

Y O U R

AMIGA

THE L.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:
FAIRYTALE 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.

MicroIllusions

17428 Chastanot St., Greenwald Hills, CA 91344 • Inside CA 818/360-2715 • Outside CA 800/327-7041 • FAX 818/360-1164

FOREIGN DISTRIBUTORS

Audio Systems, For Road, South-Fairfax Trading Centre, Fribourg, Switzerland, Tel: +41 26 44 1 233-5452
Merano-Edels, 14810000000 50, P.O. Box 100, Highgate N 1000, New Jersey, U.S.A. Tel: +1 201 231-1700

Communications of Australia, 67 Macri Road, Lane Cove, N.S.W. Australia 081 61 2-427-1880
Micro Image Canada Inc., 80 Colborne Road, Scarborough, Ontario M1S 2A1, Canada 416/299-0000

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 Offices, Year
Commodore, No 1 Golden
Square, London W1R 3AB.
Telephone: 01-437 9029 Telex:
585 2056.

The contents of this publication including all articles, designs, drawings and programmes 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, #1087. Distribution: S&M Distribution, 18-19 Trinity Gardens, London SW6 4DQ. 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 review we cannot be held responsible for any errors that do occur.

• *Amiga News*

The latest round up from the Amiga world

4

• *The I.M.P. is out of the bottle*

Getting to grips with image manipulation



• *Amiga Graphics*

Take a look at the latest in graphics packages

10

• *Play it again Sam*

Need multi-tasking support? Then SAM Basic is for you

13

• *Maxiplan*

We look at the continuing growth of Maxiplan

16

• *Amiga Games*

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

19



Amiga GPT

• *How to get it*

A useful compilation of names and addresses

22

• *Midi Music*

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

29



Amiga Music

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.

The PCW show proved that software houses are taking the Amiga seriously, at last.

Games showed ECO. Developed by Denton Design specifically for 16 bit machines, ECO simulates an ecosystem, 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 £19.99; Skyfox and Seven Cities of Gold are £14.95. Instant Moon; Chessmaster 2000, Road's Tale and Deluxe Paint are £14.99, as is new release Earl Weaver Baseball, Deluxe Paint 2, Deluxe Video and Deluxe Music Construction Set are £24.95. Skidding in for the winter months will be new releases Formula 1 Racing and Test Drive.

Megaspace confirmed Ultima III and IV and Asteroid and added Open to their list of Amiga games.

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

Hexagon released their first 16 bit products and expressed their satisfaction with the conversion of Lullidion to the Amiga.

Movrosoft have more Amiga games on the way with Mean Street 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 Hatakyta label is Gato.

PSG added a 'to be announced' date to Amiga games Spywatcher (£24.95), Leatherheads (£24.95) and Power Struggle (£29.95).

Topsoft announced that Amiga owners could receive their joystick with the October releases of Phion and Moonstray. Formula One Grand Prix will follow. All are on the Mirror/Vision label at £14.95.

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

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



Movrosoft's Strike Force Harrier

£19.95 respectively.

Amblol came up with Entensor and Alien Strike to add to Sweeper and the naughty Hollywood Poker. All priced at £19.95.

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

New Titles had networking for business machines, among them the Amiga 2000.

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

There are 280 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 1.5, a much refined version including cut and paste between packages (such as Scribble!).

Praxxon 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, GEPRCS, as it is known, manipulates data collected from a logic controller or keyed in. Output is displayed in colour graphics.

Cadence exhibited 3-CAD, a 2D-CAD program for Amiga 2000, price £99+VAT. Also for the 2000, Artisan graphics workstation from Bluewin.

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

Alves APE announced a new £99.95 price tag for their Amiga APL language and showed Monopax, a self-track package priced at £49.95.

AMMI, launches the Sunwood £99.95 wordprocessor. Apparently Sunwood is highly successful in Europe. Also available was Micro-Business' Firepoint.

Amiga Game Systems had Scot Petersen, President of Byte by Byte, on their stand demonstrating Sculpt 3D. There was also Animator's Apprentice, Express Paint, ART and Doug's Maths Aquarium - the latter a 'different' approach to programming.

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

VideoTinker 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 moved anywhere on screen and moved around at will and IFF pictures, including colour cycling, can be loaded as backgrounds. 3D block, thin edge, moon and emboss are among the 28 styles available and the user can DIY new types.

Clip and paste, mirror image, compression, distortion, inversion and title 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, divide 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 VideoTinker looks interesting.

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

Amiga's 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 Amiga Images can be stored on CD-I for playback via the computer.

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

Amiga has standardised its prices for the British market with Sonic at £60, VideoTinker at £60, VideoScope 3D at £125 and Drive Plus at £160 and Animator/Images at £90. Audio Master will cost £40.00.

Amiga is also marketing on PAL program conversions and the translation of manuals for VideoTinker, VideoScope 3D and Amiga Drive Plus for the European market.

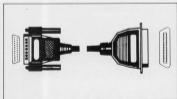
Info-Mat

Bistram Publishing has come up with a simple but attractive idea, the Info-mat, a cross between a rosette 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 Bistram.

Amiga announced the availability of their K-Speed 2 spreadsheet in the very near future, priced at £79.97.

Amiga 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.

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



The 3D-LINK 3 colour printer with four 100 lb

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 Tilly

In 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.

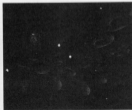
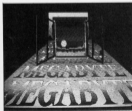
After you have read these ideas on the use of programs like DPaint II, Digi-View and DigiPaint, your images may still reflect your same knowledge and skills of art, but even those who can't draw a straight line or don't know anything about art but know what you like, can learn to manipulate images with 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 300 high to 1000 pixels x 1000 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 use for photographs of the screen) use the 352x226 since every little bit helps towards a good display of your picture.

One of the mistakes of the program is that it will display, for scrolling, page sizes up to 1000x1000. If you have 512K, load a two colour hi-res line lowercase 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 useful form it is a one pixel point used in the forehead drawing mode. There are tools, however which change its size, shape and colour. A desired line which spreads its dots with the speed of mouse movement is especially useful when combined with the GRID mode.

Out of the forehead mode you may select a wide range of shape markers, i.e. rectangle, circle, oval and polygons, both single lined and filled. A line pen so 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 "corral" 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 handy 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 as pink) flooded the artists. Dim red and a weird turquoise blue (scaled 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 in 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 best signs of late animation waterfalls and forest fires achieved by cycling lights which are being over-baked here in the UK/USA, 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 bar'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 also 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. Terrible designers become artists.

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 "7" to reveal it. You may swap back and forth between these two pages by using the key "7" command.

One more trick in this page arsenal. Pull down the background from the effects menu. It protects you by forming an invisible shield over your screen. You can cross it up by hiding to your home content, and then erase all your hatching 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 2MB. 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 sitty gritty of Key Commands

DPaint may be approached via icons or keys. Even when loaded by CLI with a single call for DPAINT, the screen presents you with mouse-activated icons representing that you choose a screen format. Later I shall discuss advantages of the different modes of resolution, but for now simply OK the keys 100x200 with its 32 columns.

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 on/off the displayed top menu... and gives you that little extra space to draw in. The key F10 toggles on/off 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 button 1 pixel brush. Want a larger brush? Key "+" increases step=1 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 "L" and key "R" 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 "C" and you will halve the size of all the custom brushes. Hit "H" again and again it halves. Key "H" and you double the size of the brush. Key "V" will flip the brush horizontally. Key "Y" flips it vertically and key "R" 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 "L". Hold down left button and drag to length and position of the end of the line.

Draw a curved line with key "C". Click and hold left button of mouse to set first and 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 Delaunais developed a system of drawing with sounds. You too can draw like Delaunais with this curve feature and the two tools which will now be described.

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

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

Make a rectangle with key "Y". A filled rectangle is made with the capital "B" 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 point 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) an area which is completely enclosed. If there is an uncut in 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 completion. 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 haven't covered in this initial article take more time to explore than the ones we have confined above. Among these 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.

Final fading with smear, shade and blend must be mentioned, 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 astonish you. So dig out your manual and let it lead you deeper into the mysteries of Amiga point graphics and we come back next time with ideas of extending DPaint with DigView and DigPaint.



"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 generate 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
100 Brookwood Rd.,
London SW16 5DD



JUMPDISK

THE UK'S No. 1 MONTHLY MAGAZINE ON A DISK
AMIGA COMPUTERS
NEW LOOK NOVEMBER ISSUE NOW AVAILABLE
PROGRAMS

FAST AMIG

Apple Disk II V

PI 20

Services File Charts

VARIABLE LETTER

Smart Base

DISK MAN

Manipulate Disk

RECYCLE

Recycle Files

Make Use Disk

CALCULATOR

Calculate With

BRACKET

Don't Get

NOTIFY

The Printing With

QUARTZ

Technical

DISK FIVE

Resolving the Problem

RAINBOW

Color Base

JOHN LEAD

Magically Street Area

OPENWINDOW

Open with DTP/II

DEPARTMENTS

PROGRAMS

Forum: Save Attention

In Flight

News: In Recent

Articles: How I Got

Information

ARTICLES

DISK MAN

Manipulate Disk

VARIABLE LETTER

Services File Charts

PI 20

Apple Disk II V

RECYCLE

Recycle Files

QUARTZ

Technical

DISK FIVE

Resolving the Problem

DISK MAN

Manipulate Disk

VARIABLE LETTER

Services File Charts

PI 20

Apple Disk II V

RECYCLE

Recycle Files

QUARTZ

Technical

DISK FIVE

Resolving the Problem

DISK MAN

Manipulate Disk

VARIABLE LETTER

Services File Charts

PI 20

Apple Disk II V

RECYCLE

Recycle Files

QUARTZ

Technical

DISK FIVE

Resolving the Problem

ALL OF THIS FOR £8.50 inc. VAT.

Please send cheque or money order made payable to
GEORGE THOMPSON SERVICES Dept Y.A.
Bippen Lodge, Bippen Road, Arvon EAST 8NN
Scotland, Tel: (077388) 034

Price includes the value of a 3.5" floppy disk
Send for SAMPLE COPY ON REQUEST
THERE IS A SUBSCRIBER WITH EVERY ISSUE

compunet

NOW FOR THE AMIGA!

Join the new on-line community!

Networks are the future for micro! 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, IBM 54 and 120.



- Packed with software, demos, news, chat, debate, interests, information!
- Free electronic mail
- Put YOUR programs, graphics, messages on the net - or start your own BBS or on-line magazine!
- 95% local call access, or PGG 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 01-887 2801 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. CD-ROM or 100owners, use the coupon for news of our special offer for you.

TELL ME MORE ABOUT COMPUNET AND HOW TO JOIN

Name: _____ Modem: _____

Address: _____

Modem type: Hayes compatible
Non-Hayes
No Modem

Tell me about your discount modem offer

Compunet, Unit 25, Sheridan Business Centre, Watlington Road, Perivale, Middx, UB8 3JH (01 887 2801)

Amiga Graphics

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

By Anne Owen

Things 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 100-100 better than the original? Well it depends on your requirements. If you use DPaint for producing two dimensional worksheets, 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 prompts 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 covered from disk.

What is immediately obvious is the increased number of menu options. The drawing toolbar 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 shade 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 area 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 slowness of DPaint's drawing functions but the results are worth the wait.

Two other major new features are masks 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. Masks mask certain colours on the screen so that your airbrush tool will not affect them. This makes precise shading and filling trivial, as opposed to the time when you might have had to use the roots feature to tidy up an edge.

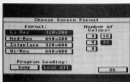


Samuel Silva, author of *Spinal 2*

Deluxe Paint 2



Deluxe Paint 2 can draw a LaserJet Plus Laser printer. Just copy the driver from your hardboard.



Resolution 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 irreplaceable piece of software.

Batcher

In an earlier review I found Batcher a very useful program much more than just a utility, mainly because of its ability to swap between screen formats (more achievable in DPaint II) and for its selective print feature, clipping and printing any part of the screen. A new version has improved the drawing facilities and makes Batcher 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 lines which are used in the redefinition of the picture on screen. A 'square' screen is kept in memory and can be swapped 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 Batcher investigates how they can be manipulated.

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

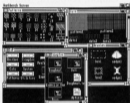
Express Paint

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 art 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 ascenders, 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 spazzy 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 aimed to wait. Space can be filled with solid colours, text or dot patterns. 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 2 desktop

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 multiple 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 moving operations. The desktop publishing element does not compete with a specialist product like Pagewriter. 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.

Finalists:

Name: *Batcher and Express Paint: Prices £25.00 and Machine Amiga. Supplier:* Amiga Centre Scotland, 4 West Street Lane, Edinburgh EH1 2BN. Tel: 051-237-4342.

Name: *Deluxe Paint 2. Price: £55.95. Machine: Amiga. Supplier:* Electronic Arts, Angley Business Centre, 11-49 Station Road, Lurgan, Nr. Slough, Berks SL1 6TN. Tel: 0753 6644.



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

If 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 tolerated 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, ERM, ERR (error lines, number and segment) and REND/ENTER. 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

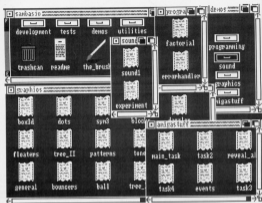
SAM Basic contains a hard core of the usual functions and keywords with many more available as extensions.

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 usually 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) FILES 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 single and virtual sprites, bebs 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 TRANSFERRED 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 C: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 tasks 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! `UCASES` and `LCASES` convert to upper/lower case in strings and `TRIME` 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

1.1 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 packages, 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.

Developer

Name: SAM Basic Police 28059.
Machine: Amiga. Supplier: Parkway Computers. Tel: 0797 37666.



AMIGA HARDWARE

- Amiga A500 Keyboard/Mouse/Drive
- Amiga A500 + A502 Modulator
- Amiga A500 + Philips 8530 Colour Monitor
- Amiga A500 + Philips 8830 Stereo Colour Monitor
- Amiga A500 + Cursons CA3034 Second 3.5in Drive
- Amiga A500 + Cursons 3.5in Drive + Philips 8530 Colour Monitor
- Amiga A500 + Cursons 3.5in Drive + Philips 8830 Colour Monitor

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

★ STOP PRESS ★
PHONE FOR SPECIAL DEALS

RRP	OUR PRICE
£499.99	£449.99
£524.99	£489.99
£579.94	£529.99
£529.94	£479.99
£599.94	£559.99
£599.99	£519.99
£579.99	£529.99

AMIGA PERIPHERALS

- Amiga A1010 Second 3.5in 800k Disc Drive (A1000 or A500)
- Cursons CA3034 800k Drive 3.5in (A1000 or A500)
- Amiga A1084 Colour Monitor (NEW MODEL)
- Philips CA8830 Stereo Colour Monitor + Lead
- Philips CA8820 Colour Monitor + Lead
- Philips CA8892 Colour Monitor + Lead
- Amiga A601 Modulator (To connect To TV)
- Amiga A601 8128 1048k Main Upgrade + Clock
- Panasonic KXP-108n Printer, Epson Codes, N/C, 1200CPM + Lead
- HP150 Printer, Epson Compatible, N/C, Draft 1500CPM + Lead
- HP170 Printer, Epson Compatible, N/C, Draft 1500CPM + Lead
- MP500 80 Col Printer, 2000CPM, Epson Codes, N/C, 400CPM + Lead
- MP501 136 Col Printer, 2000CPM, Epson Codes, N/C, 400CPM + Lead
- MP440 80 Col Printer, Epson Codes, N/C, 400CPM + Lead
- MP528 132 Column Daisywheel Printer, 2000CPM + Lead
- MP448 138 Column Daisywheel Printer, 2000CPM + Lead
- Multi Mapper Interface (Works A1000 or A500)
- D50D 3.5in Discs + Library Case (10) — LOW LOW PRICE
- Quality Branded 3.5in D50D Discs (10) — LOW LOW PRICE

RRP	OUR PRICE
£299.99	£299.99
£149.99	£139.99
£279.99	£269.99
£239.99	£219.99
£219.99	£209.99
£249.99	£249.99
£24	£22.99
£113.99	£99.99
£262.50	£199.99
£194.99	£189.99
£243.99	£224.99
£401.99	£329.99
£434.99	£329.99
£299.99	£269.99
£439.99	£349.99
£24.99	£24.99
£22.99	£14.99
£27.99	£18.99

SPECIALS (Limited Stocks)

- Amiga A1081 Colour Monitor
- Commodore C128 + Tape Recorder + J/Stick + Software
- Commodore 64D Sports Pack (MAC, 1500, J/S, Sports Bag, 5 Games)
- Commodore 64C Converter only
- Commodore 1000-1 Tape Recorder
- Commodore 1041C New Drive + FREE 800K + 10 Discs
- Commodore 84 Mouse & Software (MOS)

RRP	OUR PRICE
£249.99	£209.99
£289.99	£239.99
£189.99	£169.99
£189.99	£139.99
£44.99	£24.99
£199.99	£169.99
£24.99	£19.99

AMIGA 500/1000 GAMES

SOFTWARE	RRP	OUR PRICE
American Construction Kit	£29.99	£29.99
American Football	£19.99	£19.99
Amiga Tanks	£19.99	£19.99
Archie	£29.99	£29.99
Archie II	£29.99	£29.99
Archie Fun	£19.99	£19.99
Archaeological Park	£29.99	£29.99
Balance of Power	£29.99	£29.99
Barbarian	£29.99	£29.99
Barbarian II	£29.99	£29.99
Beastar	£29.99	£29.99
Battlemaster	£29.99	£29.99
Beethoven	£29.99	£29.99
Chessmaster 2000	£29.99	£19.99
Clayco Fantasy	£29.99	£29.99
Clayco Space	£29.99	£29.99
Defender of the Crown	£29.99	£29.99
Die In	£29.99	£29.99
Definition	£19.99	£19.99
Delta	£19.99	£19.99
Die First	£19.99	£19.99
Diaryville Adventure	£49.99	£27.99
Dragon Simulator	£49.99	£19.99
Flight Simulator	£49.99	£19.99
Friday Night	£24.99	£19.99
Goldfisher	£24.99	£19.99
Gold	£24.99	£19.99
Gold of Thrones	£24.99	£19.99
Master II	£24.99	£19.99
Master III	£24.99	£19.99
Master of Thrones	£24.99	£19.99
Master of Thrones II	£24.99	£19.99
Master of Thrones III	£24.99	£19.99
Master of Thrones IV	£24.99	£19.99
Master of Thrones V	£24.99	£19.99
Master of Thrones VI	£24.99	£19.99
Master of Thrones VII	£24.99	£19.99
Master of Thrones VIII	£24.99	£19.99
Master of Thrones IX	£24.99	£19.99
Master of Thrones X	£24.99	£19.99
Master of Thrones XI	£24.99	£19.99
Master of Thrones XII	£24.99	£19.99
Master of Thrones XIII	£24.99	£19.99
Master of Thrones XIV	£24.99	£19.99
Master of Thrones XV	£24.99	£19.99
Master of Thrones XVI	£24.99	£19.99
Master of Thrones XVII	£24.99	£19.99
Master of Thrones XVIII	£24.99	£19.99
Master of Thrones XIX	£24.99	£19.99
Master of Thrones XX	£24.99	£19.99
Master of Thrones XXI	£24.99	£19.99
Master of Thrones XXII	£24.99	£19.99
Master of Thrones XXIII	£24.99	£19.99
Master of Thrones XXIV	£24.99	£19.99
Master of Thrones XXV	£24.99	£19.99
Master of Thrones XXVI	£24.99	£19.99
Master of Thrones XXVII	£24.99	£19.99
Master of Thrones XXVIII	£24.99	£19.99
Master of Thrones XXIX	£24.99	£19.99
Master of Thrones XXX	£24.99	£19.99

AMIGA 500/1000 GAMES

SOFTWARE	RRP	OUR PRICE
Amiga Tanks Part 1	£29.99	£19.99
Amiga Tanks Part 2	£29.99	£19.99
Amiga Tanks Part 3	£29.99	£19.99
Amiga Tanks Part 4	£29.99	£19.99
Amiga Tanks Part 5	£29.99	£19.99
Amiga Tanks Part 6	£29.99	£19.99
Amiga Tanks Part 7	£29.99	£19.99
Amiga Tanks Part 8	£29.99	£19.99
Amiga Tanks Part 9	£29.99	£19.99
Amiga Tanks Part 10	£29.99	£19.99
Amiga Tanks Part 11	£29.99	£19.99
Amiga Tanks Part 12	£29.99	£19.99
Amiga Tanks Part 13	£29.99	£19.99
Amiga Tanks Part 14	£29.99	£19.99
Amiga Tanks Part 15	£29.99	£19.99
Amiga Tanks Part 16	£29.99	£19.99
Amiga Tanks Part 17	£29.99	£19.99
Amiga Tanks Part 18	£29.99	£19.99
Amiga Tanks Part 19	£29.99	£19.99
Amiga Tanks Part 20	£29.99	£19.99
Amiga Tanks Part 21	£29.99	£19.99
Amiga Tanks Part 22	£29.99	£19.99
Amiga Tanks Part 23	£29.99	£19.99
Amiga Tanks Part 24	£29.99	£19.99
Amiga Tanks Part 25	£29.99	£19.99
Amiga Tanks Part 26	£29.99	£19.99
Amiga Tanks Part 27	£29.99	£19.99
Amiga Tanks Part 28	£29.99	£19.99
Amiga Tanks Part 29	£29.99	£19.99
Amiga Tanks Part 30	£29.99	£19.99
Amiga Tanks Part 31	£29.99	£19.99
Amiga Tanks Part 32	£29.99	£19.99
Amiga Tanks Part 33	£29.99	£19.99
Amiga Tanks Part 34	£29.99	£19.99
Amiga Tanks Part 35	£29.99	£19.99
Amiga Tanks Part 36	£29.99	£19.99
Amiga Tanks Part 37	£29.99	£19.99
Amiga Tanks Part 38	£29.99	£19.99
Amiga Tanks Part 39	£29.99	£19.99
Amiga Tanks Part 40	£29.99	£19.99
Amiga Tanks Part 41	£29.99	£19.99
Amiga Tanks Part 42	£29.99	£19.99
Amiga Tanks Part 43	£29.99	£19.99
Amiga Tanks Part 44	£29.99	£19.99
Amiga Tanks Part 45	£29.99	£19.99
Amiga Tanks Part 46	£29.99	£19.99
Amiga Tanks Part 47	£29.99	£19.99
Amiga Tanks Part 48	£29.99	£19.99
Amiga Tanks Part 49	£29.99	£19.99
Amiga Tanks Part 50	£29.99	£19.99

AMIGA 500/1000 BUSINESS

UTILITY SOFTWARE	RRP	OUR PRICE
Amiga Accounting Package	£799.99	£699.99
Amiga Amiga I	£29.99	£19.99
Amiga Amiga II	£29.99	£19.99
Amiga Amiga III	£29.99	£19.99
Amiga Amiga IV	£29.99	£19.99
Amiga Amiga V	£29.99	£19.99
Amiga Amiga VI	£29.99	£19.99
Amiga Amiga VII	£29.99	£19.99
Amiga Amiga VIII	£29.99	£19.99
Amiga Amiga IX	£29.99	£19.99
Amiga Amiga X	£29.99	£19.99
Amiga Amiga XI	£29.99	£19.99
Amiga Amiga XII	£29.99	£19.99
Amiga Amiga XIII	£29.99	£19.99
Amiga Amiga XIV	£29.99	£19.99
Amiga Amiga XV	£29.99	£19.99
Amiga Amiga XVI	£29.99	£19.99
Amiga Amiga XVII	£29.99	£19.99
Amiga Amiga XVIII	£29.99	£19.99
Amiga Amiga XIX	£29.99	£19.99
Amiga Amiga XX	£29.99	£19.99
Amiga Amiga XXI	£29.99	£19.99
Amiga Amiga XXII	£29.99	£19.99
Amiga Amiga XXIII	£29.99	£19.99
Amiga Amiga XXIV	£29.99	£19.99
Amiga Amiga XXV	£29.99	£19.99
Amiga Amiga XXVI	£29.99	£19.99
Amiga Amiga XXVII	£29.99	£19.99
Amiga Amiga XXVIII	£29.99	£19.99
Amiga Amiga XXIX	£29.99	£19.99
Amiga Amiga XXX	£29.99	£19.99
Amiga Amiga XXXI	£29.99	£19.99
Amiga Amiga XXXII	£29.99	£19.99
Amiga Amiga XXXIII	£29.99	£19.99
Amiga Amiga XXXIV	£29.99	£19.99
Amiga Amiga XXXV	£29.99	£19.99
Amiga Amiga XXXVI	£29.99	£19.99
Amiga Amiga XXXVII	£29.99	£19.99
Amiga Amiga XXXVIII	£29.99	£19.99
Amiga Amiga XXXIX	£29.99	£19.99
Amiga Amiga XL	£29.99	£19.99
Amiga Amiga XLI	£29.99	£19.99
Amiga Amiga XLII	£29.99	£19.99
Amiga Amiga XLIII	£29.99	£19.99
Amiga Amiga XLIV	£29.99	£19.99
Amiga Amiga XLV	£29.99	£19.99
Amiga Amiga XLVI	£29.99	£19.99
Amiga Amiga XLVII	£29.99	£19.99
Amiga Amiga XLVIII	£29.99	£19.99
Amiga Amiga XLIX	£29.99	£19.99
Amiga Amiga L	£29.99	£19.99

Post: Send Cheques/P.O. or Visa/Access details to the address below. Phone: Call 0478 80488 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 dispatched within 24 Hrs. 24/7.

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

Maxiplan has in fact evolved into two separate programs. Maxiplan 300 for 512K machines or 1049 and Maxiplan plus, with a macro programming language, at 1199. If you run on 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 formulas 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 REPER function which takes a full file/sheet cell specification. Data can be highlighted and operated on with the database functions of find, extract and save. These operate according to criteria spelled out on the sheet.

Printer control, down to fine detail, is available from pull-down 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. Pageaster or Prowrite for a report.

MAXIPLAN PLUS

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

YOUR BEST SPREADSHEET SINCE 1985

Published by **IDEE**
Developed by Inhibits 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 20000 lines per minute, directly from the editor. Full expression handling, up to 64 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 25 discount (normal price is £99.95) 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 dispatch your Devpac Amiga by first class post.

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



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 MonAmig'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 standard notes attached to them, which can be displayed or spoken, as both.

Plus Factor

Maxiplan contains a wide variety of functions ranging from AVERAGE and COUNT (manually 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 (ASIN), (ATAN),

(ASIN) 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 menu - and more - can be achieved from a macro, loading 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 'tool 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.

Footnote:

Name: Maxiplan Plus; £120. Machine: Amiga. Supplier: MFC Software (UK), Paulsons - Oxon Ave, PO Box 4908, Jeddah, C 82034. Tel: 744 996718

DATTEL ELECTRONICS

EXTERNAL 3.5" DISK DRIVE

- 5 Minutes! Plug suitable for 4800 or 3000
- Top quality 833-drive mechanism
- Throughport for bypassing other drives
- Attractively styled • Complete — No more to buy
- 24 months guarantee • Fully compatible

ONLY **£114.99** POST FREE
ADD (£48 for next day Courier delivery).



512K RAM EXTENSION • A500

- Available with/without calendar clock option
- Simply plugs internally into a A500 slot
- Fixed at 512Kbytes — no soldering etc.
- With calendar/clock onboard time/date automatically loaded
- Battery backed-to retain time/date

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

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



MIDIMASTER

- Full Midi Interface for 4800/3000/3000 (Please state model)
- Compatible with most (existing) MIDI packages (i.e. To Music)
- Midi In — Midi Out x 2 — Midi Thru
- Fully Opto. Isolated
- No need to pay 100pp — Full MIDI standard

ONLY **£34.99**

GRABBIT

- Grabbit is a transparent Screen Grabber program
- Always there — single key operation
- Entire Screen at once
- Requires only 128 bytes
- A free probability test
- Key guide operation — does not require control on further printing
- Free "KEYTEST" program lets you adjust your own select profile preferences

ONLY **£21.99** POST FREE



MARAUDER II

• Quite simply the best disk copier available for the design (all models)

- Operates fast copier will copy almost any commercial disk
- Special 'Security' filter copier will even do text around protected sections
- Friendly user interface — shows drive, disk, progress
- Supports up to 8 drives simultaneously for multiprogramming
- Completely compatible with Acq. multi-tasking system
- Regular updates available — we always stay the best
- Free demo/cheap installed program including 'Clocks/Time'/'Print/Status' etc.
- Fast operation — typically around 10 seconds
- Easy to setting copy

ONLY **£29.99** POST FREE

ALL ORDERS NORMALLY DESPATCHED WITHIN 48 HRS

HOW TO ORDER . . .

BY PHONE	BY POST	BY PARCEL, UK
		
0462 272615 24 hr. Credit-Card-Line	Send cheque/PO with popular 'Credit-Card' form	Post bags • 1000000 New Orders 0782 224011

DATTEL ELECTRONICS

UNITS 8/9, DOWNHURST ROAD, FENYON INDUSTRIAL ESTATE,
FENYON, SPENCER-ON-THE-HEATH

SALES ONLY 0462 272615 TELEPHONE UNIT 0782 224011

Amiga Games

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



You are just north of a bridge, engulfed in a long tunnel. In the distance, it is possible to hear loud snoring, but beware, there's trouble just ahead.

Amiga version of £17.95

© Dundee House in the distance, death. "I can't see you!"

Goodbye, you are all, there's an eye here waiting to be killed.

Amiga

Amiga version of £17.95
© Dundee House in the distance, death. "We'll be back through the bridge here!"



You are in a large room full of pictures, with the other walls in flames, some above the fireplace. The walls have portraits and scrolls. You can see a picture of a knight.

Amiga version of £17.95

You are outside of a castle in a garden. There are a few trees and a fountain. You can see a picture of a knight.

Amiga

You are in the house of a knight. There are some scrolls and a picture of a knight. You can see a picture of a knight. You can see a picture of a knight.

Knight Orc

Knight Orc

I think it was PCW on some such magazine that granted 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 nice to find an adventure game in the traditional sense where you play one of the bad guys. In this case, it is a handsome Orc called Orvaldgragas.

Out of the three adventures that make up Knight Orc, the first one - Lizard Orc is the most interesting 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 longest, 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 cakes.

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

patent, 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.

5/85

Tomlinson

Name: Knight Orc, Software: Dundee House, First Floor, 64-67, New Oxford Street, London WC1A 1PS, Tel: 01-252 6255, Machine: Amiga, Price: £19.95.

Development: 7/85, Playability: 3/18,

Graphics: 5/10, 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 Arkonoid, Impact is a version of the game for the Amiga, but this time, it has been more than revamped and scooped-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 spinner drops down from one of the bricks. This can be picked up for extra points, or as part of an "accumulation" whereby you can save your bonus points for much and goodies which make clearing the screen an easier task.

There are nine bonuses in all, but these are more sparsely, 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 "bat" at the same time, but you can only really have one item when going for higher goodies such as a missile base (!), a rocket bomb and even an invisible 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 "Geez" noises.

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 challenging - after all, no one likes to be eaten by their own screen, do they?

Impact is a good game. 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.

Title:

Name: Impact. Supplier: A.M. Workster House, Common Road, Weybridge, Surrey, W87 7JL. Tel 01-881 1185. Machine: Amiga. Price: £14.95.

Originality: 3/10. Playability: 9/10. Graphics: 4/10. Value: 8/10.

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 lever 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 making 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 "normal and use elsewhere" pile. Diablo isn't addictive in any way - it simply insults the mind.

C.G.

Title:

Name: Diablo. Supplier: Diamondsoft, Unit 4, Devereux Business Complex, St John Road, Weybridge, Middlesex, TW7 5NL. Tel: 01-847 4437. Machine: Amiga. Price: £19.95.

Originality: 4/10. Playability: 3/10. Graphics: 3/10. Value: 3/10.



Impact



Diablo

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
Maldenhead
Berks
SL8 7XA
Tel: 0628 778088

Adrian Wexley

Franchampton Road
Wokingham
Berks
RG11 2NG

Apple Development

2115 Pico Blvd
Santa Monica
CA 90405
Tel: 213-382-9972

Amiga Centre Scotland

4 Hart Street Lane
Edinburgh
EH1 3RN
Tel: 031-557-4242

AMS

166-170 Widdowood Causeway
Warrington
WA4 6QA
Tel: 0925 413584

Amco

25 West Hill
Dartford
Kent

DAI 2EL

Tel: 0332 42518

Applied Vision

15 Oak Ridge Road
Medford
MA 02155

Tel: 617 489 3682

Artisan Software

273 Kersal Road
London
W10 5DB
Tel: 01-960 0285

Artimus

Twochvale 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.

Walkers

Poolbrook

EH43 6AJ

Tel: 089-687 383

Bitstream Publishing

26-28 Osborne Road

Southsea

Hants

PO5 3LT

Bureau

211 Kanton Road

Harrow

Middlesex

HA3 9HD

Tel: 04-807 3636

Babyte Business Services

60 The Marketplace

St. Albert

Edm.

Tel: 0727 9600

Cadvision

15a Popes Avenue

Twickham

Middle

Tel: 04-894 0423

Cyrenidish Commodore Centre/UK

Amiga Users Group

60 London Road

Leicester

LE2 9JF

Tel: 0533 358993

Diamond Software

36 Knightshill

London

SW27 9UD

Tel: 06-761 7965

Edisoft

Hill Farm

Nr Oxforden

Essex

RM14 3JH

Tel: 0708 826488

Electronic Arts

Langley Business Centre

21-49 Station Road

Langley

Berks

SL3 8YN

Tel: 0753 49442

Paloma Software

2175 South Hoover Street,

Los Angeles

CA 90007

George Thompson Services Ltd

Whitgate House

Old Reigate Road

Reigate

Surrey

RH3 7DR

Tel: 073-364 4879

Gold Disk

PO Box 789

Stroctville

Missounga

Ontario

L5M 3C2

Tel: 416-828 9813

HD Marketing Ltd

Pier Road

North Farnham Trading Estate

Farnham

Middlesex

TW14 8TT

Tel: 01-844 1282

Henson

36.8 Milton Trading Estate

Abingdon

Oxon

OX14 4X

Tel: 0235 82909

Introscope Ltd

Mercery House

Caliva Park

Caliva Park

Continued on page 24

Continued from page 22

Alderminster
Berks
RG7 4QW
Tel: 0736 71500

IIIK Images
2214 East 86 Street
Salt Lake
Blountingon
Minnesota 55420
Tel: 612-834 7793

Jensky Software
PO Box 4313
Garden Grove
CA 92642

Josty UK
Dealer Enquiries
Lindy Electronics
25D Dukinson
Trenside Ind. Estate
Thornaby
Cleveland
TS17 9LT
Tel: 0642 763275

Kyma Computers Ltd
Paignton
Berkshire
Tel: 07537 4333

Meditian Software
PO Box 590408
Houston
TX 77289-0408
Tel: (713)488 2144 (USA)

Meteosmo
26 Portland Square
Bristol
BS2 8RZ
Tel: 0273 42871

Microfil
P O Box 444003
Eden Prairie
Minnesota 55344
Tel: 612-844 8759

MicroAPE Ltd
Unit 1F
Tisbury Ind. Estate
87 Kirtling Street
London
SW8 2BP
Tel: 01-622 8185

Microprose Software
2 Market Place
Torbury
Gloucestershire
GL8 8DA
Tel: 0666 34328

MPC Software
12 Julian Road
West Bridgford
Nottingham
NG2 5AN
Tel: 0662 828166/825114

New Horizons Software
PO Box 43167

Austin
TX 78745
Tel: 512 329 6215

Nucleon Software Systems
North House
18-44 Ougar Road
Brentwood
Essex
Tel: 0273 233773

Ocean
1 Central Street
Manchester
M2 3NS
Tel: 061-632 6633

Oxal Inc.
PO Box 4800
Fultonton
California 92034
Tel: 714-999 8700

Parkey Computer Consultants
3 Mandella Court
Mandella
Welwyn Garden City
Herts
AL7 5EN
Tel: 0707 371818

Penguin Books (Microsoft Press)
Bath Road
West Drayton
Middlesex
UB9 8DA

Precision Software
6 Park Terrace
Worcester Park
Surrey
KT4 1JZ
Tel: 01-320 7186

Reahed Software
74 New Oxford Street
London
WC1A 1PS
Tel: 01-240 8808

Realtime Associates
Canning House
39 Canning Road
Croydon
Surrey
CR0 6QJ
Tel: 01-454 7033

Sentinel Software
Wellington House
New Zealand Avenue
Waltham-on-Thames
Surrey
KT11 1PY
Tel: 0932 231184

Systems Architects
6-8 Market Place
Kingston Upon Thames
Surrey
KT1 1JY
Tel: 01-549 3828

Tanna Images/Enigma Publishing
Taurus House
3 Bridge Street

Guildford
Surrey
GU11 4BY
Tel: 0483 570399

The Office Guys
PO Box 11
Logan
Utah 84301

Triangle Television
158 Brookwood Road
London
SW18 2DD
Tel: 01-874 3418

Tri Computer Software Ltd
21 Oak Green
Tanners Wood
Abbots Langley
Watford
Herts
Tel: 08277 69881

Trilogic
309 Tong Street
Bradford
BD4 9QY
Tel: 0174 684289

Viva Software
Chatham House
14 New Road
Chatham, Kent
ME4 4QB
Tel: 0634 45002

V2 Computing Ltd
Tannay House
146-150 St. Albans Road
Watford, Herts
WD2 4AE
Tel: 0923 50261

Club Amiga
85 Upper Deanscote Road
Dublin 9
Ireland

**Independent Commodore
Products Users Group**
27 Canterbury Avenue
Basing
London
W3 4LP
Tel: 01-993 2634

High Voltage
25-29 High Street
Croydon
Surrey
CR0 1QD
Tel: 01-681 5823

All Computers
171 Thornbury Road
Oatley
Hampshire
Middlesex
Tel: 01-568 7148

Computer8 Ltd
17076 Chadderton Way
Oldham
OL9 6DH
Tel: 061-622 8086

FROM 1600
AMIGA

- Amiga 1000 with 128K RAM, software £1000
- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 with 128K RAM, software £750

These Amigas, 655100, a FREE copy of the Amiga 1000 Software Manual. See our website: www.commodore.co.uk

- Amiga 5000 with 128K RAM, £1000
- Amiga 5000 with 512K RAM, software £1000
- Amiga 5000 with 1024K RAM, software £1000
- Amiga 5000 with 2048K RAM, software £1000

1 year on-site maintenance with every Amiga Amiga system. Price FREE GOLDEN KEY CARD!

Buy at least 100 top items or more to get the best price. See our website: www.commodore.co.uk

PERIPHERALS
AMIGA

- 160K floppy disk drive £200
- 400K floppy disk drive £250
- 800K floppy disk drive £300
- 1600K floppy disk drive £350
- 2000K floppy disk drive £400
- 3000K floppy disk drive £450
- 4000K floppy disk drive £500
- 5000K floppy disk drive £550

- Amiga 500 floppy disk drive with 1.44M internal disk drive £1000
- Amiga 500 floppy disk drive with 1.44M internal disk drive £1100
- Amiga 500 floppy disk drive with 1.44M internal disk drive and 4000K RAM £1200
- Amiga 500 floppy disk drive with 1.44M internal disk drive £1300

- Amiga 500 external disk drive £200
- Amiga 500 external disk drive £250
- Amiga 500 external disk drive £300
- Amiga 500 external disk drive £350
- Amiga 500 external disk drive £400
- Amiga 500 external disk drive £450
- Amiga 500 external disk drive £500
- Amiga 500 external disk drive £550

CRUISE
AMIGA

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

- 160K floppy disk drive £200
- 400K floppy disk drive £250
- 800K floppy disk drive £300
- 1600K floppy disk drive £350
- 2000K floppy disk drive £400
- 3000K floppy disk drive £450
- 4000K floppy disk drive £500
- 5000K floppy disk drive £550

- Amiga 500 external disk drive £200
- Amiga 500 external disk drive £250
- Amiga 500 external disk drive £300
- Amiga 500 external disk drive £350
- Amiga 500 external disk drive £400
- Amiga 500 external disk drive £450
- Amiga 500 external disk drive £500
- Amiga 500 external disk drive £550

PRODUCTIVITY
AMIGA

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

- Amiga 500 external disk drive £200
- Amiga 500 external disk drive £250
- Amiga 500 external disk drive £300
- Amiga 500 external disk drive £350
- Amiga 500 external disk drive £400
- Amiga 500 external disk drive £450
- Amiga 500 external disk drive £500
- Amiga 500 external disk drive £550

128 64K

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

- Amiga 500 external disk drive £200
- Amiga 500 external disk drive £250
- Amiga 500 external disk drive £300
- Amiga 500 external disk drive £350
- Amiga 500 external disk drive £400
- Amiga 500 external disk drive £450
- Amiga 500 external disk drive £500
- Amiga 500 external disk drive £550

LOWEST PRICE GUARANTEE - LOWEST QUALITY GUARANTEE

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

MORE SOFTWARE GUARANTEE - THE BEST OF BOTH WORLDS

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

COMMODORE THE BEST AT... PROFESSIONAL SOFTWARE

- Amiga 500 TV to video £1000
- Amiga 500 TV to video, plus Amiga 1000 software £1200
- Amiga 500 TV to video, plus Amiga 1000 software £1400
- Amiga 500 TV to video, plus Amiga 1000 software £1600
- Amiga 500 TV to video, plus Amiga 1000 software £1800
- Amiga 500 TV to video, plus Amiga 1000 software £2000
- Amiga 500 TV to video, plus Amiga 1000 software £2200
- Amiga 500 TV to video, plus Amiga 1000 software £2400

SEEK FOR THE BEST AT... PROFESSIONAL SOFTWARE

Amiga 500 TV to video £1000
Amiga 500 TV to video, plus Amiga 1000 software £1200
Amiga 500 TV to video, plus Amiga 1000 software £1400
Amiga 500 TV to video, plus Amiga 1000 software £1600
Amiga 500 TV to video, plus Amiga 1000 software £1800
Amiga 500 TV to video, plus Amiga 1000 software £2000
Amiga 500 TV to video, plus Amiga 1000 software £2200
Amiga 500 TV to video, plus Amiga 1000 software £2400



The new whisper quiet slimline



Cumana disk drives for the Amiga user

Slence, 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 CAK 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 consider are, high quality NEC 3.5" double sided drive mechanisms, 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, Galford, Surrey GU8 5BA.
Tel 0430 50021 Telex 899380 Fax 0430 50026

Distributors: Hugh Symonds, Dorset; Zappo Computers, Staffs; SDA, Silica Distributions, Kent; 16/32 Diffusion, France; Microware, Germany; Etrion, Holland; Belgian Computer Center; APC, Italy; SAC, Sweden; SAC, Denmark; ABC Analog, Phoenix; Trades Informatics, 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.

AMIGA SYSTEM 1

Amiga A500 Computer, Deluxe Paint, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk. **£279.00**

AMIGA SYSTEM 2

Amiga A500 Computer, Deluxe Paint 1, Sports Holder, GFI, American Football, Baseball, Golf, Workbench, Amiga Basic and Demonstrations. **£385.00**

AMIGA SYSTEM 3

Amiga A500 Computer, Kings Quest II, Portal, Time Times, Deluxe Paint 1, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk. **£385.00**

AMIGA SYSTEM 4

Amiga A500 Computer, Music Studio, Shanghai, Baseball, Deluxe Paint 1, Tutorial Disk, Workbench, Amiga Basic and Demonstrations Disk. **£385.00**

AMIGA SYSTEM 5

Amiga A500 Computer, Philips 8833 Colour Monitor with stereo sound, Deluxe Paint 1, Workbench, Tutorial Disk, Amiga Basic and Demonstrations Disk. **£389.00**

AMIGA SYSTEM 6

Amiga A500 Computer, Amiga A1081 Colour Monitor. **£479.00**

AMIGA 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. **£395.00**

AMIGA SYSTEM 8

Wordprocessor System, Amiga A500 Computer with Star 16, 10 Dot Matrix printer and cable. Vibrante wordprocessing package. **£429.00**

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 portable wordprocessor
Free technical support hot line **£1,999**

A2000 COMPUTER

High resolution colour monitor
Internal drive
Video system with camera & stand light
video applications programs
The Complete Computer Video System **£2,999.00**

A2000 COMPUTER

ST bridge board with 5 1/4" disk drive (MSDOS compatible)
20 MB hard disk & control card
5 LAN selection MSDOS application programs. **£1,999**

A2000 COMPUTER

High resolution colour monitor
Free one year on site maintenance
Free technical support hotline
Free LAN selection of 20 software titles. **£1,199.00**

PC SERIES

PC

Intel 80286 processor, 1120K ram, 2 x 200K floppy drives, with monochrome monitor. **£299.00**

PC10

As for PC10 with 20MB hard disk. **£399.00**

PC40-20

Intel 80286, 6 or 10 MB HD, 1 MB ram, 20 MB hard disk, 1.2 MB floppy, MSDOS, GWBASIC with 80 & serial monitor. **£1,999.00**

PC40-40

As for PC-40/20 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 serial interfaces. The PC1 includes MSDOS 3.3 and a mono-colour monitor as standard. Colour is an optional extra as well as the 8027 co-processor only £244.00

ACCESSORIES

External 3rd Drive with box of 10 Disks **£299.00**
LAN External 3rd Drive with box of 10 Disks **£399.00**
1 1/2" Floppy **£21.00**
5 1/4" Floppy Expansion **£29.00**
Monitor Stand (optional) designed for Amiga **£19.00**
Colour Monitor cable **£15.00**
Accessory Package **£15.00**
External Expansion, Academic 3rd Drive **£299.00** or **£377** and delivery
1 MB Hard disk with real time clock for Amiga A500 **£299.00**

PRINTERS

EPSON L2000 **£199.00**
Epson 80000 **£299.00**
Epson 80000 **£299.00**
CANON LAMP **£149.00**
PARASOLIC 100 80 col, 10 pin **£149.00**
PARASOLIC 100 80 col, 10 pin **£149.00**
PARASOLIC 100 80 col, 10 pin **£149.00**
CANON 400 Dot Matrix **£299.00**
CANON Laser **£1,999.00**
CANON 400 10 pin **£199.00**
CANON 400 100 pin **£299.00**
JAN 5100 (optional) **£179.00**
HP-100 Dot Matrix **£199.00**
HP-100 Dotted **£199.00**
EPSON 80000 **£199.00**
EPSON 80000 **£199.00**

MONITORS

PHILIPS 7600 Hi Res **£99.00**
PHILIPS 7600 Hi Res Junior **£79.00**
PHILIPS 8000 Med Res Colour **£299.00**
PHILIPS 8000 Colour **£299.00**
PHILIPS 8000 Colour **£299.00**
PHILIPS 8000 Colour **£299.00**
PHILIPS 100 Hi Res **£99.00**
PHILIPS 100 Hi Res Junior **£99.00**
TASMAN 600 Colour **£299.00**

3 1/2" DISK PRINTERS

CANON 317000 **£299.00**
EPSON 317000 **£299.00**
XEROX 600 **£299.00**

ACCESSORIES

Printer Stand **£19.00**
Box of ten 5 1/4" Disks in plastic **£19.00**
5 1/4" Disk in 5 1/4" Disk in plastic **£9.00**
Box of hundred 5 1/4" Disks in lockable storage box **£99.00**
5 1/4" lockable box 100 capacity **£19.00**
5 1/4" lockable box 100 capacity **£19.00**
Application for Amiga **£19.00**

AMIGA

JUST LOOK AT THIS!
-- AMIGA 500

MANIA!
£449 inc VAT plus P&H



A-500

4096 Colours, Stereo Sound, 1Mb 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 plus P&H

Telephone for A2000 & C64 prices
OFFICIAL COMMODORE BUSINESS CENTRE

TRYING TO USE YOUR COMPUTER!...

YOUR
COMMODORE
CAN HELP.

£129.95 inc VAT plus P&H
12 issues £18.15 inc VAT
12 issues £24.95 inc VAT
12 issues £30.75 inc VAT
12 issues £36.60 inc VAT
12 issues £42.45 inc VAT

NAME: _____
ADDRESS: _____
CITY: _____
POSTCODE: _____
TELEPHONE: _____
CREDIT CARD NO: _____
EXPIRES: _____
NAME: _____
ADDRESS: _____
CITY: _____
POSTCODE: _____
TELEPHONE: _____
CREDIT CARD NO: _____
EXPIRES: _____



Send this form with your application to:
EXPRESS LTD., 1, Blue Bird Court,
Aldershot, Hants GU11 3JF

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 CM1 Fairlight and the Synx 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 studies 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 lagging the sheer 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 CM1 and the Synx 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

primary 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 out-performed. 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 stores as musical "instruments" (for example Tangerine Dream's "Eiger" 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 tired 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 beavering 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 hear out some very expensive synthesizer 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 it basically is, in the eyes of 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. Argis Development has an excellent package called "Argis Sonic", while 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 Argis Sonic package, this originally started life as a package called "Musicals", and while this was a very good package in its own right, there were still some vital features missing that Argis saw fit to include on Sonic when they bought the rights of the software and tracked down the author for a license.

Argis 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 in my 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 Argis Sonic.

As part of the software, Argis Sonic 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, and the 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 in 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 staff to staff. This makes pieces of music like Fauré's Canon a piece of cake to lay in.

The Amiga as a Synthesizer

Argis 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 tied on option there is a harmonic adjuster enabling very powerful editing functions to be made to the generated 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 II to name but a few classic machines from this era).

Argis 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 modulated) instruments including my good old faithful drum machine, the Sequential Circuits "Drumtraks".

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

Having had the good fortune of trying Argis 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, ribbon and even the pitch bend option are all supported amounting to quite a complete MIDI specification as far as the DX-7 is concerned.

Argis 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 useful.

Argis 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. Argis 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 Argis 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 Argis 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 name 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 people's 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 music 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 staff oriented 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 set, no "special" notation fonts 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 Argis 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 Argis Sonic, in that there are no staves supported, there are limited 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, clearing, stem 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 "color" 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 correct key, 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 stretch or passage, 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 stave. 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 Argis Sonic's 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 stored equivalents is easy, in fact bar of mine with the Fairlight. With Deluxe Music Construction Set, all you do is select the "pointer" icon and "turn" in the notes to be stored. This should be done from the outside going in if there are more than two notes to be stored together, and it works very well - certainly better than anything the Fairlight can offer.

"Beating 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-mediated 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 Argis Sonic 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 scored and all nicely lined up.

Concluding Deluxe Music Construction Set

This is a wonderful package, written for the musician with an Argis. 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 Barock, 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 it 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 realize that I have been comparing this software with parts of the CMI and Syno Fairlight and the Synclavier - instruments I have had the good fortune to use. With the processing power and memory of the Argis, these machines will soon be topped 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!

Teacher:

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

Name: *Argis Sonic*. Price: £17.50 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 01 836 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:

1-800-643-8934

ONLY \$199.95



NewTek
INCORPORATED

PAL VERSION NOW AVAILABLE

AMIGA

ANCO

ST



GRID START

Race your 4 gear FORMULA 1 car with 8 other cars against 13 other cars over 8 world famous circuits. Practice first and last before you race across the finish line.
AMIGA £9.95



LAS VEGAS

You have \$100 and a burning ambition to break the bank at LAS VEGAS. Play SLOTS with the very special features: WILD DRAGON and finally the BLACK JACK table to realise your ambition.
ST & AMIGA £3.95



Strip Poker II

A scintillating version of Poker with Samantha and Donna is in store for you.
AMIGA & ST £3.95



STARTING SPARE PRO

SO SMART racing is great fun but requires skill and experience in the selection of Spares size and type to suit the track, weather conditions and style of driving. Practice on Computers over Drivets 1 or 2 players.
ST & AMIGA £3.95



III-88

Eight screens of fast shooting against numerous enemies moving fast in ever changing patterns, ready to annihilate your superb manoeuvrable ship. Multi plane scrolling background.
AMIGA £3.95



JUMP JET

A chance to fly a unique and complex fighting machine. When you have mastered hovering and approaches, coordinate the Jump Jet into attack. Use the radar to seek and destroy the enemy. Locating the center and landing it rough seas and strong crosswinds is another matter.
AMIGA & ST £3.95

AMIGA & ST £3.95



TRIVIA TRIVIA

A game for the whole family. Questions on Sports, Science, Books, History, Music, Pop, Luck, Films and More.
AMIGA & ST £3.95



FLIGHT PATH 121

An Advanced 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 flight simulation.
AMIGA & ST £3.95

AMIGA & ST £3.95

ANCO SOFTWARE LTD, 35 WEST HILL, DARTFORD, KENT DA1 2EL
TEL: 0332 92913 MAIL ORDER HOTLINE: 0332 523851 FAX NO: 0332 93422
PAYMENT BY CHEQUE, P.O., VISA OR ACCESS

