

# Y O U R AMIGA

THE I.M.P. IS OUT OF THE BOTTLE  
AN ARTIST LOOKS AT AMIGA GRAPHICS

MUSIC PACKAGES—which is best for you?  
POP UP PROGRAMS—a look at utility packages

FREE WITH THE JANUARY 1988 ISSUE  
OF YOUR COMMODORE



# HAPPY HOLIDAYS FROM MICROILLUSIONS



## THIS SEASON MICROILLUSIONS' OFFERS:

For Amiga, C64/128 and MS DOS:  
FAERY TALE ADVENTURE Today's hottest game! / BLACK JACK ACADEMY / ROMANTIC ENCOUNTERS AT THE DOME.

For Amiga and soon for C64/128 and MS DOS:  
LAND OF LEGENDS / PLANETARIUM / EBONSTAR / FIREPOWER / GALACTIC INVASION / TURBO.

For Amiga:  
DISCOVERY and DISCOVERY EXPANSION DISKS / PHOTON VIDEO / DYNAMIC CAD / MUSIC X / DYNAMIC WORD.



17408 Chatsworth St., Granada Hills, CA 91344 • Inside CA 818/360-3715 • Outside CA 800/522-2041 • FAX 818/360-1464

### FOREIGN DISTRIBUTORS

**Haba Systems**, Pier Road, North Feltham Trading Estates, Feltham,  
Middlesex TW14 0TT 011-44-1-751-6451  
**Nano-Data**, Ulefossveien 40, P.O. Box 830 Hjellen N-3701, Sein,  
Norway (035) 27-632/23-170

**Commodore of Australia**, 67 Mars Road, Lane Cove, N.S.W.  
Australia 011-61-2-427-4888  
**Beam Scope Canada Inc.**, 110 Commander Blvd., Scarborough,  
Ontario M1S 3H7, Canada 416/291-0000



# Contents

Editor: Stuart Cooke  
Assistant Editor: Sue Joyce

Advertisement  
Manager: Stuart Taylor  
Advertisement Copy  
Control: Laura  
Champion  
Origination: Ebony  
Typesetting  
Design: Argus Design  
Studio

**ARGUS  
PRESS  
GROUP**

Argus Specialist  
Publications Limited Editorial  
& Advertisement Office, Your  
Commodore, No 1 Golden  
Square, London W1R 3AB.  
Telephone: 01-437 0626 Telex:  
8811896.

The contents of this publication including all articles, designs, drawings and programs and all copyright and other intellectual property rights therein belong to Argus Specialist Publications Limited. All rights conferred by the Law of Copyright and other intellectual property rights and by virtue of international copyright conventions are specifically reserved to Argus Specialist Publications Limited and any reproduction requires the prior written consent of the Company. ©1987. Distribution SM Distribution, 16-18 Trinity Gardens, London SW9 8DX. Printed by Chase Web, Plymouth. Opinions expressed in reviews are the opinions of the reviewers and not necessarily those of the magazine. While every effort is made to thoroughly check programs published for errors we cannot be held responsible for any errors that do occur.

- **Amiga News**

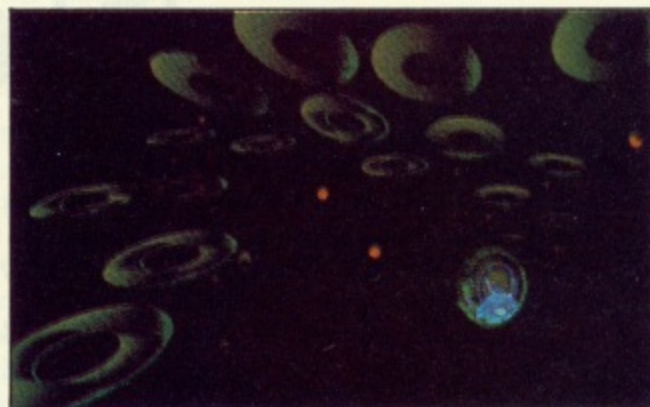
4

The latest round up from the Amiga world

- **The I.M.P. is out of the bottle**

6

Getting to grips with image manipulation



- **Amiga Graphics**

10

Take a look at the latest in graphics packages

- **Play it again Sam**

13

Need multi-tasking support? Then SAM

Basic is for you

- **Maxiplan**

16

We look at the continuing growth of Maxiplan

- **Amiga Games**

19

Keep up-to-date with what's new on the games front



Knight ORC

- **How to get it**

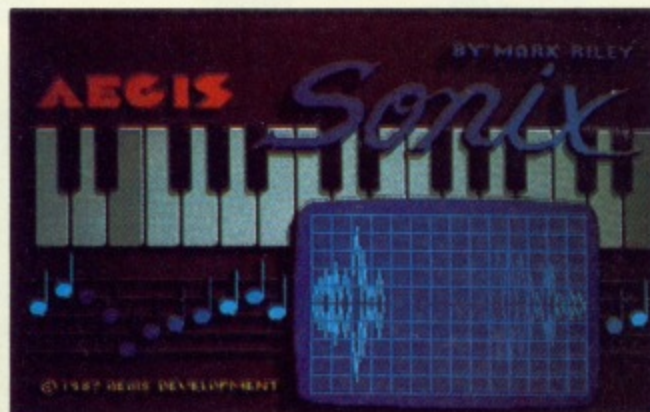
22

A useful compilation of names and addresses

- **Midi Music**

29

We are pleased to announce the marriage between computers and music!



Aegis Sonix



# Amiga News

*The Personal Computer World Show saw the announcement of a huge range of new games for the Amiga and there's lots more besides. Anne Owen brings us the latest news.*

**T**he PCW show proved that software houses are taking the Amiga seriously, at last.

*Ocean* showed *ECO*. Developed by Denton Design specifically for 16 bit machines, *ECO* simulates an ecosphere, a self-supporting natural environment which is depicted in 3D scrolling landscapes. The objective of the game is survival. Beginning life as an amoeba, the player must evolve through fish and fauna stages, eventually achieving human status.

*Electronic Arts* contribution to the autumn should be interesting and it's worth remarking that the presence of

the company in the UK has resulted in some sensible pricing for software which was originally imported and sold at inflated prices. For instance *Arctic Fox*, *Adventure Construction Set* and *Marble Madness* are now £19.95; *Skyfox* and *Seven Cities of Gold* are £14.95. *Instant Music*, *Chessmaster 2000*, *Bard's Tale* and *Deluxe Print* are £24.95, as is new release *Earl Weaver Baseball*. *Deluxe Paint 2*, *Deluxe Video* and *Deluxe Music Construction Set* are £69.95. Skidding in for the winter months will be new releases *Formula 1 Racing* and *Test Drive*.

*Microprose* confirmed *Ultima III* and *IV* and *Autoduel* and added *Ogre* to their list of Amiga games.

*Interceptor's* *Pandora* label will have an Amiga version of *Into the Eagle's nest* soon.

*Hewson* released their first 16 bit products and expressed their satisfaction with the conversion of *Uridium* to the Amiga.

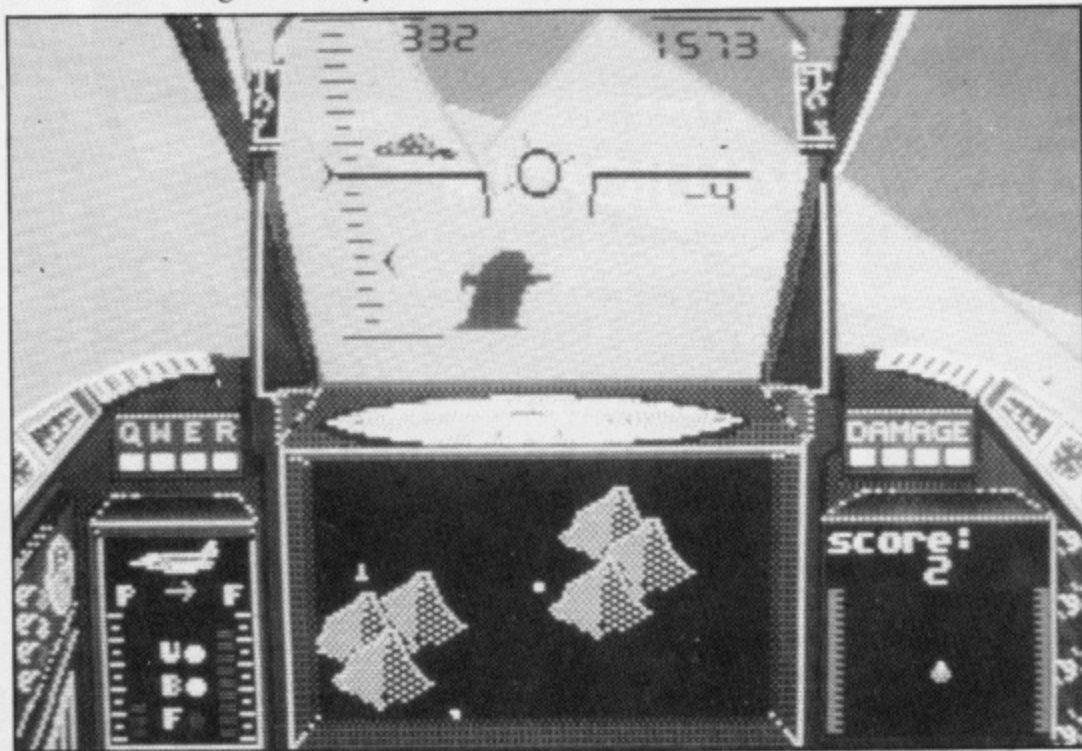
*Mirrorsoft* have more Amiga games on the way with *Mean Streak* and *Strike Force Harrier* (renamed *High Roller* on the *Mindscape* label). A brand new adventure called *Bermuda Project* is also in the wings as are *Mindscape's* *King of Chicago* - challenging *Capone* for dominance of the *Windy City*, *Sinbad* and the *Throne of the Falcon*, *Deja Vu*, *Uninvited* and the occult horrors of *Shadowgate*. Also on the *Spectrum Holobyte* label is *Gato*.

*PSS* added a 'to be announced' date to Amiga games *Spycatcher* (£24.95), *Leathernecks* (£24.95) and *Power Struggle* (£9.95).

*Tynesoft* announced that Amiga owners could exercise their joysticks with the October releases of *Plutos* and *Mousetrap*. *Formula One Grand Prix* will follow. All are on the *MicroValue* label at £14.95.

Dutch company *Aackosoft* announced an Amiga version of their hit aircraft carrier game, *Flightdeck*.

*Mastertronic* and sister company *Melbourne House* announced a large number of new games at £14.95 and



*Mirrorsoft's Strike Force Harrier*



£19.95 respectively.

*Robtek* came up with *Extensor* and *Alien Strike* to add to *Swooper* and the naughty *Hollywood Poker*. All priced at £19.95.

*Anco* were showing *Emerald Mines*, *Pinball Wizard*, *Go Cart Racing* and *Sprite Designer*. There was also *Micro Base*, *Calc* and *Text*.

*Nine Tiles* had networking for business machines, among them the *Amiga 2000*.

*Precision* showed *Superbase Professional* which offers a high level programming language, a new forms editor to design screen and printed forms to a high level of sophistication and a text editor which is integrated into the database.

There are 200 commands and fully customised systems can be created including new pull-down menus and pop-up selection panels. Price £249.95.

*Taurus Impex* showed *Acquisition 1.3*, a much refined version including cut and paste between packages (such as *Scribble!*).

*Pioneer* is a low cost version of *Acquisition* without the programming language. Also from *Taurus*, the *BEST* business management integrated accounting system and *City Desk*.

*Nucleus Software* showed an *Amiga 2000* based supervisory control system. *GEFICS*, as it is known, manipulates data collected from a logic controller or keyed in. Output is displayed in colour graphics.

*Cadvision* exhibited *X-CAD*, a 2D CAD program for *Amiga 2000*, price £399+VAT. Also for the 2000, *Artisan* graphics workstation from *Burocare*.

*System Architects* impressed with their rolling point-of-sale system, again based on the 2000. They also have an interactive training system.

*Micro APL* announced a new £99.95 price tag for their *Amiga APL* language and showed *Microspan*, a self-teach package priced at £49.95.

*HBML* launches the *Sunword* £99.95 wordprocessor. Apparently *Sunword* is highly successful in Europe. Also available was *Micro-Illusions' Firepower*.

*Amiga Centre Scotland* had *Scot Peterson*, President of *Byte by Bytes*, on their stand demonstrating *Sculpt 3D*. There was also *Animator's Apprentice*, *Express Paint*, *AiRT* and *Doug's Maths Aquarium* – the latter a 'different' approach to programming.

*Advanced Memory Systems* announced that its current PC DTP product, *Finesse*, will be available on the *Amiga*.

*VideoTitler* contains a range of facilities for attractive screen presentations and titling in all screen modes with multiple colours and styles. *Amiga* fonts and 'polytext' fonts – made up of polygons – can be entered anywhere on screen and moved around at will and IFF pictures, including colour cycling, can be loaded as backdrops. 3D block, thin edge, neon and emboss are among the 20 styles available and the user can DIY new types.

Clip and paste, mirror image, compression, distortion, inversion and tile animation are apparently all possible. *VideoSeg*, an IFF slide show program, is included. This allows wipes in nine directions, fades and dissolves, block effects such as diamond, checker, drizzle and spiral in and out. Manual and automatic modes are available, parts of slide shows can be selected and accurate timing incorporated.

If your *Amiga* and your video recorder are thinking of getting together then *VideoTitler* looks interesting.

If you taped any World Cup matches last Summer '86 then you may have seen *Aegis Images* in action. Apparently the giant animated logo in the stadium in Mexico City was created with *Aegis Images* on an *Amiga* or two!

*Aegis'* next co-operation is going to be with the CD-ROM technology *CD-Interactive*. *CD-I* will retain a *CD-ROM* drive, audio and video processors, 68070 processor and operating system in one box. *CD-I* cannot at the moment play live video but can animate the thousands of frames stored. Frames from animation

packages such as *Aegis Images* can be stored on *CD-I* for playback via the computer.

Already the *Sachs Enterprises* artists are working for *Aegis* on storyboards for four *CD-I* titles: *F1 Circuit International Formula One*, *The Seven Temples of Cortez*, *Mission Space Station*, *20,000 Leagues Under the Sea*.

*Aegis* has standardised its prices for the British market with *Sonix* at £50, *VideoTitler* at £60, *VideoScape 3D* at £125 and *Draw Plus* at £160 and *Animator/Images* at £90. *Audio Master* will cost £40.00.

*Aegis* is also embarking on *PAL* program conversions and the translation of manuals for *VideoTitler*, *VideoScape 3D* and *Aegis Draw Plus* for the European market.

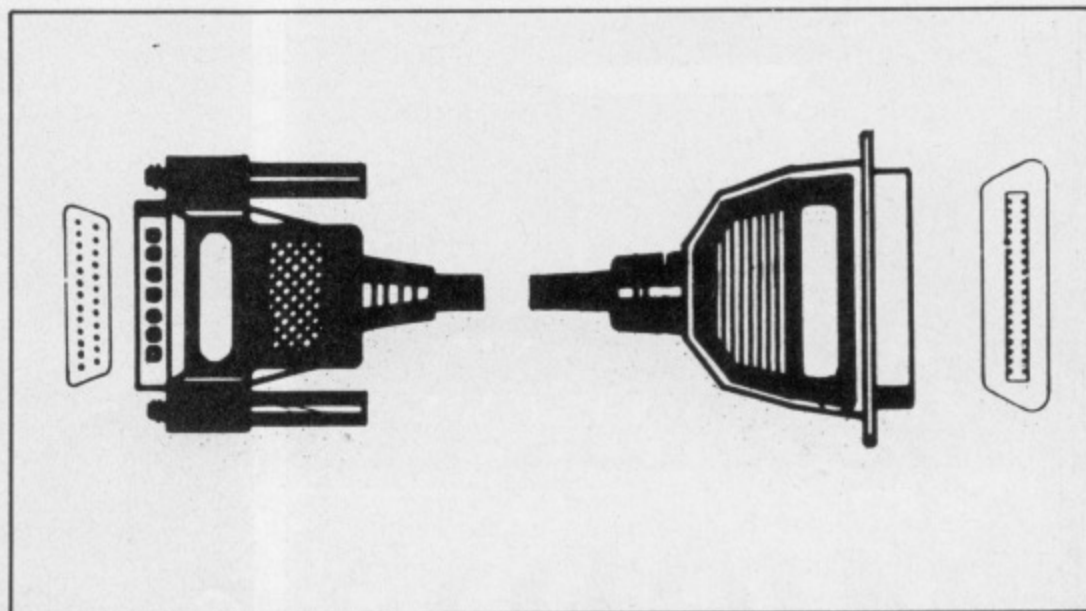
## Info-Mat

*Bitstream Publishing* has come up with a simple but attractive idea, the *Info-mat*, a cross between a mouse mat and a reference guide. The mat contains a listing of all *Amiga* DOS commands on one side with explanations and syntax while the second side reveals the mysteries of *Guru Meditation* numbers. The mat is available direct from *Bitstream*.

*Kuma* announced the availability of their *K-Spread 2* spreadsheet in the very near future, priced at £79.97.

*Enigma Publishing* announced the advent of a new *Amiga* magazine aimed at serious users. The focus of attention will be on features, business reviews and technical support.

*Josty UK* had all those useful buffer boxes and switching units and *Amiga* printer cables.



The MCL092, 3 metres printer cable from Josty UK



# The I.M.P. is out of the bottle

*For all you budding artists get to grips with the image  
manipulation process of your Amiga.*

*By Lewis Tilley*

**I**n the beginning there were only the word processors, cost sheets and number crunchers for the servants of Mammon and those who toiled in the city. Then, there came the Amiga!... and the artists of the world were given the same opportunities of expression which had been given to writers and financiers by the earlier computers. At long last, by using the new crop of graphics software available for the Amiga we can now manipulate images

at the same levels of excellence that words and figures have achieved.

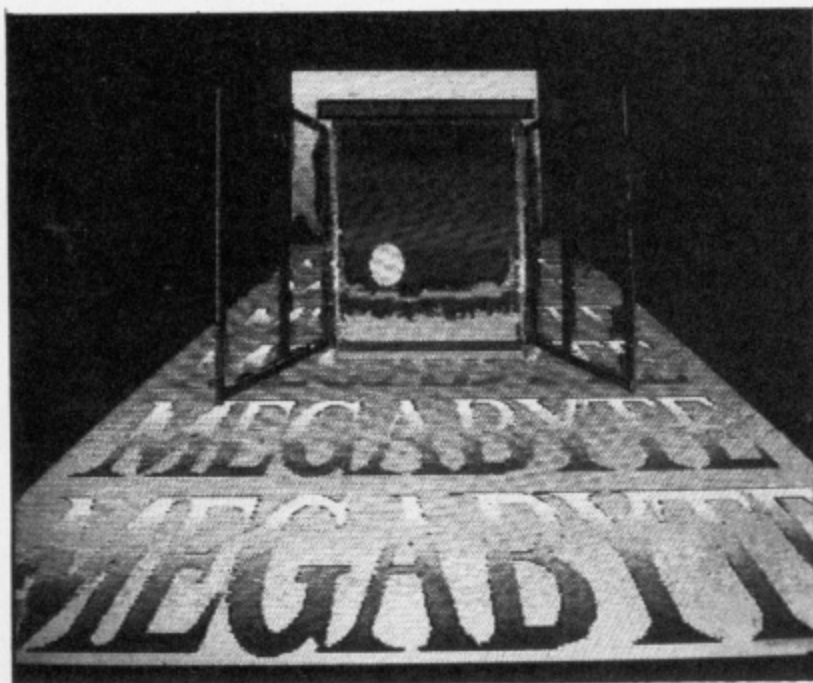
After you have read these ideas on the use of programs like DPaint II, Digi-View and Digi-Paint, your images may still reflect your same knowledge and skills of art, but even those who can't draw a straight line or don't know anything about art but know what you like, can learn to manipulate images with the tools offered by the Amiga's growing

painting and drawing software library.

Since Deluxe Paint II has been bought by over 50% of Amiga owners, we shall begin our investigation with this professional paint program.

## **Deluxe Paint II**

The three essentials for a painter are a surface, a brush and some paint. Limited only by the memory you have in your Amiga, you may have a page





from 320 pixels wide by 200 high to 1008 pixels x 1008 pixels. The program normally supplies three page sizes as your surface. The first one is the normal Amiga display size; the second, a full print page which will print out at 8 1/2" by 11" and finally a TV full screen size which displays to the edge of the screen.

The normal standard of 320x200 is easier to use since it is not necessary for scrolling back and forth or up and down with the cursor arrows as you work. However, if you are working for a print-out, choose the 320x340; if for TV display (or for photographs of the screen) use the 352x226 since every little bit helps towards a good display of your picture.

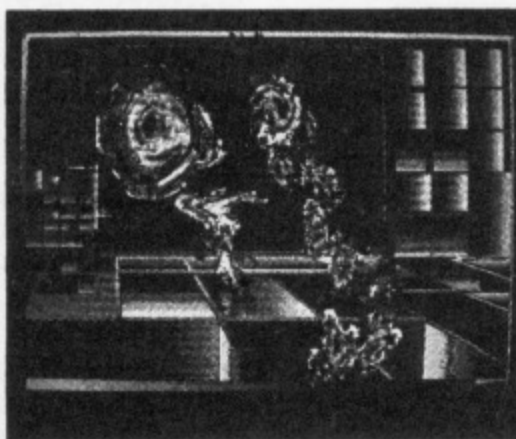
One of the miracles of the program is that it will display, for scrolling, page sizes up to 1008x1008. If you have 512K, load a two colour hi-res into low-res and work on it at that magnification, using the arrow keys to scroll, then reload into hi-res with the format requester.

## Brush

The element called brush is a major focus of DPaint (I will now refer to it by this name). In its simplest and most used form it is a one pixel point used in the freehand drawing mode. There are tools, however which change its size, shape and colour. A dotted line which spreads its dots with the speed of mouse movement is especially useful when combined with the GRID mode.

Out of the freehand mode you may select a wide range of shape makers, i.e. rectangle, circle, oval and polygons, both single lined and filled. A line per se may be placed under control as straight, curved, and disciplined. The latter word is my way of identifying a mode that turns your freeform drawing line into a rigid horizontal or vertical one when you hold down the SHIFT key as you draw.

Known as custom brush, the image copying mode "corrals" an area selected as a rectangle or as a freeform shape. It may then be lifted from its place and moved around the screen as you may choose. *This is a powerful tool*, albeit a complex one to learn and use. Since it has the same status as a picture, it too has its own pull-down menu with all the functions of SAVE, LOAD, etc, that PICTURE has. It is the star of the PERSPECTIVE tool which you will find in the EFFECTS menu.



## Paint

The artist also requires paint which is supplied under the aptly named element of PALETTE. You have already been introduced to the rudiments of colour changes in the Preferences drawer in Workbench. Here you will meet the old friends that slid from side to side and changed the hues (that is the actual colour like red, yellow and blue in the colour box you had as a child) of the screen and the characters of Workbench.

However, in Palette they slide vertically and change hue, value and saturation (or chroma), if you wish to call saturation that). They also do this in a funny way for an artist familiar with paint on a palette and mixing subtractive colours!

Additive colour mixing is the name of this new game you must learn. Any theatrical stage lighting person can tell you all about it. The footlights have traditionally consisted of a long row of lights which alternated between red, green and blue. Each group of these hues was separately controlled by a sliding dimmer. Dim down the blue footlights and the stage became more yellow. If you dimmed the green, magenta (or baboon ass pink) flooded the actors. Dim red and a weird turquoise blue (called cyan colour) cast its pallor. When you subtract one of the essential colours of the R.G.B. palette, you are left with a colour which is a member of the subtractive artist's paint palette of yellow, magenta and cyan!

Now, let's run this film of the stage lights backwards to see how an additive colour mixing palette works. Start with a blacked out stage. Bring the red dimmer all the way up. You get red light on the stage. Bring the green dimmer all the way up to join the red... you get yellow light on the stage. Now, add to the red and green light the full wattage of the blue - voila! White light. Now that's additive colour.

## More than you bargained for?

With the colour palette requester you not only get a wonderful red-green-blue slide controlled mixing panel which displays any changes on a grid of all the colours you have in this particular palette, but you also get a second set of controls which do the same thing but in traditional colour theory of hue, saturation and value.

The addition of controls which let you copy one colour to another place on the palette grid, exchange colours on the grid or spread an array of values and/or hues between two different colours placed apart on the grid should have been enough. The range control is pretty handy because it determines what colours and values go into your gradient fills (a favourite tool that I use constantly). Range is also used in the colour cycling, and I guess that is why it is here. However, since I have a prejudice against all the beer signs of fake animation water falls and forest fires achieved by cycling lights which are hung over back bars in the USofA, I resent the inclusion of these features in the Color Palette Requester. I even resent its inclusion in the DPaint program. What am I saying? Some day I'll see a use made of it that will force me to eat every word I have written against cycling.

## More on the screen

It is easy to think of the screen as a blank piece of paper, but it is far more. It may be a piece of paper of any colour you wish. By clicking with the right button on the colour you wish in the palette grid at the right bottom corner of the screen, you set the colour indicator box's current background colour. Click the CLR icon just above this and your screen is changed.

It can also be a rigid grid which forces every alignment to agree with a pre-set horizontal and vertical pattern of squares or rectangles. Click the grid icon with the right button to bring up the gridding adjuster.

You may go further still down this pre-set path of patterning the paper by bringing up the symmetry requester with a right button click on the symmetry icon. Textile designers heaven is here.

How about another piece of paper behind the one you are working on? When you opened the first page file... or loaded in an old picture, you opened a second page anyway. You



have to hit key "j" to reveal it. You may swap back and forth between these two pages by using the key "j" command.

One more trick in this page arsenal. Pull down fix background from the effects menu. It protects you by forming an invisible shield over your screen. You can mess it up by fiddling to your hearts content, and then erase all your botching with a click of the left button on CLR icon. You may erase only the bad additions since "fixing" the background by scrubbing the mouse with the right button pressed.

### A word on memory

If you are serious about graphics on the Amiga you will need a minimum of 512K. The DPaint manual admits that a megabyte is the absolute maximum that can be used by the program. Only a pinched financial situation should deter you from that megabyte.

### The nitty gritty of Key Commands

DPaint may be approached via icons or keys. Even when loaded by CLI with a simple call for DPAINT, the screen presents you with mouse activated icons requesting that you choose a screen format. Later I shall discuss advantages of the different modes of resolution, but for now simply OK the lo-res 320x200 with its 32 colours.

You will be instantly transferred to the action screen which displays a panel on the right of tool icons. You access them with clicks of both left and right buttons of the mouse. The menu bar at the top of the screen is accessed with the mouse's right button in the usual pull down manner. The key f9 toggles off/on the displayed top menu... and gives you that little extra space to draw in. The key f10 toggles off/on both the menu and the larger space on the right used by the tool icons so that you may draw in that bigger space!

Now, let's get started, drawing in all this expanded screen that you have added by toggling f10. Key "D" will give you standard freehand drawing with a built-in 1 pixel brush. Want a larger brush? Key "=" increases size (= is also the + key). Key "-" reduces the size at any time. You may increase and decrease the size of a brush even while moving it. Change the brush's colour? Range through the present palette

without having to move your brush. Key "[" and key "]" to move back and forward. Observe the brush's change of colour.

### Custom Brushes

All of the above key instructions work with the following custom brushes. Just as you chose the single pixel brush with a "D", you may choose to make a rectangle brush of any part of your present screen image. You "cut" a brush by key "b" which presents a large cross hair. Using the left mouse button, enclose the area you wish to make a brush of; release the button and draw! Try the left and right button.

Here are more changes you can make with your custom brushes. Key "h" and you will halve the size of the custom brush. Hit "h" again and again it halves. Key "H" and you double the size of the brush. Key "x" will flip the brush horizontally. Key "y" flips it vertically and key "z" rotates it 90 degrees.

If you change out of this custom brush (let's say to one of the ready made brushes at the top of the tool box which you select from the icons), you can return to the last custom brush you made by hitting key "B".

### Tools for the brush

Draw a straight line with key "v". Hold down left button and drag to length and position of the end of the line.

Draw a curved line with key "q". Click and hold left button of mouse to set first end point. Move to second end point and release. Now, move mouse away from points to create the curve. Press left button to draw curve. The French artist Delacroix developed a system of drawing with rounds. You too can draw like Delacroix with this curve feature and the two tools which will now be described.

Make a circle in line of brush with key "c". Set centre point with left button, then pull out to the size you want. Key "C" is a filled circle.

Make an oval in line with key "e" as above. Key "E" makes it a filled oval.

Make a rectangle with key "r". A filled rectangle is made with the capital "R" key.

A special tool which I use often, to give better control to the mouse when cutting intricately shaped brushes is

one not accessible from the keyboard. You must return to the icon panel to select the polygon tool. Select the filled icon, then go into Custom Brush tool (or hit key "b").

You must place the cursor at the starting corner and click, then move to the next point and click again. Continue as you outline the complex shape and come back to the starting place to complete the polygon. You may stop at any point and hit the space-bar to let the program connect that stopping point to the beginning point.

### Fill

The fill tool may be accessed from the key "f". It will fill (with the colour you have selected) any area which is completely enclosed. If there is as much as a missing pixel, the fill will spill... out into all the surrounding areas. What do you do then? When it has finished bleeding all over the place, press key "u" for undo. If you haven't been involved in too complex an operation at the time when this happens, the spill will be quickly mopped up, and you can look for the break in the dam. It always happens to me when I'm in the middle of complexities. You just go back to the beginning of where you saved the image last.

**YOU DO SAVE THE SCREEN YOU ARE WORKING ON AFTER EVERY MAJOR CHANGE. DON'T YOU?** (don't forget to use the **FIXING BACKGROUND** from the pull-down menu of **EFFECTS**).

Many elements, tools and modes remain to be discussed in this introduction to the use of DPaint. Most of the things we have not covered in this initial article take more time to explore than the ones we have outlined above. Among them are how to set up Palette for using gradient fills, how and why to vary fill types and further discussion on selection and use of the different resolution screen modes of the Amiga.

Fine tuning with smear, shade and blend must be mastered not to mention the world of stencils, a phrase from the excellent manual supplied with Deluxe Paint II, which lets you block out shapes in a manner which will astound you. So dig out your manual and let it lead you deeper into the mysteries of Amiga paint graphics until we come back next time with ideas of extending DPaint with Digi-View and Digi-Paint.





## "WE'VE TAMED THE AMIGAS"

Buy your A500 or A2000 from Triangle TV, and we will soon have it eating out of your hand. You'll see how to interface it to your **VIDEO RECORDER**, and produce **FULL** screen, 3D graphics/scrolling-titles and animations. (as seen on TV's Network '7' and the **CHART SHOW**).

You'll **MARVEL** at the incredible **FRAME GRABBING** option, where you can store a video picture, colourise it, animate it, and then even genlock it over a moving video sequence.

You'll **GASP** with astonishment at the business and presentation packages that can be **RECORDED** onto **VIDEO** or **SLIDE**.

TRIANGLE TV will help you put together **YOUR** package to suit **YOUR** needs and **YOUR** pocket.

Contact us NOW for a demonstration, or ask about our Amiga Promotional Video and we will soon have your new **AMIGA MOUSE-TRAINED!**

**TRIANGLE TV**  
01 874 3418  
130 Brookwood Rd.,  
London SW18 5DD



# compunet

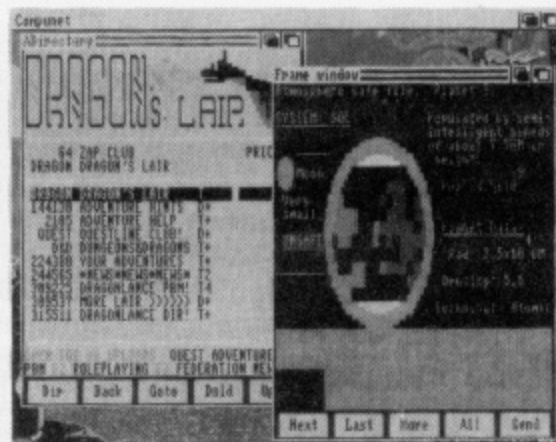
**NOW FOR THE AMIGA!**

**Join the new on-line community!**

Networks are the future for micros! Let yours take you into tomorrow TODAY with Compunet, Britain's most advanced, most interactive net!

You're just a local call away from a whole new world. Demos, multi-user adventures, micro expertise, scores of interest groups, news, chat and gossip, utilities - with 1000s of new items each week, it's a vast, ever-changing landscape. EVERY member is encouraged to 'upload' onto the net - no special facilities or micro skill needed!

All this - and special modem offers too... Can you afford NOT to find out more? For Amiga, Atari ST, CBM 64 and 128.



- Packed with software, demos, news, chat, debate, interests, information!
- Free electronic mail!
- Put YOUR programs, graphics, messages on the net - or start your own BB or on-line magazine!
- 95% local call access, or PSS from overseas.
- Get work, get famous - show off your talent on the net!
- Make instant contact with Compunet's famous Party-Line chat service!
- On-line adventure with multi-user games!

### HOW TO JOIN COMPUNET

If you have an Amiga or Atari ST and a Hayes-compatible modem, you can download the Compunet software and log onto Compunet's Guest area for a free look at the net. You pay £19.95 for the software only if you decide to join. Ring 01-997 2591 for further details, or send us the coupon for how to get the software on disk.

If you don't have a Hayes-compatible modem, post us the coupon for full details of Compunet and our discount modem offer. CBM 64 or 128 owners, use the coupon for news of our special offer for you.

### TELL ME MORE ABOUT COMPUNET AND HOW TO JOIN!

Name: \_\_\_\_\_ Micro: \_\_\_\_\_  
Address: \_\_\_\_\_

Modem type: Hayes compatible ☐  
Non-Hayes ☐  
No Modem ☐

Tell me about your discount modem offers ☐

Compunet, Unit 26, Sheraton Business Centre, Wadsworth Road, Perivale, Middx, UB6 7JB (01 997 2591)

# JUMPDISK

THE USA'S No 1 MONTHLY MAGAZINE ON A DISK  
**AMIGA COMPUTERS**  
NEW LOOK NOVEMBER ISSUE NOW AVAILABLE  
**PROGRAMS\***

#### FAST AMIGO

Arcad Game in 'C'

#### PIE 3D

Generates Pie Charts

#### VARIABLE LISTER

Dissect Basic

#### DISK MAN

Reconfigurable Disk Manager

#### AUTOMATA

Modula 'Life' Style

#### CALCULATOR

Clickable Math

#### KNOCKOUT

Dice Game

#### NOTYPE

The Pointing Writer

#### QUARTET

Technique

#### SNEAK PEEK

Revealing the Hidden

#### RAINBOW

Color Demo

#### ZOOM LENS

Magnify Screen Areas

#### OPENWINDOW

Demo with CNOTES

#### DEPARTMENTAL PROGRAMS

Printall: Send JUMPDISK to Paper  
Speakall: Hear on Record  
Articles How I Run Instruction

### ARTICLES

#### DISK MAN

Documentation

#### VARIABLE LISTER

Viscera of Basic

#### PD DISKS

£3 each, FISH#89 to #102

#### PIE CHART

Round Out Your Reports

#### AMIGADOS PRINTER

Built-in Help

#### CNOTES

Cling in Depth

#### AUTOMATA

Alternate Life Style

#### PEACE

History of a TV Spot

#### TRANSFORMERS

NEW TRACKS

#### VAPOR CAPER

Satire

#### SCULP 3-D

Review with Art

#### KEYBOARD CADET

Review

#### EARL WEAVER

BASEBALL

Review

#### S.D.I.

Review

#### NEWSBREAKS

The Amiga Scene

#### INSTANT ORDER FORM

Print Me!

#### HOW TO SUBSCRIBE

THE EDITORS TWO

CENTS

**ALL OF THIS FOR £8.50 inc. VAT.**

Please send cheque or money order made payable to:

**GEORGE THOMPSON SERVICES Dept Y.A.**

Dippen Lodge, Dippen Brodick, Arran KA27 8RN

Scotland. Tel: (077082) 234

Price includes first class P&P within U.K. & Europe

**SAME DAY DESPATCH OR ORDERS**

**THERE IS A GUARANTEE WITH EVERY ISSUE**



# Amiga Graphics

*Stretch the imagination of your Amiga to the full with the help of these new graphics packages.*

*By Anne Owen*

**T**hings have moved on quite a bit since I first started to use the Amiga to produce graphics on screen and on the printer. I started with Deluxe Paint, a copy of which you'll have probably received with your Amiga 500. It is a remarkable program but now, even more remarkable, is Deluxe Paint 2. Can Dpaint 2 be £69.95 better than the original? Well it depends on your requirements. If you use Dpaint for producing two dimensional newsheets, cards or posters then stick with it. If you are a real computer artist then Dpaint 2 has a lot to offer you.

## Deluxe paint 2

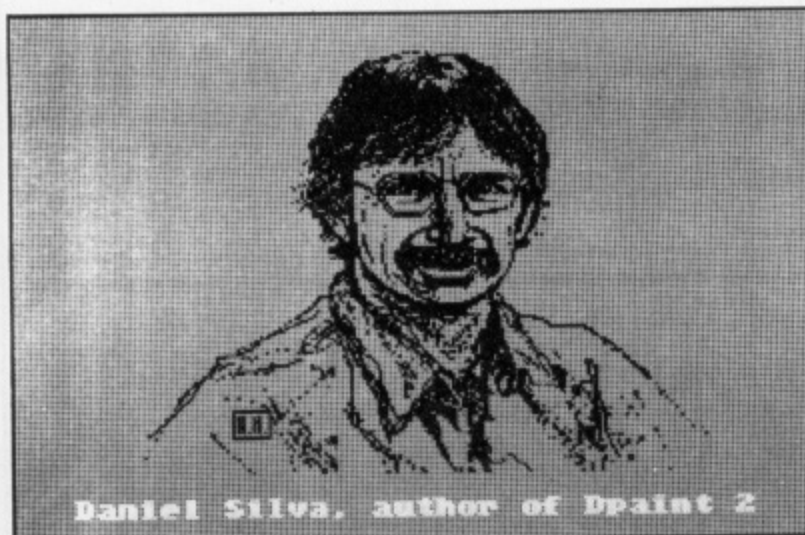
The first difference you notice is a screen format menu which greets you before entering the drawing screen. This menu is, also accessible from the project menu, and defines your screen resolution and the number of colours available. If you are using a 512K machine then the high resolution screen is available but with a maximum of eight colours. Even so, some features need to be overlayed from disk.

What is immediately obvious is the increased number of menu options. The drawing toolbox however remains the same. The options menu branches into a page size menu where you can set standard (screen size), full (printer A4) and video (whole screen without the borders). The print

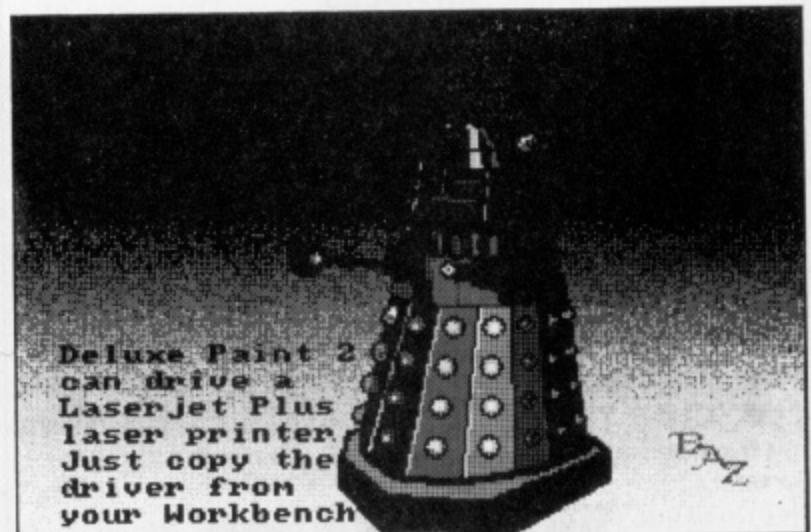
option has been improved greatly with direct access to settings such as black and white, grey share or colour, portrait or landscape, full control over the aspect ratio of the dump and the number of copies. Thankfully you can also now terminate the dump at any stage.

From the many new drawing features I must pick out gradient fill – an aera fill with a predefined gradient of colour, top to bottom or vice versa; pattern fill – where a brush pattern takes the place of a solid colour; blend, smear and smooth options for brush drawing; shear and bend on brushes; perspective drawing – you can set the perspective centre and, using the keypad, rotate around any of the three axes and fix or free an axis. The mouse moves and sizes the brush before drawing. An anti-alias feature smooths the jagged edges that can occur with perspective drawing. This is the slowest of Dpaint's drawing functions but the results are worth the wait.

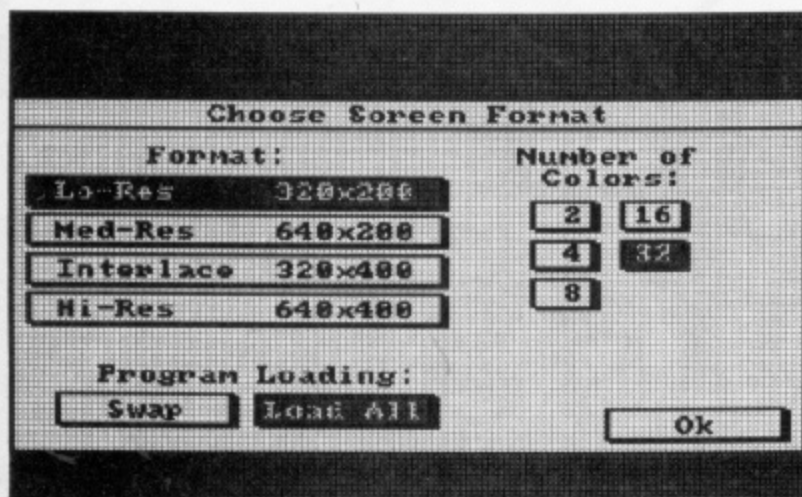
Two other major new features are stencils and fixed backgrounds. When you get to a certain stage in a drawing you can fix the background. Any experiments can then be wiped to the old picture instantly with the CLR icon. Stencils mask certain colours on the screen so that your airbrush tool will not effect them. This makes precise shading and filling trivial, as oppose to the time where you might have had to use the zoom feature to tidy up an edge.



Deluxe Paint 2







Resolutions available with Deluxe Paint 2

Last but not least is the Deluxe Paint 2 manual, which is a vast improvement on the old, with both reference and tutorial sections. The disk comes with example brushes and stencils to use in the tutorials. I am impressed by the way that so much more has been incorporated into Deluxe Paint 2 without sacrificing its best features, ease of use and fast operation. With numerous screens of clip art just waiting for your personal touch, Deluxe Paint 2 is an irresistible piece of software.

## Butcher

In an earlier review I found Butcher a very useful program; much more than just a utility mainly because of its ability to swap between screen formats (now achievable in Dpaint 2) and for its selective print feature, clipping and printing any part of the screen. A new version has improved the drawing facilities and makes Butcher a useful art package in its own right, though it does lack features like fonts and brushes.

The palette and special effects are very comprehensive with features such as edge enhancing and colour filters. The Mosaic option now allows you to define the tiles which are used in the redefinition of the picture on screen. A 'spare' screen is kept in memory and can be merged or swapped with the current screen.

Anyone interested in the printing industry will enjoy investigating colour separation and screening – a way of producing half tones for black and white printing. Pixels on screen are analogous to the dots which make up all the printed material in our newspapers and magazines and Butcher investigates how they can be manipulated.

Experimenting with a dot matrix or laser printer can bring interesting results. If you use Pagesetter for desk top publishing then try processing your graphics through Butcher first. The packages complement each other and I'm happy to recommend the second version of Butcher as wholeheartedly as I did the first.

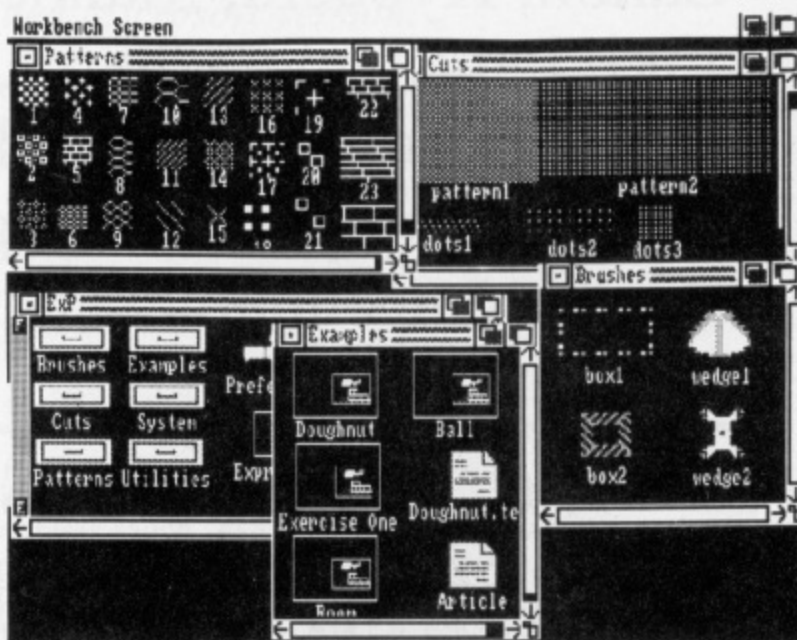
## Express Paint

An interesting newcomer to the Amiga graphics scene is Express Paint, which is instantly recognisable on the shelves by its huge plastic box. The package contains mostly air but also a 3.5" disk and a neatly typeset manual. Express Paint boasts some very interesting features, not least the ability to create a picture larger than screen size.

I found using the software a little less than 'intuitive'

which was disappointing because there is no doubting the power of some of the features. The text fill immediately caught my interest, especially as it works just as well with irregular shapes as with nice straight columns. Amiga fonts are supported with underline, bold and italic, centred, right left and fully justified.

As well as screen size, the number of colours in use can be defined at the start of a session. When it comes to drawing I liked the spraycan slider control, varying the density and spread of the 'droplets'. Rectangles, circles, arcs, ellipses and freehand drawing in different line styles are all available and there's a pen tool which can be sized to suit. Space can be filled with solid colour, text or cut pattern. Cuts, patterns and brushes can be held in libraries ready for use, and cuts can be taken from any part of the screen. Special effects can then be performed upon them, flipping, rotating, masking colours and so on.



The Express Paint disk

The print options are comprehensive and need to be because of the nature of Express Paint's larger than usual screens. The horizontal/vertical ratio can be adjusted and multipage printouts achieved for posters and banners. The width of the printer is the main problem!

I wasn't able to make full use of the larger screen and I didn't like the finish on the low resolution display. I did however enjoy using the 'lock' option which enables the preservation of 'windows' during drawing and picture merging operations. The desktop publishing element does not compete with a specialist product like Pagesetter. Nevertheless, use of grids, boxes, purpose drawn cuts, line styles and text fills can manufacture a convincing and interesting page of text.

Although I found its working awkward compared with, say, Deluxe Paint 2, there's no doubt that Express Paint has a number of powerful features.

### Touchline:

**Name:** Butcher and Express Paint. **Price:** £28.00 and **Machine:** Amiga. **Supplier:** Amiga Centre Scotland, 4 Hart Street Lane, Edinburgh EH1 2RN. **Tel:** 031-557 4242.

**name:** Deluxe Paint 2. **Price:** £69.95. **Machine:** Amiga. **Supplier:** Electronic Arts, Langley Business Centre, 11-49 Station Road, Langley, Nr. Slough, Berks SL3 8YN. **Tel:** 0753 4944.





# TRI COMPUTERS

Dealers for Commodore, Atari, Amstrad, Roland, Xerox, Epson, Brother, Philips, Star, NEC, Canon, Kyocera, Mannesmann, Citizen, Toshiba, Oki, Panasonic, Cherry, Polaroid Palette, Acco, Elliot James, Rexel, and Hantarex monitors. We also supply a full range of computer system consumables: from disks to desks.

We combine system support,  
with a friendly service and  
helpful staff.

Tri Computers  
161-169 Uxbridge Road Ealing London W13  
9AU  
01-840 6136

**10%** DISCOUNT VOUCHER

Present this voucher at our showrooms before 31st December 1987 and get 10% off of your purchase.



# Play it again Sam

*If Basic is your native language then the Amiga offers alternatives to the bundled Microsoft version.*

*By Anne Owen*

**I**f you are developing software for the Amiga then SAM Basic is one alternative you might consider, especially if you require multi-tasking support.

SAM Basic programs can be created in any text editor, including ED or EDIT or a wordprocessor which produces ASCII. An editor called TXED is supplied with the package. The ASCII output from an editor is tokenised and the code optimised before use.

There are two versions of SAM Basic; the development version and a run time version. The run time version can be distributed so that your own programs can be used by others, the development version cannot. When a program is saved ready for distribution it can be protected. An icon is also saved to represent the program and the program can be run by clicking on its icon.

Development is aided by HELP which opens a window with keyword syntax and usage, WHY which generates a second level of error message, FORCE ERROR, ERL, ERN, ERS (error lines, number and segment) and RENUMBER. KEY defines a function key string. LIST lists on screen, LLIST to the printer.

SAM Basic uses line numbers for

its statements and all the usual control structures are available such as REPEAT...UNTIL, WHILE, CASE, BLOCK...END BLOCK. You can call a procedure, DEFINE LABEL and then GOTO or GOSUB to that label, from whence your program might RETURN a value.

Sam Basic allows extensions to itself to be loaded. This is important because the language is large, and if a certain extension is not required, it can be discarded with KILL. There's a function which can be used from within a program to selftest whether any particular extension is present. If not, it can be added on from disk. It looks like this:

```
IF NOT (EXTENSION("graphics"))-
THEN EXTEND WITH "sambasic:
extensions/graphics
```

SHOW EXTENSIONS is available while developing.

## Key Words

SAM Basic contains a hard core of the usual functions and keywords with many more available as extensions.

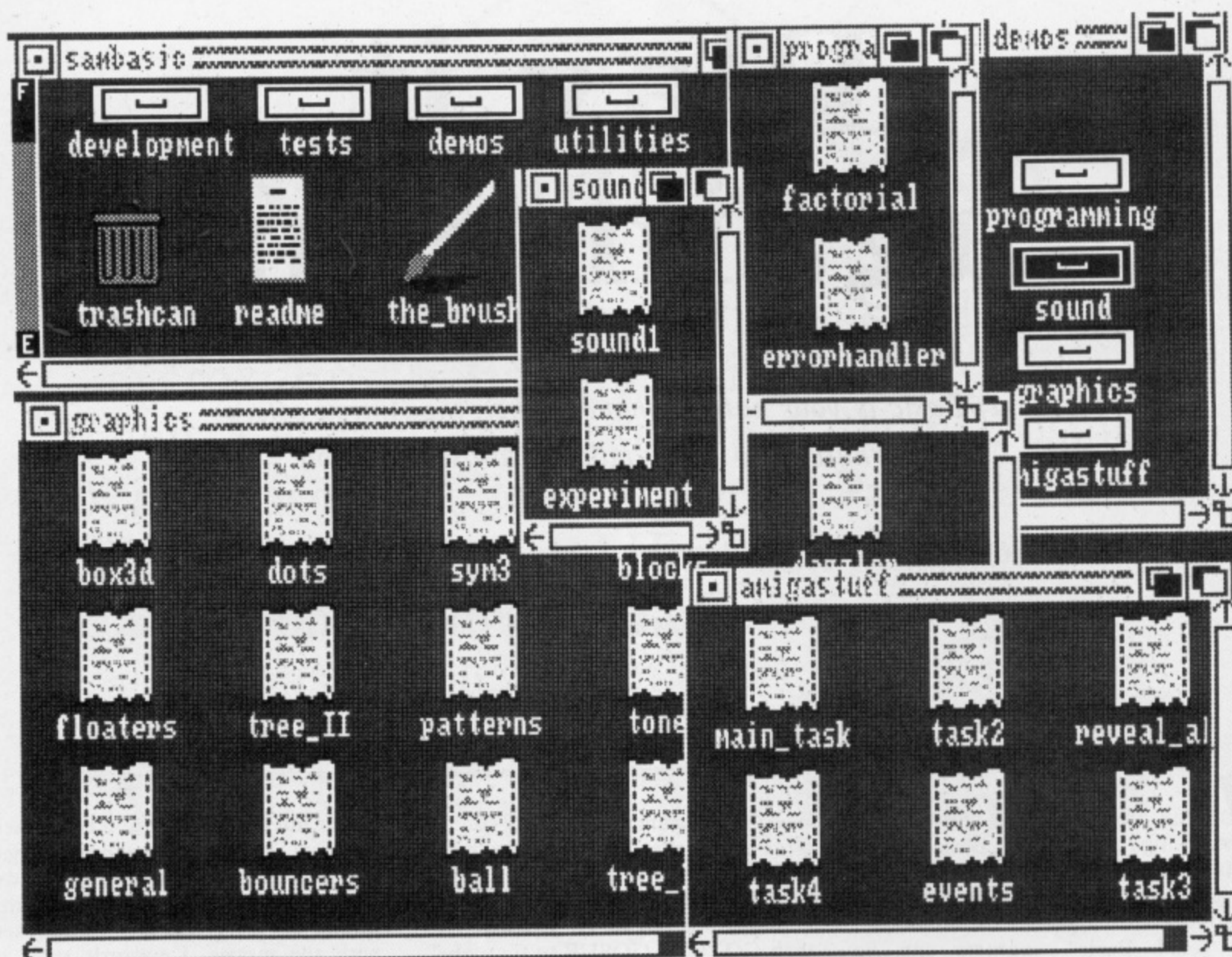
If you are designing a package with

a user interface then you'll be pleased to know that windows can be opened and sized. Up to thirty-two pull down menus can be defined, each containing numbered items which can be chosen with the mouse. Keywords such as MOUSEBUTTON and PRESS are employed to interpret mouse movements. Menu items can be added at a later date.

I was impressed by the way SAM Basic handles filing activities. The keywords are sensibly similar to AmigaDOS commands in some instances, e.g. DIR, DELETE FILE and MAKE DIRECTORY, CHANGE DIRECTORY is very useful. OPEN, PRINT, OUTPUT and CLOSE (ALL) FILE(S) are used for reading and writing data. READFILE reads a file's status. OUTPUT IS redirects data to a file or device, e.g. a printer.

SAM Basic controls graphics via special keywords and shape tables of simple and virtual sprites, bobs and three dimensional drawings. IFF files (including Hold and Modify) are handled by LOADSCREEN and WRITE IFF (save to a file). FETCH loads a file into a memory buffer (which can be CLEARED) for it to be TRANSFERED to the screen. Screens can be moved forward and back and both windows and screens can be





dumped to a printer. Font style, width and spacing can be defined.

### SAM Specials

SAM Basic has a feature known as segments. These are separate SAM Basic programs (up to 32) defined by the main program. Any segment can be activated with the command `USE <segment name>`. SAM Basic then goes on interpreting from line 1 of the segment. Each segment has to be treated as a separate program, but values can be passed between segments via `SEND MESSAGE`, `MSGTYPE`, etc.

A potentially very powerful feature of SAM Basic is its ability to activate and manage a number of tasks at the same time. Multi-tasking is usually the domain of AmigaDOS but SAM Basic provides commands like `TASKING ON/OFF`, `DEFINE TASK`, `TO TASK`, `HOLD` and `SLEEP`. The commands define the tasks to be

performed and tidy up after completion, or perhaps temporarily suspend a task only to return to it later. It is left to the programmer to keep track of which tasks are 'operational' although there are commands like `TASK STATUS` to help.

The other features which I found useful while programming in SAM Basic were `FRE` - which gives memory status information, i.e. how little you have! `UCASE$` and `LCASE$` convert to upper/lower case in strings and `TRIM$` trims spaces. `CSRLINE` and `POS` read the current cursor position.

The only category which I found SAM Basic weak was sound and speech, e.g. there is no equivalent of Microsoft's `TRANSLATE$` which 'speaks' from a string of phonetic symbols.

### SAM Package

Kickstart 1.2 and 512K or more are necessary if you wish to use the current

3.1 version of SAM Basic. The interpreter and tokenising editor are the core of the package with standard extensions for graphics. IFF file handling, 3D graphics and Shape handling. The disk also contains examples for all the main areas of use. These, and the excellently written and produced manual - an A4 folder - mean that SAM Basic can be learned quickly. Planned extensions include complex file handling, array, string and sort package, toolkit and additional graphics. The nature of SAM Basic means that any number of new extensions could be provided. The practical nature of the facilities provided by SAM Basic make it a powerful development tool for those who prefer Basic.

#### Touchline:

**Name:** SAM Basic. **Price:** £89.99.

**Machine:** Amiga. **Supplier:** Parkway Consultants. **Tel:** 0707 371616.





## AMIGA HARDWARE

Amiga A500 Keyboard/Mouse/Drive  
Amiga A500 + A520 Modulator  
Amiga A500 + Philips 8533 Colour Monitor  
Amiga A500 + Philips 8833 Stereo Colour Monitor  
Amiga A500 + Cumana CAX354 Second 3.5in Drive  
Amiga A500 + Cumana 3.5in Drive + Philips 8533 Colour Monitor  
Amiga A500 + Cumana 3.5in Drive + Philips 8833 Colour Monitor

**★ STOP PRESS ★**  
PHONE FOR SPECIAL DEALS

## RRP OUR PRICE

£499.99	£449.95
£524.98	£469.95
£819.94	£709.95
£829.94	£719.95
£649.94	£559.95
£969.89	£819.95
£979.89	£829.95

★★ All Amiga A500 come with a FREE Sports Bag, GFL Football, Baseball & Golf ★★  
★★ As well as Delux Paint, Basic, Workbench, Utilities, Manuals and Tutorial ★★

## AMIGA PERIPHERALS

Amiga A1010 Second 3.5in 880k Disc Drive (A1000 or A500)  
Cumana CAX354 880k Drive 3.5in (A100 or A500)  
Amiga A1084 Colour Monitor (NEW MODEL)  
Philips CM8833 Stereo Colour Monitor + Lead  
Philips CM8533 Colour Monitor + Lead  
Philips CM8852 Colour Monitor + Lead  
Amiga A521 Modulator (To connect To TV)  
Amiga A501 512k-1040k Ram Upgrade + Clock  
Panasonic KXP-1081 Printer, Epson Codes. NLQ. 120CPS + Lead  
MP165 Printer, Epson Compatible. NLQ. Draft 165CPS + Lead  
MP135 Printer, Epson Compatible. NLQ. Draft 135CPS + Lead  
MP200 80 Col Printer, 200CPS. Epson Codes. NLQ 40CPS + Lead  
MP201 136 Col. Printer, 200CPS. Epson Codes. NLQ 40CPS + Lead  
MP480 80 Col. Printer, Epson Codes. NLQ 480CPS + Lead  
MP26 132 Column Daisywheel Printer, 26CPS + Lead  
MP40 158 Column Daisywheel Printer, 40CPS + Lead  
Midi Master Interface (State A1000 or A500)  
DSDD 3.5in Discs + Library Case (10) — LOW LOW PRICE  
Quality Branded 3.5in DSDD Discs (10) — LOW LOW PRICE

## RRP OUR PRICE

£249.95	£209.95
£149.95	£119.95
£379.95	£309.95
£329.95	£279.95
£319.95	£269.95
£349.95	£299.95
£24.99	£22.99
£113.85	£99.95
£279.95	£174.95
£263.35	£199.99
£194.35	£159.99
£343.85	£294.99
£401.35	£329.95
£424.35	£339.95
£299.95	£249.95
£435.85	£349.95
£34.99	£29.95
£22.95	£14.95
£27.95	£18.95

## SPECIALS (Limited Stocks)

Amiga A1081 Colour Monitor  
Commodore C128 + Tape Recorder + J/Stick + Software  
Commodore 64C Sports Pack (64C, 1530, J/S, Sports Bag, 5 Games)  
Commodore 64C Computer only  
Commodore 1530-1 Tape Recorder  
Commodore 1541C New Disc Drive + FREE GEOS + 10 Discs  
Commodore 64 Mouse & Software (NEOS)

## RRP OUR PRICE

£349.95	£309.95
£269.99	£229.95
£199.99	£169.95
£169.99	£139.95
£44.95	£34.95
£199.99	£169.95
£24.99	£19.95

## AMIGA 500/1000 GAMES SOFTWARE RRP OUR PRICE

Adventure Construction Kit	£29.95	£20.95
American Football	£24.99	£16.95
Amiga Karate	£19.95	£13.95
Archon	£29.95	£20.95
Archon II	£29.95	£20.95
Arctic Fox	£19.95	£13.95
Arena/Brataccus Pack	£34.95	£23.95
Balance of Power	£29.95	£20.95
Barbarian	£24.95	£16.95
Bards Tale	£24.95	£16.95
Baseball	£24.99	£16.95
Basketball	£24.99	£16.95
Bureaucracy	£34.99	£23.95
Chessmaster 2000	£24.95	£16.95
Crunch Factory	£9.99	£6.99
Deep Space	£34.95	£23.95
Defender of the Crown	£29.95	£20.95
Deja Vu	£29.95	£20.95
Demolition	£9.99	£6.99
Diablo	£19.95	£13.95
Dr. Fruit	£9.99	£6.99
Faerytale Adventure	£49.95	£37.95
Flight Simulator	£49.95	£37.95
Flight Simulator		
Scenery Disc	£24.95	£16.95
GoldRunner	£24.95	£16.95
Golf	£34.95	£23.95
Guild of Thieves	£24.95	£16.96
Hacker	£24.95	£16.95
Hacker II	£24.99	£16.95
Hardball	£24.99	£16.95
Hitchhikers Guide	£29.99	£20.95
Hollywood Hijinx	£29.99	£20.95
Hollywood Strip Poker	£19.95	£13.95
Impact	£14.95	£10.49
Kampfgruppe	£29.99	£20.95

## AMIGA 500/1000 GAMES SOFTWARE RRP OUR PRICE

Karate Kidd Part II	£24.95	£16.95
King of Chicago (Soon)	£29.95	£20.95
Kings Quest III	£24.99	£16.95
Knight Orc	£19.95	£13.95
Land of Legends (Soon)	Phone	Phone
Leaderboard (Not A500)	£24.99	£16.95
Leaderboard Tournament	£9.99	£6.99
Leather Goddesses of Phobos	£34.99	£23.95
Marble Madness	£19.95	£13.95
Mean 18 Golf	£29.95	£20.95
Mech Brigade (Soon)	£29.99	£20.95
Mouse Trap	£14.95	£10.49
Ninja Mission	£9.99	£6.99
Ogre	£24.99	£16.95
Pawn	£24.95	£16.95
Phalanx	£9.99	£6.99
Phantasie III	£24.99	£16.95
Plutos	£14.95	£10.49
Portal	£34.99	£23.95
Roadwar 2000	£29.95	£20.95
S.D.I.	£29.95	£20.95
Shanghai	£24.99	£16.95
Silent Service	£24.95	£16.95
Sinbad & Throne of Falcon	£29.95	£20.95
Sky Fighter	£9.99	£6.99
Sky Fox	£14.95	£10.49
Space Battle	£9.99	£6.99
Spaceport	£19.99	£13.95
Space Ranger	£9.99	£6.99
Star Glider	£24.95	£16.95
Super Huey	£19.99	£13.95
Swooper	£19.95	£13.95
Tass Times	£24.99	£16.95
Temple of Apshai Trilogy	£24.99	£16.95
Terrorpods	£24.95	£16.95
The Final Trip	£9.99	£6.99
Univited	£29.95	£20.95
Vaders	£9.99	£6.99
Wizards Crown (Soon)	£29.99	£20.95
Zork I, II & III each	£29.99	£20.95

## AMIGA 500/1000 BUSINESS/UTILITY SOFTWARE RRP OUR PRICE

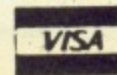
Aegis Animator/Images	£103.50	£83.95
Aegis Artpak I	£23.00	£18.99
Aegis Giga! (Comms S/Ware)	£59.95	£46.95
Aegis Draw	£69.95	£55.95
Aegis Draw-Plus	£184.00	£149.95
Aegis Impact	£63.25	£51.95
Aegis VideoScape 3-D	£143.75	£116.99
Aegis-Sonics	£59.95	£46.95
Cambridge Lisp MCC	£149.95	£116.95
CLimate	£34.95	£27.99
Delux Music Construction	£69.95	£49.95
Devpac Assemble (HiSoft)	£59.95	£41.95
DigiPaint	£49.95	£39.95
Instant Music	£29.99	£20.95
K-Seka 68000 Assembler	£79.95	£63.95
Lattice C Ver. 3.10 (Standard) MCC	£189.95	£139.95
Lattice C (Developers) MCC	£299.95	£249.95
Marauder II	£34.95	£22.95
MCC Macro Assembler	£69.95	£54.95
MCC Pascal	£89.95	£69.95
MCC Shell	£49.95	£38.95
Modula 2 (Standard)	£99.95	£77.95
Modular 2 (Developers)	£149.95	£116.99
Music Studio	£34.99	£23.95
Pagesetter	£113.95	£99.95
PAL Video Digitiser	£199.00	£184.95
PAL Video Digitiser Adaptor (A500/A2000)	£24.95	£21.95
Pro-Midi Interface (for below)	£59.95	£49.95
Pro-Midi Studio Software	£185.00	£149.95
Scribble II	£89.95	£69.95
Soundscape Sound Digitizer	£124.95	£99.95
Superbase Personal	£99.95	£79.95
Word Perfect (NEW)	£293.25	£254.95
Zuma Fonts Vol 1,2,3 (each)	£39.95	£31.95

Post: Send Cheques/P.O. or Visa/Access details to the address below. Phone: Call 0476 60488 24 Hour Service with your Visa/Access details.

**Turtlesoft Dept YC1, 35 Brook Street Courtyard, Grantham, Lincs. NG31 6RY**

Subject to availability, all items are despatched within 24 Hrs. E&OE.

Just because you don't see it — Doesn't mean we haven't got it — Call for Details!





# Maxiplan

*Already an established spreadsheet for the Amiga with database and graphics features, the Maxiplan has now become a macro language.*

*By Anne Owen*

**M**axiplan has in fact evolved into two separate programs, Maxiplan 500 for 512K machines at £149 and Maxiplan plus, with a macro programming language, at £199. If you own a 512K machine then don't try the latter. It runs but large sheets are not possible and other features are restricted.

Once you've set up the dimensions for your worksheet, the mouse can be used to move anywhere within it. An overview of the sheet helps you to plan your layout and zoom takes you down to the level of data and formulae in individual cells. The sheet display and the layout of individual cells can be adjusted in almost every respect, e.g. width, currency sign, alignment in cell, data format, grid display, method of formula display and so on.

Creating a sheet is made easy by move and copy, multiple row and column insert and delete. The clipboard, which is used for copying, can handle up to 100 rows. Operators and functions are easily entered by clicking on the relevant words displayed in pop-up windows. Parts of the sheet can be protected and the complete sheet secured with a password if necessary.

Data can be extracted from worksheets saved to disk by using the REFER function which takes a full file/sheet cell specification. Data can be highlighted and operated on with the database functions of find, extract and sort. These operate according to criteria spelled out on the sheet.

Printer control, down to fine detail, is available from pulldown menus. When opening, saving or deleting a sheet, you can click on drawers or files displayed in a window

or type in the file specification. Macrosheets, datasheets and worksheets can be sensibly kept in separate drawers.

The charts now have their own menu and they are indeed comprehensive, quickly drawn,

colourful and accurately labelled. Available are line, pie, bar, 3D bar, area, X/Y, stack bar, step and hi-lo charts. They can be sent to the printer or to an IFF file for transfer into another graphics based program, e.g. Pagesetter or Prowrite for a report.

**MAXIPLAN PLUS**

- Spreadsheet Analysis
- Database Management
- Business Graphics
- Macro Programming Facility for Informed Business Solutions

**VOTED BEST SPREADSHEET AMIGA 1986**

Published by **Oxxi**  
Developed by Intuitive Technologies



# The Best Software from HiSoft

## Devpac Amiga

### The Editor

Type in your assembly language using the integrated screen editor which runs under Intuition and uses the full window and mouse environment. Everything you'd expect, block operations, search & replace, flexible tabs *plus* a goto error command to make program correction even simpler.

### The Assembler

GenAmiga is the assembler which can assemble source code at roughly 25000 lines per minute, directly from the editor. Full expression handling, up to 16 character labels, Motorola-style macros, conditional assembly, disc inclusion, output of linkable code for ALINK/BLINK (supplied) and much more.

### Special Offer

Just cut out this box and return it with your order and you can claim a **£5 discount** (normal price is £59.95) plus receive a **free solar calculator**. Simply send £54.95 to us at the address below (you can pay by cheque, Access or Visa) and we will despatch your Devpac Amiga by first class post.

**HiSoft** The Old School, Greenfield, Bedford, MK45 5DE. (0525) 718181

```

MonAm Copyright © HiSoft 1986 v1.0
D0:00000001 00 0000 0000 0628 00 A0:0001B429:0A 0000 0000 0000 00
D1:00000000 0000 0000 0000 0000 A1:00000000:0000 0000 0000 0000
D2:00000000 0000 0000 0000 0000 A2:00000000:0000 0000 0000 0000
D3:00000000 0000 0000 0000 0000 A3:00000000:0000 0000 0000 0000
D4:00000000 0000 0000 0000 0000 A4:00000000:0000 0000 0000 0000
D5:00000000 0000 0000 0000 0000 A5:00000000:0000 0000 0000 0000
D6:00000000 0000 0000 0000 0000 A6:00000000:0000 0000 0000 0000
D7:00000000 0000 0000 0000 0000 A7:00024984:0001 B468 0000 1950
PC:0001A8C8 SR:0000 U A7:0007FFFA:0000 0001 D43C 0000
0001A8E8 0000 AE34 0000 6E81 0000 0094 0000 0000 ...4..k.....
0001A8C8,227C 0001 A918 7000 2C78 0004 4EAE FDD8 ...|...p..x..N...
0001A8D8 4A80 6700 0036 23C0 0001 A914 2C79 0001 J.g..6#.....y..
0001A8E8 A914 4EAE FFC4 2800 2204 243C 0001 A924 ...N..(..$...$
0001A8C8 start >MOVEA.L #dosname,A1
0001A8CE MOVEQ #0,D0
0001A8D0 MOVEA.L $0004,A6
0001A8D4 JSR -$0228(A6)
Exception:Breakpoint
Command:

```

### The Debugger

MonAmiga is the symbolic, front-panel debugger with built-in disassembler. All the usual features like multiple breakpoints, single-step etc. are supported plus sophisticated search capability, multi-tasking and a backup screen so that you can see your program's output independently of MonAm's display.

Devpac for the Amiga comes with a full, ring-bound manual with tutorial and the Motorola 68000 Programming Pocket Guide.

Charts are updated automatically from the worksheet and vice versa. Labels can be used over a number of cells. The availability of different pen colours and text styles makes a sheet more understandable, although the colour codes did send spurious characters to the office laser printer despite the correct preferences setting. Parts of the sheet can be frozen for permanent display while the rest scrolls normally. Cells can have extended notes attached to them, which can be displayed or spoken, or both.

### Plus Factor

Maxiplan contains a wide variety of functions ranging from AVERAGE and COUNT (statistical) to Net Present Value, and Expression for Principal (financial for the accountants among you). There are logical, date and mathematical functions and statistical functions for the database, e.g. DSUM and DAVERAGE. The trigonometric functions include (A)COS, (A)TAN,

(A)SIN and PI. There are also some useful looking functions such as CHOOSE, which selects from a list, and LOOKUP, which find a value in a cell.

Macros can be created on a Macrosheet in two ways, either typed in as functions or recorded automatically. Up to 64 macros can be defined per sheet. Any option normally available from the menus – and more – can be achieved from a macro, locating cell, opening a file, or displaying a chart. There are number of control structures which can be employed within a macro to access subroutines, branch or jump.

Any repetitive or frequently run analysis or calculation which you perform on a sheet can be recorded or programmed. To record, all you have to do is set the recorder going and carry out the action you would normally perform manually on each occasion. The recording can then be 'played back' or displayed and edited in the form of a Macrosheet.

The Maxiplan Plus manual is excellent, good on tutorial and there are lots of examples on the data disk.

There is online help for each menu and 'how to' text.

On the downside the use of a disk buffer slowed down some operations like cut and paste (although extra memory is a cure for this). There was a minimum of five mouse clicks requirement for each worksheet that I wanted to open from the data disk in drive 1.

In general I found Maxiplan Plus responsive and data entry very easy because of the excellent user interface. Key press equivalents are available for many of the menu options.

The graphs are very impressive, the database features useful and the macro language comprehensive, which makes Maxiplan Plus an all-rounder for costing, planning and document production of all kinds. The overall impression is of a professionally produced and supported product.

### Touchline:

**Name:** Maxiplan. **Price:** £120. **Machine:** Amiga. **Supplier:** MPC Software (UK). **Producer:** Oxxi Inc, PO Box 4000, Fullerton, CA 92634. **Tel:** 714 999 6710.

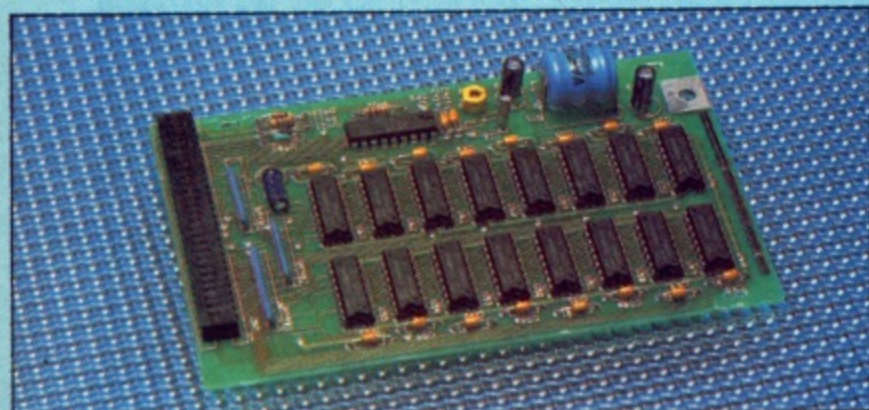


# DATTEL ELECTRONICS

## EXTERNAL 3.5" DISK DRIVE

- Slimline 1 Meg suitable for A500 or 1000
- Top quality NEC drive mechanism
- Throughport for Daisy chaining other drives
- Attractively styled ● Complete — No more to buy
- 12 months guarantee ● Fully compatible

**ONLY £114.99 POST FREE**  
ADD (£5 for next day Courier delivery).



## 512K RAM EXTENSION ● A500

- Available with/without calendar clock option
- Simply plugs internally into a A500 slot
- Fitted in minutes — no soldering etc.
- With calendar/clock onboard time/date automatically booted
- Battery backed to retain time/date

**ONLY £79.99 FOR STANDARD 512K CARD OR**

**ONLY £89.99 FOR VERSION WITH CLOCK/CALENDAR**

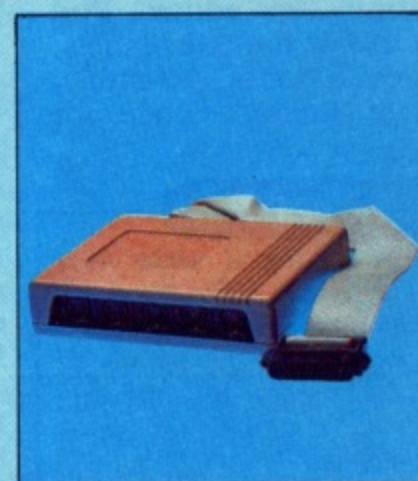


## MARAUDER II

- Quite simply the best disk copier available for the Amiga (all models)

- Superfast disk copier will copy almost any commercial disk
- Friendly user Interface — Mouse driven throughout.
- Completely compatible with Amiga multitasking system
- Even decrypts many encoded programs including D.Print/Video/ Paint/Music/II etc.
- Special 'Strategy Files' cope with even the most advanced protection schemes
- Supports upto 5 drives simultaneously for multiple copies
- Regular updates available — we always ship the latest
- Fast operation — typically around 80 seconds
- USA's top selling copier

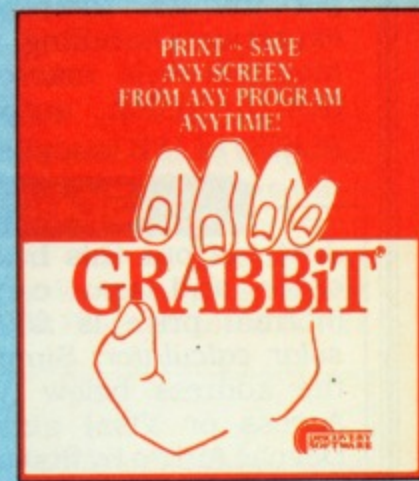
**ONLY £29.99 POST FREE**



## MIDIMASTER

- Full Midi Interface for A500/2000/1000 (Please state model)
- Compatible with most leading Midi packages (inc. D/Music)
- Midi In — Midi Out x 3 — Midi Thru
- Fully Opto Isolated
- No need to pay more — Full Midi standard

**ONLY £34.99**



## GRABBIT

- Grabbit is a transparent Screen Grabber program
- Always there — simple key operation
- Drives dozens of Printers
- Requires only 10K Ram
- A true productivity tool!
- Very quick operation — does not require screen on during printing
- Free "ANYTIME" program lets you update your own colour palette preferences.

**ONLY £21.99 POST FREE**

**ALL ORDERS NORMALLY DESPATCHED WITHIN 48 HRS**

## HOW TO ORDER . . . .

### BY PHONE



0782 273815  
24 hr Credit Card Line

### BY POST



Send cheques/POs made payable to 'Datel Electronics'

### BY PRESTEL/FAX

Prestel Pages # 25880000A

Fax Orders  
0782 264510

# DATTEL ELECTRONICS

**UNITS 8/9, DEWSBURY ROAD, FENTON INDUSTRIAL ESTATE,  
FENTON, STOKE-ON-TRENT**

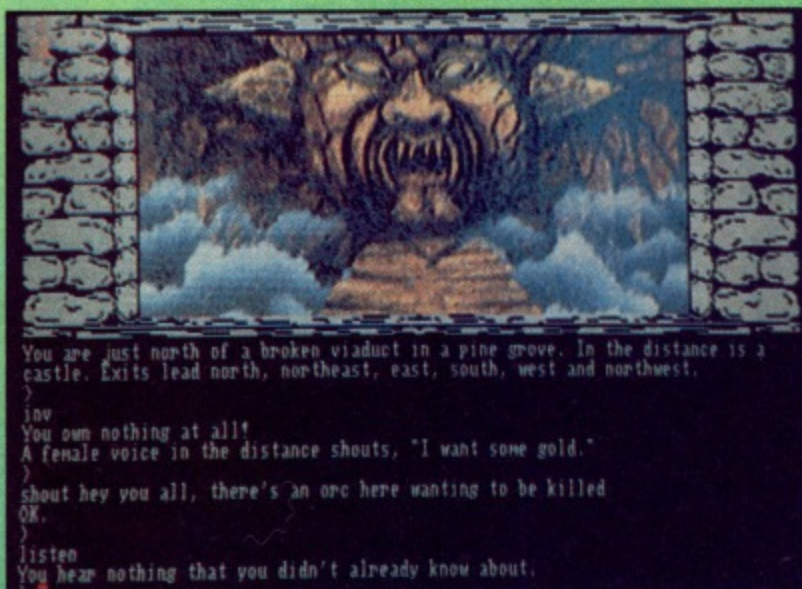
**SALES ONLY**  
0782 273815

**TECHNICAL ONLY**  
0782 202258



# Amiga Games

*Settle down for a read of the latest games for the Amiga*



*Knight Orc*



## Knight Orc

I think it was PCW or some such magazine that graced us with the statistic that every ten hours, a commercially available adventure game is released for a computer somewhere in the world.

The sad fact of the matter is that few of them can ever be similar to Knight Orc, as most adventure games are just a quick way of making money out of an adventure generating system – rarely do they actually make use of a computer's capabilities, and a "standard" text only adventure running on an Amiga would be a terrible waste.

I think Level Nine had this in mind when they produced Knight Orc, an adventure supporting full graphics as well as allowing additional input from the mouse – it is also rare to find an adventure game (in the traditional sense) where you play one of the bad guys. In this case, it is a loathsome Orc called Grindleguts.

Out of the three adventures that make up Knight Orc, the first one – Loosed Orc is the most infuriating in that you have to get to grips with the adventuring system in order to actually play the game properly. For this reason the first adventure is the easiest, but after the first level, there's no respite from the battering the brain gets. Having to solve puzzles, getting out of mazes, avoiding a slightly gay dragon (in the archaic sense of the word!), and generally keeping out of the way takes up a lot of mental energy, not to mention cherry cokes.

The adventuring system is massive, you can speak to any character in the "world", and you can even tell them to do things – providing they are willing to do it. After all, picking up a bunch of keys from within an empty well is not too much to ask of anybody, but to stand in the way of a charging knight with a bloody great sword is another matter entirely.

The accompanying computer graphics are very good; they have a

pastel, almost dreamlike quality that makes them all the more unusual. The locations are very well drawn, but the characters leave a lot to be desired. Perhaps a few more lifelike images next time – please? Still, the many locations are nearly always supplied with a picture, but should you want to play the game like a traditional adventure, you can always slide the pictures off the screen with the mouse.

Having spent many hours playing this game I must admit that I didn't actually finish it; I'm not sure that I want to finish wandering about this strange new world inside my Amiga. Of all the Amiga adventures I have played this is the best – try it and see.  
 C.G.

### Touchline:

**Name:** Knight Orc. **Supplier:** Firebird Software, First Floor, 64-67 New Oxford Street, London WC1A 1PS. **Tel:** 01-379 6755. **Machine:** Amiga. **Price:** £19.95.

**Originality:** 7/10. **Playability:** 7/10. **Graphics:** 7/10. **Value:** 7/10.



## Impact

Here we have a blast from the past. Do you remember the original game of Breakout, where you guide a small dot around the screen by bouncing it off your movable bat and similarly off a pile of bricks piled up in front of you.

Since the original game was released nearly a decade ago, Breakout naturally faded away into history as being probably the first computer game to make it into the living room, along with ping pong and asteroids.

Following suit after the recent success of Arkanoid, Impact is a version of the game for the Amiga, but this time, it has been more than revamped and souped-up with a few colours. This time, the game has been given the full treatment which comprises full Amiga graphics, multi-coloured bricks, some great sound effects and mouse control which is surprisingly, a very efficient way of controlling the bat.

But the extras don't just end there. Every now and then a spinning spanner drops down from one of the bricks. This can be picked up for extra points, or as part of an "accumulator" whereby you can save your bonus points for tools and goodies which makes clearing the screens an easier task.

There are nine bonuses in all, but there are more spanners, so it is possible to have more than one active at any given time. For instance, you can have a double width bat and a magnet "on" at the same time, but you can only really have one item when going for higher goodies such as a missile base (!), a smart bomb and even an invincible ball!

The sound? Well, there isn't a great deal of scope for music in a game like this, but there are some wonderful sound effects such as "Genie" chimes.

The screens are all well thought out, but should you find the challenge beginning to wane, you could always try your hand at designing a few of your own. This is made possible by including a screen designer so you can design your own silly screens. This makes the game more maddening - after all, no one likes to be eaten by their own screen do they?

Impact is a good name. It is very playable and is instantly addictive; the sound effects, while not being stunning are still imaginative, and the extras really make the game an enjoyable way of passing the odd evening or three. If you are old enough to have enjoyed Breakout, then this is the game for you.

C.G.

**Touchline:**

**Name:** Impact. **Supplier:** ASL. Winchester House, Canning Road, Wealdstone, Harrow, HA3 7SJ. **Tel:** 01-861 1166. **Machine:** Amiga. **Price:** £14.95.

**Originality:** 3/10. **Playability:** 9/10.

**Graphics:** 4/10. **Value:** 10/10.

## Diablo

Diablo is a member of the "budget" range of software titles from Diamondsoft, an English company who look set to begin churning out games for the Amiga.

Diablo is neither a strategy nor an arcade game; there aren't any aliens to kill, there aren't any sampled sound effects (that I can notice) and the

programming shockingly under-utilises the Amiga's processing capabilities. The best description of the music is "totally aimless". It wanders about a very limited range on the Amiga and is so annoying I have to reach for the Amiga sound control (even though there is a sound off control).

The game involves clearing a pathway for a ball which is running along a track. However, the track is partially incomplete and the object of the game is to make sure that the ball doesn't fall into the "hole" where the incomplete track is.

Playing the game was more of an annoyance than anything. The screens, when completed, were more or less the same, and the overall "feel" of the game was very tacky. Surely, if you are going to produce a game for the Amiga, even if it is a budget one, you are going to make sure you try to use at least a few of the facilities the machine has to offer. How about three or four channels of sound, or even a few more colours, shadowing effects, in general, how about writing a game worth playing?

Although Diablo may be mistaken as one of those games for the thinkers among you, I'm afraid that this disk is consigned to the "format and use elsewhere" pile. Diablo isn't addictive in any way - it simply insults the mind.

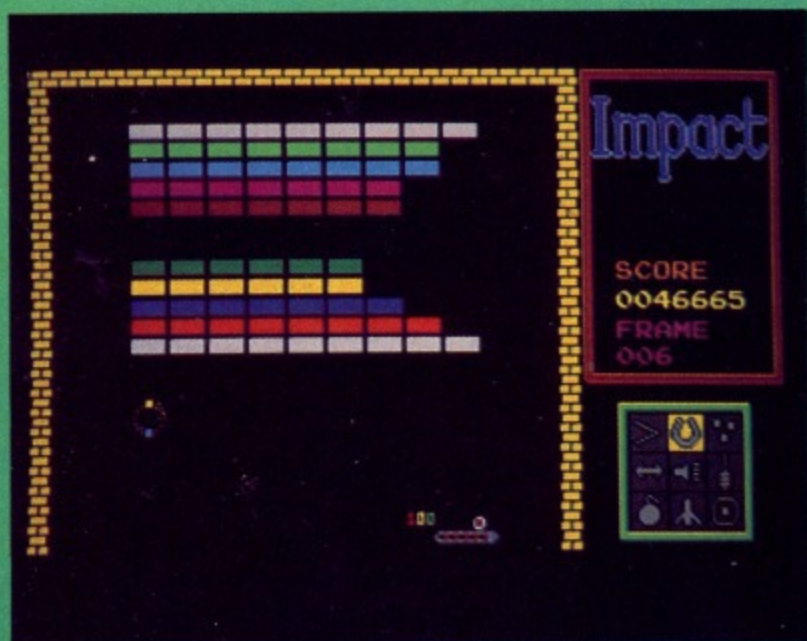
C.G.

**Touchline:**

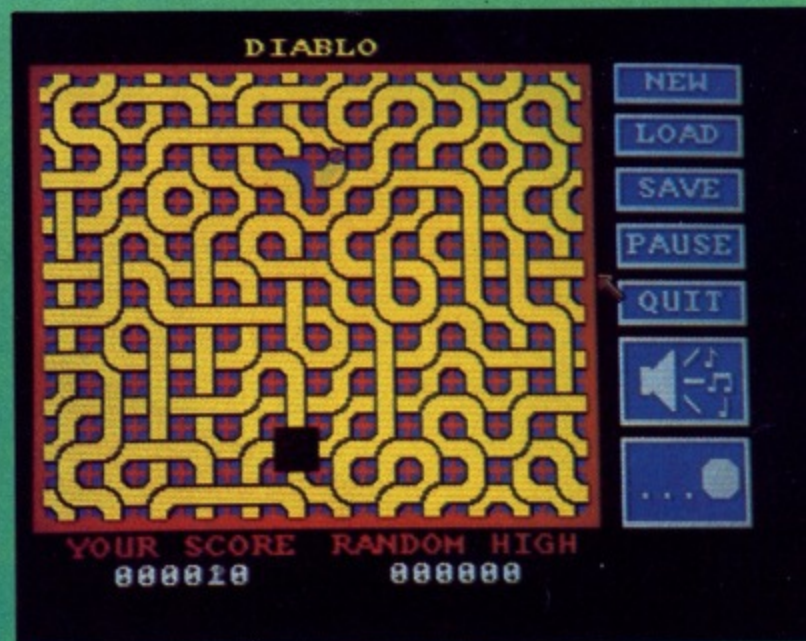
**Name:** Diablo. **Supplier:** Diamondsoft, Unit 4, Isleworth Business Complex, St Johns Road, Isleworth Middlesex, TW7 6NL. **Tel:** 01-847 4457. **Machine:** Amiga. **Price:** £19.95.

**Originality:** 4/10. **Playability:** 3/10.

**Graphics:** 2/10. **Value:** 3/10.



Impact



Diablo



# The AMIGA Centre Scotland SPECIAL OFFERS

Digi-Paint ..... £40.00 Deluxe Video 1.2 ..... £60.00

**AMAZING COMPUTING**  
 \*\* Shipped directly to us by air  
 \*\* All back-issues available  
 \*\* Sent by First-Class post £3.50

**NEW MAGAZINES IN STOCK!**  
 \*\* INFO ..... £3.50  
 \*\* ROBO CITY NEWS ..... £2.50  
 \*\* AMIGA SENTRY ..... £3.00

**SUBSCRIPTIONS:**  
 12 issues for 10 times the cost of single issue: includes postage

**BUTCHER 2**  
 \*\* 25 IFF Graphics Utilities  
 \*\* See full review in YOUR COMMODORE September 1987  
 \*\* New features

Registered users Upgrade (send original disk) ..... £8.00  
 Butcher 2 ..... £27.00

**AIRT**  
 \*\* State of the art icon-driven programming language  
 \*\* Over sixty commands  
 \*\* Over 5600 instructions possible per program

\*\* Includes, Editor, Compiler, Print Utility, Form Utility  
 £55.00

**RAY TRACER NEWSLETTER**  
 \*\* Issues 1 - 4 on disk  
 \*\* Hints, tips, tutorials, pictures  
 \*\* Code to create your own JUGGLER-type movies

Disks 1 to 3 ..... each £8.00  
 Disk 4 ..... £3.00

**DISKPRO+1**  
 \*\* Increase free disk space by compressing your files  
 Includes free DIMMER! to save your monitor  
 £22.00

## EXPRESS PAINT

\*\* Supports PAL & OverScan  
 \*\* "Typeset" newsletters, images, posters, business reports  
 \*\* Flow text into area of any shape (not just boxes)  
 \*\* Overlay mode \*\* Link text files from any word processor (inc NotePad) \*\* Alter all the icons to customise the program \*\* Use any AMIGA screen resolution (up to 752 pixels wide!) \*\* Supports a canvas size of 8000 (eight thousand) pixels wide by a height only limited by memory.  
 £58.00

## OUTLINE!

\*\* Keep lists of data in a way which used to be the province of the database  
 \*\* Compatible with any word processor  
 Use to prepare lists, speeches, papers, books, agendas  
 £36.00

## SCULPT - 3D

\*\* Eric Graham's new masterpiece  
 \*\* 3D Modelling Program  
 \*\* THIS IS THE UK PAL VERSION  
 \*\* Mouse or keyboard driven  
 \*\* Combine primitive solids to form complex shapes  
 \*\* Build shapes by extruding or spinning curves  
 \*\* Construct surfaces from contour lines  
 \*\* IFF output: previews in less than 1 minute  
 £69.00  
 Demonstration disk ..... £5.00

Send large size for lists.  
 Dealer enquiries welcome.

## FORMS IN FLIGHT

\*\* 2D/3D Drawing and Animation  
 \*\* View from any perspective or direction  
 \*\* Rotate, Pan, Roll, Magnify, Move In/Out  
 \*\* Splines, Polygons, Freehand, Snap  
 \*\* Complex Object-Nesting and motion  
 \*\* Surface extrusions - any angle  
 \*\* Efficient hidden line removal  
 \*\* Red/Blue stereo images  
 \*\* Plotter support  
 \*\* Comprehensive manual (Requires 1Mb to run)  
 £60.00

## BOUG'S MATH AQUARIUM

\*\* Explore and display functions in 2D/3D  
 \*\* Uses recursion to create fractals, Mandelbrot  
 \*\* Wire Frame, Contour Map or Superimpose modes  
 \*\* ZOOM in/out and change position  
 \*\* Cycle colours and change Sample Rate  
 Teaching/Learning/Research tool  
 £58.00

## ANIMATOR-APPRENTICE

\*\* Create solid Disney-style 3D Animations  
 \*\* Includes shading in 4096 colours  
 \*\* Background matting  
 \*\* Real-time audition (Requires 1Mbyte to run)  
 £195.00

## ANIMATOR-JUNIOR

Demonstration Disks ..... £7.00  
 Library Disks ..... £14.00 - £25.00  
 2-hour demo film on VHS ..... £25.00

\*\*\* All prices include VAT and Postage (UK) \*\*\*  
 \*\*\* Callers: Wed - Sat 12.00 noon to 6.00pm \*\*\*

**AMIGA Centre Scotland,**  
 4 Hart Street Lane, Edinburgh EH1 3RN  
 (031) - 557 4242 Anytime.



Image captured in 16 grey scales

# DIGIPIC

## NEW Capture real time images from any PAL source FAST

DigiPic will capture a single picture field in real time (1/50th of a second) from your video source.

Save all, or a clipped part of a standard 320 x 200 picture in IFF format. Take up to four images randomly or in sequence before storing and working on them.

DigiPic works with the standard 16 level Amiga grey scale and it includes a unique 32 level Grey Scale adaptor - the change is dramatic! Alternatively you can produce a still picture in 32 COLOURS by using the three red green and blue colour filters provided.

With the powerful, menu driven software you can modify a picture captured by the digitiser. Manipulate intensities, and intensity gradients throughout the image for a clear result. You can vary the contrast range, sharpness, and brightness for a specific effect. Set the grey scale to a small number of steps for a dramatic finish, or use EDGE to produce an image that defines the outline of objects - create your own cartoons!

You can load your DigiPic image into Deluxe Paint, DigiPaint, Prism, Superbase Professional, and many other programs for sophisticated graphics applications.

DigiPic connects to any Commodore Amiga computer.

**£299.95**  
 + VAT

**Precision Software Ltd.** 6 Park Terrace,  
 Worcester Park, Surrey KT4 7JZ  
 Telex: 8955021 Preci G Fax: 01-330 2089  
 Phone for our catalogue: 01-330 7166

## ORDER FORM

Mail to: Precision Software Limited,  
 6 Park Terrace, Worcester Park, Surrey KT4 7JZ

Please send me:

Add £15.00 per item for delivery (all hardware items despatched by courier).

☐ Cheque enclosed ☐ Visa ☐ Access/Mastercard

Credit Card Number

Expiry Date  Signature

Name

Address

Post Code

14 Day Money Back Guarantee - Return your package unopened and we will refund your purchase price.

## MICROWARE COMPUTER SERVICES Christmas Special Prices

Amiga 500 with Modulator, De Luxe paint, MCS Starter pack ..... £449  
 Amiga 500 as above plus A1081 Colour Monitor ..... £739  
 Amiga 500 as above plus A1081 Monitor and NEC Disk Drive ..... £849  
 Amiga 500 as above plus NEC Disk Drive ..... £559  
 A1081 Colour Monitor ..... £329  
 A190/M Mono Monitor ..... £119  
 Digiview II with A500 Adaptor ..... £185  
 A501 512K RAM expansion w/clock ..... £99

20 Megabyte Hard Disk A1000 ..... £689  
 Easy Drawing Tablet for A500 ..... £289  
 60 Megabyte Hard Disk A1000 ..... £1299  
 Easy Drawing Tablet A1000 ..... £339

PJ1080A Colour Inkjet Printer ..... £449  
 Xerox 4020 Colour Printer ..... £999

## AMIGA SOFTWARE PRICES

### BUSINESS PACKAGES

**Databases**  
 Acquisition Pioneer ..... £139  
 Organize ..... £86  
 Mi Amiga File ..... £90

### INTEGRATED PACKAGES

Logistix ..... £99  
 Mi Amiga Ledger (General Ledger) ..... £85

### WORDPROCESSOR/DTP

Word Perfect Best Seller ..... £275  
 City Desk (Desk Top Publisher) ..... £139  
 VizaWrite Desktop (W/P & Graphics) ..... £89

### GRAPHICS

Aegis Animator/Images ..... £99  
 Graphicaft ..... £45  
 Digi Paint ..... £59

### MUSIC

Aegis Audiomaster ..... £59  
 Instant Music ..... £24

## AMIGA HARDWARE

Easy Drawing Tablet for A1000 ..... £345  
 PAL Genlock with Software ..... £429  
 Easy Drawing Tablet for A500 ..... £299  
 Xerox Starter Pack ..... £99

### AMIGA BOOKS

Amiga Intuition 326 pages ..... £21  
 Amiga System Handbook 400 pages ..... £14

Just a small selection of our products, phone for more.  
 P.O. BOX 2, SKEGNESS, Lincs, PE25 2QL. TEL 0754 610217. Write your order out clearly and don't forget to include your Name, Address, Post Code and Phone Number. Make cheques PO payable to MICROWARE COMPUTER SERVICES and send to the above address. E. & O.E.



# How you get it

*It's alright us giving you an exotic address and ZIP code  
for some Los Angeles neighbourhood but how do you get  
the software?*

## **Commodore (UK)**

Commodore House  
The Switchback  
Gardner Road  
Maidenhead

Berks  
SL6 7XA  
Tel: 0628 770088

## **Addison Wesley**

Finchampstead Road  
Wokingham

Berkshire  
RG11 2NZ

## **Aegis Development**

2115 Pico Blvd

Santa Monica  
CA 90405

Tel: 213-392 9972

## **Amiga Centre Scotland**

4 Hart Street Lane

Edinburgh

EH1 3RN

Tel: 031-557 4242

## **AMS**

166-170 Wilderspool Causeway

Warrington

WA4 6QA

Tel: 0925 413501

## **Anco**

35 West Hill

Dartford

Kent

DA1 2EL

Tel: 0322 92518

## **Applied Visions**

15 Oak Ridge Road

Medford

MA 02155

Tel: 617 488 3602

## **Ariadne Software**

273 Kensal Road

London

W10 5DB

Tel: 01-960 0203

## **Arithmos**

Tweedvale Cottage

High Cottages

- Check the ads - English Commodore dealers are importing more and more software all the time.
- Try our contact addresses/telephone numbers.
- Get in touch with Commodore UK who can supply you with a brochure full of goodies for your Amiga.

## **Walkerburn**

Peeblesshire

EH43 6AZ

Tel: 089-687 583

## **Bitstream Publishing**

26-28 Osborne Road

Southsea

Hants

PO5 3LT

## **Burocare**

211 Kenton Road

Harrow

Middlesex

HA3 0HD

Tel: 01-907 3636

## **Busbyte Business Services**

10 The Marketplace

St. Albans

Herts

Tel: 0727 56005

## **Cadvision**

53a Popes Avenue

Twickenham

Middx

Tel: 01-894 0421

## **Cavendish Commodore Centre/UK**

Amiga Users Group

66 London Road

Leicester

LE2 0QD

Tel: 0533 550993

## **Diamond Software**

56 Knightshill

London

SW27 0JD

Tel: 01-761 7965

## **Eidersoft**

Hall Farm

## **Nr Ockenden**

Essex

RM14 3QH

Tel: 0708 856468

## **Electronic Arts**

Langley Business Centre

11-49 Station Road

Langley

Berks

SL3 8YN

Tel: 0753 49442

## **Felsina Software**

3175 South Hoover Street,

Los Angeles

CA 90007

## **George Thompson Services Ltd**

Whitegate House

Old Reigate Road

Betchworth

Surrey

RH3 7DR

Tel: 073-784 4675

## **Gold Disk**

PO Box 789

Streetsville

Mississauga

Ontario

L5M 2C2

Tel: 416-828 9013

## **HB Marketing Ltd**

Pier Road

North Feltham Trading Estate

Feltham

Middlesex

TW14 0TT

Tel: 01-844 1202

## **Hewson**

56B Milton Trading Estate

Abingdon

Oxon

OX14 4X

Tel: 0235 832939

## **Interceptor Ltd**

Mercury House

Calleva Park

*Continued on page 24*



## INFORMAT

- Available from:-

[illegible]



Continued from page 22

Aldermaston  
Berks  
RG7 4QW  
Tel: 07356 71500  
**JDK Images**  
2224 East 86 Street  
Suite 14  
Bloomington  
Minnesota 55420  
Tel: 612-854 7793  
**Jenday Software**  
PO Box 4313  
Garden Grove  
CA 92642  
**Josty UK**  
Dealer Enquiries  
Lindy Electronics  
35D Dukesway  
Teenside Ind. Estate  
Thornaby  
Cleveland  
TS17 9LT  
Tel: 0642 765275  
**Kuma Computers Ltd**  
Pangbourne  
Berkshire  
Tel: 07357 4335  
**Meridian Software**  
PO Box 890408  
Houston  
TX 77289-0408  
Tel: (713)488 2144 (USA)  
**Metacomco**  
26 Portland Square  
Bristol  
BS2 8RZ  
Tel: 0272 42871  
**MicroEd**  
P O Box 444005  
Eden Prairie  
Minnesota 55344  
Tel: 612-944 8750  
**MicroAPL Ltd**  
Unit 1F  
Tideway Ind. Estate  
87 Kirtling Street  
London  
SW8 5BP  
Tel: 01-622 0395  
**Microprose Software**  
2 Market Place  
Tetbury  
Gloucestershire  
GL8 8DA  
Tel: 0666 54326  
**MPC Software**  
72 Julian Road  
West Bridgford  
Nottingham  
NG2 5AN  
Tel: 0602 820106/455114  
**New Horizons Software**  
PO Box 43167

Austin  
TX 78745  
Tel: 512 329 6215  
**Nucleus Software Systems**  
North House  
78-84 Ongar Road  
Brentwood  
Essex  
Tel: 0277 2337773  
**Ocean**  
6 Central Street  
Manchester  
M2 5NS  
Tel: 061-832 6633  
**Oxxi Inc.**  
PO Box 4000  
Fullerton  
California 92634  
Tel: 714-999 6710  
**Parkway Computer Consultants**  
3 Mundells Court  
Mundells  
Welwyn Garden City  
Herts  
AL7 1EN  
Tel: 0707 371616  
**Penguin Books (Microsoft Press)**  
Bath Road  
West Drayton  
Middlesex  
UB7 0DA  
**Precision Software**  
6 Park Terrace  
Worcester Park  
Surrey  
KT4 7JZ  
Tel: 01-330 7166  
**Rainbird Software**  
74 New Oxford Street  
London  
WC1A 1PS  
Tel: 01-240 8838  
**Realtime Associates**  
Canning House  
59 Canning Road  
Croydon  
Surrey  
CR0 6QF  
Tel: 01-656 7333  
**Sentinel Software**  
Wellington House  
New Zealand Avenue  
Walton-on-Thames  
Surrey  
KT12 1PY  
Tel: 0932 231164  
**Systems Architects**  
6-9 Market Place  
Kingston Upon Thames  
Surrey  
KT1 1JY  
Tel: 01-549 3028  
**Taurus Impex/Enigma Publishing**  
Taurus House  
3 Bridge Street

Guildford  
Surrey  
GU1 4RY  
Tel: 0483 579399  
**The Other Guys**  
PO Box H  
Logan  
Utah 84321  
**Triangle Television**  
130 Brookwood Road  
London  
SW18 5DD  
Tel: 01-874 3418  
**Tri Computer Software Ltd**  
31 Oak Green  
Tanners Wood  
Abbots Langley  
Watford  
Herts  
Tel: 09277 69081  
**Trilogic**  
329 Tong Street  
Bradford  
BD4 9QY  
Tel: 0274 684289  
**Viza Software**  
Chatham House  
14 New Road  
Chatham, Kent  
ME4 4QR  
Tel: 0634 45002  
**Y2 Computing Ltd**  
Tarmay House  
146-150 St. Albans Road  
Watford, Herts  
WD2 4AE  
Tel: 0923 50161  
**Club Amiga**  
85 Upper Drumcondra Road  
Dublin 9  
Ireland  
**Independent Commodore  
Products Users Group**  
57 Gunnersbury Avenue  
Ealing  
London  
W5 4LP  
Tel: 01-993 2634  
**High Voltage**  
53-59 High Street  
Croydon  
Surrey  
CR0 1QD  
Tel: 01-681 3022  
**AB Computers**  
173 Thornbury Road  
Osterley  
Isleworth  
Middlesex  
Tel: 01-568 7149  
**Computatill Ltd**  
77/79 Chadderton Way  
Oldham  
OL9 6DH  
Tel: 061-652 8006



## FROM £449! AMIGA

- Amiga A500 with 512K RAM, 880K 3.5" disk, mouse, software **£449**
- Amiga A500 TV As above, plus A521 TV/composite modulator **£469**
- Amiga A500M with A1081 high-res colour monitor **£725**

Prices include 15% VAT, a FREE copy of DeLuxe Paint, FREE delivery to your door, one year warranty. Overnight delivery £12

- Amiga B2000 with 1MB RAM, 880K 3.5" disk, mouse, software **£1099**
- Amiga B2000M As above, plus A1081 hi-res colour monitor **£1349**
- Amiga B2000 XTM As above, plus PC XT bridge board & floppy **£1849**
- Amiga B2000 HDM As B2000M plus 20MB AmigaDos hard disk **£1949**

1 YEAR ON-SITE MAINTENANCE WITH EVERY B2000 AMIGA SYSTEM... PLUS FREE GOLDEN KEY CARD! stay at over 200 top hotels as often as you like for a year, and for each night's stay, just pay for breakfast and dinner!

## PERIPHERALS AMIGA

- 10 disks in plastic library case **£20**
- A521 TV/composite modulator **£25**
- A501 plug-in RAM/clock 512K **£105**
- A1081 high-res colour monitor **£275**
- A1010 3.5" external disk drive **£199**
- Cumana 3.5" external disk drive **£129**
- 2nd internal drive (2000 only) **£129**

- A2088 PC-XT bridge board with 5.25" internal disk drive **£529**
- A2286 PC-AT bridge board with 5.25" internal disk drive **£749**
- A2090PC 20MB internal hard disk with MS DOS controller **£529**
- A2090 20MB internal hard disk with Amiga DOS controller **£629**
- A2052 2MB internal RAM **£399**
- Precision printer 480cps, NLQ **£399**
- Canon PJ1080A colour printer **£499**
- Xerox 4020 colour printer **£1095**
- HP LaserJet laser printer **£1995**

## CREATIVITY AMIGA

- VizaWrite DeskTop **£89.95**
- Word Perfect **199.95**
- ProWrite **99.95**
- Page Setter **94.95**
- Scribble II **79.95**

- City Desk **£99.95**
- De Luxe Music (PAL) **59.95**
- De Luxe Paint II (PAL) **59.95**
- DigiPaint **54.95**
- De Luxe Video II **89.95**
- Aegis VideoScape **124.95**
- Aegis Animator **94.95**
- DigiPic fast frame grabber **299.95**
- Aegis Draw Plus **169.95**
- X-CAD **424.95**

## PRODUCTIVITY AMIGA

- SuperBase Personal **£79.95**
- Acquisition (V1.3) **224.95**
- Analyse II **119.95**
- Logistix **99.95**

- VIP Professional **£109.95**
- MaxiPlan Plus **129.95**
- SAM Basic **89.95**
- True Basic **64.95**
- True Basic libraries **39.95**
- K-Seka Assembler **44.95**
- MCC Pascal **69.95**
- Lattice C (V4.0) **144.95**
- A/C Fortran **229.95**

## 128 64C

- Commodore 128D computer **£399**
- Commodore 128 computer **£225**
- Commodore 1571 disk drive **£259**

- Citizen 120D 120cps, F/T, NLQ **£175**
- 1901C 40/80 colour monitor **£275**
- 1541C disk drive **£169**
- 64C computer **£139**
- 64C Connaisseur Collection **£189**

Prices include 15% VAT, FREE delivery to your door, and one year warranty. Please add £12 for overnight delivery.

### UNBEATABLE SUPERBASE & SUPERScript BARGAINS!

- SuperBase 128 **99.95 £44.95**
- SuperScript 128 **89.95 44.95**
- SuperBase: The Book **11.95**
- SuperBase 64 & Plus/4 **79.95 £34.95**
- SuperScript 64 **69.95 34.95**
- SuperBase Starter 64 **39.95 19.95**

### MORE SOFTWARE BARGAINS FOR YOUR C64 AND 128!

- VizaWrite Classic 128 **99.95 £79.95**
- VizaWrite 64 (disk) **59.95 39.95**
- VizaWrite 64 (cartridge) **59.95 69.95**
- VizaStar 128 **129.95 99.95**
- VizaStar 64 XLB **99.95 79.95**
- VizaStar 64 XL4 **79.95 £69.95**
- SwiftCalc 128 **59.95 54.95**
- Data Manager 128 **59.95 54.95**
- WordWriter 128 **59.95 54.95**
- MicroClerk 128 **99.95 94.95**

### COMMODORE 128 and 64... PROGRAMMER'S CORNER

- PetSpeed 128 The Basic 128 compiler, from Oxford Systems **49.95 £19.95**
- Oxford Pascal 128 The complete J & W Pascal for your 128 **49.95 19.95**
- Super C 128 Complete C language, with extensions **59.95 39.95**
- Cobol 128 The complete COBOL package from Abacus **39.95 29.95**
- Hack Pack 128 All-in-one Programmer's Toolkit & Ram-Disk **39.95 17.95**
- Anatomy of the 128 The 500-page insider's guide to the 128 **12.95 9.95**
- C128 Tricks and Tips Essential reading for the 128 programmer **12.95 9.95**
- 1750 Expansion RAM 512K expansion RAM cartridge for the 128 **149.00**
- RamDos 128 Lightning fast Ram-Disk for 512K expansion RAM **39.95 29.95**
- BrainBox IEEE Supports IEEE/PET disks & printers etc. (128 & 64) **79.95**
- Super Disk Doc Rescue your lost disk data! (1541/70/71, 4040) **19.95 14.95**
- Simon's Basic 64 Programmer's cartridge from Commodore **59.95 29.95**
- Oxford Basic 64 All-in-one Basic compiler, toolkit, compressor **39.95 19.95**
- Oxford Pascal 64 The complete J & W Pascal for your 64 **49.95 19.95**
- Super C 64 Complete C language, with extensions **59.95 39.95**
- Cobol 64 The complete COBOL package from Abacus **39.95 29.95**

■■■■ IF YOU WANT IT TOMORROW... CALL US TODAY! ON 0483 - 504125 ■■■■

Prices are POST FREE & include VAT. Order by phone with your credit card, or send cheque/PO or your credit card number. Official orders welcome. We despatch same day by FIRST CLASS post. Please allow 5 days for delivery of hardware orders. Prices quoted are subject to availability. Ref. A53



# Calco Software

LAKESIDE HOUSE, KINGSTON HILL, SURREY, KT2 7QT. TEL 01-546-7256

# The new whisper quiet slimline



## Cumana disk drives for the Amiga user

Silence, high reliability and fast access are just some of the advantages that purchasers of the new high quality external 3.5" floppy disk drive from Cumana can enjoy when using their Amiga computers.

The Cumana CAX 354 takes its power from the host computer and offers a full 880k of formatted storage to either A500 owners or users of the A1000 series.

Other points to ponder are, high quality NEC 3.5" double sided drive mechanism, 1 Mb unformatted storage capacity, and standard connectors which enable easy addition of 5.25" drives.

For those who want to know the real nitty gritty, the seek time (track to track) is a super fast 3ms with a settling time of 15ms, to really zip through your software - and all at an astonishingly low price. Ask your Cumana dealer for details or contact:



**CUMANA®**  
The best name in memory

Cumana Ltd,

Pines Trading Estate, Broad Street, Guildford, Surrey GU3 3BH.  
Tel: 0483 503121 Telex: 859380 Fax: 0483 503326

Distributors: Hugh Symonds, Dorset; Zappo Computers, Staffs; SDL (Silica Distribution), Kent. 16/32 Diffusion, France; Microware, Germany; Ectron, Holland; Belgium Computer Center; APC, Italy; SAC, Sweden; SAC, Denmark; ABC Analog, Pixelsoft, Trades Informatica, Spain.





# LAN COMPUTER SYSTEMS LTD



Bringing the world of technology to your fingertips  
APPROVED COMMODORE BUSINESS CENTRE LARGEST IN THE U.K.

## A500 SERIES

ALL AMIGA SYSTEMS SUPPLIED WITH TWENTY LAN TITLES FREE OF CHARGE.

Titles include graphics demonstrations, games and a range of utilities with spelling checkers, file and directory handling routines.

### A500 SYSTEM 1

Amiga A500 Computer, Deluxe Paint, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk.

£370.00

### A500 SYSTEM 2

Amiga A500 Computer, Deluxe Paint 1, Sports Holder, GFL American Football, Baseball, Golf, Workbench, Amiga Basic and Demonstrations.

£385.00

### A500 SYSTEM 3

Amiga A500 Computer, Kings Quest III, Portal, Tass Times, Deluxe Paint 1, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk.

£385.00

### A500 SYSTEM 4

Amiga A500 Computer, Music Studio, Shanghai, Basketball, Deluxe Paint 1, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk.

£385.00

### A500 SYSTEM 5

Amiga A500 Computer, Philips 8833 Colour Monitor with stereo sound. Deluxe Paint 1, Workbench, Tutorial Disk, Amiga Basic and Demonstrations Disk

£599.00

### A500 SYSTEM 6

Amiga A500 Computer, Amiga A1081 Colour Monitor,

£619.00

### A500 SYSTEM 7

Amiga A500 Computer, Deluxe Paint 1, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk. Amiga Joystick AND Twenty LAN Computer selection software titles.

£385.00

### A500 SYSTEM 8

Wordprocessor System, Amiga A500 Computer with Star NL10 Dot Matrix printer and cable. Vizawrite wordprocessing package.

£629.00

## A2000 SERIES

All systems provided with FREE Technical Support Hot Line and 1 year warranty.

### A2000 COMPUTER

Free one year on site maintenance  
Free monochrome monitor  
Free scribble wordprocessor  
Free technical support hot line

£1,095

### A2000 COMPUTER

High resolution colour monitor  
Internal drive  
Video system with camera & stand Eight video applications programs  
The Complete Computer Video System

£2,699.00

### A2000 COMPUTER

XT bridge board with 5 1/4 in disk drive (MSDOS compatibility)  
20 MB hard disk & control card  
5 LAN selection MSDOS application programs.

£1,595

### A2000 COMPUTER

High resolution colour monitor  
Free one year on site maintenance  
Free technical support hotline  
Free LAN selection of 20 software titles.

£1,195.00

## PC SERIES

### PC

Intel 8088 processor, 512K ram, 2 x 360K floppy drive, with monochrome monitor

£699.00

### PC20

As for PC10 with 20MB hard disk

£999.00

### PC40/20

Intel 80286, 6 or 10 MH3, 1 MB ram, 20 MB hard disk, 1.2 MB floppy, MSDOS, GWBASIC with tilt & swivel monitor

£1,599.00

### PC40/40

As for PC40/20 with 40 MB hard disk

£1,999.00

PC1 - One of the most compact PC's on the market. It uses the latest state-of-the-art technology that enhances reliability and save space. On board there is a full colour graphics/video, 512k RAM, floppy drive controller and parallel and send interfaces.

The PC1 includes MSDOS 3.2 and a monochrome monitor as standard. Colour is an optional extra as well as the 8087 co-processor only £434.00

### ACCESSORIES

External 2nd Drive with box of 10 Disks £249.00  
LAN External 2nd Drive with box of 10 Disks £129.00  
T.V. Modulator £21.00  
515K RAM Expansion £99.00  
Monitor Stand especially designed for Amiga computer £15.00  
Colour Monitor cable £15.00  
Accessory Package: 512 RAM Expansion/LAN external 2nd Drive £249.00 inc. VAT and delivery  
1 MB RAM card with real time clock for Amiga A100 £299.00

### PRINTERS

EPSON LX800 £199.00  
STAR NB2415 £699.00  
STAR NB2410 £434.00  
QMS Laser £1,549.00  
PANASONIC 1081 80 col., 127 cps, 24NLQ £145.00  
PANASONIC D1592, 180 cps, 38NLQ, 136 col. £299.00  
CANON PW1080A Dot Matrix £219.00  
CANON A55 Dot Matrix £399.00  
CANON Laser £1,599.00  
CANON A60, 18 pin £399.00  
CANON A65, 136 col. £449.00  
JUKI 6100 Daisywheel £279.00  
MP165 Dot Matrix £169.00  
MP26 Daisywheel £199.00  
STAR NB24-10 £415.00  
STAR NB24-15 £519.00

### MONITORS

PHILIPS 7502 Hi Res Green £69.00  
PHILIPS 7522 Hi Res Amber £79.00  
PHILIPS 8833 Med Res Colour £239.00  
PHILIPS 8852 Colour 700/285 £259.00  
PHILIPS 8873 Colour 850/480 £499.00  
ZENITH 1230 Hi Res Green £69.00  
ZENITH 1220 Hi Res Amber £69.00  
TAXAN 620 Colour £287.00

### COLOUR PRINTERS

CANON PJ1080A £429.00  
INTEGREX COLOUR £449.00  
XEROX 4020 £999.00

### ACCESSORIES

Printer Stand £15.00  
Box of ten 1/2 in Disks in plastic library case £16.95  
Box of ten 5/4 in Disks in plastic library case £8.65  
Box of hundred 3 1/2 in Disks in lockable storage box £149.00  
3 1/2 in lockable box 100 capacity £10.00  
5 1/4 in lockable box 100 capacity £10.00  
Joystick for Amiga £12.00



## LEISURE SOFTWARE

**Prices include  
VAT & Postage**

A Mind Forever Voyaging	£26.99
Adventure Construction Set	£22.99
Aegis Sonic	£62.99
Aegis Animator	£62.99
American Football	£19.99
Archon	£24.99
Archon II	£24.99
Arena	£27.95
Arctic Fox	£22.99
Balance of Power	£22.99
Ballyhoo	£22.99
Babarians	£19.95
Beaurocracy	£29.99
Basketball	£19.99
Brattacus Pack	£26.99
Borrowed Time	£19.99
Cutthroats	£24.95
Chessmate: Graphic Chess	£27.95
Delux Paint I	£63.95
Defender of the Crown	£24.95
Deepspace	£27.99
Deja Vu	£21.99
Faerytale Adventure	£34.95
Flight Simulator II	£37.99
Flight Simulator Scenery Disk	£18.99
Guild of Thieves	£19.95
Golden Oldies	£24.95
Golf	£26.99
Hacker	£18.99
Hacker II	£18.99
Hitchhikers Guide to the Galaxy	£25.99
Hollywood Hi Jinx	£19.95
Hollywood Strip Poker	£14.99
Instant Music	£26.95
Jewels of Darkness	£29.95
Karate Kid	£19.95
Karate Kid II	£19.95
King Quest III	£19.99
Kamfregruppe	£24.99
Leaderboard	£18.99
S.D.I.	£24.95
The Surgeon	£43.95
Super Huey	£15.40
Tass Times	£18.99
Trinity	£26.99
Temple of Apshai Trilogy	£18.99
Ultima III	£19.95
Uninvited	£19.95
Witness	£22.99
Wizards Crown	£22.99
World Games	£19.95
Winter Games	£19.95
Zork I, II & III each	£22.99
Phalanx	£9.95
Demolition	£9.95
Space Battle	£9.95
Cvuucher Factory	£9.95
Challenger	£9.95
Leaderboard Tournament	£7.99
Leather Goddess of Phobos	£26.99
Little Computer People	£26.99
Mean 18 Golf	£22.99
Mean Bridge	£23.99
Mindshadow	£19.99
Moon Mist	£22.99
Music Studio	£26.99
One on One	£18.99
Pawn	£18.99
Portal	£26.99
Roadwar 2000	£19.99
Seven Cities of Gold	£22.99
Shanghai	£18.99
Silent Service	£18.99
Sinbad & The Throne of the Falcon	£24.95
Skyfox	£22.29
Star Glider	£18.99
Space Quest	£19.99

All Leisure/Software prices inclusive  
of VAT  
Prices current at 7/8/1987

## TOP THIRTY

### LEISURE TOP TEN

- Portal, Kings Quest II, Tass Times £49.95
- Music Studio, Shanghai, Basketball £39.95
- Sports Holder, American Football, Baseball, Golf £44.95
- Marble Madness £15.95
- Terrorpods £21.95
- Basketball £14.95
- Bards Tale £15.95
- Defender of the Crown £21.95
- Firepower £19.95
- Star Glider £18.95

### APPLICATION SOFTWARE TOP TEN

- Deluxe Music Construction Set £74.95
- Cambridge Lisp £99.95
- Delux Video £69.95
- Lattice C Compiler £169.95
- Vizawrite Wordprocessor £79.95
- Aegis Animator Graphics package with Images £79.95
- Digiview Digitising package £189.95
- Maurauder II. New version of the famous disk copier £29.95
- Aegis Sonix - music development system £69.95

DELIVERY FREE OF CHARGE

### ACCESSORIES TOP TEN

- Box of 2000 sheets of paper £19.95
- Printer stand £14.95
- Amiga joystick £13.95
- Custom monitor stand £19.95
- Peripheral Interchange Adaptor Unit £24.95
- Disc box with 20 D.S. 135 TPI 3.5 in disks in lockable storage box £39.95
- Dust cover for A500 £5.95
- Storage box - capacity for discs £14.95
- Disc box with 50 96 TPI 5.25in discs in lockable storage box £29.95
- Amiga printer cable £14.95

### NEW LEISURE RELEASES

- Bards Tale £18.95
- Firepower £18.95
- Ogre £18.95
- Arctic Fox £14.95
- Sky Fox £14.95
- Pacboy £9.95
- Persecutor £9.95
- Doctor Frost £9.95
- Uninvited £22.95
- Emerald Forest £9.95
- Goldrunner £18.95
- Hardball £18.95
- Swooper £18.95
- Diablo £14.95
- Starfighter £14.95

### APPLICATIONS SOFTWARE

- Superbase Personal £119.00
- Scribble Version 2.0 £79.00
- Analyse Spreadsheet Version 2.0 £79.00
- Softwood File II £99.00
- Metacomco Pascal £79.00
- Cambridge Lisp £119.99
- Toolkit £34.00
- Shell £39.00
- Macro Assembler £54.00
- Absoft AC Fortran £259.00
- Absoft AC Basic £149.00
- Aegis Sonix £62.00
- Deluxe Paint II £119.00
- Page Setter £109.00

Laser Script	£39.00
Lattice C Compiler	£179.00
Aztext Compiler Devel. version	£79.00
Digiview	£189.00
Gender Bender to allow Digiview to run on A500	£25.00
Digipaint	£59.00

## ★ STAR BUYS ★ PRINTER

### STAR NL10 DOT MATRIX

120 cps in draft mode with 30 cps in Near Letter Quality. Tractor and friction with auto single sheet feed. Choice C64/128 or Amiga interface. FREE PRINTER STAND. FREE PAPER

£189 + VAT

## MONITOR PHILIPS 8833

Medium resolution colour monitor with stereo sound. Includes FREE monitor cable.

£219 + VAT

## DISC DRIVE CUMANA CAX354

A beautifully designed external drive for your Amiga at a most attractive price. FREE ten 3.5in. discs.

£109 + VAT

## EPSON

## PANASONIC

## AMIGA BOOKS

Phone or write for price list.

## ORDER INFORMATION

### HOW TO ORDER

Enclose letter with cheque, postal order or credit card number for total amount including VAT and delivery charge outside UK.  
Credit card holders may order by telephone.  
Dispatch normally in 24 hrs. Contact Sales Desk.  
Official orders from Educational Establishments.

Local Authorities and Government departments welcome.  
Contact Educ. Dept. EXPORT HOT LINE 01-597 8854.  
TELEX 995548.

Dealer and Export Enquiries Contact Trade Dept.

### EXPORT CUSTOMERS

Please add £2.00 to cover postage and packing on Leisure and Applications Software.  
HARDWARE ORDERS. Supplied tax free. Please add £30.00 to cover air freight costs on all systems and hardware.  
ACCESS, VISA, EURO-CHEQUES ACCEPTED.  
BFPO customers free delivery and tax free!

Contact us for latest software prices

Prices exclusive of VAT unless otherwise stated  
and correct at time of going to press.  
Education callers ask for  
Tony Judge or Mike Brown

**1063 HIGH ROAD, ROMFORD, ESSEX  
RM6 4AU  
CONTACT SALES ON:**

**01-597 8851**



# AMIGA

**JUST LOOK AT THIS!**  
-- AMIGA 500

**MANIA!**  
**£449** inc VAT  
P&P



A-500

4096 Colours, Stereo Sound, ImB disk drive, Multi-Tasking Built-in Speech Synthesis, 512k RAM.

**PLUS:** Deluxe Paint worth **£90.85**  
12 Public Domain Disks worth **£49.95**  
Commodore TV Modulator worth **£24.95**  
10 D/S Diskettes worth **£19.95**

**ALL FREE** with your A500

TO ORDER TELEPHONE:-  
**04463 2935**  
or send to

**FRONTIER TECHNOLOGY**  
UNITS E&F, BUILDING 1,  
LLANDOW IND. EST., COWBRIDGE,  
S. GLAMORGAN, CF7 7PB

**FRONTIER SYSTEM  
SENSATION!**

Amiga A500 + free offers + latest Commodore  
1084 monitor - Hi-Res Colour & Stereo Sound!

**£785**  
inc VAT  
P&P

Telephone for A2000 & C64 prices  
**OFFICIAL COMMODORE  
BUSINESS CENTRE**

TRYING TO USE YOUR COMPUTER?...

YOUR

# COMMODORE

CAN HELP.

12 issues UK £13.20  
12 issues Europe £20.90  
12 issues Middle East £21.20  
12 issues Far East £24.00  
12 issues Rest of World £21.60



Send this form with your remittance to:  
**INFONET LTD.**, 5, River Park Estate,  
Berkhamsted, Herts HP4 1HL

Please begin my subscription(s) to YOUR COMMODORE with the  
I enclose my cheque/money order for £  
or debit £  
valid from  
NAME (Mr/Mrs/Miss)  
ADDRESS  
Postcode  
Signature  
Date  
Please use BLOCK CAPITALS  
and include post codes

from my Access/Barclaycard No.  made payable to Argus Specialist Publications Ltd.  
to  issue



# Midi, Music and ME!

*At last! The Amiga becomes a fully fledged  
compositional tool  
By Clive Grace*

Computers and music have always been a rather strange combination – but nevertheless, some good things have come out of the marriage between high technology and musical instruments; certainly at the very top end of the spectrum we have the CMI Fairlight and the Syco Fairlight II, and probably the most established computer music system – the Synclavier, has been with us for some seven years.

The problem with linking a computer to musical instruments is one of communication. This is why in the early eighties, a group of musicians, instrument makers and computer scientists grouped together to create a communications protocol enabling computers and musical instruments to be linked to each other, sending information to and fro in much the same way that some networks operate, via wire links in a chain.

The communications standard was called MIDI and stood for the Musical Instrument Digital Interface. This was partly responsible for the dramatic increase in sales of synthesizers after 1983 when the standard really started to catch on, when musicians saw just how useful MIDI was.

Computers have always been considered a good medium with which to store music; there have been many packages released for the smaller 8 bit computers to achieve this, but none of the ones I have seen managed to achieve the simplicity with which we associate the sheer power of the Synclavier or the Fairlight.

## Composition – the next big thing?

Music composition languages are very useful if you are programming music with a rigid compositional structure. Many songwriters studios have at least one MCL for assisting the composition process because songs are very formulaic. Many of the songs in the Top 40 are based around the standard “verse chorus, verse, chorus” formula. Indeed, some “early” examples of music from around the 18th century can be similarly classified, but without the rigidity of popular music (for example, the fact that most songs are in the key of C, and very often they conform to a 4/4 variant such as 2/4 or 4/8).

The computer has made the composing process so much easier. It

has rationalized the whole song writing process in much the same way that the word processor has revolutionized the way words are put into a word processor – indeed, the music composition packages (MCP's) and music composition languages (MCL's) reviewed here can be seen as the first major packages for the 16 bit computer to rival the sheer processing power of the Fairlight and the Synclavier.

## Amiga Advantages

The advantages of using an Amiga for music composition rather than lugging the obese processing weight of the Fairlight are obvious – the lower price and the increased performance level.

Many users do not need all of the facilities that the Fairlight has to offer, and while the software on both the CMI and the Syco machines has taken an awful long time to produce, it can become quickly outdated by other programmers writing for other machines with these facilities built in as standard. For instance, the Fairlight requires quite a lot of



memory to store samples and the like, but with the Amiga, these can be stored as a condensed file and retrieved as and when they are needed (for example, the IFF file format which enables a very high file interchangeability between both applications and packages).

Everyone has to accept when buying a computer system that no matter how advanced their machine is at the time, there will be a time when their machine will become outdated and outperformed. This is the case with many of the so-called "professional" composing systems currently in use in many top flight recording studios. And nowadays it is common to see an Apple in the corner of the studio or as part of the mixing desk – we are now seeing the Atari ST and musical software being given full quotes on LP sleeves as musical "instruments" (for example Tangerine Dream's "Tyger" has full quotes to Atari software packages and the Atari logo!).

In the past, composers have had to either fork out lots of money for professional musicians to play their music for them, or have had to learn how to play the instruments themselves. While this leads to a great deal more natural playing, this can lead to stilted and uncomfortable playing techniques.

Of course some people get it right first time, for example Mike Oldfield, who recorded a great deal of "Tubular Bells" in "dead" studio time by himself, but after the album was released and made him a great success (and a considerable amount of money) he decided to use more musicians on the follow up album, and who can blame him?

There are hundreds of composers

and writers these days still beaver away at home or in their bedrooms who still haven't mastered their instruments – and it is for these people that computer music has so much to offer.

## Modern Day Recording Techniques

The whole ethos behind using computer music software packages is to make the whole composing and recording process so much easier.

For instance, the home musician can record a piece of music on their home computer using it like a cross between a digital tape recorder and a word processor using the crummy sounds on their home systems. They can then hire out some very expensive syntheziers and drum machines, or just use the ones available in the studio, and then record with them. Of course with the Amiga, you can sample the sounds of the particular instruments you are using for later use, or for the studio.

At present, no one has copyrighted their sounds, but soon this will become an act of piracy – just like ripping off other people's software (which I hasten to add is killing the software industry). You will soon have to get permission to do so first.

## Composing

The best way of approaching the problems of composing with a computer is to consider the whole process as a bit like writing a letter with a word processor – nothing exists until you either save a file, or choose to print it out.

Of the many music packages currently available for the Amiga, there are some extremely good ones available. Aegis Development has an excellent package called "Aegis Sonix", whilst Electronic Arts has "Deluxe Music Construction Set", both work on the Amiga 500 as well as the Amiga 1000.

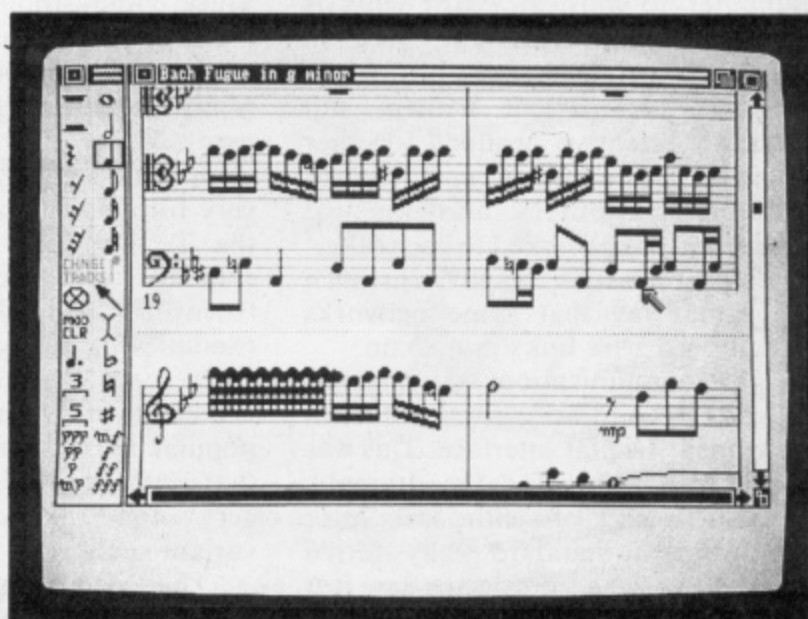
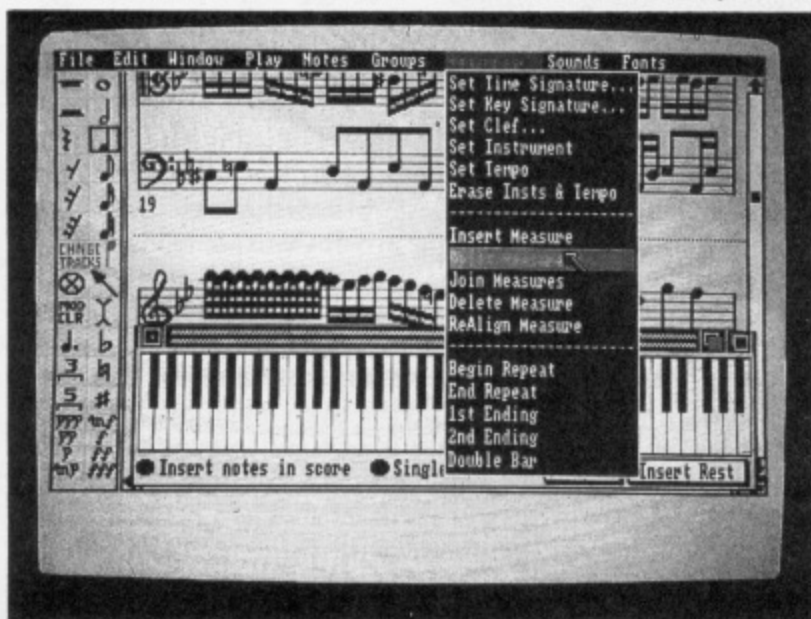
Of the two, the most famous is the Aegis Sonix package; this originally started life as a package called "Musicraft", and while this was a very good package in its own right, there were still some vital features missing that Aegis saw fit to include on Sonix when they bought the rights of the software and tracked down the author for a rewrite.

Aegis Development has taken an interesting approach to music software, turning the Amiga into more of a synthesizer than a music composition package. The sound generation capabilities are very good to say the least, supplying a number of tools with which to edit and modify the existing sounds stored on the disk – of course you can use sampled sounds from packages like "Perfect Sound" with Aegis Sonix.

As part of the software, Aegis Sonix has a waveform editor, enabling the user to create custom waveforms and envelopes in much the same way as one would on a conventional "analogue" synthesizer.

The "main area" of the program is the staff editor. This is essentially one line of manuscript with a Bass and a Treble clef at the top of the screen. As music is entered onto the staff, the bars scroll sideways and are individually numbered, unlike some packages that number the bars after every ten or so.

The time signature and the key signature follow suit as with standard





music notation. Signatures can be from 1/2 to 9/8 and can range from C flat to C sharp.

Just below this is the scroll bar. As you edit music, it is often necessary to move about the score that you are working on, and the scroll bar makes this a very easy task. If, for instance, you want to jump to the middle of the section, you must place the bar to the middle of the scroll bar – it is as easy as pushing the mouse!

At the bottom of the screen are the general "controls" such as Volume, Tempo, Transpose and Tune. Transpose is useful, should you want to quickly hear the results of a key transposition, it is useful for working out which harmony or chord to use in a song you are building up from just a melody.

The three icons for Play, Stop and Repeat are used to control the music playing. The four buttons represent half of the available instruments. The two buttons directly below the Bass clef (or whatever you have chosen), flip between sounds one to four inclusive, and five to eight. These last four are only accessible via a MIDI Interface and a MIDI patch, more of which later.

Keying in music is as simple as point to the symbol held on the middle line, clicking the icon, and moving the selected shape onto the right line!

Notes that are too long for the bar in a particular time signature are tied over to the next bar with the correct symbol. Amazingly, there is no slur symbol, neither is there any way of slurring two notes together except by tying two notes over a bar! This is a serious omission, especially with certain pieces of music, as all sense of dynamics can be lost.

Some of the more esoteric modern notation symbols are not supported, but I would estimate that a good seventy per cent of modern notation symbols are supported within the software, certainly there is enough to transcribe most pieces of music across from paper to computer.

Like the Word Processor, getting the notes into memory is only half of what can be done. Whole sections of music can be copied and transferred from bar to bar as well as from stave to stave. This makes pieces of music like Pachelbel's Canon a piece of cake to key in.

### The Amiga as a Synthesizer

Aegis Sonix can also behave as if it were a hybrid Analogue/Digital

synthesizer. You are given full control over the waveform by including a sound editor; apart from supplying a LFO (low frequency oscillator) and with a filter with a LFO fade out option there is a harmonic adjuster enabling very powerful editing functions to be made to the general sound.

Basic waveforms include the usual square, sine, triangle and ramp (up and down) waves. These are saved with your music file, but they can be stripped off and used with other music files and with different packages as well.

There is a four-step ADSR envelope generator, not particularly generous I admit, but no worse than many professional synthesizers of the analogue/digital hybrid era (Prophet 5 and Jupiter 8 to name but a few classic machines from this era).

Aegis Sonix can accept MIDI information as an incoming signal. Sonix can also send data to external synthesizers with the interface, as well as MIDI controlled (or moderated) instruments including my good old faithful drum machine, the Sequential Circuits "Drumtracks".

There are no problems with other interfaces as there is a Commodore Amiga MIDI interface standard. That said, the Mimetics MIDI interface is a standard implementation and works beautifully.

Having had the good fortune of trying Aegis Sonix out on the Yamaha DX-7 – the archetypal MIDI keyboard – I was pleased to note that it not only accepts channel information, (more than one instrument at a time) but patch changes as well. Octave changes, velocity sensitivity (only on post 1984 MIDI keyboards) volume, vibrato and even the pitch bend option are all supported – amounting to quite a complete MIDI specification as far as the DX-7 is concerned.

Aegis Sonix is a remarkably straightforward package; the demonstration programs are very good, albeit a little too "poppy". The sounds supplied with these programs are good, although I would have been a little more impressed if they were more realistic, especially the Piano and the Saxophone which are awful.

Aegis Sonix has an excellent data entry system, especially if you are not particularly *au fait* with the music symbols used in twentieth century musical notation forms. Aegis Sonix is, by contrast, very straightforward because all you have to do is point at

the icon, select it by pressing the left hand mouse button, move to the position on the line, and click left hand button to lay it down.

There are plenty of features which enable cutting and pasting, probably Aegis Sonix's strongest point.

Files are saved in the SMUS format, making them easy to import to other packages such as Deluxe Music Construction Set and Instant Music. Both packages are by Electronic Arts.

### Concluding Aegis Sonix

In all, this package is an excellent introduction to writing music with the Amiga. Music notation ends up as more or less real music notation – with a few extra bits specifying instrument names and so on...

This is a good package, perhaps one of the best overall music packages I have seen in a long time. It is MIDI compatible and can send eight channels of MIDI information at a time – not the full sixteen channels I grant you, but eight channels of MIDI information are more than enough for many peoples applications.

### Deluxe Music Construction Set

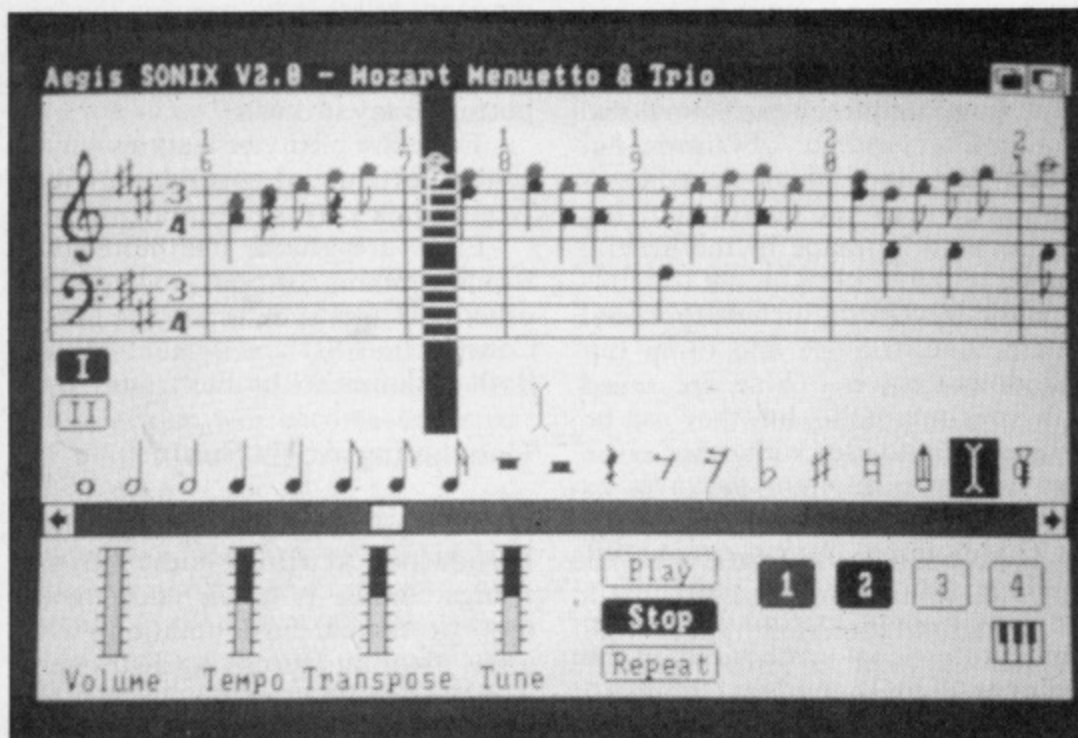
On a slightly different level is the Deluxe Music Construction Set from Electronic Arts. This package boasts a full standard music notation set. It can display more than one line of stave notation on the screen at any one time. It can display a limited staff depth (i.e. no Bass clef), for instruments that do not go down low enough (like the violin), it has a full MIDI driving capability and some pretty amazing general music editing facilities.

The truth of the matter is that the Deluxe Music Construction Set is probably the most professional stave orientated composition system I have seen on any machine. In my experience, it is second only to the Synclavier's rather expensive system which can accept input from a vast majority of inputs.

Deluxe Music Construction Set has a few nice facilities when it comes to connecting the Amiga to MIDI instruments. There are no software patches to be use, no "special" notation forms to be added to the beginning of the music. Deluxe Music Construction Set is as happy to send MIDI information as it is with its own sounds.

Unlike Aegis Sonix, there is no synthesizer-like wave editor in this





package. The built in samples do not sound all that brilliant, but again, any standard sample file such as those from Perfect Sound can easily be transferred across the Deluxe Music Construction Set format by using the IFF converter.

The Deluxe Music Construction Set has two music file formats. Firstly the SMUS format, which is basically the same as that of Aegis Sonix, in that there are no slurs supported, there are limited tie facilities, and basically it is a simple note on/off notation. There are no fancy signature changes during a piece of music which is a shame, but this does mean that files are transportable from one piece of software to another.

For the options not supported by SMUS, you have to use the "DMCS" format, which is exclusive to the Deluxe Music Construction Set package. DMCS format has automatic note beaming, slurring, steam reversal and a novel, but thorough use of specific key signatures (not having to key in a sharp to obtain a natural!). There is better control of the dynamic range of an instrument even accepting "dolce" in the screen, and there is even a play "style" option, which is fun to play with, to say the least!

The Grand Staff editor really is rather nice, but it can be a bit tedious to use. If you miss a key, you have to go through the process of going to the eraser icon, and rub out the offending note before moving onto the next one in the sequence.

The page layout can be altered. This does not affect the overall size of each individual crotchet or quaver, but

it attempts to cram the notes together so that the notes are very hard to read at times. There is no attempt to resize the notes on the staff. Usually I select the "page" to be around eight or nine bar widths. I then use the staff editor as a spreadsheet type entry system whereby the screen acts as a window on the music.

Copying notes is a little clumsy, certainly clumsier than Aegis Sonix' bar by bar method. On the whole, the system is reasonably friendly and is quite easily mastered, even note for note entering is a little time consuming.

Changing notes over to their slurred equivalents is easy; (a bug bear of mine with the Fairlight). With Deluxe Music Construction Set, all you do is select the "pointer" icon and "box" in the notes to be slurred. This should be done from the outside going in if there are more than two notes to be slurred together, and it works very well – certainly better than anything the Fairlight can offer.

"Boxing in" notes is the most important editing feature there is. It forms the heart of most of the group move and copy operations, and it is even used to join notes together as is found in standard notation forms. Thankfully the Deluxe Music Construction Set does not leave individual notes in a sort of computer-moderated version of notated music.

Printing is very nice with this package! Most of the popular printers are supported, even a laser printer, which should give some very nice results if used carefully.

Composing with Deluxe Music

Construction Set is easier than with the Aegis Sonix because the writer can see more of the surrounding music at the same time. It is possible to see six bars of four stave lines, all properly notated and all nicely lined up.

### Concluding Deluxe Music Construction Set

This is a wonderful package, written for the musician with an Amiga, I found it particularly responsive with the DX-7 as well as other synthesizers such as the Juno 60 etc. I was surprised to see that it was quite happily accepting most of the information from keyboards with retrofitted MIDI interfaces, especially those with older interfaces tacked on, such as the Prophet Pro-One – probably the best synthesizer there is for bass lines!

Deluxe Music is very good with "real" music. I have input short pieces of music by Mozart and Bach as well as a few interesting ones by Bartok, and all came out looking like they came in, which is a good sign for a music package boasting MIDI compatibility.

I have tried this one in a small studio and I was amazed at the speed with which I was able to transfer other peoples music into the computer – unfortunately many young bands these days cannot read music which is a shame as the power of this package is completely lost on them.

By reading this review you will realise that I have been comparing this software with parts of the CMI and Syco Fairlights and the Synclavier – instruments I have had the good fortune to use. With the processing power and memory of the Amiga, these machines will soon be toppled by great pieces of software such as Deluxe Music Construction Set – they may look pretty, but that doesn't mean to say that they are any the less powerful!

#### Touchline:

**Name:** Perfect Sound. **Price:** £80 inc Vat.

**Name:** Aegis Sonix. **Price:** £57.50 inc VAT.

**Name:** Deluxe Music Construction Set. **Price:** £70 inc VAT.

All are available from Precision Software Ltd, 6 Park Terrace, Worcester Park, Surrey KT4 7JZ. Telephone: 01 330 7166.





# DIGI VIEW

## DELIVERS ULTIMATE GRAPHICS POWER

Bring the world into your Amiga with Digi-View, the 4096 color video digitizer. In seconds you can capture any photograph or object your video camera can see in full color and with clarity never before available on a home computer. Digi-View's advanced features include:

- Dithering routines give up to 100,000 apparent colors on screen
- NewTek's exclusive Enhanced Hold-and-Modify mode allows for exceptionally detailed images
- Digitize images in any number of colors from 2 to 4096
- Print, animate, transmit, store, or manipulate images with available IFF compatible programs
- Digitize in all Amiga resolution modes (320x200, 320x400, 640x200, 640x400)

"Digi-View sets new standards for graphics hardware" - *InfoWorld*

Digi-View is available now at your local Amiga dealer or call:  
1-800-843-8934

**ONLY \$199.95**



**NewTek**  
INCORPORATED

PAL VERSION NOW AVAILABLE



# MPC SOFTWARE

## ADVENTURES

Alien Fires .....	£30
Deja Vu .....	£24
Fairy Tale Adventure .....	£40
Guild of Thieves .....	£19
Hitchhikers Guide .....	£22
Knight Orc .....	£17
Leather Goddesses .....	£23
Other Infocom .....	Phone
Tass Times in Tone Town .....	£16
The Pawn .....	£19

## BUSINESS SOFTWARE

Aegis Drew .....	£80
Aegis Impact .....	£60
BBS PC .....	£90
City Desk .....	£110
Diga (Comma) .....	£60
Dynamic CAD .....	£300
Financial Cookbook .....	£20
Macro Modem .....	£45
Page Setter .....	£100
Professional Page .....	Phone
Publisher 1000 .....	£140
X-CAD .....	Phone

## SOUND & GRAPHICS

Aegis Animator & Images .....	£95
Aegis Images .....	£35
Aegis Sonix .....	£52
Deluxe Paint II .....	£60
Deluxe Print .....	£24
Deluxe Music .....	£69
Future Sound Sampler .....	£165
Grabbit .....	£29
Instant Music .....	£24
Music Studio .....	£27
Perfect Sound Sampler .....	£70
Skulp 3D .....	£80
Soundscape MIDI Interface .....	£50
Soundscape Pro MIDI Studio .....	£145
Soundscape Sound Sampler .....	£90
TV + Text .....	£90
Videoscape 3D .....	£125

## ARCADE GAMES

Arena & Brataccus .....	£19
Artic Fox .....	£19
Barbarian .....	£18
Deep Space .....	£18
Fire Power .....	£19
Goldrunner .....	£21
Impact .....	£12
Karate Kid II .....	£20
Marble Madness .....	£19
Mindwalker .....	£40
Sky Fox .....	£14
Starglider .....	£19
TASAR .....	Phone
Terrorpods .....	£17
Wizball .....	Phone
World Games .....	£20

## LEISURE SOFTWARE

Archon + Archon 2 .....	£19
Balance of Power .....	£22
Bards Tale .....	£24
Bards Tale 2 .....	£24
Brian Clough Football Fortune .....	£20
Chessmaster 2000 .....	£24
Defender of the Crown .....	£22
Karl Weaver Baseball .....	£24
Flight Sim 2 .....	£38
Flight Sim 2 Scenary Disc 7 .....	£21
Hollywood Strip Poker .....	£16
Kampfgruppe .....	£21
Leaderboard .....	£20
Phantasie 3 .....	£19
Silent Service .....	£19
Sinbad .....	£23
Test Drive .....	£24

## DATA BASES

Acquisition .....	Phone
DB Man (DBase III clone) .....	£110
Omega File .....	£70
Softwood File .....	£90
Superbase Personal .....	£85
Superbase Professional .....	Phone

## WORD PROCESSING

Dynamic Word .....	Phone
Gold Spell .....	£23
Pro Write .....	£100
Word Perfect .....	£250
Talker .....	£50
Visa Write .....	Phone
Nancy (spell checker) .....	£20
Scribble II .....	£90

## UTILITIES

Aztec C .....	Phone
CLimate .....	£28
K/Seka .....	£60
Lattice C3.10 .....	£160
Marauder 2 (Copier) .....	£30
Metacomco Assembler .....	£52
Metacomco Pascal .....	£60
Metacomco Shell .....	£40
Metacomco Toolkit .....	£30
Mirror Hacker Pack .....	£36
Modula 2 (Standard Version) .....	£90
Zing .....	£60

## BOOKS

Amiga DOS Manual .....	£23
Hardware Reference Manual .....	£23
Intuition Reference Manual .....	£23
ROM Kernel Executive .....	£23
ROM Kernel Libraries & Dev. ....	£33
The Kickstart Guide .....	£12
The Amiga System An Intro .....	£9
The Amiga Handbook .....	£16
Amiga Programmers Guide .....	£14
Inside Amiga Graphics .....	£16
Inside the Amiga with C .....	£19
Prog. Guide to the Amiga .....	£24

phone for other titles

## HARDWARE

AMIGA A2000	PHONE
AMIGA A500	£499
AMIGA 1081 COLOUR MONITOR	PHONE
CUMANA 3.5" DISC DRIVE	£130
STARBOARD OMB-2MB	PHONE
MEGABOARD II	PHONE
GENLOCK 1000 (PAL)	£430
GENLOCK 500 (PAL)	£270
DIGI VIEW 2.0	£170
SOUNDScape MIDI INTERFACE	£50
EASyl GRAPHICS TABLET	£350
EASyl 500 GRAPHICS TABLET	£300
PC BRIDGE BOARD	£500

## NEW PRODUCTS

Gallio (Astronomy)	£55
Ferrari Formula 1	PHONE
Living Daylights	£20
Impact	£12
Dick Special	PHONE
Elite	PHONE
Professional Page	PHONE
Skulpt 3D	£80
Forms in Flight	£70
Butcher	£23
Maxi Plan Plus	£140
Shakespeare	£200
Test Drive	£24
Caligrapher	£55

## OFFERS

Arena & Brataccus	£20
Terrorpods	£17
Barbarian	£17
Kings Quasi III	£15
Basketball	£15
DEEP SPACE	£18
Karate Kid II	£18
Wishbringer	£15
Suspended	£18
Temple of Apshai	£12
Talker	£45
Mirror	£32
Nancy	£20
Aegis Images	£36

10 3.5" DSDD Discs  
only £13

## STARBOARD II

We think The Starboard is by far the best memory upgrade for the A1000 allowing much more than a simple memory upgrade.

The Upper deck	£120
SCSI Hard Disc Controller (Can Not be Used with Multi Function Module)	
The Multi Function Module	£90
This optional board gives you the ability to add a 68881 math co processor.	
Speed math functions up to 40 times, also on board in a battery backed clock and a RAM cache to save the data in RAM from being wiped out in the event of a crash.	

A2000 Adaptor £40  
A900 Version Soon

## PRINTERS

CITIZEN 120SD	£200
CITIZEN LSP10	£220
CITIZEN LSP100	£350
PANASONIC	£280
STAR NL-10	£250
PRECISION PRINTER	£400
XEROX 4020 Colour	£1350

## A2000 512K UPGRADE

Upgrade the A2000 to 1.5 MB for only £70.00

Phone for more details

## A2000 INTERNAL DRIVE KIT

Get an extra A2000 internal drive for £130 (almost 50% off the normal price).

Phone for more details

## A2000 68020 Board

Discover what FAST really means!  
Phone for details

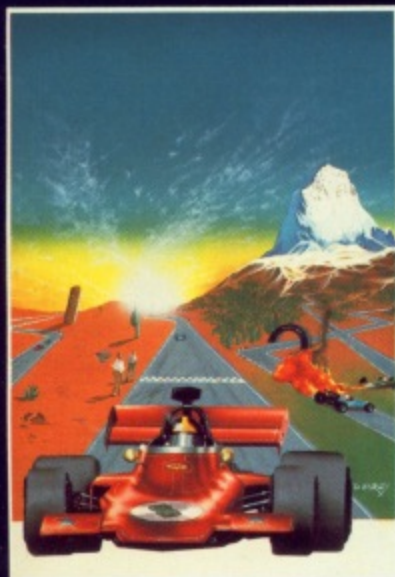
**MPC SOFTWARE**  
**72 JULIAN ROAD**  
**WESTBRIDGFORD**  
**NOTTINGHAM NG2 5AN**  
**PERSONAL CALLERS PLEASE TELEPHONE**  
**TEL 820106 - 455114**



# AMIGA

# ANCO

# ST



## GRID START

Race your 6 gear FORMULA 1 car with Booster against 23 other cars over 6 world famous circuits. Practice long and hard before you even enter the Novice class.

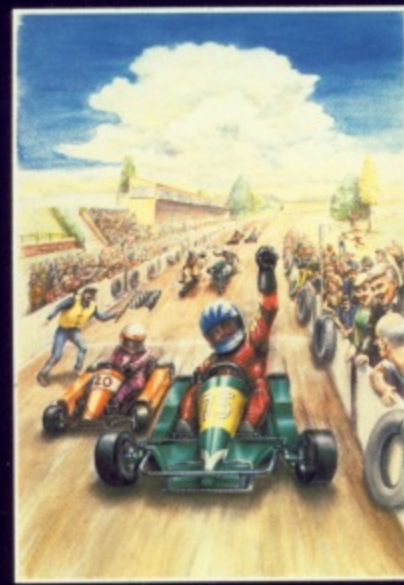
**AMIGA £9.95**



## KARTING GRAND PRIX

GO KART racing is great fun but requires skill and experience in the selection of Sprocket size and tyres to suit the track, weather conditions and style of driving. Practice or Compete over 8 tracks. 1 or 2 players.

**ST & AMIGA £9.95**



## LAS VEGAS

You have \$5 and a burning ambition to break the bank at LAS VEGAS. Play SLOTS with the very latest features, HIGH OR LOW and finally the BLACK JACK table to realise your ambition.

**ST & AMIGA £9.95**



## XR 35

Eight sectors of fast shooting against numerous enemies moving fast in ever changing patterns, ready to annihilate your super manoeuvrable ship. Multi plane scrolling background.

**AMIGA £9.95**



## JUMP JET

A chance to fly a unique and complex fighting machine. When you have mastered hovering and approaches, accelerate the Jump Jet into attack. Use the radar to seek and destroy the enemy. Locating the carrier and landing in rough seas and strong cross winds is another matter.

**AMIGA & ST £14.95**



## STRIP POKER 2

A sizzling evening of Poker with Samantha and Donna is in store for you.

**AMIGA & ST £9.95**



## TRIVIA TROVE

A game for the whole family. Questions on Sports, Science, Books, History, Music, Pot Luck, Films and Maths.

**AMIGA & ST £9.95**



## FLIGHT PATH 737

An Advance Pilot Trainer, the program takes you through the most interesting aspects of flying. Take off and climb over mountain ranges then attempt a safe landing. Six levels of addictive flying experience.

**AMIGA & ST £9.95**

**ANCO SOFTWARE LTD, 35 WEST HILL, DARTFORD, KENT DA1 2EL**  
**TEL: 0322 92513 MAIL ORDER HOTLINE: 0322 522631 FAX NO: 0322 93422**  
**PAYMENT BY CHEQUE, P.O., VISA OR ACCESS**



## OBLITERATOR



## TERRORPODS



## Barbarian



### OBLITERATOR

You are Drak the Last of the Obliterators, a genetically enhanced and awesome fighting machine, bio-engineered for the execution of incredible tasks, the ultimate solution to the most cataclysmic of predicaments.

In the voids of Federation space an alien cruiser has materialised. It is a ship of sinister and foreboding power. Federation defences have been smashed, Earth lies exposed, there is only one hope and you are it!

Summoned by the Federation council, your assignment is to use a prototype matter transporter to infiltrate the alien cruiser. Armed with a particle beam disrupter, lasers and whatever the alien habitat can provide, you must cripple the alien vessel thus enabling its destruction.

What awaits? What technological perils and strange diabolic adversaries will try to thwart you in your mission?

Can you become Drak the Last of the Obliterators? Can you survive? Can you overcome such unthinkable odds?

COMING SOON

### TERRORPODS

It's been a long watch... As the sun disappears over the horizon, the uninviting, grey bleakness of Colian becomes apparent. Following the intense heat of the day, the onset of night adds the bitterness of sub-zero temperatures to an already hostile environment, and the stark interior of the D.S.V. appears almost homelike.

Deep melancholy is suddenly smashed by the shrill scream of a siren. The status panel has gone crazy, an extraordinary array of lights flash uncontrollably. Good grief... what's happening?

Frantically, you turn to look at the command scanner, hunting through the mass of information before you, in a desperate attempt to decipher what has happened.

Your whole being freezes... It can't be! The Terrorpods...

AVAILABLE NOW

### BARBARIAN

Can you become Hegor the famous dragon-slaying, monster-mangling Barbarian?

Are you the warrior who can enter the fearful realms of the underground world of Durgan, a world terrorized by the evil Necron?

Can you handle the adventure, the frenzied attacks, the hidden traps, the gruesome death dealing monsters?...

Your quest; to destroy the lair of the accursed Necron. Your prize; the kingdom's crown.

Your task is awesome! You must live on your wits, conquer your innermost fears, use every skill and weapon available to you.

Hideous perils await. Can you survive?...

Are you Hegor the famous dragon-slaying, monster-mangling Barbarian?

AVAILABLE NOW

Psygnosis  
FREEPOST  
Liverpool L3 3AB  
United Kingdom  
Tel. No: 051 236 8818  
Fax: 051 207 4498  
Telex: 629474

ACCESS



VISA



OBLITERATOR	— £24.95
TERRORPODS	— £24.95
BARBARIAN	— £24.95
DEEP SPACE	— £24.95
ARENA	— £24.95
BRATACCAS	— £24.95
ARENA/BRATACCAS	— £29.95

All available for 512k colour,  
Atari ST, Commodore Amiga.

