All other articles may be reprinted for any non-commercial purpose if accompanied by a credit line including the original author's name and the words "Reprinted from Amiga Workbench, Journal of the Amiga Users Group, PO Box 684E, Melbourne 3001".

Advertising

The Amiga Users Group accepts commercial advertising in Amiga Workbench subject to available space. Contact the Editor or Advertising Manager for rates and conditions.



Workbench

Number 77 November 1992



Cover illustration from RayDance

Acknowledgments

Writers

John Barlow	Michael Granat
Norm Christian	Frank Lowe
Peter Evans	David Parkinson
Eric Fillisch	Derek Parnell

Artists

Jim Berry	Frank Lowe
-----------	------------

Publishers

Editor: Eric Fillisch
Layout and Design: Jim Berry
David Parkinson

Advertising: Paul Jenner
Special Projects: Alexander McCooke
Proofreader: Norm Christian
Image Enhancement: Arnie Robbins

Equipment

Amiga 2000
Amiga 3000
HP Laser JetIIIp

Software

Pagestream 2.21
HotLinks Editions
Art Department Pro

Printers

KwikKopy Highett

The Amiga Users Group Committee

Co-ordinator	- Peter Barton	850 9250
Ass. Coordinator	- Jim Lewis	(018) 39 2099
Secretary	- Andrew Breeden	525 8136
Membership	- Jeff Kirkland	528 2573
Treasurer	- Arnie Robbins	808 0551
Meeting Chair	- Ward Horsfall	596 3443
Book Library	- Ross Johnson	824 7026

NWAUG Committee (PO Box 25, Coburg 3058)

Co-ordinator	- Rohan Safstrom	326 0995
Ass. Coordinator	- Frank Lowe	308 2550
Treasurer/Mem	- Greg Rowbury	484 3909
Meeting Chair	- Hugh Leslie	489 1584
Book Library	- Darrel Butcher	(057) 83 1772
Disc Library	- Alan Cheng	380 5588

SEAUG Committee

Co-ordinator	- Dick Bartholemew	589 5862
Ass Co-ord	- Chris Quonocy	569 9390
Secretary	- Robin Whitehead	555 4757
Treasurer/Memb	- Tom Barath	888 1304

Club Services

Amiga Central	- Gary Gajic (7pm - 9pm)	376 4378
A-link 1	- Bohdan Ferens	792 1138
Workbench	- Eric Fillisch	544 9230
Advertising	- Paul Jenner	360 0257

A.U.G. Help-Network

Here is a list of AUG members who have volunteered to share their knowledge/experiences with others. If you want to help and have your name listed here please contact the Editor. They are not listed in any order or priority. Please **keep contacts to reasonable hours** (6 - 9 pm unless otherwise noted) and remember the basis of this service - they are volunteers.

Introduction to the Amiga / Prowrite	Rudy Kohut	- 807 3911
Amiga Basic (Advanced)	John Elston	- 375 4142
Amiga; A/C & AMOS Basics	Bill Jordan	- 417 3521
C(Introductory), Professional Page	Mal Woods	- 888 8129
C (Advanced)-AZTEC	Andrew Gelme	- 645 1744
C (Advanced)-LATTICE, TeX	Eric Salter	- 853 8857
Amiga Art, Music	Norm Christian	- 798 6552
Music, Audio Sampling, MIDI	Neil Rutledge	- 555 6870
Beginners Help Line	Russ Lorback	- 802 9333
Superbase, Bridgeboard	George Wahr	- 376 6180
Amiga Art	John Barlow	- 551 4760
Graphic Arts - DPaint, Sculpt, etc	Joe Santamaria	- 383 3509
Modula-2	Peter Evans	- 584 2765

Deadlines!

What are they? Why have them?

The best answer to those questions can be summed up by Ashley Schwall-Kearney. As he put it: They are called deadlines because if items come in later we have to kill ourselves to prepare Workbench in time.

In a more graphic way, perhaps I can demonstrate what a page will look like if deadlines are not met.

I think you probably get the main idea.

One of the unfortunate effects of missed deadlines is that they cause rescheduling of page layouts. This in addition to causing more work for myself and the rest of the editorial committee can also cause dropping of pages as has occurred in this edition.

On the other hand (in an effort to appear less of a whinger) I would like to thank the various people who take the time to prepare articles and artwork for Workbench and submit them on time. Many of these people do so at the shortest notice and in addition do a great job of it.

Eric

An example script...

```

? "-----\n",
" A RayDance Animation...\n",
" It starts with a spinning logo, after two revolutions\n",
" a squadron of space craft fly out of it and zip past the\n",
" camera at high speed on their way to an asteroid.\n",
"-----\n";

WHITE : COLOR( RGB, [1.0, 1.0, 1.0] );
DKGRAY : COLOR( RGB, [0.5, 0.5, 0.5] );
BLUE : COLOR( RGB, [0.1, 0.0, 0.3] );
GREEN : COLOR( RGB, [0.0, 0.2, 0.1] );
GOLD : COLOR( RGB, [1.0, 0.8, 0.1] );
DULL : SURFACE( SIMPLE, 1.0, 0.0, 0.0, 0 );

|          ka kd ks n km kr ri kb
SHINY : surface( PHONG, 0.7, 0.8, 0.8, 20.0, 0.0, 0.0, 0.0, 0.0, 0 );
ROCK : surface( PHONG, 0.3, 1.0, 0.2, 8.0, 0.0, 0.0, 0.0, 0.0, 0 );
STARSTURF : surface( PHONG, 1.4, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0.0, 0 );

asteroid_tm : texturemap( "asteroid.ilbm" );
stars_tm : texturemap( "starfield.ilbm" );

frameloop

clearscene;

starmap : texture( SPHERE, stars_tm, [0,0,0],
[0,0,1], [1,0,0], 10,10, smooth3 repeat );
sphere( [0,0,0], 10000000, starmap, starsurf );

if (progress > 0.3) {
pl_obj : object( [-100000,-7000,0], [40,20,PROGRESS*150] )
planetoid : import( "ast5_b.obj", [0,0,0], [1,1,1],
[0,0,0], [7,7,7], 1 );
ast_tx : texture( sphere, asteroid_tm, [0,0,0],
[0,0,1], [1,0,0], 6,3, SMOOTH5 );
planetoid.color[0] = ast_tx;
endobject
}

if (progress < 0.7) {
LOGO_ROT : tween( plane, progress
$ 0.0, [0.0,0.0,0.0] $
$ 0.3, [0.0,0.0,720.0] $
$ 1.0, [0.0,0.0,720.0] $ );

LOGO_POS : tween( plane, progress
$ 0.0, [300000,0,80000] $
$ 0.1, [200000,0,0] $
$ 0.3, [35000,0,0] $
$ 1.0, [35000,0,0] $ );

logo_obj : object( LOGO_POS, LOGO_ROT )
logo : import( "AUG.geo", [-100,100,0], [1,1,1],
[0,0,-90], [400,400,400], 0 );
logo.color[0:15] = GOLD;
logo.surface[0:7] = SHINY;
endobject
}

FITER_POS : tween( plane, progress
$ 0.0, [30000,0,0] $
$ 0.3, [30000,0,0] $
$ 1.0, [-30000,0,0] $ );
if (progress >= 0.3) {
fiter : object( FITER_POS, [0,0,0] )
fiter1 : import( "fiter2.geo", [ 250,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter1.color[14] = DKGRAY;
fiter1.color[13] = WHITE;
fiter2 : import( "fiter2.geo", [ 200,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter2.color[14] = DKGRAY;
fiter2.color[13] = WHITE;
fiter3 : import( "fiter2.geo", [ 150,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter3.color[14] = DKGRAY;
fiter3.color[13] = WHITE;
fiter4 : import( "fiter2.geo", [ 100,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter4.color[14] = DKGRAY;
fiter4.color[13] = WHITE;
fiter5 : import( "fiter2.geo", [ 50,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter5.color[14] = DKGRAY;
fiter5.color[13] = WHITE;
fiter6 : import( "fiter2.geo", [ 0,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter6.color[14] = DKGRAY;
fiter6.color[13] = WHITE;
fiter7 : import( "fiter2.geo", [-50,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter7.color[14] = DKGRAY;
fiter7.color[13] = WHITE;
fiter8 : import( "fiter2.geo", [-100,0,0]*9, [10,10,10], [0,-
10,0], [2,2,2], 0 );
fiter8.color[14] = DKGRAY;
fiter8.color[13] = WHITE;
ndobject
}

!! Lighting...
star( [20000, 800000, 450000], [1.0, 1.0, 1.0], 100000 );
ambient( [0,0,10000], [0.6,0.6,0.6], [0,0,1], 0.0, 0.0 );

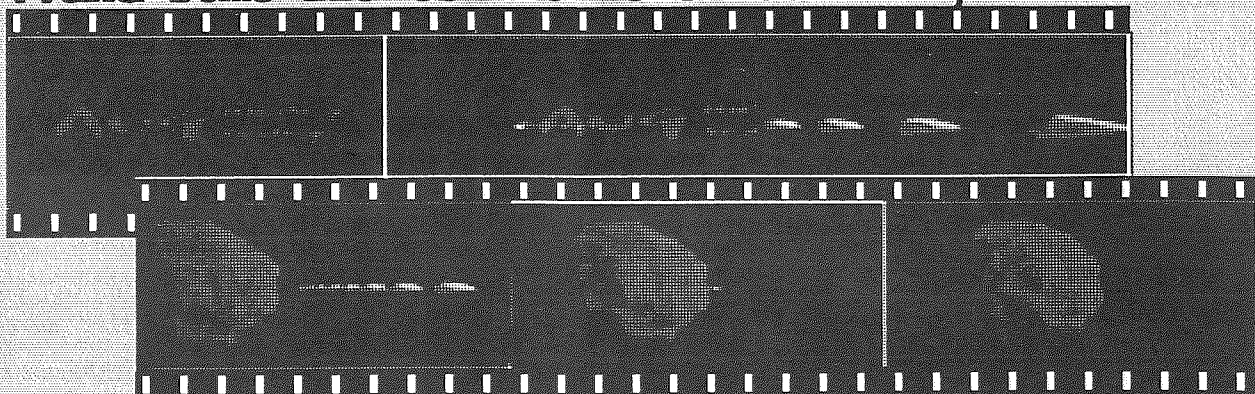
!! Ground and background...
background( PLAIN, [0,0,0] );

!! Camera stuff...
CAMERA' POS = [0,-800,0];
CAMERA' TARGET = FITER_POS;
RENDER;

nextframe
end

```

...and some frames from the resulting animation



A powerful script-driven ray tracing program from Radiance software. It is likened to a high level language, allowing rendering of scientific or engineering scenes in an easy to understand script language.

reviewed by
Frank Lowe

RayDance

The software comes with a good 194 page manual and 4 disks. These contain a Floating Point version, an Integer version, Objects, Textures and some pictures.

Unlike other ray tracing programs available on the Amiga, RayDance's scripting language allows precise placing and setting of all items within the scenes or animations rather than placing objects with the mouse.

Frank is the Assistant Coordinator for NorthWest Amiga Users Group

Requirements to run RayDance are 1 meg of ram and 2 floppy drives minimum. A more realistic setup would have to be a 68020/030, 68881/2 or 68040 and hard drive. As with any ray tracing program, the more ram, cpu speed and hard disk space you have the more you can do. RayDance supports IFF24, PPM and RAW formats. These allow conversion to other Amiga formats and use by other display devices.

Arexx capability is implemented to allow the process of automatic file conversion through programs such as ArtDepartment Pro. Sample AREXX scripts are included for this purpose. For users with AmigaDos 2.0x Arexx is already part of the system, but AmigaDos 1.3 users will need to purchase Arexx separately.

When RayDance is run a graphic interface allows the user to setup all aspects of the final appearance, ie. actual picture size, pixel ratio, FStop, Focal Length, AntiAlias, TotalFrames and more. A process indicator relates the percentage of the current image rendered. Total script and current frame times are displayed. A separate message window gives information on current process and rendering status. It also allows user feedback.

Inside RayDance

There are 16 built-in math functions, 9 graphical scene primitive types, Surface Modeling, Bump Mapping, Algorithmic Object Generation, Landscape Generation, Object Manipulation, Tweening, Camera structuring and Animation construction. RayDance can also import VideoScape/Modeller3D objects. If you had recently purchased the Sculpt-Animate 4D jr cover disk from a recent English magazine you can convert ►



TRON - by Frank Lowe

objects created into VideoScape format via a program called Pixel3D v2.0. Pixel lets you convert objects from Imagine, Sculpt 3D, Turbo Silver, 3D Pro, AutoCad and VideoScape formats into any of the other supported formats. Converting Imagine objects however can present problems when using grouped objects. This is overcome by producing a single object in Imagine before conversion.

Due to VideoScape's simple color mapping, importing uses the default colors of VideoScape. However you can change these colors from within the script.

A forest from a single tree

The ability to generate a scene with the polygon count in the millions is easily achieved by the use of replicas. Replicas let you repeat the parent object without the memory restrictions that other raytracing programs incur. This is because replicas are not included as a normal object would be, ie. taking up memory as a defined object. This

means an entire forest could be rendered with only one defined tree. An example of the forest would contain 100,000,000 polygons needing 16mb of ram without using replicas. Using replicas memory would only be needed to define the parent object. There is a time penalty in using replicas but in a memory tight situation it's a great option to have.

Animation

Incorporating animation into a scene can be easily performed by using the PROGRESS variable. This is a calculation derived from the total frames and the present frame number as defined in the user interface. This ends up being a figure between 0.0 and 1.0. It allows you to use it for object movement or the timing of an action sequence.

Once you have generated your 100 frames of animation you find you can't use them unless you have a graphics card or program to convert the 24 bit IFF's into standard Amiga

images. You can use ArtDepartment Pro, ImageMaster or even a PD program to do this. A PD program like HamLab Plus demo will let you convert to a max size of 512 x 512 pixels. Or for US\$20 you can get the registered version with no size restrictions.

With all these abilities and using the easy to understand language structure a complex scene construction can be created with a small script. Use your favorite text editor to write the script, load it into RayDance, press the RENDER button and you're away. Wireframe mode is used to preview your scene before you dedicate time to raytracing.

The manual is easy to read but you may need to go through the tutorials to get the hang of programming in this NEW language. The tutorials comprise supplied scripts and a comprehensive chapter at the rear of the manual.

I would like to thank Kaotic Concepts who kindly supplied RayDance for evaluation. ■

PCM COMPUTERS

3.5 " DSDD Disks	\$ 6.50
3.5 " DSHD Disks	\$12.00
5.25" DSDD Disks	\$ 4.10
5.25" DSHD Disks	\$ 8.00

All Disks come packaged in plain white boxes of 10, and have a lifetime warranty.

200 Watt A500 POWER SUPPLY
 -Quality Switchmode Design.
 -Power Passthrough.
 -Built in Fan.

\$130
Changeover

GVP Series II for A500.	
52 Mb Quantum & 2Mb RAM	\$ 935
120 Mb Maxtor & 2Mb RAM	\$1338
Extra 2Mb RAM	\$ 120

GVP A530 COMBO for A500	
40Mhz 68030, 32 bit RAM.	
60 Mb Maxtor & 1Mb RAM	\$1750
60 Mb Maxtor & 4Mb RAM	\$1950
120 Mb Maxtor & 1Mb RAM	\$1950
120 Mb Maxtor & 4Mb RAM	\$2150

Why buy from PCM ?
Because these companies do !

Australia Post, Defence Department, Australian Weaving Mills, Australian Wheat Board, New Zealand Insurance, NEC and Government Hospitals.

Call for prices on other Amiga & IBM hardware, systems, mods and repairs.

PCM COMPUTERS Pty Ltd
P.O.Box 70
Noble Park 3174
Phone: (03) 701 0343
Fax: (03) 701 0077

Prices subject to change without notice

Benefits of Membership

by Peter G. Evans

Towards the end of last year I heard an unusual noise emanating from the external hard drive attached to my A1000 which has lasted me some years. It was an Australian built unit made, I was told, by Phoenix Technologies. A call to them straightened out that misunderstanding. The problem was executing my startup-sequence which depended on the hard drive for most of its tasks. Lesson # 1 - make sure you have a working copy of a boot disk for floppy operation. Lesson # 2 - make sure you have a working disk with useful hard drive diagnostic programs on it.

It didn't take much searching to find the problem, or so I thought. The fan was not functioning. A trip to Tandy enabled me to purchase an identical unit. I have been told that I could have purchased an identical functioning unit for less but for my level of hardware ability this was the way to go for maximum peace of mind. The unit now sounded better but something else was wrong.

Was the problem the drive, the controller or both? In a case like this, lacking any sort of manufacturer's test

equipment, the straightforward swapping of a proven part is recommended. Unfortunately the MiniScribe model is no longer in production and does not seem to be sold anywhere. The MFM encoding is now obsolete in IBM type PCs where it has been mostly used. The OMTI controller is not only not being manufactured but the manufacturer is out of business.

Fortunately my father has a MiniScribe unit. Swapping it with mine was unsuccessful. Using his controller (a different brand) in various combinations didn't prove successful either. However placing my MiniScribe in his machine and running some commercial IBM disk drive diagnostic programs proved enlightening. I will leave aside the problems in the IBM programs. They seemed to give different results and much caution is needed in relying upon them. The upshot was that a new drive seemed necessary.

As intimated earlier there was a problem in obtaining such a drive. Various people in the AUG helped me by suggesting leads. I was eventually

able to purchase a reconditioned one for \$190 from the P.C. Superstore near the corner of Nepean Highway and South Road. The unit had the usual sticker on it stating the bad areas on the disk. These were incorrect as shown by running IBM diagnostics on the drive. The bad areas were noted and avoided when I performed a low level format on the Amiga.

I was still having problems so I needed to test the controller. Again the AUG was helpful. Lester McClure was able to supply an OMTI controller. Magic, everything worked!

So the final resolution of the problem was in obtaining an OMTI controller. But where to find one? Well fortunately Lester was able to swap the OMTI for a brand new equivalent one which worked in the equipment the OMTI came from.

A few further lessons were learnt from this exercise. Lesson #3 - make sure your hard drive is running for 30 minutes before doing a low level format. Lesson #4 - if you have fast memory in your machine change the default mountlist entries to fast memory. This saved me about 24K of chip memory for each partition. Lesson number 5 - if you haven't already done so, join the AUG.

Thanks to the many AUG members who assisted me, such as Russell Porteous and Lester McClure. ■

Fax (03) 808-8308 Phone (03) 808-8308

Software Buyers Service
P.O. BOX 486
Box Hill Victoria 3128

AmiBack V2	\$80.00	
ARexxPlus Compiler	\$170.00	
Audio Engineer V2	\$90 - 340.00	\$60.00
Art Dept. Pro V2.1x	\$290.00	\$90.00
Bars & Pipes Pro	\$350.00	
Bars & Pipes Modules	\$60 - 70.00	
Can Do V2	\$195.00	
CycleMan for Imagine	\$80.00	
Cygnus Ed Pro V2.12	\$100.00	
Essence for Imagine	\$90.00	
Excellence! V3	\$195.00	
Final Copy	\$100.00	
Font Packs	from \$25.00up	
Hotlinks V1.1	\$130.00	
Imagine V2.0 PAL	\$400.00	
MORPHUS for Imagine	\$120.00	
Morph PLUS by ASDG	\$290.00	

Cross Dos V5.0
W-Shell 2.0

OpalVision call for info
PROFESSIONAL DRAW V3 \$205.00

PageStream 2.21	\$280.00
PowerPacker Pro V4	\$35.00
Presentation Master	\$290.00
Professional Page V3	\$220.00
ProWrite with UK dict	\$100.00
Pro Vector V2.1	\$280.00
PS Imports	\$100.00
QuarterBack V5.02	\$75.00
RayDance	\$100.00
SCALA MM2	\$430.00
Scenery Animator V2	\$100.00
Scene Generator	\$50.00
Super Jam	\$155.00
Turbo Text	\$100.00
Understand Imagine Book	\$55.00
Vista Pro V2 PAL	\$100.00
InterChange PLUS	\$100.00

If it's not listed - call for quote

DISCOUNT HARDWARE ALSO!

Accelerators 030 and 040
Memory Boards and Memory
Hard Drives & Controllers
Modems

Call for Items
Not Listed

Specials
Chic Mouse \$35.00
Keyboard Skins \$32.00
VXL-30 32bit 2Mb Ram \$575.00

Still No Games !

Software Orders over \$100.00 **FREE DELIVERY** within OZ
BankCard, MasterCard, and Visa Welcome E&OE

Further Forth

by Derek Parnell

A S PROMISED IN the October edition of *Workbench*, this is the second half of Derek's article on the utilisation of Forth on the Amiga. The main emphasis in this article therefore is the actual programming in Forth and a few examples have been included.

There are no doubt a number of implementations of Forth for the Amiga but I only know of one, Multi-Forth by Creative Solutions Inc. It's the one that I have on my Amiga so my comments about using Forth will be based on this product. If you know of any other Amiga Forths I'd appreciate hearing about them.

Multi-Forth is a complete implementation of the language and includes many extensions. Some build on to the language and others provide access to the Amiga libraries. Two very useful words are SNAPSHOT and TURNKEY. The first creates a disk file that is a snapshot of the Forth dictionary in an executable form. Its purpose is to enable you to customize the dictionary and startup options to form your own version of Multi-Forth. The second is similar except that the file it creates is a stand-alone executable program that is designed for an end-user to run. It cannot be used to extend the dictionary but you can distribute the file royalty free.

Multi-Forth also comes with an assembler, written in Forth of course. This means that those of us who thrive on speed can create words that really hum. Access to any Amiga library is easily achieved and the words required to use any new library feature are also available.

Other highlights of Multi-Forth include words to define complex structures, to "hide" words after they have been defined, create programs that can be launched from the WorkBench, install error handlers, trace and debug words, install case-sensitivity, local variables (this is great!), source code in standard text files and IO-Redirection.

Not everything is rosy though. Some of the predefined Amiga

structures have had to be fixed up. If you haven't got a copy of the *Amiga Rom Kernel Reference Manual: Includes and AutoDocs* you are most definitely disadvantaged no matter what language you program in.

Let's deal with some real programming solutions. If you are aiming to create programs that can run on a wide range of Amigas your programs should be aware of the particular capabilities of its run-time environment. Eg. how large can your screens and windows be? You can choose to set this to 256 lines which will work on Australian and European Amigas but not on North American ones (America uses NTSC video standard which implies 200 lines for a maximum Amiga window). A better solution would have your program check at run-time what type of video system is being used, NTSC or PAL (Austral-

ian/European system). The listings here define a word ?NTSC that will return either TRUE or FALSE to the stack.

The better Forth programs are composed of lots of simple words rather than fewer complex words. Many heated discussions have tried to define what makes a 'good' Forth word. I don't really want to argue the point but here are a few rules-of-thumb that seem to work for me.

- 1) Try not to use more than three or four items from the stack.
- 2) Try not to return more than a couple of items.
- 3) Try not to affect more than a few variables.
- 4) Keep the depth of IFs and loops to two levels.
- 5) Try to use words that have already been defined, even if they do not exactly fit your needs.
- 6) Change repeated phrases of three or more words into a word of their own.
- 7) Try to imagine if phrases could possibly be used in other words and if so, create a new word for the phrase.
- 8) Try to avoid "magic" numbers. Give them names instead.
- 9) Always describe your word definition in plain language. Clearly state what it returns, what it does to the stacks, any compile-time behavior and any side-effects.

Okay, here (listing 1) is my first cut of ?NTSC before applying the "rules" above. ▶

```
***** Listing 1 *****
base @           \ ---- Save the current base no.
decimal         \ ---- Ensure we use base 10.
: ?NTSC ( -- flag )
  (Checks if the system is an NTSC one.)
  0" graphics.library" !a1 0 !d0 call.lib@ 0 92
  ?dup if       \ ---- Open the Graphics lib.
  dup +gbDisplayFlags w@ \ ---- Make sure it opened.
  swap !a1 call.lib 0 69 \ ---- Fetch the DisplayFlags
  \ ---- Close the library.
  1 and        \ ---- Test for NTSC bit.
  0= if       \ ---- Was the bit off?
  false      \ ---- If yes return FALSE
  else
  true       \ ---- If not return TRUE
  then
  else
  777       \ ---- Indicate a catastrophe
  then
  ;
base       \ ---- Restore base.
***** End of Listing *****
```

ian/European system). The listings here define a word ?NTSC that will return either TRUE or FALSE to the stack.

The better Forth programs are composed of lots of simple words rather than fewer complex words. Many heated discussions have tried to define what makes a 'good' Forth word. I don't really want to argue the point but here are a few rules-of-thumb that seem to work for me.

- 1) Try not to use more than three or four items from the stack.
- 2) Try not to return more than a couple of items.
- 3) Try not to affect more than a few variables.
- 4) Keep the depth of IFs and loops to two levels.
- 5) Try to use words that have already been defined, even if they do not exactly fit your needs.
- 6) Change repeated phrases of three or more words into a word of their own.
- 7) Try to imagine if phrases could possibly be used in other words and if so, create a new word for the phrase.
- 8) Try to avoid "magic" numbers. Give them names instead.
- 9) Always describe your word definition in plain language. Clearly state what it returns, what it does to the stacks, any compile-time behavior and any side-effects.

Okay, here (listing 1) is my first cut of ?NTSC before applying the "rules" above. ▶

Before we start improving this definition, a few comments about the Multi-Forth specific words used.

0"

Its compile time action is to extract the input characters up to the next quote character and put them into the dictionary, plus add a null byte at the end of the character string. Its run time action is to place the address of the null terminated string onto the stack. As most strings used by the Amiga are terminated by a null byte this word is very useful.

!a1 !d1

These words plus the other similar ones, !a2 !a3 etc take the top item from the stack and store it in a pseudo register that corresponds to the registers of the 68000 CPU. These pseudo registers are used when calling the Amiga library functions.

call.lib@ call.lib

These words take the next two words in the input stream (numbers) and use the opened library corresponding to the first number and call the library function corresponding to the second number. These "magic" numbers come from Multi-Forth's method of handling Amiga Libraries. Each library when opened is assigned a number from 0 to 31. The Exec, Dos, Intuition and Graphics libraries are automatically opened when Multi-Forth starts. All opened libraries are automatically closed when Multi-Forth exits normally. The library function offsets as documented in the Rom Kernel Manual (RKM) are converted to function numbers and it is these you use in your programs. The function number is the absolute value of the function offset divided by 6. The difference between the two words is that the CALL.LIB@ copies the value of the D0 register on to the stack on returning from the library call. In this program the 0 refers to the Exec Library and the numbers 92 and 65 are the library offset of -552 and -414. The OpenLibrary and CloseLibrary functions.

+gbDisplayFlags

This is an example of a word created when defining structures. As a coding convention Multi-Forth

have decided to begin structure offset words with a plus sign. It's not a bad idea as the action of these words is to add a constant to the top stack item. The constant's value is the byte offset from the beginning of a structure. In this specific case the value 206 is added to the stack item which is assumed to be the address of the structure's beginning.

Taking in turn the "rules" outlined above, the first four don't have much application. We are not taking too many items from the stack and not putting too many back onto the stack. There are no variables involved other than the pseudo

registers and the number of nesting levels is reasonable. The fifth rule can be applied to the CALL.LIB@ and CALL.LIB 0 phrases. Multi-Forth already has the words EXEC@ and EXEC which perform exactly the same as these phrases. The next rule about repeated phrases doesn't apply but the seventh rule could apply to the inner IF phrase. That phrase could be made into a word which may be useful in another context. The next rule definitely should be invoked to help explain the explicit numbers coded in the word and the final rule can be used to improve the documentation. ▶

```
***** Listing 2 *****
base @           \ ---- Save the current base no.
decimal         \ ---- Ensure we use base 10.
1 constant gbNTSC_b \ ---- Define which bit to test.
\ ---- This comes from the RKM.
777 constant err_NoLib \ ---- Define an error code.
: ~0 ( n -- flag )
  (Returns TRUE if the stack top is not a zero otherwise it
  returns FALSE. The top item is replaced by the result.)
  0=           \ ---- Is the number zero?
  not         \ ---- Reverse the result.;
: RAW.LIB.OPEN ( 0$ -- addr )
  (Given the address of a null terminated string, a library
  name, it tries to open the library. If it succeeds then
  the library base address is returned otherwise a zero is
  returned. The name's address is replaced by the returned
  value.)
  0 !d0       \ ---- Use any library revision.
  !a1        \ ---- Store the lib name.
  exec@ 92   \ ---- Open the library.;
: RAW.LIB.CLOSE ( addr -- )
  (Given the address of a library base, as returned by
  raw.lib.open, it closes the library. The address is
  removed from the stack.)
  !a1        \ ---- Store the lib base.
  exec 69    \ ---- Close the library.;
: ?NTSC ( -- flag )
  (Returns TRUE if this Amiga is running the NTSC video
  system otherwise it returns FALSE. A special value,
  err_NoLib, is returned if the Amiga graphics.library
  cannot be opened.)
  0" graphics.library" raw.lib.open
  \ ---- Open the Graphics library.
  ?dup if   \ ---- Make sure it opened.
  dup +gbDisplayFlags w@ \ ---- Fetch the DisplayFlags.
  swap     \ ---- Set up for lib close.
  raw.lib.close \ ---- Close the library.
  gbNTSC_b and \ ---- Test for NTSC bit.
  ~0        \ ---- Create the return value.
  else
  err_NoLib \ ---- Indicate a catastrophe.
  then;
base !     \ ---- Restore base.
***** End of Listing *****
```

Although this is much longer than the first version I think it reads better, is more flexible and easier to debug. As a side effect we have some other new words that can be used later. We didn't actually need to have the graphics library open but we did need the address of the library. Multi-Forth's routine to open libraries does not give this. Of course I could have delved into Multi-Forth's internals to find out where it stores the library base addresses but then it would have made this routine open to future problems. There is every reason to believe that the internal undocumented workings of a program are going to change in future versions leaving our routines stranded. I've chosen the more conservative approach.

Seeing as how we've gone to all this effort a little bit more won't hurt us. (Listing 3)

```
***** Listing 3 *****
: ?PAL ( -- flag )
  (Returns TRUE if this Amiga is running the PAL video system
  otherwise it returns FALSE. A special value, err_NoLib, is
  returned if the Amiga graphics.library cannot be opened.)
  ?ntsc \ ---- Is this an NTSC sys?
  not \ ---- Reverse the result.
;

200 constant max.NTSC.lines \ ---- Define some names for 256
constant max.PAL.lines \ the max lines values.

: GET.MAXLINES ( -- n )
  (Returns the maximum number of lines based on which
  video system is being used by the Amiga.)
  ?ntsc \ ---- Is this an NTSC sys?
  if
    max.NTSC.lines \ ---- Yes.
  else
    max.PAL.lines \ ---- No.
  then
;

***** End of Listing *****
```

```
***** Listing 4 *****
STRUCTURE GfxBase
  34 struct: +gbLibNode \ struct: Library <----This
  was the missing line.
  ptr: +gbActiView \ struct: *View
  ptr: +gbCOPINIT \ struct: *copinit ; ptr to
  copper start up list
  ptr: +gbCIA \ for 6526 resource use
  ptr: +gbBlitter \ for blitter resource use
  ptr: +gbLOFlist \ current copper list being run
  ptr: +gbSHFlist \ current copper list being run
  ptr: +gbBlthd \ struct: *bltnode
  ptr: +gbBlttl
  ptr: +gbbsblthd
  ptr: struct: +gbvbsrv (IS_SIZE from include/exec/interrupts.i )
  22 struct: +gbtimsrv (IS_SIZE from include/exec/interrupts.i )
  22 struct: +gbbltsrv (IS_SIZE from include/exec/interrupts.i )
  14 struct: +gbTextFonts (LH_SIZE from include/exec/lists.i )
  ptr: +gbDefaultFont
  short: +gbModes \ copy of bltcon0
  byte: +gbVBlank
  byte: +gbDebug
  short: +gbBeamSync
  short: +gbSystemBplcon0
  byte: +gbSpriteReserved
  byte: +gbByteReserved
  short: +gbFlags
  short: +gbBlitLock
  short: +gbBlitNest
  14 struct: +gbBlitWaitQ ( LH_SIZE from include/exec/lists.i )
  ptr: +gbBlitOwner
  14 struct: +gbTOFWaitQ ( LH_SIZE from include/exec/lists.i )
  short: +gbDisplayFlags
  ptr: +gbSimpleSprites
  short: +gbMaxDisplayRow
  8 struct: +gbReserved \ 8 bytes reserved for future use
STRUCTURE.END

***** End of Listing *****
```

The version of Multi-Forth that I have (v1.10) had an error in the structure definition for GfxBase. It left out the very first item thus every defined item in the structure was out by 34 bytes, the length of a Library structure. Listing 4 supplies the required fix.

In my next article I'll show you some words that quickly save and restore sections of your windows and screen. ■

For Sale

1084S Monitor

Excellent Condition

18 months old

\$200

Phone Lu on

822 2327

Fuzzy Mice

Brush Mouse review

by Eric Fillisch



HAVING BEEN loaned a Golden Image JP-100N mouse to try, I thought I would be really conscientious and give it a fair trial. First things naturally being first, I opened the box to be confronted by the brush and what seemed to be a well thought out and presented instruction manual.

As with a lot of equipment in this category it was obvious that all the expense in developing was not going to be recouped from Amiga owners. Since all computers seem to have different port configurations this is done by putting a single dip-switch next to the cable to allow choice of Amiga or Atari mode.

Having nothing to recoup from the manual, no expense has been incurred. With the exception of the obligatory US FCC radio rules notice that's on every piece of computer equipment from monitors to dongles, the English section seems to have been written in a dialect I am not familiar with. Lucky nobody reads them anyway!

Finally the bit you hopefully have been waiting for. The main idea of a brush shaped mouse would be to make drawing and mouse actions easier, quicker and more accurate since pens are natural and mice aren't. In this function the brush falls down in areas where it should excel.

As the brush is a lightweight hand held object, you tend to lift and place it. Since the brush doesn't know what you are doing it of course won't pass this info to the program. This means you still have to use the brush like a mouse.

The design of the switches doesn't help either. As they require a bit of pressure to push, the only way I found to use them was to rest the base of my finger on the button. The buttons are placed one above the other so this means you either need very supple fingers or have to lift the brush to press the buttons without moving the cursor.

You would also expect the brush to track better than a mouse. I.e. respond faster, draw better freehand circles. Again disappointment. The best lines the brush draws are straight. While setting preferences differently may improve control, it won't stop the edges catching and lifting the trackball off the mat. The info-packed manual of course has no trouble shooting section.

In summary, I believe a mouse handles better. However for someone just starting with computers and with no built in prejudices towards the stability of a mouse it may offer an easier way to deal with the computer and painting programs available.

Re-review

Prior to publication of this article I was given a JP100P for a quick retrieval. The JP100P is specifically an Amiga device so there is no selection switch.

The manual had been overhauled and now consists of a single page of recognisable English in a Taiwanese dialect. The finish of the new brush was much better than the first specimen and switches are now quite easy to use without worrying about placement.

Unfortunately nothing seems to have been done to prevent a freehand circle looking like a round cornered square.

All in all I stand by my first impressions of this device. However if the brush continues to improve in the way it has between the models tried I believe it may eventually become a valid replacement for current mice.

Fuzzy Mice 2

As a further insight into this mouse we interviewed Tony Figallo a well known Graphic-Artist/Designer and Stills-Photographer. Tony uses his Amiga 2000 with a graphics tablet for most of his artistry. His comments were as follows;

a) To draw straight lines the mouse works fine but large circles were drawn with ease only when preferences were set to the least sensitive.

b) The two switches could be smaller, perhaps even replaced with a toggle switch.

c) As an artist, you rest your hands on the edge of the mat when drawing this is impossible when using the brush mouse.

Fuzzy Mice 3

Our final review is from David Parkinson, a Freelance Feature Film And Television Lighting Director.

My initial impression of the brush was similar to Eric. However with a certain amount of perseverance I found that although it did not handle as well as a biro, I preferred the brush over my optical mouse.

Where the brush came into its own was both a surprise and yet probably obvious if you look at the box it comes in. There plain as day is a picture of a man using his leg as the mouse mat. Sure enough, in a confined space you do not need a mouse-mat. Part of my work involves using a program called "Aladdin", coupled with a hardware device it turns my Amiga into a full function Computer Lighting Board for Theatre, Rock concerts, Television drama etc.

Usually there is very little space to set up your equipment so after putting my Amiga on a box with the Monitor set precariously on top there is no room for a mouse-mat. I tried using the brush on my leg and my problems were solved!

Epilogue

As with any piece of equipment there are good and bad points. It should be pointed out that a graphics tablet costs from \$500.00 up.

Our thanks to MVB Computers for allowing us to road test the brush.

illustration by Jim Berry

THIS IS A copy of a letter reprinted by request of the Author. As can be seen from the date, it was written over two months ago. I felt to be fair we should wait a suitable period of time before printing the letter to see if Michael received a reply from The Age newspaper. Due to the fact that Amigas are not used it would obviously take a bit longer. As there has been no reply, and since the letter has not been printed in The Age, here it is for your perusal. Of course if someone from The Age would care to reply I would be happy to print their reply here also.

write ideas

Mr. Michael Granat
Proprietor - write ideas
90 Drummond Street
OAKLEIGH 3166
Telephone # (03) 569 8752
Facsimile # (03) 569 4135

Saturday, August 22, 1992

The Editor,
The Age Green Guide
G.P.O. Box 257C
MELBOURNE 3001

I am incensed at what I believe is a distinct bias toward the Macintosh and MS-DOS systems, that pervades the Green Guide HOME COMPUTERS section. This is especially true of Charles Wright's BYTES AND PIECES column which, last Thursday (20/8) contained yet another put-down of Amiga computers.

Rarely, except in a derogatory sense, is this popular system mentioned. It appears that The Age has abandoned the Amiga as a "games machine" due to its outstanding sound and graphics. As a professional user, who runs a technical writing business, I know that the Amiga is a serious workstation with entertainment ability, not a toy.

Charles Wright says the Amiga is not "MS-DOS compatible" (GG 20/8). This is not strictly true. There is public domain and shareware software that runs MS-DOS on Amiga. There is hardware to do the same. But why turn a multitasking computer into a single tasking (or with Windows - pseudo tasking) machine?

File sharing with MS-DOS and Atari ST can also take place, with an under \$50 program. Amiga emulation hardware can run Macintosh applications at up to more than twice Mac speed. Other leading systems can be run - even UNIX.

With 4096 colours (16.7 million with a 24 bit display board), broadcast quality TV output, stereo sound, instant text to speech conversion, mouse driven graphical interface, command line control and multitasking (limited only by available memory) Amiga has been way ahead of the MS-Dross since 1985.

Furthermore, top quality productivity software costs less than a third of competing format equivalents.

For years, Amiga users have tried to have Green Guide publish their letters and redress this imbalance. Please have the decency to print this, unedited.

Michael Granat
Michael Granat

90 Drummond Street, Oakleigh, Victoria, 3166, Australia. Telephone: [03] 569 8752. Facsimile: [03] 569 4135.

For those of you interested in a more rounded view of computers, the Sydney Morning Herald includes reviews of Amiga programs and products in its computer section.

For Sale

MicroBotics
512k RAM Expander
& clock
for the A500
\$45.00

ECE MIDI interface
for an AMIGA 1000
\$45.00

Phone JEFF 528-2573

AT THE USER MEETING on 28 September we were given a demo of OpalVision by Arnie Robbins using an A3000. With the hardware kindly brought in by Rohan Safstrom. Arnie demo'ed OpalPaint, an excellent painting program (24 bits in real time). Seeing the results of the software through the BARCO projector with the OpalVision hardware was great. In addition we had Philip Benjamin showing off a Harlequin board, also in an A3000.

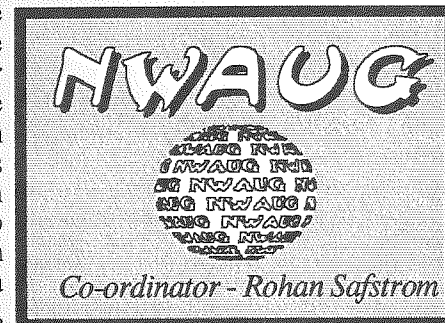
Philip is in the business of using the Amiga for it's graphic capabilities, importing and selling Amiga products.

User meeting 12-10-92

At this meeting Hugh Leslie gave us a great demo of a black and white hand scanner. Simon Shead (a file sysop of Amiga Central) with help from George Wahr, showed us the BBS using a mobile phone link up. This involved running through the initial logon and proceeded through

the file, message and door areas. Frank Lowe showed a quick demo of a new Virtual Memory package called GigaMem.

Coming up at future meetings
ImageMaster/ImageProfessional Demo. Including the new morph and wipe features from the latest version.



M e g a M e m . Virtual memory for the Amiga. Up to one Giga byte. Allows you to specify which programs will use virtual memory. Programming on the Amiga.

Game and Demos.

And Lots, Lots more. As always we have ChockLotto, questions and answers, news and for sale. Updates as they happen, will appear on Amiga Central in the bulletin area. \$2.00 that is charged at the door is for tea, coffee and biscuits. Room hire is paid by AUG. I mistakenly said this was covered in the \$2.00 in last months issue. Hope to see everyone at the meetings.

Frank Lowe, Ass. Coordinator

THANKS TO Theo & Elvie Koopman for hosting the October SIG. Their MIDI studio is most impressive, consisting of a Yamaha MC600 organ, Yamaha YFP70 electric piano, Kawai Pop Synth module and 4 Yamaha modules (MDR3 sequencer, CVS10 drawbars, EMT10 voices, EMR1 drums). They have been music buffs for many years but have only recently been introduced to the Amiga, consequently they have produced only a few original files as yet employing their equipment. However as beginners they are showing promise. Among the 7 people present there were 4 novices and for their benefit we did a recap of previous work with Bars & Pipes and SuperJam.

SuperJam is a program that enables any keyboard to be customized by creating a voice and drum map; this having been done with both my keyboards I took one

along to enable a better demo and we examined the program fairly fully. Unfortunately, both Bars & Pipes and SuperJam are complex, requiring a lot of study and it is



impossible to do them justice in a short session. For people who have not seen them before, information overload tends to set in fairly early. Ideally demos' should be short, with frequent breaks to allow learners to experiment before going on to the next step. The Music SIGs do not

allow for this as we have different people practically every month.

At the last monthly AUG meeting I indicated that I would like to hand over the co-ordinator's role to someone else, having carried it since April 1991, 19 meetings in all of which 15 have been at my home in Keysborough. If any member can oblige please advise me on 798-6552, as without such an offer the SIG may not survive.

Thanks to Lester McClure for responding to my appeal for other venues. The next meeting will be at his home in Mount Waverley at 7.30 pm on Monday, 23rd November. Please advise him on 803-5664 if you wish to attend. Also please let me know if any other member is prepared to host a future SIG. As I have stated previously, the only requirement is an Amiga, preferably with at least 1.5 meg of memory. Other equipment can be brought along by other members..

More Fish.....

window, up to three lines of changeable text for viewing fonts, use file requester to find fonts to view (WB 2.0). Version 1.2, binary only. Author: Gary Smith

MPE

A compiler tool for users of the M2Amiga programming environment. MPE does the same job better than your batch file. You can do everything with the mouse or the right amiga key. With this Modula-2 Programming Environment you can compile, link, and run your program. When there is an error, the editor is started automatically. You can set all switches for M2C, M2L M2Make, M2Project, and M2LibLink. This is version 1.31, an update to version 1.17 on disk 703. Binary only. Author: Marcel Timmermans

PSUtils

Some utilities for postscript and adobe fonts. Resetadobe (version 1.0) is a program to modify the AFM files of adobe fonts which do not appear to have the correct spacing after being generated by AFM2PFM. Postsplit (version 1.0) is a program to split a color PageStream postscript file into individual color/page files for multipass printing PFM2AFM (version 1.0) generates AFM files for adobe fonts. TlUtils is a set of adobe font manipulation tools including a font disassembler. Author: I. Parker, D. Spencer, Ken Borgendale, Lee Hetherinton

Riff

A little iff reader written in M2Amiga Modula-2. Version 1.0, includes source. Author: Marcel Timmermans

RTracker

A MOD player that is small, easy to use, highly configurable, follows CBM's style guide, supports automatic decompression of MODs, and more. Version 2.0, shareware, binary only. Author Mike Manzano

FISH DISK #733

AntiCicloVir

A link virus detector that detects 25 different such viruses. Version 1.6, an update to version 1.5 on disk 710. Shareware, binary only. Author: Matthias Gutt

Cube

An animated Rubik's Cube simulator, solver, and tutorial. It uses two solving algorithms, one which can be applied by a human using simple rules, and another that is too complicated to be used except by a computer. Shareware, includes source. Author: Martin Gitelson

Sushi

A tool to intercept the raw serial output of Enforcer 2.8b, Enforcer.megastack 26.f, Mungwall, and all other tool and application debugging output that uses kprintf. This makes it possible to use serial debugging on a single Amiga, without interfering with attached serial hardware such as modems and serial printers. Sushi also provides optional signalling and buffer access to an external display/watcher program. Version 37.7, binary only. Author: Carolyn Scheppner

Termcap

A port of the GNU termcap library for the Amiga. Termcap is a library of C functions and a database of terminal descriptions, that allows an application to send control strings to terminals in a way independent of the specific terminal type. Author: Various

FISH DISK #734

PowerVisor

A powerful machine language debugger and system monitor designed for the serious Amiga programmer. PowerVisor supports all Amigas and all processors (including the 68040). There are two versions, one for AmigaDOS 2.0 and one for AmigaDOS 1.3 (or 1.2). Among many other things, PowerVisor supports symbols and ARexx (with 215 different ARexx commands). It is also very customizable. The AmigaDOS 2.0 version supports online help with 'AmigaGuide' and is installable with the 2.0Installer. This is version 1.20. Source for some examples is included. PowerVisor is shareware. Registered users can order the complete PowerVisor source. This is part 1 of a two part distribution. Part 2 is on disk 735. Author: Jorrit Tyberghein

Installer

This is version 1.20. Source for some examples is included. PowerVisor is shareware. Registered users can order the complete PowerVisor source. This is part 1 of a two part distribution. Part 2 is on disk 735. Author: Jorrit Tyberghein

UCD

A utility for changing the current directory that scans a disk and builds a file containing information about the directory structure that makes it possible for UCD to change directory to any directory in the scanned volume by simply naming the directory without pathname information. Version 1.0, shareware, binary only. Author: Uffe Holst Christiansen

FISH DISK #735

PowerVisor

A powerful machine language debugger and system monitor designed for the serious Amiga programmer. PowerVisor supports all Amigas and all processors (including the 68040). There are two versions, one for AmigaDOS 2.0 and one for AmigaDOS 1.3 (or 1.2). Among many other things, PowerVisor supports symbols and ARexx (with 215 different ARexx commands). It is also very customizable. The AmigaDOS 2.0 version supports online help with 'AmigaGuide' and is installable with the 2.0Installer. This is version 1.20. Source for some examples is included. PowerVisor is shareware. Registered users can order the complete PowerVisor source. This is part 2 of a two part distribution. Part 1 is on disk 734. Author: Jorrit Tyberghein

FISH DISK #736

EasyStart

A program to start other programs in a very easy way. It can start programs with a popup menu, a popup screen, with menu items in the WorkBench menu, with a window containing gadgets, and more. Version 1.12, binary only. Author: Andreas Krebs

InTime

A program to overlay a 'timecode' onto videotape while making working dubs of original footage. The display consists of a tape number, hours, minutes and seconds. It is designed to be used as an aid in logging and finding sections of a video tape. The display can be in any shown in any font. This is version 1.2, binary only. Author: Gary Smith

MegaD

A directory utility with multiple directory windows so you may copy from multiple sources to a single destination, copy from one source to multiple destinations, or copy from multiple sources to multiple destinations. Full font support, full screens support, application icons, application menus and application windows support. Includes 126 page tutorial and 47 page user guide. Other features include 72 user defined command gadgets with simple keyboard equivalents, and multiple filters on directory listings. Version 2.00, binary only. Author: John L. Jones

FISH DISK #737

AMPlotDemo

A demonstration version of a commercial graph plotting program designed for publication quality plotting of scientific data. The demo allows datasets no larger than 10 datapoints and will not create hard copy plots. Version 2.0, binary only. Author: Andrew Martin, SciTech Software

ANSI

A small CLI utility to convert C source between ANSI and Kernighan and

Ritchie function definition formats. Also allows generation of prototypes. No Amiga extensions and should be portable. Version 1.6, an update to version 1.0 on disk 598. Includes C source. Author: Andrew Martin, SciTech Software

DBuff

Source code with a small demo to implement double buffering by adding a second ViewPort to an Intuition screen. Version 1.3, an update to version 1.0 on disk 599. Includes C source. Author: Andrew Martin, SciTech Software

PrLabel

A utility to print laser printer labels. Support 3x8, 2x8 and 2x7 A4 label sheets. The program may easily be modified for other formats. Also serves as a demonstration of using STSLib for gadgets and menus. Version 1.2, an update to version 1.1 on disk 599. Includes C source. Author: Andrew Martin, SciTech Software

FISH DISK #738

CanonBJC

Color printer driver package for Canon BJC 800 and Canon Epson emulation printers. Supports Epson 24/48 pin and BJC emulation compressed native mode. This driver is not limited to 16/4096 shades/colors. Includes font independent preferences programs for controlling additional options, free definable dither routines (many are included), ink compensation, color adjustment, timeout, and more. Version 1, binary only. Author: Wolf Faust, Distribution by Canon Europe N.V.

CanonStudio

Prints IFF pictures from disk in 24/8 bit accuracy on normal WB printer driver. Pictures can be printed in any size (poster function) without need for much memory. Supports most IFFformats (incl. EHB, HAM6, HAM8, IFF24). Provides a nice font independent user interface, free definable ordered dithers, error diffusion and blue noise dithers, ARexx Interface, color adjustments, ink compensation, printer spooler and more. This version is limited to Canon printer drivers. Version 1.2, shareware, binary only. Author: Wolf Faust

Galaga

A space "blast-em" game with over 300 different animation frames in 16 colors, many levels, end of stage nasties, bonus levels, kamikaze raids, etc. Version 1.4, binary only. Author: Geert Coelmont and Romain Voes

FISH DISK #739

Deft

A program to change the default tool of project icons. Will search through a disk or directory, finding all icons that contain a specified default tool and change that tool to a different one. It is useful for changing the default tools of

all the doc files on disk to your favourite text reader, for example. Version 1.0, binary only. Author: Gary Smith

Hyper

Will lead you through documents that are written to be used with the legendary 'Am*gaGu*de' from Commodore. An ARexx port gives access to it from other applications. Requires OS 2.0. Version 1.0, shareware. Author: Bernd (Koessi) Koesling

IconAuthor

A replacement for IconEdit2.0. It can transform IFF images or brushes into resized 2-BitPlane brushes or icon files that match the WorkBench2.0 colors. Online help is available via 'Hyper'. Demo version limited to processing provided demo image only. Requires OS 2.0. Version 1.0, shareware, binary only. Author: Bernd (Koessi) Koesling

InScript

A program for producing video titles. Features include fully editable text entry, IFF pictures as background,

unlimited number of fonts loaded at one time, up to 99 undos, outline font support (WB 2.0), text styles (shadow, outline, etc) can be named and saved, toolbar for common operations, playback script maker with transitions between pages, adjustable color cycling, low, high and interlace resolutions with overscan, adjustable kerning, and comprehensive text alignment options. InScript can save InScript data, IFF pictures or animation files. At least 1 mb memory required. Version 1.1, shareware, binary only. Author: Gary Smith

Keti

Prints 3.5" disk labels (71.5 x 69.6 mm) on a NecP6 from a 15 line ASCII file. The first line will be the headline (max 25 chars), 14 textlines (max 44 chars) may follow. Requires OS version 2.0. Includes source and DME macros. Author: Bernd (Koessi) Koesling

WKSC

Workbench Keyboard Shortcut Changer is a program which allows you to add or change keyboard shortcuts used for the Workbench menus. WKSC works on

Workbench 1.2, 1.3 and 2.0. This is version 1.0, binary only. Author: Gary Smith

FISH DISK #740

Debt

A calculator suitable for dealing with numbers the size of the national debt. Will accept two 60 digit numbers and come up with a 120 digit answer. Includes source. Author: Martin Gitelson

HDMem0

Demo version of software that allows you to use virtual memory with OS2.0, version 37.x or higher, on m68020 m68851 or m68030 Amigas. Supports task exclusion. The demo version is limited to 2Mb of virtual memory. Version 2.0, shareware, binary only. Author: Stefan Rompf

Klondike

A single player card game. Version 1.3, an update to version 1.1c on disk 491. Shareware, binary only. Author: Peter Wiseman

MemCheck

A small tool to watch the first 1000 bytes of memory for illegal write actions. It also checks some system vectors (coldcapture, coolcapture, warmcapture, kickMemPtr, kickTagPtr and kickCheckSum) to show any changes made by viruses. Kickstart 1.3/2.04 compatible. Version 1.0, binary only. Author: Tom Kroener

MultiClock

A flexible titlebar clock commodity with many extra features such as chime with builtin or digitized sounds, alarm which allows launching an ARexx or Batch file, and both digitized and narrator speech to say the time. Requires AmigaDos 2.04 or greater. Version 1.17, binary only. Author: Hugh Leslie

PerfMonitor

A small tool to show the CPU usage of each task. Kickstart 1.3/2.04 compatible. Version 1.0, binary only. Author: Tom Kroener

This month's fish were drawn by Jim Berry

APPLICATION FOR MEMBERSHIP OF THE AMIGA USERS GROUP INC.

Membership Is \$30 per year.

Send your cheque to: Amiga Users Group Inc., PO Box 684E, Melbourne 3001

Details on this side are optional

Surname: _____
 First Name: _____
 Address: _____

 Phone Number _____ STD Code: _____
 Where did you hear about AUG: _____

 Signed: _____ Date: _____

Year of birth: _____ Which Model Amiga _____
 Occupation: _____
 Interests: _____

 Which group do you attend Mostly
 i.e., Holmesglen, NWAUG etc., _____

If admitted as a member, I agree to abide by the rules of the Association for the time being in force

Club Use Only	Date	Paid	Rcpt #	Memb #	Card Sent
---------------	------	------	--------	--------	-----------

PUBLIC DOMAIN SOFTWARE ORDER FORM

Mail to: Amiga Users Group, PO Box 684E, Melbourne 3001, Victoria

Disk Numbers									
--------------	--	--	--	--	--	--	--	--	--

Dont forget to specify collection name i.e., FISH, AMIGAN, AMICUS etc.

Disks supplied by the Amiga Users Group @ \$4 each	\$
Disks supplied by member @ \$2 each	\$
Club Use Only:	Total: \$
Member's Name:	Membership #
Address:	

Postcode:

AMIGA Calendar

Sunday	Nov 22	Holmesglen Meeting
Monday	Nov 23	NWAUG Meeting
Monday	Nov 23	Music SIG Meeting
Tuesday	Nov 24	SEAUG Meeting
Monday	Oct 26	NWAUG Meeting
Tuesday	Oct 27	SEAUG Meeting
Monday	Dec 7	NWAUG Meeting
Tuesday	Dec 8	SEAUG Meeting
Tuesday	Dec 15	Art SIG Meeting
Sunday	Dec 20	Holmesglen Meeting
Monday	Dec 21	NWAUG Meeting
Monday	Dec 21	Music SIG Meeting
Tuesday	Dec 22	SEAUG Meeting
Friday	Jan 1	DEADLINE for copy, February Workbench



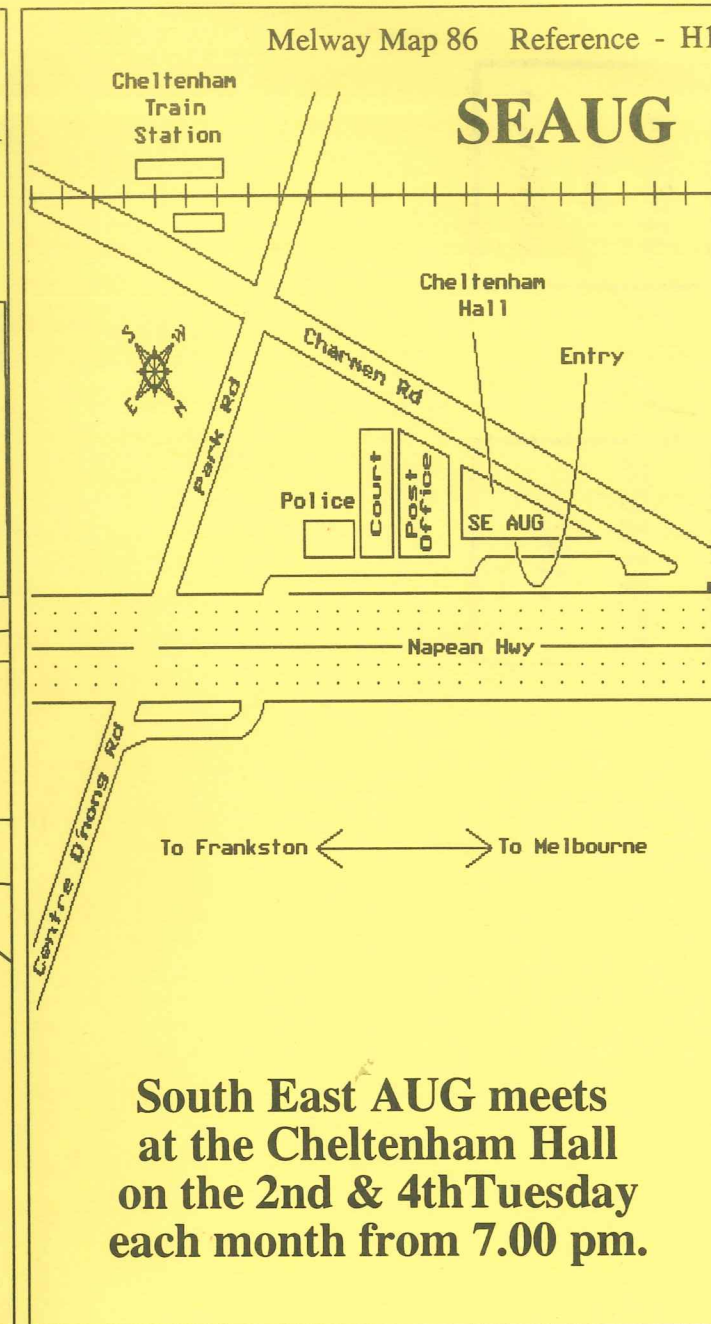
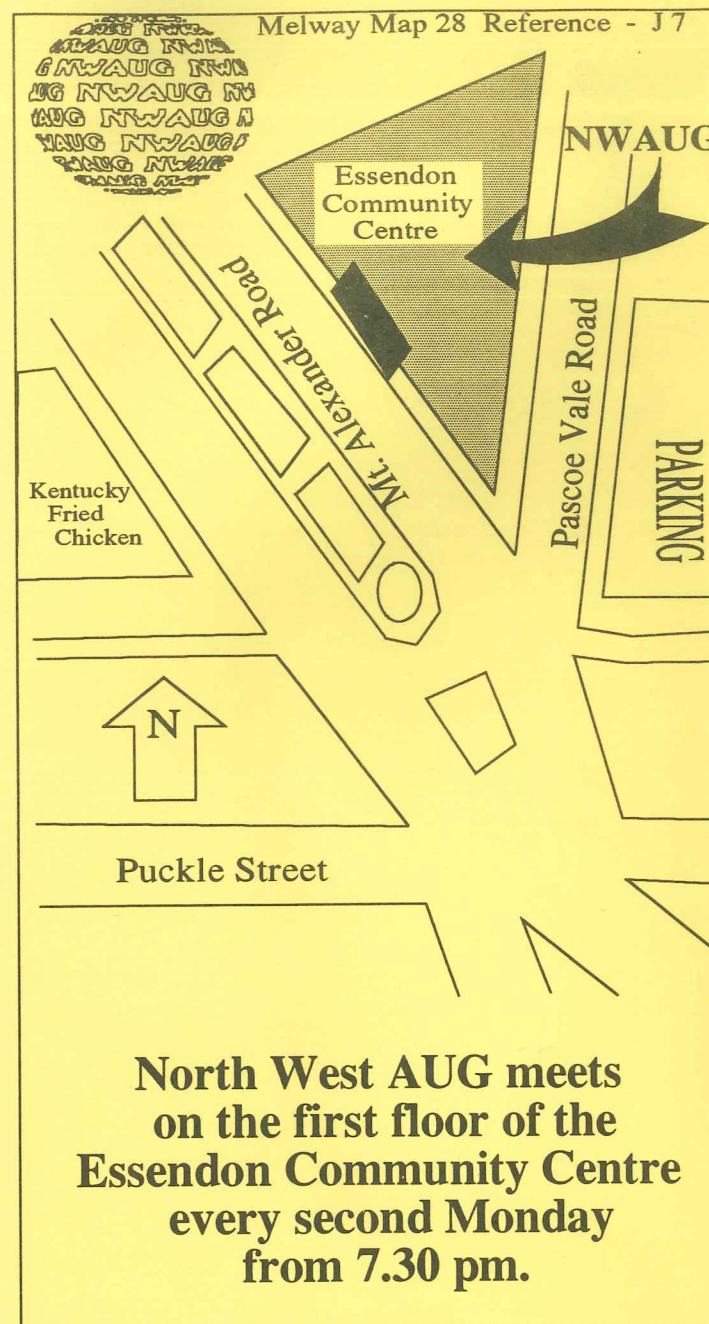
As promised in the last newsletter Arnie Robbins demonstrated Opal Vision. Arnie brought his 2000 with accelerator and of course Opal vision. The whole lot was hooked up to the Wood's video projector so that everyone could see the effect on the big screen. The colours and transitions were stunning the only problem on the big screen was the difficulty in reading the requestors. The rest was fantastic. Arnie's demonstration was very comprehensive and obviously since he has been using Opal Vision for a while now his knowledge of the special features of this package is becoming extensive. The demonstration continued for about three hours and if it had not been for the fact that most of the people in attendance had to get up for work the next day, could have run even longer. Thanks Arnie.

Perhaps We can persuade Arnie to come back again and demonstrate his 4000 when he gets it. A drag race between an ordinary Amiga, a 68030 version and the 4000 on a ray tracing or morphing exercise would be very interesting.

There were a couple of first timers in attendance. Dave from the Video Producer's Association came and was heard to say that a large number of their members were using Amigas for their videos. Hopefully we can persuade more of the members to attend and perhaps to bring along some samples of their work.

John Falkner explained how he scans stills from his videos, overlays titles etc. then splices them back into the video to give a continuous effect from a stationary scene with titles, to the moving video.

The next Art SIG will be held at Aspendale on Tuesday 17th November starting at 7.30 pm. The following meeting will be on the 15th December. Anyone interested in attending should contact John Barlow on 5514760.



Holmesglen AUG meetings are held on the the third Sunday of each month at 2.00 p.m. Doors open at 1.00 p.m. The venue is the Conference centre at Holmesglen T.A.F.E. College on the corner of Warrigal Road and Batesford Road, Holmesglen (Melways Map 69 reference F1).

North West AUG meetings are held every second Monday from 7.30 p.m. The meeting room is on the first floor of the Essendon community Centre, on the corner of Mt.Alexander road and Pascoe Vale Road, Essendon (Melways Map 28 reference J7).

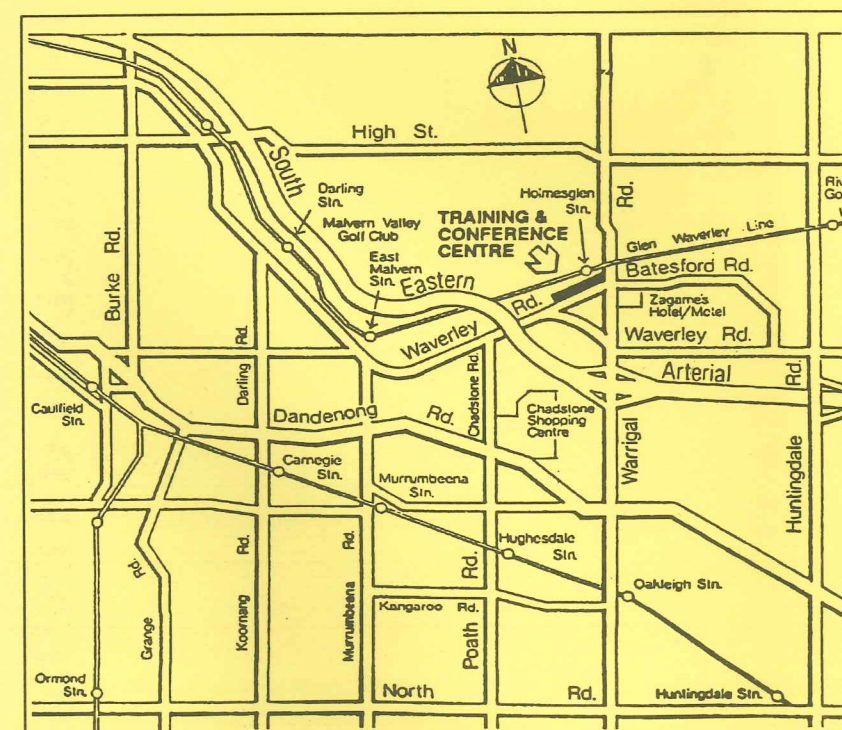
South West AUG meetings are held on the 2nd and 4th Tuesdays of each month from 7.00 p.m. The venue is the Cheltenham Hall, on the corner of Nepean Highway and Charman Road, Cheltenham (Melways Map 86 reference H1).

Art SIG meetings are held on the 3rd Tuesday of each month (N.B. this is NOT always the Tuesday following the Holmesglen meeting!! The venue may vary, so check the Art SIG report in this issue for the location of the next meeting.

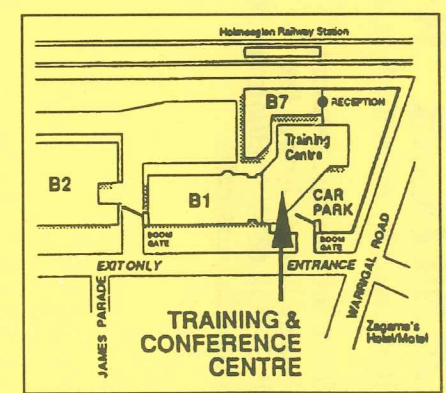
Music SIG meetings are held on the Monday evening immediately following the Holmesglen meeting. The venue may vary, so check the Music SIG report in this issue for the location of the next meeting.

If you are arranging (or know of any) forthcoming meetings, demonstrations, lectures or other events that would interest readers, please let us have the details so that we can publicise them here. Country members unable to attend Metropolitan meetings are encouraged to use this calendar for local events.

WARNING!
It has been brought to our attention that the Grey Ghosts are indeed active on Sundays. Please ensure that you are parked legally during the Holmesglen meetings or you may receive a parking ticket!



AUG Meeting Sunday 22nd. November. Holmesglen Conference Centre Chadstone. Melways 69F1
Doors open 1 pm.
Meeting starts 2pm.
ALL WELCOME



AMIGA *Workbench*

Registered By Australia Post, Publication No. VBG7930

If Undeliverable, return to
Amiga Users Group, Inc
P.O. Box 684E Melbourne, 3001
Victoria, Australia

SURFACE

MAIL

POSTAGE

PAID

AUSTRALIA

PRINTED MATTER ONLY