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# PAGE 6

May/June

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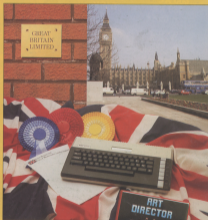
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## ATARI USERS MAGAZINE

Issue 27

May/June 1987

"The Magazine for the Dedicated Atari User"

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Design your own CROSSWORDS

PLAYING on your ATARI

and a lot more that we haven't decided yet!

Copy date is 20th May. Publication date is 1st July.

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## A PAT ON THE BACK

Dear Les,

I read your editorial in issue 25 on the recent poll conducted by PAGE 8 and decided I had to make some comment about the reaction of some of the readers.

Obviously as an ATARI magazine you are obliged to cover the entire range of that product, be it 8 bit or ST. I feel that your magazine is the only publication that has a very good balance. The 8 bit owners (such as myself) are more than covered for with reviews, but also and, above all else, great program listings.

I am of the opinion that listings are an integral part of the learning process and are very instructive as to how a program flows. Practice is better than theory! The ability listings you publish are top class, gaining rapidly on the Alternates.

There is, however, one small criticism. I think that PAGE 8 should be a monthly publication because the games review section is a bit out of date by the time I purchase the magazine. Nonetheless, I will always look forward to getting my magazine every two months.

I am very interested in applications and utilities and would be grateful if any of my fellow readers would write to me to exchange ideas etc. If you could publish my name and address I would appreciate it.

Michael Casey, 3, St. Kevin's Park, Kilmacard, Co. Dublin, Ireland

Thanks for the support article, fortunately that has not been written by any other source. So far that is my request to go monthly, maybe one day! Oh regular reviews being 'out of date' I acknowledge that much of the software has fallen out for a while by the time our reviews appear but then not everybody ticks out to buy at once or a

program is released. Many of the other magazines don't compare for pre-release versions of software so that they can be cheap up to date but, while it is helpful to receive pre-release copies, I would rather see reviews exactly what you are are going to end up paying money for. We generally review most things we get in the next available issue so if you can be patient you might end up spending your money more wisely?

## AUTOBOOTING MINDUS

Dear PAGE 8,

May I thank you for a fine publication. Until I found you some time ago I had a miserable time typing in listings from other magazines that would not run. Type 3 is a god!

Not all my problems are solved however, for example I would like to make an autoboot for disk manuals. At the moment, while I have a mini program that will run other programs I cannot get it to boot without typing RUN

"D" etc. I would appreciate any tips.

Also where can I get information on such things as the Memory Map, internal architecture etc? Perhaps you could publish a list of reference material and where it may be obtained.

Jack Collins,  
Co. Limerick, Ireland

Unfortunately you can't write your own autoboot program just like that (well you could, it depends on how good a machine language programmer you are). We did publish an autoboot program many years ago but it will not run on XL/XE machines. If any reader can come up with a nice original autoboot program, preferably one which allows you to insert BASIC statements to customize the AUTOBOOT.JVS created, we will publish it. Details of the memory map can be had from Computer's Survival Mapping. The Atari Expressos at £98.95 for the one built on self-respecting programmers should be without. You can get a copy from your

local dealer or even from the PAGE 8 Accessory Shop. Write for details.

## FIX YOUR OWN DISK DRIVE

Dear Les,

I have just fixed my 1950 drive and as the problem is similar to one that had previously affected my 800 I thought I would like to tell the world.

My 800 had officially been declared dead by an "expert" so I determined it to find out how it worked. This included removing the spring assembly, which presses a felt pad against the head. When I reassembled the spring assembly, I thought it seemed a bit weird so I gave it a little extra bend. Lo and behold the drive worked!

With the 1950 drive the symptoms were the same. On booting a disk, instead of getting beep, beep, beep etc, all I got was beep, long pause, beep and then "boot error". I went straight to the pad assembly and found that the plate which lifts the

## HAILED ...

Dear Les,

Being new to computing, I think I am not being from the same problems that a lot of users experience, that of being hauled by the technicalities. I can make the screen change colors, make sounds and print messages etc, but that is about my limit! Could you recommend a book that explains technical terms in English not in more technical terms?

One thing that has puzzled me is how the computer knows which group of DDT/A statements to read when it comes across a line such as RESTORE:14580+LEV+500 (from BERTIE). There must be something in

the program to say which group is which.

Could you also tell me if there is an Atari User Group in the Brighton area?

T. Lyons,  
Fovelside, East Sussex

What I think beginners need before trying to understand the more advanced "technicalities" is a good solid grounding in writing in BASIC. Probably the best book for this is ATARI BASIC - XL EDITION by Alberto, Pindel and Brown and published by John Wiley. Work your way through it and you will have a good grounding on which to begin to understand the technicalities. From there on there are dozens of books to choose from, all good but each

covering a different subject. Once you have the grounding you will be better able to determine which books are for you.

DDT/A statements are read by the computer from first to last unless RESTORE is used. Obviously, the computer has an internal pointer showing the current DDT/A statement it is trying to read which is moved to the next statement or back one is read. It is important to read only the exact number of statements otherwise you will end up with Error 6 - Out of Data. RESTORE can be used to move the pointer to any line number, either forward or back, and can allow you to read the same data over and over. If you want to read DDT/A on line 1990, for example, you would



## ATARI NEEDS USER GROUPS!

Atari have at last come round full circle and are seeking to actively encourage and support User Groups. In the States many of the larger User Groups get together to promote 'Atari Fairs' in different parts of the country and receive a great deal of support from Atari by way of equipment loans, promotion and guidance. Could the same thing happen over here? That is what Fiona Marshall of Atari would like to know.

What Fiona needs first is for all established User Groups to get in touch with her giving full details of the group and putting forward some ideas of how you feel that Atari might be able to help the year group in the future. Make no mistake, Atari are interested in helping but it is not a one way street, a great deal of commitment and effort will be needed by the Groups themselves to make anything work. If you feel that your User Group is good enough to deserve some recognition and support from Atari write to Fiona Marshall at Atari Corp. (UK) Ltd, Atari House, Railway Terrace, Slough, Berks, SL2 1RE. Do it now.

## STAR WARS

Dornak, who got the computer rights to one of the most sought after games of recent times, Trivial Pursuit, have now signed an agreement with Atari Inc. (the coin-op company) for the home computer rights to the arcade smash Star Wars. You will have a long time to see up though as programming will not start until later this year with release due in late 1987. An Atari 8-bit version is promised but let's hope that it is not lost in the queue otherwise who knows when 'late 1987' might be!

## YET MORE SMASH HITS

English Software recently released Smash Hits Volume 7, or was it 6? It could have been 8, as it is definitely 7 and it features *Elektrigade*, *Colossal Chess 3.0*, *Blue Aces* and *Alley Cat*. Two cassettes at £9.95 or two disks at £14.95. The press release says 'subscribing to ATARI USER' so if you don't read ATARI USER you might never know it's available. If that's the case you could write to English Software and tell them you read about it in PAGE 8 and you could also ask when they are going to release some more original games for the Atari. Remember when English Software were the top Atari software house in the U.K. >

## SSI ON TARGET

U.S. Gold's release schedule of SSI's range of wargames and simulations is well on target with 10 titles due to be available at the time of writing and another 19 to follow! So far the releases have all been on disk and are around the £29.99 mark.

Cheapest so far, and perhaps one of the most interesting, is Wargame Construction Set for those who have played everything or think they are better at designing games than SSI! Other titles released include *Battle of Antietam*, *Gettysburg*, *U.S.A.A.P.*, *Broadside*, *March Brigade*, *Cambier Force*, *Panzer Grenadier*, *Colonial Conquest* and *Computer Ambush*. Wargames and simulation fans have surely never had it so good!

# News

## RED RAT TO THE RESCUE

Red Rat, fast becoming THE company for the Atari 8-bit machines have come to the rescue of a couple of programs that nearly disappeared along with the ill-fated S.L.C.S. An agreement has been reached with Rigose Software for Red Rat to release GO-FORTH (reviewed in issue 25) and SPRING. GO-FORTH will be available on disk only for the XL/XE at £19.95 and SPRING, by some name than Paul Lay, has already been released on tape at £7.95 or disk at £9.95. Anyone who thought that *MUNCHY MADNESS* from PAGE 8 was good (and it was excellent) should rush out to get a copy of SPRING. There are something like fifty superbly drawn, and challenging screens for you to prog your way through and you will be impressed.

Other releases from Red Rat include *Arnie Droid*, an arcade shoot-'em-up by the author of *Screaming Wings*, and a new budget game for two players, *River Rally*. Fast action with split scrolling screens is promised.

Say thank you to the Red Rat, Atari owners. While others promise he is raising around finding all sorts of goodies for you.



## THE REST OF THE NEWS ....

Mastertronic dropped us a press release to say that their next Atari release would be *COLOSSY*.

Apart from that, and the other stories on this page, all the other press releases we received contained words like 'except for Atari'. We throw them in the bin. There must be more news about software for the Atari, like the (mentioned) stuff from Imagine, but why don't the companies concerned shout about it? Half an hour on the typewriter and a second class stamp might get Atari owners into the shops asking for the latest releases.



# GREAT BRITAIN Ltd

by Alan Page

Enthusiasts who started their hobby with the Sinclair ZX81 (plus maybe ZX4) may remember the original version of Great Britain Limited from Howell Software. The player assumes the role of Chancellor of the Exchequer and each year for five years must carefully set the level of various taxes and social benefits. At the end of five years a General Election is held where only a skilful Chancellor can persuade a number five year in office. Key re-elected often enough and you are in the running for a Kingshead!

A permanent display keeps you in touch with the economic state of the Nation, reporting such things as national output, inflation, VAT, the balance of payments and, perhaps most important of all, your popularity rating. In the second and subsequent terms of office the going gets tougher and it takes considerable skill to get your party re-elected as any Prime Minister will tell you.

The Amstrad version is closely modelled on the ZX81 game with substantial additions to introduce colour and music. Two block panels containing information and instructions are fixed at the top and bottom of the screen, divided by a central panel of a colour appropriate to your chosen Party. Who said you can only have one background colour in Graphics 0?

## A SPECIAL DISPLAY SCREEN

The program itself is quite straightforward but some of you may be interested in details of the display list so that you can use similar techniques in your own programs. I have substituted asterisks which give most of the details necessary. Table 1 contains the complete display list. The first three numbers, and the number 16 which follows the two interrupts, represent blank scan lines which produce the border around the display and are not to disturb the coloured panels of the display—Table 2 requires a full list of numbers to include in display list to obtain different widths of blank border colour. Remember that in Mode 0 a normal line of text is 8 columns in display list which will allow colour without having to type in the whole program line type in lines 250–300.

The Amstrad language program of the main display list changes is shown in Table 3, together with an explanation of the purpose of each scan line code instruction. The machine code is coded in page 8, at location 079 onwards. The third number of the DLI corresponds to the colour which is consequently loaded into the background colour register located at D815 Hex. The colour number is shown as 0 in Table 1 but before the DLI is used the colour D815 is FORKed into the third byte of the DLI by program lines 910–930. The format for the colour data is: COLOUR NUMBER \* 16 + LUMINANCE. For the Conservative Party, for example, instead of using SETCOLOUR 2,7,4 in other files, the machine code equivalent is 114 (2 \* 16 + 4). The colour data is loaded into the hardware register by immediate effect and set into the shadow register which is

only copied into the hardware register during the Vertical Blank Interrupt occurring at the end of drawing the whole screen.

Since there are two DLIs during the drawing of the screen, each loading the hardware register with a different colour, it is necessary at the end of each interrupt to reset the scan address of the interrupt to be used next. The low byte of this address is stored in location 910 (D00).

The most annoying thing about a program with multiple interrupts is the presence of the cursor and the question mark on the screen. The cursor is made invisible by FORK 702,1 and the question mark can be avoided by opening a channel to the screen editor for input and output at line 426. All inputs are then of the form INPUT #1, variable name. The screen editor echoes the input to the screen so that you can see what is typed in, and correct it if necessary, but does not display a question mark.

## IN CONCLUSION

The result is provided to offer light relief in between your struggles with word processing and unemployment. When you have found enough use just START.

The original algorithm for calculating the effects of taxes and expenditures are unchanged from the ZX81 version. Now is the time for all you budding economists out there to fashion their own algorithms and seek to design some additional modules. How about the selling of National assets or Nationalisation or the effects of varying local government spending?

## ACKNOWLEDGEMENTS

My thanks to Simon Howell for kind permission to publish Great Britain Limited.

My thanks to Michael Dodson for help and advice with the music.



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Table 1 - Display List - Mode 0 Screen

Each display list entry is numbered for the sake of clarity. These line numbers are not entered into the program.

Line	Display List Instruction	Purpose
1	112	Right blank scan lines
2	112	Right blank scan lines
3	68	Four blank scan lines
4	68(24 + 1)	Local Memory Scan plus one mode 0 line.
5	68	Last byte of start of screen memory.
6	156	High byte of start of screen memory.
7	2	Mode 0 line
8-11	2 (mode line)	Four 2 mode 0 lines
12	156(118 + 1)	Display List Interrupt plus mode 0 line
13	16	Two blank scan lines
14	2	Mode 0 line
15-17	2 (mode line)	Three 2 mode 0 lines
18	156(118 + 1)	Display List Interrupt plus mode 0 line
19	16	Two blank scan lines
20	2	Mode 0 line
21-23	2 (mode line)	Three 2 mode 0 lines
24	68	Jump Vertical Blank to following address
25	68	Last byte of start address of display list
26	6	High byte of start of display list

Table 2 - Blank Lines

Display List Instruction	Number of Blank scan lines
0	1
11	3
43	4
44	5
60	6
70	7
111	8

Table 3 - DISPLAY LIST INTERRUPTS

Interrupt code (Hexadecimal)	Interrupt Location	Purpose
<b>First Interrupt</b>		
00	PLA	Store accumulator on stack.
01 00	LDA# 00	Load accumulator with colour data.
02 0A D4	STA WSYNC	Synchronizes interrupt with start of a new scan line.
03 02 D0	STA COLON	Stores colour data into hardware register for background colour.
04 10	LDA# 10	Load accumulator with 16 divided.
05 00 01	STA 000	Store accumulator in 000 location 000 to direct the next DLI to the last interrupt.
06	PLA	Restore the original contents of the accumulator from the stack.
07	RTI	Return from interrupt.
<b>Second Interrupt</b>		
08	PLA	Store accumulator on stack.
09 00	LDA# 00	Load colour number = 0 for black.
0A 0A D4	STA WSYNC	Synchronizes interrupt with start of a new scan line.
0B 02 D0	STA COLON	Stores colour data into hardware register for background colour.
0C 10	LDA# 10	Load accumulator with 16 divided.
0D	PLA	Restore the original contents of the accumulator from the stack.
0E	RTI	Return from interrupt.







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- The second part of Len Goldberg's three-part series on making your Basic programs automatically load when you switch on the computer.
- Stephen Williamson provides a set of additional routines for his Advanced Character Set Editor featured last month. These allow loading and saving of character data plus some other useful features.
- Our gadgets series considers the Atari's lack of analog joysticks, and constructs a device to allow the machine to use a graphics mapper via two analog potentiometers.
- Our full colour adventure map this issue is from Pleasantall, one of Infocom's all-time classic adventures — plus all the usual hints and tips.
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## 12 WOMBATS 1

Generally speaking, *Adventure* is a serious business. Hackling through swamy jungles, piloting spaceships and whodung monsters are not tasks to be taken lightly. When you step into an *Adventure*'s alternative world, you are putting your silver ego's life on the line. This can be a considerable responsibility, but when combined with the normal challenge and frustration of *Adventure*, you realize that the *Adventure* player is subject to considerable stress. The more *Adventure* you do, the more stress you're subjected to!

Because of this, it's nice to occasionally take a break from "serious" *Adventure* by playing an *Adventure* comedy. By that, I mean one of the light-hearted *Adventure*s that doesn't take itself too seriously and provides a few laughs along the way. Unfortunately, there are very few *Adventure*s that fall into this category. Most *Adventure*s have at least one or two funny responses, but very few are funny throughout. Infocom no doubt comes closest, with games like *Planetfall*, *The Wreckifier's Guide to the Galaxy* and *Leather Goddesses of Phobos*. The only non-Infocom comedies that come to mind are the classic *Ball Park* (from *Simon-On-Line*) and possibly *Dragon Quest* (from *Artix*), although these are more speech-than-comedy.

That brings us to the subject of this month's column...

**Wombats 1** is a just *Adventure* written by Alan Levine and Shirley A. Russell for Dynamic Software Design, P.O. Box 8095, Fremont, CA 94537, U.S.A. It was first advertised in March 1987, hence it must have been around for about two years, but it's extremely hard to find. I tried a couple of mail order houses in the States and eventually got a copy from Computer Games +, P.O. Box 6044, Orange, CA 92665, U.S.A. for the discounted price of \$11.95 plus postage. However, you can probably buy it direct from Dynamic Software Design for the normal price of \$15.95 plus postage. In either case, write first to check on price and availability.

*Wombats 1* is advertised as a parody *Adventure*. The ad goes something like this:

- How to track a wombat;
- Buy appropriate wombat tracking gear (compasses, watches, flashlight);
- Fly to exotic countryside (Hawaii, Lower California, Texas, N.J.);
- Get Wombat Tracker's License;
- Track wombat.

OR: You can simply play *Wombats 1* from the safety and security of your own keyboard. *Wombats 1* is a new kind of *Adventure* game where the action takes place mostly in your mind. *Wombats 1* is sophisticated software, sporting 48k of program and 15k of (almost) irrelevant text. *Wombats 1* sports *Adventure* games and life in general...<sup>1</sup>



by Garry Francis

### Not a Wombat!

What a load of malarkey!

Firstly, a parody is a humorous imitation of another author's composition, which this isn't. So what is it? Travesty? Spoof? Karaoke? Lampoon? Comedy? Parody? I'd call it a travesty (which makes a thing look ridiculous by gross exaggeration) or better still, a farce (a dramatic work meant mainly to cause laughter, often by presenting ludicrously improbable events).

Secondly, a wombat is a small, bear-like, herbivorous marsupial which is native to Australia. There's no way you'd track one down using the suggestions in the ad, but I'll excuse this as ignorance or 'artistic license'.

Thirdly, the title is misleading as there is absolutely no reference to wombats within the game itself!

Fourthly, the technical claims are downright lies! It is NOT a new kind of *Adventure* or sophisticated software, but a primitive, compiled BASIC program with a limited vocabulary and a poor parser. And how does 100k fit on an 80k disk? Simple. It doesn't! The disk has 15k of program and less than 2% of text files - a total of 67k.

To add to the false impression created by the advertising, the game is subtitled 'Episode II: Garamba the Great and the Wombats of Boreana'. This implies that there is an Episode II, which there isn't. (It was advertised once, but it doesn't appear to have become a reality.) There is also no such character as Garamba the Great mentioned in the game and no such place as Boreana! And what's this obsession with 'wombats anyway'?

I don't know what the authors are trying to achieve here, but I felt terribly disappointed once I'd played the game and discovered that it bore absolutely no resemblance to the advertisement which had prompted me to buy it in the first place!

Having gotten that off my chest, let's forget about the authors' motives and look at the game itself.

**The Review:** *Wombats 1* supposedly takes place on the remains of a college campus - although the majority of

# YORK COMPUTER CENTRE

locations have nothing whatsoever to do with an educational institution. A mental institution, maybe, but definitely not an educational institution.

You will encounter rooms like a behavioural science lab, a restaurant with a food mixer in it, a waterfall of light, an auditorium, a dissembler, an electronics lab, cloud cuckoo land and much more. Each room has a long and colorful description like in an *Infocom* game. For example, the starting room (known as the computer room) is described as follows: "You are standing in a large room with exits in all four directions. There is an ornate compass held in metalwooden eyes on the floor and a large, lightly lit globe hangs overhead. The room is warm and the soft purr of an air filter can be heard in the distance."

The aim of the game is to find the nine treasures scattered throughout the complex and return them to the computer room. In doing so, you must also visit every room in the complex and carry out certain obscure actions to earn points. When your score reaches 342 points, the endgame room is activated. You must then find this room to be awarded the last five points, thus completing the game with a perfect score of 347 points.

Now this may not sound too hard, but consider this: There are only six verbs in the whole game and nine of them are the treasures! Most of the treasures are of little or no use except in gaining points. The remaining object has one use and one use only! Combine all this with a somewhat specialized vocabulary, a barely adequate parser and some really obscure actions and you have a hard game!

**Usage:** Unfortunately, *Wordman I* also has some bad spelling and quite a few bugs. Here's a few examples:

- The *Wordman* about the electronics lab describes two objects which can be taken. However, when they ARE taken, they still appear in the description even though they're not really there!
- If you try to type anything on the computer after it's blown up, you're told how pointless that is, seeing as the computer is a smouldering pile of rubble. Fair enough. However, you get the same message even BEFORE the computer blows up!
- Starting the car is random and can take anything up to 20 (and possibly more) tries without indicating that you should try again. If you didn't know to keep trying, you'd give up after the first go!
- You can solve the equation in the classroom without even knowing what it is!
- If you visit the area around cloud cuckoo land more than once, you can get extra points and even finish the game without ever finding the endgame room!
- The parser gives lots of funny errors, but one that bothered me fairly was when I said EXAMINE THEATER. The program replied "I don't know the word THE". It thought that both 'THE' and 'A' were definite articles despite the stupid system and lack of spaces.
- If you accidentally RESTORE a game with a bad disk, it asks "Is disk okay?". Subsequent RESTORABLE causes "Game error occurred. Error is 101. Line 100 Do you wish to carry?". Type 'Y' and it doesn't work. Type anything else and the program looks up.

**Game Playing Strategy:** The overall strategy required for *Wordman I* is not all that different to that required for other *Adventure*s, but you must be much more thorough.

Every time you enter a new room you are given a lengthy room description. Start out by identifying all the nouns in the

room description. For example, in the description of the computer room quoted above, the nouns are 'room', 'table', 'directions', 'compass', 'eyes', 'floor', 'globe', 'filter' and 'distance'. To this list of nouns, always add 'wall' and 'ceiling'. Now systematically try to EXAMINE and READ every noun on the list regardless of how irrelevant it seems. You will often get a humorous response and may be awarded some points into the bargain. Note that LOOK AT is usually synonymous with EXAMINE, but there is at least one notable exception. EXAMINE and READ are also synonyms in some situations, but not others. Make sure you try both! For example, EXAMINE INFLAMMA and READ INFLAMMA give the same response, but EXAMINE BOARD and READ BOARD give two entirely different responses. One earns points and one does't.

As you work through the list, you will more often than not be told that the noun is not understood. Be persistent! Don't skip verb noun combinations as you'll sometimes find that a noun is understood when you EXAMINE it, but not when you READ it and vice versa.

Once you've exhausted the list of nouns, try to GET any object that seems movable. You'll often get an error message, but sometimes you'll get a funny response and you may even discover a treasure! If the noun turns out to be a movable object, EXAMINE it and READ it again after you've picked it up. You usually always get different responses when you EXAMINE and READ movable objects.

Finally, try every other verb you can think of that has any relevance to each of the nouns. For example, if you find a lamp (and you won't), you can try to light it (LIGHT, BURN, START, TURN ON), extinguish it (EXTINGUISH, UNLIGHT, TURN OFF), empty it (EMPTY, POUR, SPILL), fill it (FILL, SUPPLEMENT, REFILL, REFUEL), further examine it (SHARE, LISTEN TO, TOUCH, FEEL) or do the Aladdin thing (BUB, WIFE, WASH, CLEAN, SHINE). Can the idea? Only when you've exhausted every possibility should you move on to the next room.

As you explore the complex, make sure you draw a map. Don't assume that, if you go north from one room, you can return by going south. More often than not, you can't! There are lots of twists and turns and one-way passages. In fact, it's a real 'no 90 to map in a clear and consistent manner.

Finally, here's a few miscellaneous tips to help you on the way.

If you find any living creatures in the complex (and I can do this freely), try talking to them and giving them things. You'll get some really funny responses if you do. The alien is particularly helpful! Quote him word for word!

Don't worry too much about trying to reach the dead end you're in in the right room. There's a hint in the interactions which explains where that is (but ignore the hint about the movie).

There is no time limit and no limit on the number of items you can carry, so carry everything you can until you've found all the treasures.

**Savings:** While all this is going on, you must keep a very careful eye on your score. Type SCORE every time you enter a new room and every time you get a meaningful response from the program. Points are sometimes awarded for the most obscure actions and only by constantly checking your score will you be able to determine what actions are essential to finish the game. Remember that you cannot get to the endgame room to complete the game unless you have a perfect score!

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## WRITE IT!

Few people, it seems, realize quite how powerful Atari 8 bit computers are when it comes to word processing. They are, generally, even better than the Amstrad word processor, in that machines can only handle one printer. The Atari system has the ability to address documents to any of 8 printers, which can all be handled in and writing. I have 1-on-line at any one time, they are the 1027, the 1029 and the SAMM80. When using Basic or SpeedScript (from Computer) I can address my documents or listings simply by using either "P1" for the 1027, "P2" for the 1029 or "P7" for the SAMM80 (incidentally, this trick doesn't work with the older 400800 models, but the 850 interface does support the facility, showing Atari's foresight). The 850 interface responds to "P1", so it can be used for a third party printer using the serial or continuous ports.

This capability could be very useful but, unfortunately, very few word processing programs recognise the facility. This is possibly due to the fact that the 400800 models were restricted, although it could be due to the fact that few third party printers use the same control codes for their various functions. All the Atari printers however either use or ignore the same codes, so I can see no reason why future programs should not be designed to include the feature.

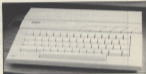
Another feature lacking on most word processors is the International Character Set (ICS). I do not understand why it is not included as standard on all word processing programs. In fact I know of only one, SuperScript, which does support the ICS although SpeedScript can be modified (my version has been changed to not only do this, but also to use the UNICODE character, enabling me to hold several documents files in simultaneity at once). Anyway, let's start at the beginning.

### WHAT IS A WORD PROCESSING PROGRAM?

Quite simply it is a program which will allow you to use a computer to create, edit and print text in a more flexible fashion than a normal typewriter. It enables you to create a document which can be changed as often as you like. It will also allow you to store that document on some form of recording media so that you can recall the document at a later date and edit it still further.

A good word processing program will allow you to store documents files together, allowing you to write the 'Great British Novel' and print it all out in one go. This is achieved in one of two ways. *AmrWrite*, for example, prints the first file very quickly, but then loads from any changed files one buffer full at a time, keeping the disk drive active. Others print the first file, then erase it and load the next file in total. This second method is much better as it allows you to spread your document over several disks, but you do have to be vigil-

**You don't need 16 bits for word processing. Rob Anthony explains how you can get all you need from an Atari 8 bit system.**



Better than the Amstrad!

otherwise the program will stop printing with an error if it can't find the next file in the chain!

Most programs will automatically number the pages for you, at your request, and will also allow you to put headings or footers (which can include the automatic page number facility) on each page, containing any text you might want repeated there. You can also ask them to start the page numbering from anywhere, or even ask them to start with any number you choose.

Another facility which is pretty vital is the ability to give you a preview of the printed document on the screen. This is a very definite requirement in my case, I simply do not have the time to wait for a printer to finish printing a page and I usually have to tidy up the output so that I don't end up with headings on one page and relevant paragraphs on another. Another reason for this facility is that most programs insert a character in the text (usually in some cases) to represent such facilities as underlining and bold print etc. If you are trying to calculate your text under column headings that you will have to make allowances for these characters, which are not printed on paper. The only way to do this without a preview would be to count the number of extra characters on the screen and subtract that number of extra characters from the position of the columns. The best way to check you have done it correctly is to immediately preview the page you are working on.

If your program can't centre text automatically, then you will have to do some mathematics to work out how many spaces you need before the text you want centring, so if the program can do this for you, it can save you quite a bit of time.

Almost every word processing program uses right-justify your text, so that the left and right margins are equal. This involves putting extra spaces between some of the words to space them out a little better. To do this you would be very tedious, and most people wouldn't bother.

All word processing programs come with some sort of manual. Some of these are better than others, but they usually

explain what the program can do, and how to do it, with a reasonable degree of clarity. Some of these manuals are paperback, small and difficult to hold open when you are trying to type a document; others are spiral bound, which is much better. The *AmiWriter* manual is stored on the flip side of the diskette, which is one idea that could save manufacturers a fortune in printing. It also allows you to print the manual in any way you prefer. You could even edit it so clearly some of the more obscure points.

Word processing programs are, increasingly, very sophisticated and because of this there are good and bad programs, but they are all useful, even if all you want to do is write to friends and relatives.

Some word processing programs will also allow you to change the type of printer you want your documents to be printed on, allowing for a greater variation in print styles. I find this facility most important as I use a word processing service, using the Atari system exclusively, and the ability to change printers means I can offer my customers a draft quality printer, which they can then change if they wish and return it to me for editing and printing in final, letter quality, form fact.

## WHAT IS A PRINTER DRIVER?

This is a part of the word processing program, usually stored and loaded separately. The program uses this as a sort of compiler to enable it to use a printer of your choice. Some are more superior than others in this respect, as a number of the less powerful programs store a selection of printer configurations within the main body of the program, which limits the scope of the program and also takes up room in the computer memory, reducing the amount of text you can edit in any one document.

Some programs come with a method of creating your own printer driver, which allows you to add more printers to its repertoire. If you want to create your own driver then you will have to have the printers manual close to hand. The PaperClip printer drivers are very sophisticated, allowing you include such desirable things as microspacing. It does this so you can include pictures and other goodies in your documents. This does mean you will have to read and understand your printers manual quite well, but if you belong to an Atari user group you will usually find someone who knows all about printers and they will be able to help you. If you use the same word processing program they may even be able to supply you with a custom made driver.

## THE PROGRAMS

There are, or have been, numerous word processing programs on the market and therefore I can only mention a few of my particular favourites.

**SpeedScript** first appeared in *Compuart* magazine a couple of years ago, but its success prompted them to release it in book form in disk (it available direct from Compuart) which requires you to type it out, using their successful MUX program, which is also printed in the book. The book also contains the source code, which will be of interest to machine language programmers. Since publishing the book, Compuart have continued to support the program with the publication of a character set editor and support program, which allows you to design your own character set. I have changed mine to include

the UCS and other characters which are available on Atari printers, including the arrow keys. This program is extremely flexible, it allows you to print to any device, including the screen, editor, disk and cassette recorder. Its files are DOS 2.2.1 compatible so most other programs can load them. Its downfall is that it can't right-justify text, which is quite a serious omission. Also it can't scroll the text, so checking where to put new page markers can be a little tedious.

**AmiWriter** has a few problems, the program (at least the early versions) doesn't support the UCS, but there are various tricks, which involve embedding control characters in the text, that will at least allow you to print the characters. You can't have more than one printer on line at any one time but, with *AmiWriter Plus*, you have a good range of printers to select from. Commercially produced drivers are available, which help increase the scope of the program. *AmiWriter* has a host of features built in, but nothing you shouldn't expect from a good word processor.

**HomeWord** is another word processing program which cannot modify access the UCS, although you can insert ASCII characters anywhere in the text. An unusual program this as it uses icons on the bottom half of the screen to access the various functions. When entering text a graphic description of the page you are on is illustrated in the bottom right hand corner. This is very helpful, but even more helpful is the previous facility. It is the only program I have come across which allows you to preview a document in 80 columns, all on screen at once. To achieve this it uses a tiny, half size, character set, which is quite readable even on a colour T.V., a major plus point this. Unfortunately it does not appear to have a very good selection of printer drivers although this, again, may be due to the fact that I have an early version. I like this program, even though the files are not standard DOS. I strongly recommend it as most drivers (maybe newer versions) will allow use of the Fontdisk as all the major functions are stored on the HomeWord master disk. This too I approve of as it allows the programmer to pack sophisticated data in a relatively small amount of memory, although it does mean extra wear and tear on the disk, which is copy protected. It may surprise you to learn that most commercial programs in the business world are made up of separately loadable subroutines, even though it can slow down the operation of a particular application. Perhaps the programmers of *HomeWord* would like to take up my earlier suggestions as this program has great potential.

*continued overleaf*



Two of the best programs

**PaperClip** is probably the most sophisticated word processor you will find, and if you don't intend to prepare any foreign letters, or waste another penny than I can tell you this is the program for you. The files are standard DOS compatible. They have managed to achieve this by inserting your plug in a 'slangit', which sits in a jerrycan port. This also gives you the advantage of being able to back-up the entire master disk, store it away in a safe place and work from the back-up—very comfortable. One particular feature which stands out, is that it has the facility to take a file from disk and print this absolutely as is, including all .fancy control characters. When that has finished it will continue to print the current document. This is terrific if you have a spread sheet file you want to include, or even a little graphics picture. Installed on the disk are 25 different printer drivers, and there are also lots of other little goodies, like a separate, stand alone, screen dump program, which takes advantage of the sophisticated printer drivers. There's also an AtariWriter to PaperClip conversion program and a program which will help you obtain a printer driver to suit your own printer in the unlikely event that one isn't there already. Probably the best program on the market at the moment, but it's a shame about the missing ICS. Newer versions also support the extra mastery of the IMOSL.

**SuperScript** is my current favourite. It handles the ICS as though it were second nature, the characters are included in its own character set, so when you press a 'q' sign you get it on the screen. It comes with a spelling checker, a trace in my business, and, like PaperClip, it can do simple math for you. My version has 11 printer drivers. To help you create new ones you can load one as a text file and edit it with the word processing program itself. When editing text the program uses menus at the top of the screen to help you insert, print, move commands, such as underlining, and access the various functions of the program itself, like search and replace. You can by-pass the menu by using the first letter of each command, or by assigning keys to do a selection of previously defined keystrokes. The program will automatically load the printer driver of your choice if this is named 'DEFAULTS' on a new disk. The files are fully DOS 2.1.5 compatible, so you should have no problems if you want to use its files on other DOS compatible programs. I personally find this program to be the best for my purposes, and this article was written using it.

## THE ATARI PRINTERS

As I mentioned earlier the Atari XL/516 range of home computers are the only ones which can support a battery of printers. Although they can't output to them all at the same time, you can address your document or listing to any one of your choice. Again, there are limitations. You can't change the address of a printer so you can't work a disk drive, by moving a switch on the rear of the device, but you can connect, say, 5 different Atari models and, by using the 800 interface, I think many models of your choice. I think here would be a good place to discuss some tips which will help you get the best from your Atari printers.

The Atari 8021 is the current Atari letter quality printer, although SuperScript has a printer driver for an XM5121, which I presume Atari will release in the future, probably when the current stocks of 1817 are depleted. Remember that

**XM5804** suddenly appeared on the market without any advanced warning or advertising whatsoever (and then suddenly disappeared) *lol*.

To get the best from my 8021 I use a left margin of 7 and a right margin of 85. This allows me to insert A4 paper sheets with the left edge of the paper guide. If you don't do this the paper will curl, making the print slant down the page, giving a greater gap at the bottom right of the page, than at the bottom left. The 8021 does not support bold, enlarged, condensed or rub-and-superscript characters, nor will it double strike. It does support the ICS, but does not have an alternative font, although I can see no reason why a replacement font could not be manufactured as the print head either is held on by 2 tiny Phillips screws. I suspect, however, that potential sales of such a replacement would be too small to warrant manufacture. Although the 8021 doesn't support true extra facilities, it will ignore any commands it receives from the computer requesting these facilities, so it is possible to use the XM5804 or 1829 printer drivers without fear of the machine going into spasms. It is not possible to load more than 1 sheet of paper at a time into the 8021 as it utilizes the paper from behind, forcing it against the minimum character on the roller. To enable it to run a little faster it will print bi-directionally, but it isn't logic working. A line of text is exactly half a character deep, so it's possible to measure any gaps in your text to enable you to insert charts or photographs, simply by counting the number of RETURN's you need to type. I also recommend a few bottles of Faxed IBM4 ink, which you can use to replenish the rollers.

The Atari 1829 printer is very definitely a dot matrix, low quality, printer. I use it only for screen dumps and free draft quality printouts. My customers complain that it is difficult to make out certain characters sometimes, and it does require it's own printer driver. It supports elongated text and the ICS. In its favour it is quite fast and because it has a raster paper drive it can be left alone to print a document without intervention. I can't give you much in the way of tips, except that you can get ribbons quite cheaply from Binks, although I think there is less ribbon inside them than the standard ones. The ribbons don't last very long, so it is a good idea to get them re-inked, and there are one or two services advertising this at a third of the cost of a new ribbon.

The XM5803 is, without doubt, the best all round performer in the Atari range. Based on the Epson range of printers, it supports all the normal facilities. It can print in expanded and condensed styles, and can even combine the two to give a slightly larger than normal font. It supports microspacing and proportionally sized characters and has two independent fonts - Pica & Elite. It has an alarm buzzer, which can be silenced by sending the proper character. It is potentially terrific at doing screen dumps that the 8028, but I haven't been able to work this out yet. If you buy the ST version of this printer, you could connect it via an interface and have access to infra and a few other little bits and pieces. If you want a good all rounder then this is the printer to get, but if you want to do screen word processing I would suggest you get a decent letter quality jet or wax. Don't use a fabric or nylon ribbon replacement, the first time I tried it, at the request of my doctors as they had no carbon ribbons in stock, I jammed the press head. The printer was immediately replaced.





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## DISK COMMAND continued

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# STAGE

The PAGE 6 ST section

PAINT



*Mirrorsoft's ART  
DIRECTOR*

## Reviews

*HABAVIEW*

*K-SPREAD 2*

*Deep Space*

*Micro Time Clock Card*

CUT RECTANGLE

ABCDEFGHIJK  
LNOPQRSTU  
XYZMWI-?!  
0123456789

Size: 64 v6 Font: HEAVY METAL

*STAR SCROLLER*  
*Fancy some stars  
in your programs?*





# HABAVIEW

An easy to use database?

reviewed by Alan Goldbro

It's really good when you use something that actually matches up to the manufacturers advertising. Habaview is a database that really is simple to learn and use.

Habaview is a flat (word) type database, or as we now call them Information Management Systems. No fancy dialog boxes with indecipherable messages but a pleasant and immediately obvious system which will cater for most applications. Being Ctrl based, most of the features and commands are operated from the menu bar at the top of the screen and are very easy to use. Some of the commands can also be executed by pressing the Alt+Terminal and corresponding letter key at the same time - e.g. to QUIT press ALT-Q.

The database can be seen in two different formats 'list' and 'form'. Generally you define the file in the 'list' format and enter data in the 'form' format. The file is best viewed in the list format. To enter your data in Habaview, you have to create a file by firstly defining your data fields and secondly, saving these fields to disk. Once you have decided on how many fields you require and their subsequent length it's a simple, and I really mean simple, operation to produce a data file.

## CREATING FIELDS

To create a database, you select NEW from the drop-down menu, type in your column name (all the fields are in columnar format) then choose from an alternative type of general format - Text (letters, numbers, symbols), Date, Yes/No, Amount (numerical, dollar, comma, decimal), Time and Alpha (letters only). Repeat this procedure for all fields as the program automatically moves onto the next column to the right. Columns are easily sized, just move the mouse pointer to the dividing line between fields and drag right or left to the desired width. Pairs can be changed before data is entered, although once data is entered fields can be added but modifying them is limited to changing the field name. Fields may be moved or deleted at your discretion without any problems.

All data is entered in the 'form' layout. This screen layout can be altered to suit your individual requirements by dragging the fields across the screen and 'clicking' to format down. Type in your data, press RETURN and move onto the next field, continuing with the same procedure until your 'form' is complete. One excellent function of the form file is Automatic Capitalization, which means that when you enter information into Text or Alpha fields the first letter will automatically be a capital. This feature can be toggled on or off.

As previously stated, the best way to view your data is to use the list format. You can arrange your columns in any way, hide them from view or truncate the records seen on the screen without losing any information from your file. Data can be sorted or selected and viewed in that format. The screen will only display thirteen lines at once but by using the slider bars, the screen will scroll up or down and left or right, thus enabling complete scanning of the file. For ease of viewing, a grid defining your columns can be toggled on or off.

Records can be sorted by any field or combination of fields. Select your chosen field by clicking on and

highlighting the Title box. Sort high to low or vice versa. If you need to sort by more than one field, then a progressive sort is called for. This enables you to, say, sort alphabetically as first priority and sort numerically as the second priority, e.g. Resident and £20.00 would come before Beth and £30.00.

There are times when you need to select certain records to meet your requirements. Conditions available are by Example or by Range. In the Example mode further conditions are Include (meet the condition) or Exclude (not the condition) and further parameters are Equal, Not Equal, Less Than, Greater Than, Less Than and Equal, Greater Than and Equal, and "" as a wildcard for characters.

## PRINTING

The printing to a hard copy is of the 'What you see is what you get' (WYSIWYG) system commonly

associated with form based software.

To achieve your print-out, you can alter the screen list to suit your requirements and away you go. Just select Print from the menu bar, it couldn't be made simpler. If you choose Amount as a column format, when printed the columns will automatically be added up. If required your list can be sent to disk in an ASCII format for merging with an ASCII word processor. Habaview can also print mailing labels although in a limited fashion. Five lines of thirty characters is the maximum size of label available. To achieve label print you have to move into the form layout and modify your data layout to fit into five lines by dragging fields to suit your requirements.

Once set up, printing is continuous, using your file as the default. If you wish to print only certain files then you must select your data as described earlier and this data will become the default file. To print a number of labels with the same data however can become rather tedious as you have to click on the print routine for every label.

## CONCLUSION

Habaview is an excellent database, suitable for the majority of applications, particularly in the home and is quite useful in a working environment. Unfortunately, there is no provision to merge two Habaview files together but, one way, possibly, to overcome this (according to Habu) is to dump the file to disk, load the file to Habaview and merge it with another file in Habaview. You will need to have the same number of fields and conditions to make this work.

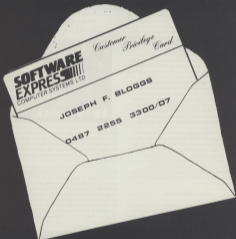
As new versions come available registered users will be entitled to update for £20.00 plus VAT per disk. Overall I feel Habaview is an excellent program complete with a very good manual, well processed and packaged. Priced at £79.95 it is in the middle range of database prices but certainly near the top as regards quality!

Habaview was supplied by Tech Computer Centre, to whom I ordered my disks.

# SOFTWARE EXPRESS

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# ART DIRECTOR

Back in September last year Microsoft invited me down for a preview of Paint Street Editor and while I was there somebody casually said "You might be interested in seeing a couple of graphics programs". What I saw were two of the best programs I had seen on a home micro, Art Director and Film Director, and the former had, to my eye, almost everything you could expect from a dedicated graphics system minus the resolution, a limitation of the hardware rather than the software. Art Director was, sadly, a long time being released and in the intervening period Degas Elite hit the market. I was beginning to have doubts whether Art Director was as good as I had thought.

When the review copy arrived I sat down and worked through the manual, occasionally by command until, about two hours later, I had come to the last page. One or two difficult things to grasp at first, but by the end I had taken in most of what Art Director can do and from there on rarely needed to refer back to the manual. My conclusion was that Art Director is a truly professional package written with the graphic artist in mind but usable by anyone with a modicum of artistic ability.

Most readers will be familiar with the basic tools of computer art programs and will have seen either Degas or Houdrona. If we take either of these as a standard I do not have to dwell on the 'ordinary' features found in virtually all drawing programs and can go on to the more advanced features that make Art Director really shine. All the expected 'basic' drawing features are there with the exception, strangely, of being able to draw boxes and circles and the like only in outline and not as solids. These can however be filled to end with the same result.

## THE TOOLBOX

Art Director uses a marvelous Menu Bar (the Toolbox) for most of its tools with advanced features and utilities as Gem-style drop-down menus at the top. All of these can be turned off giving the maximum screen for your picture. I prefer the menu bar, which can be turned off and so as the result of a key to the Degas format of removing from the picture to a separate screen but others may disagree.

In addition to the standard features, the Toolbox menu bar gives you a most facility from 1 to 16 times which uses the full screen for the scene, with the area being worked on shown, in actual size, on the menu bar. There is also, of course, a small selection of pens, regular size and a free cursor to other drawing style such as smooth and rough draw, grid, co-ordinates and colour selection. A couple more tools, Scroll Screens and Wrap Page, begin to give an insight into the power of Art Director.

The program uses two screens for drawing and as well as being able to transfer elements between the two, they can be used either as two separate ones or one continuous screen enabling 44 frames pictures to be created. Scroll Screens

Les Ellingham tries the latest painting program. Is it the best?



operates on either a single screen which can be moved in any direction to "wrap around", and so position any image as any point on the screen, or on both screens at once. In the latter mode the scrolling is vertical and the two screens become one allowing a virtually continuous image to be created. The effect is of the picture being on a drum which can be rolled around and around.

One small section on the Toolbox shows a pair of scissors and is called Cut Rectangle. A deceptively simple idea which forms the basis of what begins to make Art Director really special. Cut Rectangle does just that, cuts a rectangle from a picture from 1 pixel in size to the full screen, but the power comes in automatically storing this rectangle as a brush which can be used for drawing in any of the normal ways as pens, freehand or lines and more. The effects are quite astounding. The brush is transferrable between pictures although care must be taken to match the colour palette of the pictures to be used.

## MORE ADVANCED FEATURES

The Cut Rectangle forms the basis of many of the more advanced features which enable the brush to be manipulated in almost any way. So having cut out a rectangular brush what can you do with it? Well first you can flip it horizontally or vertically, zoom it left or right or rotate it through any angle you wish. You may halve or double it in size either vertically or horizontally and can continue to do so although you will eventually lose definition. Much more interesting and powerful is the ability to recode the brush either reducing or enlarging its properties. Cut a full screen and you can stretch the entire image to a small rectangle and use that as a brush or do it the other way round. Suppose you don't want to keep it in exact proportion? No problem, Art Director has a whole



tion of possibilities. Stretch allows you to expand or condense the brush either vertically or horizontally from the original rectangle to any other rectangular shape. Distort goes even further making it possible to use an irregular shape and distort it into any other irregular shape, even to the extent of wrapping the picture around itself. But there's more!

A brush can be 'bevel' which allows a flat image to be wrapped into an ellipse or curved shape enabling effects such as wrapping a label around a can! It can also be 'beaded' which gives the effect of painting the image onto a concave or convex surface, and then there is Perspective. This is one of the more powerful commands to my mind. A separate pull down menu allows a perspective grid or 'vanishing point' to be defined on the screen and any brush can then be stepped into this in perspective. If, for example you want to achieve a street scene in true perspective, you need only draw the details as a flat image and then 'view' this image into the perspective set by your grid! The resulting image, in perspective, is a brush which can be used in any way described above.

### WHAT ELSE CAN IT DO?

Enough about brushes (although there is more), what else can Art Director do? Some of the refinements simulate traditional painting methods such as 'mixing' colours into each other, but others are found only in computer art. It is possible to treat the two screens as being placed one on the other and then scrape the 'paint' from one to reveal the image of the other beneath. Some excellent effects can be achieved by combining pictures in this way especially when enhanced by some of the other facilities. To produce smooth transitional effects, pixels can be mixed together randomly or shaded so that any chosen colour will be gradually, and randomly, mixed with the next darkest or lightest colour on the palette. Gaps can be patched up between pixels of similar colour allowing a random pattern to be made more solid and many of these functions can be combined to automate what is essentially a painstaking process in obtaining that 'perfect' picture.

### USING COLOUR

Colour can be manipulated in many ways, from the normal setting of colours in the palette to individual control of colours throughout a picture. There are eight palettes available for any picture and some remarkable effects such as 'saturation' or 'tint' or even black and white can be achieved by careful selection of colour in different palettes. A single picture can then be viewed in many different forms.

Animation is also possible through the colour palettes although, unlike Degas, the colours are cycled through the palettes rather than the sixteen colours of one palette. The cycle pattern can be timed so that one palette stays on screen longer than another.

On an individual picture all the pixels of one colour can be changed to another colour or, by using the third second screen, each colour of the original picture can be overlaid and built up the additional effects. There are even more sophisticated built in, such as the ability to outline an image - try this on text for some great effects - or 'bevel off' an image either on full screens or in a selectable window. The results are remarkable and would take hours done by conventional means.

Add to-in to text. Text can be placed on screens at any position and in any font style. Although only one font can be in memory at one time, Art Director is infinitely versatile in

this respect as it treats all text as a brush, with all the resulting manipulation possibilities, so that a font can be loaded, text typed from the keyboard and positioned, and then another font loaded and so on limited only by the limited effort required and the number of fonts you have designed.

Designing fonts, by the way is done in the same way as drawing any other image and the whole of the facilities of Art Director are available, unlike in other programs which only allow you to plot and sample pixels. The fonts are designed by using 'masks' loaded from disk and are then saved as full screen images to be used with the appropriate text size.

### PRINTING IT OUT

And to finally (almost) come printing and viewing your finished picture, Art Director, unfortunately supports only Epson or Atari printers and if you are using an Epson you must install it first from the Internal Printer accessory (it does not tell you this in the manual) but you can then print your picture in more versatile ways than with other programs. Remember those two screens that can be used as one? Well you can print out the two screens as one continuous A4 image (Print Double) or print each screen separately. You can even print just part of a screen, although this can only be a rectangle defined from the upper left corner. Print in printing double you can view the entire two screen image on one screen to check the effect, and, just to prove that the authors have thought of almost everything, you can view any picture in mono first to see whether any colours need changing for better effect!

There is more, but a review must end somewhere! There is a slide show program, several fonts and a few demo pictures on the disk as well as a Degas or Neo to Art Director converter. Hopefully a few public domain programs will appear allowing Art Director pictures to be 'standardised' as has happened with Degas and Neo.

### TRULY PROFESSIONAL

I must say that Autodesk and Microsoft have created one of the most superb graphics utilities on any non-dedicated (and therefore affordable) micro. Art Director is a package with truly professional capabilities at a price that any ST owner can afford. Graphic artists can use the program for visuals or such things as package design or just for plain art, while hobby artists can play and design for hours on end. Conscious levelled elsewhere by graphic artists used to dedicated systems are unfair because they ignore 'affordability' and Art Director really is 'state-of-the-art' as far as the ST and other 16 bit home micros are concerned. To my mind it beats Degas Elite hands down (assuming you don't need machines as high resolution) but you might not agree if you have already forked out for Degas Elite! Even if it were the same price it would be a bargain but it is £20 cheaper at just £89.95 and, if you check the back of the manual you will find some special offers, such as £30-off digitisers and touch tablets, in certain price set even more!

What more can I say? Check the comparison chart to see whether Degas Elite or Art Director is for you.

## ART DIRECTOR or DEGAS ELITE?

See comparison overhead

# ART DIRECTOR/DEGAS ELITE

## A comparison of features

Both programs have so many common features called by different names that it is difficult to give the normal 'Yes-No' direct comparison. This summary is intended to outline the most obvious, and important, differences and similarities. It should be noted that some (by no means all) of the features found in one program and not the other can be simulated in the program lacking those features.

### DEGAS ELITE FEATURES NOT IN ART DIRECTOR

Medium Resolution in 4 colours  
High Resolution in 2 colours  
Solid shapes (although can be cut as brushes in Art Director)  
Skewing of brush  
Mirror drawing  
Set colour palette from picture  
Select colours direct from all possible  
Shade palette from one colour to another  
Shadow drawing  
Remove block  
Save brush to disk  
User defined lines

### ART DIRECTOR FEATURES NOT IN DEGAS ELITE

Fill with defined brush/pen  
Pens automatically as brushes  
Smooth/Rough draw  
Window to define area of screen to work on  
View colour picture in mono  
Cursor co-ordinates  
Scroll two screens  
Scroll one screen  
Rescale brush  
Bend brush to ellipse/curve  
Dodge brush to conserve/convert  
Droptop/ve brush  
Cut oval brush  
Flip brush horizontally or vertically  
Half/Double brush size  
Scrape to reveal second picture  
Melt  
Shade light/dark  
Patch  
Fill contours  
Colour mask  
Round off  
Define and Use Sprite  
View double  
Define point size  
Print double screens

### FEATURES COMMON TO BOTH PROGRAMS

18 colours in low resolution. Zoom. Rectangular definable brush. Solid fill. Pattern fill. Definable patterns. Airbrush. Airbrush with defined brush. Definable font. Selectable drawing speed. Selectable drawing size. Erase. Grid Snap. Palette colour control. Straight lines. Zigzag lines. Rays. Lines with user definable brush. Stretch brush. Distort brush. Rotate brush. Transparent or block brush. Asymetric brush. Sense. Change all pixels of one colour. Undo. Cut block to another picture.

### FEATURES EXCLUDED IN DIFFERENT WAYS

	Art Director	Degas Elite
Zoom	Up to 16 times at full screen	Up to 12 times at one third screen
Fonts	One in memory at one time	Up to 10 in memory depending on screen in use
Size	4 sizes affecting Airbrush, Melt, Round off, Sense, Shade, Scrape and Patch	3 affecting draw and airbrush
Speed	4 affecting the same features as size	7 affecting draw and airbrush
Pens	8 selectable from menu	15 selectable from menu
Colour cycling	Through 8 palettes	Through sixteen colours of one palette
No. of screens	2	Up to 8 on IBMST, up to 4 on MSST
Outline shapes	Square, Rectangle, Circle, Oval, Polygon	Circle, Square, Polygon
Turn brush	Left or right instantly	Use Rotate
Defining Pens	As pictures using masks	With separate Font Editor.
Copy Page	With command	By using full screen as block
Printer support	Epson and Atari only	Dotmatrix
Outline	3 options	3 options

# Microdeal BACKUP (Hard Disk backup utility)

As explained in my review of the Atari 512K20 hard disk (Issue 26), the process of backing up any hard disk onto floppies can be very slow and laborious. A backup program is used to simplify the process by organising the copying of each file and folder onto disks, and asking for another when the current disk becomes full.

## BACKUP'S DESKTOP

Backup is a GEM based program, and when loaded it displays a set of icons on the left of its desktop. These icons consist of one for each disk drive on the system (it is possible to backup floppies too), and a single 'Path' icon which enables backups of an individual folder (and its sub-folders). The menus available are File, Options and Help (the help is of limited use).

File gives you the main control options, which include 'Full backup' (copy every file in the specified drive - path), 'Incremental backup' (using the flag set by TOS, as explained in the 512K20 review), and 'Backup by date' which allows you to backup any files created after a given date. To use these, you select an icon (and give the path if appropriate), and then select the menu item. The backup then proceeds as dictated by the options set.

## OPTIONS

Options enables you to choose whether to format, zero (a fast version of format) or leave the destination disk alone, skip or copy system and hidden files, verify writes, set the number of buffers, not segment files and update the 'history'. Write verification is extra to the normal verify of the floppy, and if the data is verifiable (what isn't?) then this is useful extra security. Non-segmentation of files is used to stop Backup splitting a file in two if it does not fit in the space left on the current backup disk. If you want to be able to use the files directly off the floppy, then this is useful (see later). The history is a record kept on the hard disk of each file that has been copied onto floppies, and may be useful as an audit trail.

While backing up, a 'Format' dialog is displayed, which allows you to choose which drive to backup files onto (A or B), and whether to format, zero or use as-is (useful to have the choice again for each new floppy), and the drive/floppy type. Available types are Single Double sided, 40/40 track and 4 or 32 sectors per track, which allows you a great deal of flexibility, and to get the maximum on the disk. The 40 track option is useful if you have a 40 track 5 1/4 inch IBM type drive (on which disks are cheaper), but the disks formatted cannot then be used on an IBM PC.

Restoration is done by selecting the icon and then selecting 'Restore' in the file menu. Paths are supposed to work too, but my version does not. This is disappointing as it would also be nice to restore only a directory from a previous complete backup. You can select a 'Don't overwrite files' option which stops an existing file being overwritten by a restore, but this just stopped the whole restore when I tried it. Due to these problems, I always backup in 'don't segment'



reviewed by Matthew Jones

mode, which means I can do partial restores using the normal GEM Desktop copying utility. Full drive restores do work properly however.

Image backups and restores are available, which means that the Backup program will take copies of each individual sector on the hard disk, regardless of what it may contain (file or otherwise), and copy it to floppy. Restores just copies it straight back, overwriting anything that was there before. The floppies created are useless in GEM Desktop, and the process is one you should only use if you want to mirror the hard disk absolutely as a later date. Image restores will overwrite everything new and old, so use with caution.

## PROBLEMS...

As you might have guessed, Backup is not without faults. In fact, the faults are too numerous to list them all, but they range from small and insignificant (the pointer on the format dialog is a busy bar not an arrow), through bad program logic (after giving a path, clicking on a new drive will cause it), to the disastrous (it sometimes hangs for no apparent reason in the middle of a backup - bad news if it fails in the backup). When it hangs, you have to reformat, which also loses your history file updates. Backup is also unable to backup the folder from which it is being run!

So much for problems, which can be sorted out in updates (I hope), but what I would also like to see in future versions is the ability to see, before a backup, a list of what is likely to be backed up, and having an option to stop a file. This is because I find it very wasteful to have .RAR files and others on the floppies, just because I forget to delete them first (or didn't find them). Also, as mentioned above, the ability to restore partial directories or files from a larger backup should be provided.

## CONCLUSION

Despite the problems, some major, I would not be without this program (at the moment there is no competitor). Microdeal must release a new version (and at low cost to existing owners), but for the moment this is a great improvement on previous backup methods.

## KSPREAD 2 Kuma Software

Matthew Jones looks at Kuma's revised and updated spreadsheet.

Before the ST came out, I used my eight-bit Atari 800 for several purposes. As well as programming, I word-processed, communicated, and used a spreadsheet to keep me in touch with my bank account. The spreadsheet I used was VisiCalc, which was pretty basic compared with modern spreadsheets, but it did all I required, and it did it fast and easily. When I bought my ST I was looking for a replacement of each of these programs and the only one that I could see find a satisfactory replacement for was the spreadsheet. I could not afford the full featured VIP, and so I looked at K-Spread. At the time Kuma was, to be fair, still getting used to the Atari ST and GEM and it is not until you get feedback that you can judge how usable your program is. I rejected K-Spread on one count, and that was the terrible input method which in my mind made it so slow as to be unusable. I have still not found the right spreadsheet, so the chance to review the latest revised version was welcomed.

### THE PROGRAM

K-Spread 2 comes on an unimproved disk in the usual Kuma packaging and with a 96-page "spiral" bound manual. On running the program, a single spreadsheet window is displayed with a set of icons representing a disk drive, printer, spreadsheet, clipboard and trash can shown on the left of the desktop. There is a standard GEM menu bar with a spreadsheet function code bar just underneath.

You can start to use the spreadsheet straight away, but to get further than very basic use, you must begin to understand some of the many options available. For instance, when you have finished entering a cell, you can press Return, to go to the next cell. It is possible to set the direction of entering cells by clicking on a little box to the right of the edit box, or by hitting the appropriate cursor key. From then on, Return will take you in that direction. It is also possible to define a block that you are going to fill with data, in which case you go left to right until you get to the rightmost cell, at which point you go to the leftmost cell on the next line, and so on. I am pleased to see such features, but still it does not come quite as easy as my old VisiCalc.

If I typed "56" and "Total" into VisiCalc, it worked out that 56 was a number, and "Total" was text. With K-Spread 2 you have to tell it which is which. I understood that K-Spread 2 has an extra data type (columns titles) but even so I think that this is an un-necessary hassle, and it gets in the way of setting up a spreadsheet. In fact K-Spread 2 has two more data types, for separate "values" and "formulae" cells. Maybe I still understand these, but surely a value is just a formula with no operators? Anyway, you must select which type the cell contents are by either the TAB key, or clicking on a box. As a new user I found this very annoying as I did not know the sequence and kept clicking past the type I wanted, having to go round again.



Apart from this problem, which I think will ease with time, I am impressed with K-Spread 2. There are plenty of functions available, including conditionals (IF THEN ELSE), logicals (AND OR NOT), trigonometric functions, time and date functions (TIME, DATE, DAY, MONTH), and general functions (ABS, INT, SQRT). One facility I think is essential in a spreadsheet, and which is included, is the ability to move around the sheet in the middle of formula entry in order to identify a cell to be included. This saves you having to remember, for example, that the subscript of spare parts is an cell G51, you move around with the cursor instead, find the cell you want, click on it to put the reference into the formula, and then continue with the rest. K-Spread also has labels to help in this.

Other facilities include prompted inputs and macros. A prompted input will make K-Spread 2 ask the operator for a new value each time the sheet is recalculated. This is useful for creating spreadsheets for others to use. Also related to this is the HIDE facility, which stops people viewing or altering the cell contents unless they know the password (though if you are looking for a secure spreadsheet, check that you cannot still send the data out to a DIF file - see later). Macros are user-defined functions, and can be passed parameters which may include the current cell position.

A clipboard for cut and pasting ranges of cells is available, and more than one window can be open over the sheet but multiple sheets cannot be handled. As well as the K-Spread 2 "SP2" file format, it is possible to import and export data in DIF (Data Interchange Format) files.

A major part of spreadsheets is printing. K-Spread 2 has a full range of options including horizontal and vertical divider characters, column/row headers (A B C etc), page break on/off, width, depth, margins, output port (serial or serial), and paper change press on/off. K-Spread 2 is smart enough to split the printout in two if your printer is not wide enough to print the area selected. If you have a true Epson FX80 compatible, with downloadable font capability, you can select sideways printing, which can print up to 66 lines by "undefined" columns.



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## 'I am impressed with K-Spread 2'

One facility that I have not seen in a spreadsheet before is the ability to define the user attributes (colour and shading etc) for an A data type (label, text, value or formula). K-Spread is full of useful functions and I am sure I have not found them all.

### THE MANUAL

The manual is the area where I am most disappointed. It is not bad, and everything is there somewhere, but it is very fine and confused. Maybe I am getting old, but the K-Spread manual assumes that you will remember and understand everything first time. The 'Starting to use the program' section starts by telling you what functions are available, then tells you which data types are available and then gets around to telling you about the edit box and entering data. After a quick run-down of what all the various keys do and a spin around the spreadsheet window controls, you are given another section called 'Starting to use the program - an introduction', in this case you are taken through a simple example. There seems to be no thought out order. The manual does have everything in it, but if you are new to spreadsheets, you will need a separate book to introduce you to the spreadsheet concept. A better manual would make K-Spread 2 a better spreadsheet.



### UTILITIES

Two other programs are provided in addition to the main program. One is used to convert old K-Spread files to the new K-Spread 2 format and the second allows you to fully configure the printer, though most of the configuration functions are available in the main program.

### CONCLUSION

Apart from a bug in the custom file selector and my dislike of the data type selection, I found no problems with K-Spread 2. Data is compatible with K-Graph, K-Data and K-Word which may add further value to K-Spread. If you are looking at spreadsheets, it is well worth trying, though the manual is not as good as it should be. K-Spread will certainly be used by me.





## HOW DIVERSE THE ST?

An arcade game, a printing utility, an emulator, a clock, a spreadsheet and a programming tool.

Take your pick!

### DEEP SPACE

Psychonix  
\$94.95

Reviewed by John Davison  
Ajr

This game is possibly Psychonix' best yet. It is similar in style to 'Elite', but you play the part of a freelance freelance type character going by the name of Beta.

The action begins in the AI-Nair system which is the base headquarters of a group of five hostile star systems. Hostile to each of the other (more hostile) systems, it gained by passing through a maze, which can be found somewhere within the system. The basic idea of the game is to travel around and get rich. Money units are known as credits, and enable you to buy energy and repairs when you need them. To gain money you must destroy hostile craft and, if possible, capture the pilots.

The screen shows the view through the cockpit window of your fighter, which is controlled by a combination of mouse and either joystick or keyboard, or both. After a few hours play I decided that the easiest method of control was to use the joystick for movement and to use the mouse for everything else except to activate the engine.

The cockpit is generously equipped with various electronic gauges and displays. At the top of the screen you will find the clock, an energy read out, and an alert system status display. The main controls are presented as buttons on the screen. On the left hand side is the main computer console with buttons for activating six major functions, such as maps, auto scans, communications and damage reports.

The communications facility elaborates on what the status display



shows and will give you more than one message at a time (sometimes). The auto-scan facility shows you the position of the Beta fighter's scoop, which is used for capturing items such as energy or repair drones or even pilots who have ejected from hostile space craft which have been destroyed. Capturing these pilots can become quite profitable in the 'Agency' (the people who pay you) pay a fair fee for picking up one of the little green guys for examination.

The long range map consists of a split screen display. The left hand side shows a view from above your ship, the right hand side shows a view from behind, thus giving you the X, Y and Z co-ordinates of different craft and planets within the system. The navigation computer is set by moving a small cross-hair on the long range map display, and is best described as a series of squares which must be kept in line to stay on course. When playing the game, it is a simple instrument to use and especially useful on later levels.

In the centre at the bottom of the screen you have the main console consisting of two-moving parts, a speed

lever controlling velocity and the control column for direction. The speed lever can be activated by either the mouse or the keyboard and the control column by either mouse or joystick.

Over on the right hand side is the 'Function pod', which lets you activate some of the ships major functions such as shields and auto-thrusters. Also from this pod you can change trajectory, lock all and move the viewing window about without disturbing the ships course. Finally, on the far right is the short range scanner which 'pops-up' when activated. It displays the relative positions of any objects immediately around you and can operate at five levels of magnification. This scanner is especially useful for finding drones (the craft which bring repairs and energy etc.), and during combat it is extremely useful as it shows almost exactly where an enemy ship is, in three dimensions.

The graphics in 'Deep Space' are fantastic. The cockpit is shaded in different tones of grey, and the enemy craft are nice, solid, 3D images. They are colourful and extremely fast, although a little blocky and the animation is quite jerky, however you don't notice this as the combat action is fast and furious.

You can also fly around the planets, moons and even the star at the centre of the particular system you are in. The overall scale of the game is most impressive. Each of the five systems are filled with planets, moons, meteor fields, meteor storms, mine fields and they all except the mine



## MEGAFONT ST XLENT Software (UK)

Reviewed by Alan  
Goldbro

One of the necessities of owning a printer is the ability to dump text and graphics in a range of styles and sizes. Megafont ST will let you print text and graphics files in a variety of character styles, using either an 8 x 8 standard 8 bit font or 8 x 16 DEGA3-compatible font. Any ASCII, or Word or Wordstar compatible file along with those program listings can be dumped to the printer in a multitude of different fonts. Graphics can be merged into text files by using Megafont ST. If you're not sure, Megafont ST includes both 8 x 8 and 8 x 16 font editors.

dangerous system—Vexor) have two Starfighters within them. Your main objective in the game is to gain credits, as mentioned earlier, but your final task (set by the Agency) is to destroy the Vexon mother ship, which can only be destroyed by special weapons known as "Quark bombs". I have never got this far, as the game gets very difficult at later stages, and attacks by Vexon fighters become highly lethal.

My only complaint about the game concerns the method of control. The pitch of the craft would appear to have been implemented upside down. To move upwards you have to push the stick forwards, not downwards as you would expect. This is quite irritating at first, but you will (eventually) get used to it. Programs really have got to concentrate on control methods. They have not yet brought out a game which is easy to control!

The sounds within the game are fairly competent too, as with a lot of ST games, there are not enough, and they are not really amusing. The packaging is superb, the game comes on two single sided disks, in a single cardboard box, with a good, well written manual and, believe it or not, a comic book! This shows what happened leading up to your position at the very beginning of the game.

Deep Space is very good, if a little expensive, and it is well recommended if to anyone who likes a game where you need to use both advanced gaming skills and a very good trigger finger.

For those who are unfamiliar with the larger, a font is the name used in computer parlance for style of text, for example most of this article is printed in what is PLANTIN ROMAN (the normal style) and this section is written in PLANTIN ITALIC. Many hundreds of styles are available. An 8 x 8 computer font is made up of a matrix of 8 cells x 8 cells, similar to the layout of a chessboard and an 8 x 16 font is consequently made up of 8 cells x 16 cells. The greatest number of cells to a font, generally the better the character formation.

Whenever I review software, I always like to say it is to operate software using the manual. Megafont ST is GEM based and by using the drop down menus I had very few problems in finding my way round the program. There are a few pairs to Megafont ST that require a look at the

one font can be used. In 'ASCII as it' all the characters with ASCII values from 0 to 255 will be printed whereas 'ASCII map' will only print those characters with values from 0 to 127. In the ASCII modes multiple fonts may be used and for Word and Wordstar compatible files are also entered for.

The third section deals with the size of the printing. For Epson printers the number of characters across the page range from 120 (small), 80 (medium), 60 (large) and 20 (extra large). Other printers (NEC, Prowriter, SAMSUNG, Gemini) have slightly different settings.

Moving onto the fourth section takes you into the Page systems. Left and right margins can be set along with line spacing from 1 line to 8 lines in between text. Mirror spacing and bolding are supported for the Epson range. A handy feature in this section is

This file has examples of changing font styles & sizes as well as adding graphics. The document is sized to fit characters so that it can be printed with the Extra Large font.

This is an example of changing font fonts. This is our computer system. See it change to mono, then screen and finally multiple styles over the

You should have just seen a 520 ST. Next is the title screen from ST Music

instructions but, once read they could probably be put safely away for reference only. The disk also comes unformatted for hard disk and loading up purposes. Well done Xlent for your confidence in the market!

There are six sections to the program, as we run through them you'll be able to build up your own picture of the usefulness of Megafont ST.

The first section is Font Type. Choose from any of the twenty 8 x 8 fonts or from sixteen of the 8 x 16 fonts all available on the program disk. Fonts (either 8 x 8 or 8 x 16) may be lifted from other disks such as DEGA3 or otherwise they can be constructed using the separate editors.

File Type is the second section. Text files can be printed 'as is' or every character used in the file will be printed except for the carriage return symbol although, in this mode, only

printing, after 25 lines of 8 x 8 text or 15 lines of 8 x 16 text the printer will automatically turn feed.

The prohibition section holds the final choices for printing your text file. This section also features a Keyboard layout of up to 73 characters which is handy when all you want is a simple one-line! Also included in this section is the ability to print all the characters held in the current font selected.

Another useful function is to download any font to the printer's RAM although this only applies to those printers which have this capability such as the Epson FX series and if you fortunate to have more than one printer then you can change printers without having to leave the program.

Sections six covers graphics. DEGA3 files, Neo (52 128 bytes) and Typewriter, Typewriter Elite and Rubber Stamp files (2080 bytes) are all acceptable for printing. Boldfacing

and inverse are movable and parameters and margins can be set for placing the graphics. The Graphic Definition can be altered to suit and this takes the same requirements as the text definition. All graphics are printed the same size, approximately 1.31 mm square, but both Mono Lines and Color Lines can be printed and their size is approximately three squares.

There isn't much about cover the printing section of *Migafort ST*. The main functions are excellent in their design and operation, however the graphic functions were largely a disappointment to me. *Migafort ST* has really been designed to print text files with the added ability to include graphics within those files. There seems to be no way to alter the size of the graphics, which is one way when the original 8 bit *Migafort* was all about. Perhaps the first edition were included in the package as a bonus. The two separate first editors operate more or less like any other text editor and don't really differ much, even except to try the few they are up to Xerox high standards.

The manual is a sixteen page A5 document laid out in Xerox's inimitable style - full of good humour, vague descriptions and spelling corrected. There are three sample files on the disk which go some way to assisting you at first. Priced at \$29.95 it's still good value for money even though the graphic end is poorly supported. The front cover of the manual describes *Migafort ST* as the 'Ultimate Printer Utility' - don't believe it, it's one Xerox could do better!

## MS-DOZ Emulator Robtek

Reviewed by Matthew Jones.

As a programmer who works on both Amel and IBM PCs, I was most interested when I saw the power advertising MS-DOZ, a software IBM PC emulator, on the rear wall of the Robtek stand at the late Asahi Club show. My computer revealed that the arrival of the demonstration disk at Heathrow was delayed due to fog, and so I missed it. It was therefore a pleasant surprise to receive a copy for review.

To use MS-DOZ, you place the

(copy protected) master disk in your drive A: and power up. After a while the screen clears and you are prompted to put your MS-DOZ disk in drive B:. This is a requirement that I have not seen mentioned anywhere, least of all in Robtek's adverts so if you do not have a copy of MS-DOZ you have problems already. Another problem is that if you want to use 5 1/4 inch disks, you must have DOS 3.3 (the latest version, hereafter referred to as DOS) which is not very easy to get hold of.

Having armed myself with a copy of DOS 3.3, I started again. When MS-DOZ loads a good DOS disk, it asks two questions before starting operation and loading DOS, finally leaving you at the DOS 'A:' prompt. 'A:' in this case is the drive that is normally drive 'B:' on your Amel. The disk drives are swapped to make life easier for owners of 5 1/4 inch drives (see included).

The claimed speed of the MS-DOZ emulator is half that of the standard IBM-PC. As a regular user of PCs, I have to say that it feels slower. Certainly getting a directory takes a while, long enough to make you think twice before getting one. (There is, by the way, no support for hard disks!). The advertising mentions 'transparently made but I could not identify which made this. Modes are set by the two prompts at startup. The first is 'Keyflip (Y,N)?'. Keyflip is used when the program you are using 'appears not to work', i.e. when you hit a key you cannot get it to respond. In keyflip mode you have to press each key TWICE. That means that to type the word 'the', you would have to press the keys 't-h-e' - painful habit! The other option is 'Interrupt (Y,N)?'. According to the manual, interrupts need only be used when running programs like Sidkick. No other information is given on this option.

I have referred above to the manual but I think 'manual' is a misnomer. The documentation is eight pages of what must be about 68 lines. Page 1 is the cover, page 2 & 3 are the English instructions, 4 & 5 are German, pages 6 & 7 are the backup order form (backlog cost £14.40) and guarantee registration card, and page 8 is blank. The English instructions are about as informative as the German (which I don't speak). Three paragraphs are dedicated to instructions for users with one drive, two drives and a Microbyte 5 1/4 inch drive. The remaining paragraph and sentence cover the keyflip and interrupt prompt.

respectively. Space is not the word!

## COMPATIBLE SOFTWARE

The advertising for MS-DOZ lists a selection of software with which the emulator is said to be compatible. The first I tried was *Wordstar 3.80*, which after just a few 'tithable line' type errors came up with an internal error. Not too good. So I used *Sidkick*. *Sidkick* (the original pop-up utility) certainly loads correctly, but I could not write it. I thought that it may be the mode I was in, but it still remained dormant in each of the three possible modes. Turbo Pascal would not load at all, though that may have been my copy as I think I have not used it on a PC in months. Also tried was the Microsoft C compiler version 4.00, but it failed to compile. By this time I was trying to pin down anything that I could definitely get to load and run. I have just spent 4 months writing a PC program, and then I could guarantee that I would have a totally compatible program. It did run - very very slowly. The floor page which drives a header and title took about a second, while normally it just 'appears'. When it got to the first input, it just hung. So hung that the normal *Ctrl-Alt-Del* reboot would not work. Again no mode made it work.

## CONCLUSION

What can I say? MS-DOZ is a very slowest piece of programming that from my experience, I think that there is still work to be done, especially on the DOS emulation (which would explain the look-up in my program). The manual could be much better, and should give more detail on compatibility issues and options. I cannot understand how Robtek have managed to run their list of test software, yet I couldn't run any in the list that I have.

In general I would not advise anyone to buy this emulator without having the opportunity to try it on all programs you may wish to run. If you want to use a PC at home, it seems that the answer is still to buy an alternative program written for the ST, or buy a cheap PC compatible. If 'every once in a while' you need a very slow PC 'slightly compatible', then check out MS-DOZ at your local dealer and TRY OUT YOUR PROGRAM for at least half an hour. If it worked perfectly all the time, then buy it.

## MICRO TIME CLOCK CARD. Microdeal.

### Reviewed by Mark Hutchinson

How many of you actually use or appreciate the time and date on your disk's files? Probably not many, unless you are a programmer or, as in my case, have a lot of Word Processing files. Filenames are important and very helpful, but knowing which is the most current, if you update without changing the name, is extremely hard without a time stamp. I have therefore been very interested in a time card that would be software hardware as opposed to software.

Micro Time-Clock Card comes in the standard Microdeal cardboard box, with a small booklet detailing all the necessary instructions for fitting and set up. A disk of assorted software, including public domain accessories, is included. The card is run by two AA rechargeable batteries in a plastic holder. They are recharged whenever the ST is on, but I gave the batteries a few hours boost before using. If you decide to try this, make sure you have a charger set at the proper rate for these batteries.

The card is very simple to install, but if you are not sure about your ability to install the card please ask the shop where you purchased the card to install it for you. If you do decide to try it yourself remember that electronic devices are very sensitive to static. Earth yourself by touching the bare metal (e.g. screws) of a permanently earthed utility such as a cooler and do not use magnetized tools. The procedure is as follows. Switch-off the ST and remove all leads. Open up the ST case by removing the small screws located underneath the case. Set aside the top cover and keyboard to reveal a large chip. This chip must be carefully (✓) removed and inserted into the DHL socket on the clock card. The card must then be plugged into the empty socket on the computer. The ST can then be screwed together again and the covers set up. This process will only take five to ten minutes and is fully documented.

The card is sturdy but the pins used are stiff and slightly bigger than normal. This meant taking longer than usual to insert the card pins into the socket, but it can be done with patience. A second card I tried had very

bad pins, like first nails, a couple of which had to be crimped to take out rough edges. There are special DIL packages for this type of application and it would have been better to use these rather than what is on the board.

Once the system was set, I tried out the software. I had some problems with certain programs and I contacted Microdeal. Mandy, who took over from Jimmy Pope, was very helpful and dispatched their updated card software that day. If you buy this package make sure that your retailer has the new software (it is time stamped for 10/187).

The software includes programs for volume or memo clocks, a digital clock, calculator, strip and paste programs. In all, Micro files are on the disk. The ST control panel keeps good time as does the digital clock, but the PD program, CLOCK.PRD, loses minutes pretty quickly. It sits out of the way at the top of the GEM window, but on a TOS screen such as STWRITER it is a real nuisance as it tends to mix with the text. You cannot complain, it is public domain!

The idea of the card is good and, apart from the pins, the PCB is well made. The timer seems to be accurate and stamps the files properly. The cost does seem a bit high considering there are so few components on the PCB, but it is far better to have a permanent clock on with the right time and date rather than search for the right disk and set the time and date whenever you switch on.

## E-ZCALC Royal Software

### Reviewed by Alan Goldsbere

Spreadsheet programs are fast becoming an essential feature to any business seriously interested in keeping simple cash flow analysis and financial projections. For most users of business computers, Lotus 123 is the industry standard, often bought but rarely used to it's full capabilities. To many home users, V.I.P professional (the Lotus 123 clone) seems to be out of reach because of it's price so, with this in mind, software houses have been producing affordable spreadsheet programs and E-ZCALC falls into the range of mid-priced software.

Making use of the Gem

environment, E-ZCALC has mouse control, drop-down menus and full use of all ten function buttons. Now don't get ahead of yourself, not all commands can be achieved by using the mouse and many need manual insertion to fully work. Three features of E-ZCALC include a 18 key calculator and a handy note pad on desktop accessories.

There's also a separate program to convert either Lotus 123 or V.I.P files to E-ZCALC format. The manual is a forty page mixture of material and reference sections. The manual is a very simple financial compiler, which is adequate to get first things going and give you moving steadily along without being patronising.

E-ZCALC has just about all the general features required in a spreadsheet program including Loading and Clearing of files, Appending from cursor position, Save and Partial save. The Partial save will save a range of cells previously defined. Templates can be saved with Labels and Formulas intact. Save First will save the file in ASCII format, however this cannot be re-loaded into E-ZCALC. Erase File and Restore file are as you'd expect. There are 284 columns and 999 rows in which to enter data and the columns can be sized either globally or singly but this has to be achieved by using the drop-down menu and not as you'd expect with the mouse by dragging the top cell to the required size. E-ZCALC doesn't have Macro capabilities, as consequently many keystrokes are needed to perform these functions.

If you wish to define a large group of cells for use with commands such as Replicate, Global Width, Column, Dollar, etc the procedure is one of 'rubber banding'. This has to be done before you choose your option, then you select the required choice from the menu and click. Usually this will take you into a dialog box at the bottom of the screen which will ask for confirmation. You can also define cells by placing the cursor at the start cell and selecting an option from the menu bar which, again, will take you into a dialog box where you'll have to define the range manually. This is where you'd expect the Gem handling to be at it's best but unfortunately, unlike V.I.P Lotus, where you would 'Anchor' the starting range and scroll down across the sheet to the required cell and finish everything down, E-ZCALC will not let you pull a cell into the dialog box. I found this most disturbing but only because I'm used to

the standard method of defining a range.

Using the mouse to "Close" a cell is obviously fast, and if you wish to copy a cell then move the cursor to the cell you wish to copy and click while the ALTERNATE key. The contents of the cell are copied to the edit box and pressing RETURN will place the contents in the new cell. Visually the whole program sits on this kind of procedure, i.e. pure mouse control and pure manual keyboard insertion. It's this two-handed system that makes a mockery of the title E-CALC. If you can't operate the program single handedly then what's the point of having a mouse!

Other facilities are "Freeze Titles" - this keeps the rows/columns titles on the screen as you scroll through the spreadsheet. Inset will put blank rows/columns into the spreadsheet between existing cells.

Mathematical functions included are: Absolute Value, E to the power, Integer, Natural Logarithm, Logarithm and Square Root. Trigonometric Functions are PI, SIN, COS, TAN, ASIN, ACOS and ATAN. Statistical functions supported are: SUM, MAX, MIN, COUNT, and AVERAGE. Financial, and Date Management functions are supported along with error trapping functions, these include Not Present Value and Lookup. The print menu has a fairly good selection of utilities and the print range can be selected by "white background" or from the print range dialog box. Headings and titles can be toggled on or off and grid follows the same format. Type styles include compressed, Italic, Pica and, if your printer supports it, NLI-Q.

Statistical help boxes are available from the menu bar, most you load one of them from disk they'll all sit in memory for. Don't get the impression that they are intended as a substitute for the manual.

The conversion program from V.I.P to E-CALC worked a little strangely, it would only convert files and not templates. Any look-up formula in V.I.P wasn't converted and many of the mathematical functions were incorrectly converted. The majority of figures were rounded up to the nearest integer and the percentage formula was so mired up that it would have caused financial ruin for anybody who dared to convert from V.I.P to E-CALC. There wasn't any provision to dump the contents to disk for graphical analysis nor to import data

from other sources.

If you are looking for a stand alone spreadsheet program at a suitable single price (approx. £30) then E-CALC may be on your list, if on the other hand you think the capabilities of E-CALC are limiting then look at V.I.P where you'll get a whole lot more but at a price.

## The Sprite Construction Kit Microdeal

Reviewed by Matthew Jones

The Sprite Construction Kit (SCR), according to the packaging, is suitable for "the one design of images suitable for animation", it is said to support "C, assembler and BASIC source (the latter is not true)", and "includes a full manual and example files". Overall, the selling line is "Design animated sequences for use in your own programs". I received the review copy because I am a programmer, and they could judge its value to such.

The program itself is quite usable. The screen is split into three windows, a large "view" window in which editing is done, an "actual" window in which the image is built up from six room windows, and an actual window sized clipboard (again in six editing panels). Along the top of the screen are the sixteen available colours (the program only works in low resolution), and these colours can be changed as you wish. A nice touch is that you can set the colours to those stored in a NEO or DEGAZ picture which allows you to match your sprites to your picture exactly.

Along the top of the screen is a standard GEM menu bar. This includes the following functions: Load a work file, Save a work file, Create a source file (C or assembler), Touch (load picture colours), Alter Colours, Move levels, Grid, Clear current object, Make change, Hide objects, Sequence, and Go. Some of these are obvious, some not.

I said above that I was a programmer. Unfortunately, I am not highly versed in the intricacies of Sprite programming, and so understood and use this program to have to be. The manual is an abysmal 8 page, dot-matrix printed leaflet, that has not had a moment's thought put

into it. As I read it, it had three errors at one (to paraphrase, "the SCR can work in Level mode or Object mode. Up to 27 of the levels can be used"). No-one has considered that the user may not know what level and object modes are, or the difference between them (from using the program I still have not known, but they are apparently totally incompatible). Software such as this should TEACH the user. When I as a programmer want is a package I can pick up, read the manual, use the program, take the source, and have custom sprites in my program. I want it easy, and while I think that this program could go some way towards that, more time and effort should have been put into it before it was released.

Anyway, having thoroughly confused myself with the manual, I thought that I may find enlightenment by running the program. The examples show off the capabilities of the program well, and as I have said, the program is reasonable (though the method of opening the animation window is painfully slow and would aggravate over a long period of time running). The Level/Object difference still did not become obvious, however.

Having failed to understand the principles of sprite programming from the manual, I thought I would at least be able to try out the source generated by the examples, so I selected the appropriate option, and then quit the program. I showed the created file, and was amazed. All you get is a large mass of data away definitions text. Nothing else. I have no idea what the format of it is (e.g. is it a byte of colour per pixel, or a colour plane, or how to alter the width), or anything else about it. A check of the manual shows only how to create it, not how to use it.

As a programmer I am embarrassed when products that I consider "unfinished" are made available as it is not only worse to make the purchaser feel that money was wasted. As I received it in its final version, it is not suitable for doing the job advertised. Microdeal may be producing a large number of programs, but quantity is nothing without quality. With "Backlog", I was prepared to put up with the faults because it was usable and essential but Sprite Construction Kit serves only to make me think twice when purchasing another Microdeal product. A great pity if one bad apple should spoil the barrel but then the user should be on any company to ensure that the "bad apples" are pruned out.

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## K-WORD

Kuma

\$49.95

K-Word is a GEM based word processing package from the growing K Series of ST Solutions' software from Kuma Computers. It is supplied in the standard K series packaging, a rather flimsy cardboard bookform affair, with pockets on the inside to hold the slim, 38 page instruction manual and one single-sided disk. The disk holds the master copy of K-Word, and you have to make a working copy either on a hard disk or another floppy for general use. Kuma's protection system allows only this one working copy of the master to be made.

## WYSI WHAT?

If like me you're new to the ST, and are used to 8-bit word processors, then K-Word comes as something of a culture shock. It uses the WYSIWYG (What You See Is What You Get) principle - your text prints out on paper exactly as you see it on the screen. Gone are the embedded control codes and the need to switch into preview mode to see the actual text layout. With K-Word you still key in control codes, but they take effect immediately. For example, Control-C causes the cursor to immediately jump to the centre of the input line, then any text you input gets centred in real time, as you key it in. Similarly, you can see the effect of bold, italic and underlined text right there on the screen as you enter it - a real revelation for the hardened 8-bit user!

It's possible for the program to have up to four windows open at once, but only one can be active at any given time. Each window can hold a document, either loaded from disk or by keying. You can copy or cut and paste between them using the clipboard facility. When editing text, cursor movement is particularly versatile, as you can move in units of character, word, line, screen or document, either forwards or backwards. Taking the cursor off the bottom or top of the screen causes it to scroll by about 10 lines, which I found a little disconcerting. I'd prefer a single line scroll. Also, you can skip to the next or previous control character, which is useful for jumping a paragraph at a time. Insert or overwrite mode may be toggled, and deletion can be made by character, word or line to the right or left of the cursor. Other units of text may be deleted by highlighting with the mouse, and using the cut function from the menu. Deleted text goes onto the clipboard, so you can put it back if you change your mind, or insert it elsewhere in your text using the paste function.

Search and replace functions are provided, allowing any text string to be located, and changed if required, in either a forward or backwards direction from the current cursor position. Another nice feature available from this menu permits an immediate jump to a given page and line number from wherever the cursor happens to be at the time.

Left and right margins, paragraph indent, and tab positions may be set and reset anywhere in the document, so it's easy to change the layout to suit most requirements. On at least it would be, if the instructions were clearer. This part of the manual was not well written, and I had to resort to trial

and error before I got things to work satisfactorily. The program's Help facility wasn't that helpful, either. Also, while struggling to master this area, I managed to inexplicably lose the document I was working on - several times!

## DATA INTERCHANGE

The usual file operations are provided, allowing you to load and save your text to disk, with automatic backup of the previous version, if you want this. You can also load a file directly into another document at any point.

K-Word has two additional file functions, known as Give and Take. Their purpose is to allow the interchange of data in DIF or ASCII format but even K-Word and other applications in the K series, or indeed any other ST application programs which can accept these formats. I tried it by passing text to 1st Word using the ASCII option, and it worked quite happily.

## PROGRAMMABLE FUNCTION KEYS

Another useful feature of K-Word is its function key definition facilities, with which you can assign a string of up to ten characters to any function key. The keys can be used with shift, giving a total of twenty strings, if required. The character strings could be frequently used words, control characters, or even foreign language characters. Ten characters isn't a lot, but you can nest definitions up to four levels, giving longer strings on one key, if you need this. Definitions can be saved to-disk and recalled whenever you need them.

Before printing for the first time, you have to configure the printer routine to match your printer. There's a default configuration file supplied for Epson and compatible printers, so you don't need to do anything if you've got one of these. If not, then you step through a dialogue, answering the questions as appropriate. It seems that the configuration process can only handle codes for bold, italic and underlined text. Other selections are on the menu, but can't be selected and the manual gives no clue as to how to do this. In fact, the manual is quite confusing, as the printer configuration section continually refers to K-Speed rather than K-Word.

The main print menu provides facilities for selectively printing parts of your document, to provide page headers, footers, and numbering information, and the usual line spacing, page length and top/bottom margin values. There's also a facility for sending control codes direct to the printer, for switching it to NLQ mode, for instance. When printing begins, the program is shown on-screen by a moving 'thermometer' type diagram, so you can easily see how much is left to print.

There's a mailmerge feature too, but this probably isn't of much interest to the average home user. It's useful for club secretaries, small businesses, and others needing to send out standard letters, though. Variable information is held on



**'It was relatively  
easy to learn'**

disk in DHP format, and the format looks as if it's really designed to be used with other programs in the K series, such as K-Demo and K-Speed.

#### CONCLUSIONS

Overall, I quite liked K-Word. It was relatively easy to learn, and I was using it productively after only a short period of familiarisation. I used it to write this review, and while that's not the most demanding of tasks, I did get to try out most of the features 'for real'. Generally speaking, they all worked as they should, but I did manage to crash the program on one occasion, and I'm still not sure how or why it happened.

If you need a word processor with such features as comprehensive cursor options to speed up editing, definable function keys, mailmerge, and data compatibility with other applications (especially other K series programs), then it's probably worth considering K-Word. My only real criticism concerns the manual, and if Roma improved this the resulting package would be a reasonable buy at the price.

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## I.S. PLATE

### HARDWARE ADDITION FOR THE 1050 DISK DRIVE

Review by Ian Finlayson

I have owned an 800 drive for over three years now and it has given reliable service. I remember well the day it arrived and the excitement of its speed after using cassette tapes for some time - a whole new world of practical applications like word processing and accounting became a realistic proposition. Since then, of course, the new 1050 disk drive has come out with enhanced (or so it is half-truth) density, and I have seen advertisements for various add-ons giving true double density and higher speed, but funds are finite and I could never really justify the expense of adding another drive. Recently, however, I do seem to make quite a lot of transfers from one disk to another in an effort to keep my expanding pile of disk files in some sort of order and then, after a recent article was published in Page 8 I swapped several disks with correspondents and two that arrived would not run on my 800 - formatted in enhanced density! How galling! I suppose I still cannot fully justify my recent purchase of a 1050 drive and the IS PL-ATB to fit it as, but I certainly have no regrets and I am happy to tell you more about it.

#### BEST OF BRITISH

I am very fortunate living near Worthing as we have an excellent, helpful, computer shop here - Chips - and a specialist in Atari computers and software. I recently saw an advertisement of theirs extolling the IS PLATE which interested me as it sounded a bit like the US Doubler, or Happy Enhancement, but I had not heard of it before, even in the *Ferret* or *Atari* magazines, and nobody else was advertising it. So I dropped in at Chips to ask about it. It turned out that the Plate is a local product designed and developed here in Worthing. This device is British and follows up the recent expansion of good British software for the Atari in hardware terms, however, I wondered if it would be a useful addition to my computer system. With a price near a hundred pounds it is quite expensive compared to the cost of the disk drive itself so in the cost of a 1050 for that matter. Before my doubts could subside my enthusiasm I was being given a demonstration combined with a good bit of informed salesmanship. My first impression of the machine was of speed and quietness and I was captivated.

#### PLATE HARDWARE AND INSTALLATION

The Plate itself is a small printed circuit board with five chips on it, these include a 6802 chip, 128K RAM and an EPROM. The device appears well engineered and professional with clean soldering. Installation is very straightforward and anyone who can change a mains plug should be able to tackle this with confidence. The instructions are clear and are supported by Nexus copies of photographs of the assembly process which, though not very clear, give an adequate

indication of what to expect. If you read and follow the instructions carefully (including the precautions against static) and don't rush you will have no trouble - it took me well under 10 minutes from start to finish. The new PCB replaces the RAM and CPU chips in the disk drive board and plugs into the CPU socket - no soldering! There is a small cut out in the PCB which fits over a crystal on the main board so you can not even put the new board in the wrong way round.

#### SOFTWARE

The IS Plate is accompanied by a disk of software for use with the device. On one side is the DDP driver while on side two is the IS Menu.

The DDP driver is a menu driven set of programs which are principally concerned with setting up the drive for your requirements. You can select Slow, Fast, Write, Verify, Slow down and Write protect and these functions cannot be disabled and the drive is switched off. There are also two high speed copies on the disk, one for 130KB and the other a general purpose copier. They are fast but will not copy protected disks.

You can also select to emulate the IS Doubler or a standard 1050 drive. This means that you can make the Plate invisible to commercial software that will not run on an enhanced drive.

The IS Menu (or Lighter Menu) is rather like Multitool XL allowing several boot programs to be menu driven off one disk. It is colourful, has sound and a special character set and is based around a special DOS which only works with the Plate and gives a very fast load, something over twice the speed of Multitool XL. Also on the menu is the IS Customer - this is a utility which allows you to create your own custom disk formats with instances of different densities, bad sectors, duplicated sectors and extra sectors. If you are a skilled programmer this means that you can protect your great works but a good knowledge of disk drives and operating systems is necessary if you are to make full use of this facility.

#### DOCUMENTATION

I can not go into detail of all the utilities of the Plate here so it is fortunate that the 26 page user manual is quite comprehensive. To begin with you will need to refer to it frequently and you will need further reference books to get the most out of this very versatile drive unless you already have a good knowledge of disk systems. The handbook introduces some of the more technical details needed to start programming the drive yourself, but such a task is certainly not for the beginner!

One very useful feature of the drive is not mentioned in the manual - the drive can be switched to standard 1050



# THE POWER OF LOTUS

## LOTUS PLUS GEN

emulation by switching on with write protect enabled (either by a write-protected disk or an unprotected disk partially inserted). ISP is enabled by switching on with the drive empty or an unprotected disk inserted.

### WHAT DOES IT DO?

- In summary the main features of the ISP are:
  - Provides an intelligent disk controller and buffer.
  - Boots a track at a time from disk, speeding access and reducing drive wear.
  - Gives single, dual and true double density (with variable DDIS).
  - Fast read and write.
  - Archiver and ISD emulation (with appropriate software).
  - Standard ISD emulation makes Plus invisible to commercial software.

### DEVELOPMENT

Having discovered that this device was designed and built locally I thought it would be interesting to meet the brains behind the product and coincidentally met Robert Perry in Chipco and he kindly agreed to talk to me about his product. Robert has had an Atari from the very early days (prior 1980) when he started with a 400 with 16K RAM and a cassette recorder at a cost of several hundred pounds. He clearly knows the anatomy of his Atari and disk drive inside out and has previously developed the IS Doubler which sold in small numbers, mostly locally, but was never advertised. He has been working on the Plus drive about three of last year and showed me the prototype board on which the device was assembled and tested before the main PCB design was developed and the boards made. Although he gets the PCBs made the rest of the work is his own, and a very professional job he makes of it. He is beginning to develop ideas for a sound sampler which will use the speed and power of the IS and a video flash digitiser or frame grabber which will digitise a frame of video transmission, possibly with video mixing, allowing computer generated graphics and computer manipulation of the frames for special video effects.

As well as informing me about his product, Robert tried to tell me more about disk formats, sector size, disk protection techniques and so on, and I understood some of it. If you are knowledgeable in these areas then you will surely make good use of the Plus. One factor that will be of interest to all Plus users is that the modification does not give much of a speed enhancement when used with an ordinary DDIS such as DDIS 2.8 but will read in a program on a disk formatted under SpartaDos just about twice as fast because the SpartaDos format matches the capabilities of the Plus.

If any of you develop software specially for this device I am certain Robert would like to hear from you. With the memory and intelligence that is built in there must be considerable potential ... could the Plus serve as a printer buffer for instance?

This is an excellent, innovative, well engineered product and I wish Robert every success in achieving a wide market. ■

## ATTENTION ALL 1050 DISK DRIVE OWNERS!!

### Announcing the all new ULTIMATE drive enhancement

The Drive enhancement consists of a plug-in PCB which conveniently fits with our simple to follow instructions.

The 1050 IS PLATE Disk Drive enhancement offers many features never before available in one UNIT:

- Improved Drive speeds - up to 100% normal loading speeds (Depending on disk format speed).
- Simulation of Drive: WDAD and TEAD: now whole tracks can be stored in the internal 10K SMM.
- The IS PLATE can READ/WRITE a whole track in the time it takes a standard 1050 drive to READ/WRITE a single sector (at 150 times standard speed).
- Supports variable: Dual and Single Densities.
- Sector 000 is now no longer required to obtain Hi-speed or with D.D.D.S.
- Other special features are: Slow-down, Fast write, Fast read, Drive write lock, Save on/Off, Fast formatting.
- Fast write with verify. This system is faster than other systems which write with a verify.
- A double sided operating system disk is supplied which offers the following:
  - IS Doubler, IS Doubler, Simulated 1050 and Archive emulation.
  - Basic Access, Diagnostic tester, 4K and 10K Disk Backup utility.
- The PLATE can be made invisible to software identification either Slow-down or 1050-emulation.
- Supplied with detailed instructions regarding software drive control to allow you to access the full potential of the PLATE.
- We list all compatible disk operating systems (DOS including SpartaDOS, Happy work-speed Dos, and other HIGH speed systems).
- With this system, up to sixteen drives can be connected and used.
- A comprehensive 50 page bound manual is supplied. This includes full instructions.
- All registered owners will be supplied with any software updates etc. for the price of Disk and return postage.
- All this is available for ONLY \$99.95 (no post/ packing and Twelve months guarantee. Whilst every effort is made to ship the product by return, please allow 21 days for delivery.

Now available exclusively for the Ultimate Drive Enhancement.

### THE ISP GREMLIN GRABBER

The comprehensive hi-speed boot-up utility disc, complete with documentation on the Drive PMP



### GREMLIN GRABBER II

(Being manufactured - contact manufacturers for updates)



53 Rugby Road, West Woking,  
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Tel: (0932) 40509 (24hrs)  
(0932) 603711 (Bulletin Board 300/300 24hrs)

## THE RESOURCE FILE

The Resource File is a new service provided by PAGE 8 in early Atari coverage (both 8-bit and XET) that sources of information, help and supply. An entry in this feature does not necessarily imply any endorsement by PAGE 8 and readers are advised to check for themselves to ensure that the information is still current. We would ask any reader who find information to be inaccurate or out of date to let us know so that an entry may be amended or deleted.

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### BBS

**Name:** Cambridge FIDS  
**Number:** 0161 555111  
**Hours:** 24 hours  
**Bank:** 500 - 2000  
**Features:** Atari 8-bit and  
program library

Do you run a Bulletin Board which caters mainly for Atari 8-bit or XET? For an entry in this feature please send us details as above (3 words max on "Features") on a plain sheet of paper headed **RESOURCE FILE - BBS**.

Any background information included will be filed for reference but not published.

### USER GROUPS

**Name:** CROSFELL  
ATARI USER  
GROUP

**Contact:** Dave Leggett  
1, Chestnut Close  
Stratford  
Huntingdon  
Cambs

**Phone:** 0455 50555  
**Members:** All welcome

**Name:** LONDON  
ATARI CLUB

**Contact:** P.O. Box 22  
Eldon  
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Leeds LS1 4JL

**Phone:** 0113 244444  
**Members:** Anyone in  
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Do you want others to know about your group? Send details as above **ONLY** (3 words max. on "Members") on a plain sheet of paper headed **RESOURCE FILE - USER GROUPS**.

That's all you get. We will not publish any other details or mailing times and places tend to change. Appoint someone responsible to handle any enquiries received.

### HELPLINE

Do you have any special experience or knowledge that you would like to share with others? If you don't mind writing inside a few lines to answer the phone you could help other Atari owners solve their problems. We suggest that you set aside certain times during which you are willing to receive calls otherwise you may well be woken up in the middle of the night! Please mention your help to our operators in letters and notes that we will only accept and use in order to run our helpline. Please supply the following details on a sheet of paper headed **RESOURCE FILE - HELPLINE**.

#### EXAMPLE ONLY

**Name:** Harry Clever  
**Telephone:** 081 202 2525  
**Address:** ATARI BASIC programming  
**Hours:** Mondays 7.30 pm to 10 pm only

We warrant - you may still get the odd late phone at 1.30 a.m. on Tuesday morning but you will certainly make more friends that way. Please do not put your name forward unless you are patient, understanding and ready to discuss your stuff. We will emphasize in the column that readers should only phone at the times indicated or if you do get calls outside that time, feel free to let them to go away!

### IT'S UP TO YOU!

If you feel that your organisation should have an entry in this feature, write to us. While we do have details of many other User Groups and Bulletin Boards we have not included them as we do not know if the details are correct.

PAGE 8 reserves the right to delete any entry from this feature for any reason. Inclusion does not imply any endorsement by PAGE 8 and PAGE 8 does not accept any responsibility for the accuracy or completeness of an entry. Please tell us if you find any entry out of date.

The only criteria for an entry in this column is that the reader must seek PAGE 8. That is the only measure we have that a retailer is genuinely interested in supporting Atari. Please us at 0161 211928 if you wish to be included.

# VIP PROFESSIONAL

## THE POWER OF LOTUS 1-2-3™ ON THE ATARI ST



### 'LOTUS PLUS GEM'

Probably the most impressive program to have been released so far for the Atari ST range, VIP Professional is an extremely easy to use, integrated spreadsheet, database and graphics program which is identical both in features and Commands to Lotus 1-2-3™. So give you the best program possible on your Atari ST, VIP Professional integrates the three essential applications of Lotus 1-2-3™ with the smart face of GEM. The same spreadsheet, analysis, information management and extraordinary business graphics are all contained in one easy to learn, affordable package. Without more, VIP Professional not only has all the features of 1-2-3™, you can also type the same commands to do the same things. Or, better still, you can use a mouse to make it even simpler. VIP requires only one disk drive to operate and also works with a hard disk drive. It's compatible with both monochrome and colour systems. Probably the most surprising feature of VIP Professional is that its total compatibility with Lotus 1-2-3™ isn't its only claim to fame. It's also compatible with Lotus 1-2-3™ for the IBM PC AT, the EISA (1-981-0264.23), whereas VIP Professional for the Atari ST range of computers is priced at £199 (1-981-0226.88). That's nearly 60% PRICE!

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GRAPHICS**

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**LOTUS 1-2-3™**  
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## 1 SPREADSHEET

VIP Professional was modified after the powerful, best selling Lotus 1-2-3™ program, it has every feature you could want in that program. In fact, the essential 1-2-3™ user will be right at home using the same keyboard. But the screen is made even easier to use by adding the user friendly face of GEM, so the beginner can get it right once. If you want to do your home accounts, financial planning, or professional business inventory control or budget modelling, VIP Professional will be the best. And you can have you 1-2-3™ or VIP Professional has created on other computers in VIP Professional on your Atari ST. And Professional is not only flexible, it's powerful too, with a 640 x 384 line by 320 graphics workload to run with in a matter of minutes. (Price Lotus 1-2-3™ has only 2,880 lines).

## 2 DATABASE

VIP includes a powerful data manager to arrange, store and retrieve your important information. It can be used to store your home or business records and do extensive searching, sorts and comparisons. It allows up to 8000 records, with up to 250 fields per record and 250 search criteria. The database manager can be used in conjunction with the spreadsheet to add special power to the database facilities including defining specific ranges of the database. You can also quickly find you sort files, from the highest value to the lowest value or from the lowest to the highest, or alternatively forwards or backwards. The graphics part of VIP Professional can be used to show records in the database or other information. With its powerful database facilities, it has almost limitless power.

## 3 GRAPHICS

VIP gives shape to your figures by letting you graph your data into six different types of graphs, in starting colour or black and white. Pie charts, bar graphs, stacked bar graphs, line graphs, scatter graphs and 3-D graphs. You can graph your spreadsheet or database data, or your own professional presentations. Your graphs will change instantly as you change the data. When creating a graph you may specify a main heading, a sub heading and a title and all the rest of the graph. The necessary notes can be defined either by the user or automatically created. In the graphs, the most important section of the data can be separated from the other sections to draw attention to its importance. You may save graphs individually or save for use in a later file. You can also print graphs on the screen or on a printer.

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- VIP allows different sorts and search criteria and will sort files based on Lotus 1-2-3™
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- VIP spreadsheets can be used to create spreadsheets on your computer
- VIP spreadsheets can be used to create spreadsheets on your computer
- VIP is fully compatible with the EISA, PC and AT 1-2-3™

### OFFICIAL UK VERSION

The official UK version of VIP Professional has a sound UK sign as a standard part of its character set. Other regions have also been designed separately from the UK and have a number of key changes to it, e.g. three versions will be supported by the UK distributors in their printers. Ensure that the VIP version you are ordered can connect with an interface option with required characters.



VIP Professional is available for other systems including IBM. However, these systems have not been tested. Your computer may not be compatible.

**SILICA SHOP Ltd, 1-4 The Mews, Hathorley Road, Slough, Kent, G6 6 4DQ**  
Tel: 91-989 9999

## INFORMATION REQUEST FORM

To: Silica Shop Ltd, Dept P001 0867, 1-4 The Mews, Hathorley Road, Slough, Kent, G6 6 4DQ  
Please send me further details of VIP Professional for the ST

Name: \_\_\_\_\_ Initials: \_\_\_\_\_ Surname: \_\_\_\_\_  
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I am interested in the Atari ST   
I already own an Atari ST

# Computer GAMMON

a 1 or 2 player version of the famous board game

**BEGINNING THE GAME:** The program requires a minimum 1MB RAM with 1 or 2 joysticks, has single and two player options and is compatible with both 486/500 and XL/XE machines. XL owners, however, may like to boost the colour saturation control on their TV for best effect.

After typing and saving the listing turn up the TV sound and RUN the program to initialise it. When the title screen appears enter each player's name (followed by the RETURN key), up to nine letters will be accepted. If you wish to play the computer versus ATARI for one of the sides or, for a demo of the program, you can even have the computer play itself by entering its name for both sides!

The blue player uses a joystick plugged into port 1, the green player uses one in port 2. If you only have one joystick and wish to run the two player version change the TLR in line 400 to '0' - both players then use the same joystick plugged into port 1.

Once the board has been displayed press the trigger to begin.

**OBJECTIVE:** The objective is to remove all your tiles from the board before your opponent and, additionally, to attempt to manoeuvre his pieces to your advantage.

Tiles are moved around the board according to the throw of the dice, obeying certain rules. Blue moves clockwise to ascending numbers, green moves anti-clockwise and descends the pips. Once all your tiles occupy the appropriately coloured pips in the last six positions you may begin to move off the board.

**RULES:** A player cannot move his tile onto a pip which holds more than one of his opponent's pieces, nor can more than five tiles occupy any one pip. A solitary tile is vulnerable to attack and will be displaced onto the bar if hit by an opposing tile. In such a case a player must move his tile(s) back onto the board before any other move can be made - if unable to do so because of existing tile placements he forfeits his turn. No piece may be moved off the board by a player unless all his remaining tiles occupy the colour-coded pips. Finally, providing moves are possible which do not infringe these rules, both dice must be used each time - they are, however, to be used in either order.

**PLAYING THE DICE:** The computer decides who will commence the game and throws the dice automatically at each turn. A player then has the option of moving two tiles by the value shown on each die (he could also move the same tile twice) or of moving one tile by the sum of the dice. For example, suppose a 3 and a 5 are thrown at the start of the game. You could move a tile from pip 13 to pip 18 (if you are green) and another from pip 24 to pip 18. You could, alternatively, opt to move a single tile from, say, pip 11 to pip 7 or the same tile from pip 24 to pip 26.

If you receive a double, each die is played twice. For example, a double 5 enables you to move 4 tiles 5 places each or 2 tiles by 10 places. You must, however, treat the dice as pairs - in other words you cannot play the 5 followed by the 10 followed by another 5.

Before retaining control to you the computer will check for possible moves. If you cannot move according to the above rules you will be informed of this and play will be pass to your opponent.

**MOVING THE CURSOR AND TILES:** At the start of a game bring the cursor onto the screen by moving the appropriate joystick to the left. Then move the joystick in the required direction (except diagonally) to select the pip from which you wish to move a tile. Press the trigger to register your selection. If valid the marker below the board will move right asking for a destination for the tile. This you register in the same manner. If the move would be an invalid one both your pip selections are cancelled and you must make new entries. If you decide against a move after inputting a source value simply enter an invalid destination and start again. Your move will then take place with the usual die, or dice, reducing its luminosity to highlight remaining choices.

If you are 'on the bar' the computer automatically registers this as the start point and you are only required to enter a destination. For example, with a 3 and a 5 (assume the blue player could enter the board (if valid) via pips 5 or 7. The green player's corresponding pips would be 23 or 28. To move off the board (numerically equal to '23' for blue and '0' for green) enter the die then position the cursor and the arrow symbol appears in the 'destination' box. Press the trigger to initiate the move.

During a game, providing you have created the cursor, you may retract via the title screen by pressing the 'Start' key. Pressing 'Select' or 'Option' returns you to BASIC.

**STRATEGY:** This is an important feature of the game. You must decide if and when to deposit your opponent onto the bar remembering that he will re-enter via your inner quadrant in most cases. Figure out which are the safe moves to make, when to gamble and how to block your opponent's advances. As you manoeuvre your pieces around the board attempt to deposit your opponent on the bar when safe to do so but reduce his opportunities to re-enter with strategically placed tiles. At the close of the game points are scored according to the number and position of all remaining tiles, greater points being given for those furthest from the opponent's inner quadrant.

by David Hitchens







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## CONTINUING GRAPHICS

This issue I will continue with a look at the Graphics modes but we will leave the text mode and have a quick look around the modes available for proper graphics.

As I explained in the last issue, all the modes are basically the same but they are utilized by the computer in different ways. Have a look at figure 1. This will show you each mode with its related colour, co-ordinates and memory size. This should be self explanatory, the only point of interest is GR.5 which has one plot colour, but has two luminances.

### COLOR and SETCOLOR

These commands tend to cause a bit of confusion in the graphics mode so let's have a closer look at them.

SETCOLOR does not change screen colours directly but changes the colour stored in a certain COLOR register. There can be up to four of these COLOR registers used in each graphics mode (see figure 2). Colour can also be changed by POKing the appropriate memory location. For instance, SETCOLOR 0,4,1 luminance or its equivalent POKE 108,1\*4+1 luminance will do the same job. So, if 4 = 4 and luminance = 05, you would use POKE 108,24. Figure 2 shows the SETCOLOR command and the equivalent memory location.

COLOR in a graphics mode will define the register to be used for drawing points; in a text mode it will give the ASCII character. For a line colour mode, such as GR.7, COLOR will be 0 for background colour and 1 to 3 for points. If the value is 4 then the real value for the register is set and again, i.e. the value will cycle from 0 to 3 then start off at 0 again. In a two colour mode, such as GR.4, the values are 0 and 1 only. Above that the cycling begins.

GR.4 is a one colour mode so COLOR is used to set the luminance of the plotted point. The colour of this point will be the same as the background, and luminance will either show or hide the point.

To recap, COLOR 1, 2, 3 or 4 will display a point in a certain colour and SETCOLOR will change this colour. COLOR 0 will set the point colour to that of the background, effectively erasing the point. Figure 3 shows the modes and associated COLOR/SETCOLOR commands.

### A DEMONSTRATION

To demonstrate the differences between all of the graphics modes, I wrote LISTING 2. This program will set up all of the modes and flip between each. I had hoped to write about page flipping during the session but I was beaten to it by Alan Knapp in issue 25. As can be seen from figure 1, graphics 8 uses a massive amount of memory. This is because it uses very fine points (pixels or picture elements) to draw lines. Each point will have its value stored in RAM and this is termed a memory mapped screen. Because the screen is so finely drawn, a strange effect occurs known as anti-aliasing. Listing 2 should demonstrate this effect nicely.

### Mark Hutchinson's regular column for beginners

GR MODE	HORIZ COLOURS	VERT ROWS	No. of COLOURS	LINE TYPE	MEM SIZE
0	40	24	2	TEXT	992
1	20	14	5	TEXT	112
2	20	14	5	TEXT	144
3	40	14	4	PLOT	176
4	80	48	2	PLOT	336
5	80	48	4	PLOT	608
6	160	96	2	PLOT	1024
7	160	96	4	PLOT	1984
8	320	192	12	PLOT	7968

Figure 1 - GRAPHICS MODES

If you find that the program will not run due to memory constraints, GRAPHICS 8 (lines 839 to 893 and line 1090) can be deleted and if necessary GRAPHICS 7 (lines 608 to 640 and line 1040). Remember to set counter G (line 700) to the appropriate value.

### THANKS FOR WRITING

I would like to thank Brian Tremen for his kind letter. I am glad that I was able to be of such help. If any beginners need some advice that would take too long to explain here, I can be reached (with an SNAE pencil) at the following new address.

1, HOLLANDOUNT,  
BRINTVALE, BESAGHT  
BELFAST  
BT10 9GL.

Finally, a couple of tips from Mr. Robinson of Cambria. You may know that LIST will display the complete listing of a program, but did you know that you can display a series of line numbers? LIST 100,120 will display all line numbers from 100 to 120 inclusive. This will also apply to a single line, eg. LIST 100.

When you use the TAB key to move the cursor across the screen, the default is 18. This is stored in location 204, so POKE any suitable number in here to change the TAB spacing. Hands up who knew that a comma causes tabbing. Try the following line to see what I mean.

```
PRINT "A",B,"C"
```

See you next issue when we might take a look at subroutines.



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# SHORT REVIEWS

# SHORT REVIEWS

SOFTWARE



Finally, a brief amendment to last issue's review of **ESCAPE! FROM DOOMWORLD**. Unfortunately, there was a price mix-up and it appears that this program is, in fact, a budget release. It retails at £1.95 on cassette and £1.95 on disk. Can't think of a better reason to rush out and buy it, can you?

## SPACE LOBSTERS



**Red Rat**  
64K cassette  
£7.95  
64K disk  
£9.95  
1 player  
1 joystick/  
keyboard

I received **SPACE LOBSTERS** as a pre-release but it should be available by the time you read this. It's an arcade adventure set inside the huge colony-ship, *Colosus*, which has been drifting in space for eons as a result of the continuing war between Mankind and the Space Lobsters. Captain Crumble – latest product of Red Rat's writer imagination – has the arduous task of salvaging the ship and returning it to Earth. Is there a fairer title *Space Lobster on board!* Could be. What poor old Crumble doesn't realize is that it's a female of the species now reaching the completion of her spawning cycle. The warriors of the *Colosus* are manning with hundreds of Rebel-Droids and newly-hatched *Space Lobsters* and, guess what? ... human flesh is their favourite diet!

The screen layout is similar to those Metrotronix games such as *Red Men* and *Last V8*, with the bottom two-thirds taken up by an expertly designed control-panel, displaying all relevant information in a clear and recognizable manner. Gameplay is therefore restricted to the top third of the screen but, unlike some other games built along this design,

the restricted layout isn't a problem in **SPACE LOBSTERS**. The screen scrolls in a left/right horizontal direction (not strictly true as each new location replaces the previous one when Crumble moves off-screen – there is no actual scrolling) so you travel through the ship and there is no tactical movement to magnify the limitations of the screen size.

The metallic walls of the ship are similar to the graphics used in *TRASSER* and countless other Atari magazine and disk demos, and is really effective. The scenery changes colour as you move from one corridor area to another.

The game characters are, of necessity, small but highly detailed and most are in more than one colour, contradicting the idea that you can only have single-colour FMG's on the Atari. Great animation too and it's worth living a life just to see Crumble sprout wings and fly off into oblivion, or heaven depending on which is nearest!

Captain Crumble is equipped with a plasma-blaster to fend off all the nasties but has only limited ammunition. His life/energy is obtained by lugging on at one of the many computer terminals and loading off score points for further supplies. Ten hidden codes are waiting to be discovered at the terminals which ultimately give Crumble access to the rescue pod. I'm not quite sure how this fits in with salvaging the ship, but that's hardly important. Incidentally, when Crumble logs on at a computer terminal all actions open to him are displayed on the control-panel. A simple keypad activates your choice.

Teleporter Beetha is waiting to transport Captain Crumble to other corridor levels and, all told, there are 150 screens for him to explore. It's heavy going though. On top of all the aliens screaming in from both sides, Crumble has to duck periodically to avoid Flying-Droids. A real nuisance these as he cannot duck and fire at the same time and often gets mugged by an incoming Rebel-Droid while still in a ducking position. How times do run for in this game!

*Red Rat* often include fancy hi-res title screens in their games but these usually go unnoted. This one won't. It's a tedious cartoon style comic-strip-of-

Crumble and his cast of aliens and is totally amusing. Then goes for the theme music too. Composed by Richard Munnis, it proves that Rob Hubbard is not the only musical genius in Atari circles these days.

In the past, *Red Rat* have produced software of reasonably good value. Now they have suddenly upped their quality level and Atari owners everywhere are poised to reap the benefits. Good on you, *Red Rat*.... **SPACE LOBSTERS** is a real treat!

## CRUMBLE'S CRISIS



**Red Rat**  
XL/XE only  
64K cassette  
£7.95  
64K disk  
£9.95  
1 player  
1 joystick

The first, it appears, is a new range of arcade adventures featuring mega-boss, Captain Crumble. This time dozens of alien Puzzles (30 to be exact) have escaped from the Intergalactic Zoo and Crumble has to travel through the 5 levels of the multi-verso to find and weary the Puzzles in containment cages.

It's a game which shares many similarities with *Strawpale* but with enough fresh ideas to make it sufficiently different. Crumble is equipped with a back-pack Heavy Gun to enable him to move quickly around the screens of the multi-verso. He must avoid touching most of the walls (composure and matter – very deadly) but there are 'safe' areas which are okay to walk on.

Ghosts, Goblins and Evil Warriors all attempt to hinder his progress and drain his energy pools and these become more obnoxious as you advance through the five zones. It's also wise to keep moving or Time-Lightening will strike at your energy pools and drain them with considerable speed. Luckily, extra energy can be obtained by collecting suitable items scattered around the main arena.

The Puzzles have a rich sense of humour and have hidden themselves in the most dangerous locations imaginable. Resolving them up could prove to be quite an achievement. There are certain tricks you must learn to help you negotiate the zones but, if all else fails, there is a practice option available after level one to help you test out your ideas.

**CRUMBLE'S CRISIS** is an absolute corker and Crumble himself the most instantly appealing character in the Atari since Jet-Boat Jack. Graphics, sound, animation and gameplay are truly astounding and, once again, the game features a stunning comic title screen and accompanying music from that man Richard Williams. I must thank Red Rat for the special review copy which allowed me to view and play the 5 different zones. Each zone has its own unique and complex design (Zone 4 - "Maze World" - is my own particular favourite) and the graphical content has to be seen to be believed. Just wish all you got a glimpse of the lapping metaphors and metaphors scattered!

Classic games are few and far between these days. Hopefully, **CRUMBLE'S CRISIS** will change all that. Brilliant!

## FIGHT NIGHT



Sydney/  
US Gold  
48K disk  
£14.95  
1/2 players  
1/2 joysticks

I hinted in a previous issue that Boxing was one of my least favourite sports, but anything which adds a touch of comedy to the smashes and 'brute damage' is worth investigating in my book.

**FIGHT NIGHT** is a multi-frustrated sports simulation bearing a close resemblance which guarantees a TV comedy show to shame. Can you tackle the likes of the **DOP STICK**, who makes 'Mr Peabody's' look like Charles Atlas? — **KID KASTRO**, the cigar-smoking towner from Cuba. — **BU HIM**, brother of Odd-Job and twice as nasty and no less mean-spirited. — the **BRITISH BULLDOG**, the bottle-banded, well-suppered ex-Doom of Oxford. — and the **BRONX BOMBER**, eighteen stone with a two ounce brain, Champion of the World? Yes, can you tackle this bunch of pugilistic madmen without having into fits of hysterical? Me neither!

The game takes up two full disk sides and offers a range of training, sparring and fight options which even

includes the ability to construct your own custom-built kit man. (**FIGHT NIGHT** boxes come made-to-measure as well as off the peg), using the many parameters and fighting characteristics included in the program. This way you can build up to 28 custom boxers for tournament purposes or create a personalised fighter capable of taking on the world's elite. Mind you, the reality isn't quite so simple. My custom-built 'Bromocruiser' tended to fight more like Joe 'The Punching' Sugar again even the simplest of opponents! It makes sense to get some hefty training & sparring under your belt before leaving the night of the professionals.

The main event requires you to fight your way through the five major contenders with a view to taking on the formidable **BRONX BOMBER**. Alternatively, you can opt for a manager's role, writing up promotions and suitable fight selections which will get your fighter a decent crack at the title in Tournament Mode. Either way, you have little chance of making it big with your normal 'default' boxer and constructing a custom-built 'Rocky' is an absolute must if you have any championship aspirations.

Each bout is fought over three 3-minute rounds and the idea is to out-stag your opponent by draining his 'K.O.' strength far before he does himself to years. You can win the fight either by a straight knock-out or a points decision, depending on your punching power. The graphics are spot on, the characters big and life-like with plenty of extra detail. Each bout also contains a close-up 'slug they' of the two competitors deployed in all their glory above the ring as if on some giant monitor screen, giving you some idea of how ridiculous they'd look on a poster!

As with most other boxing games it's a Heavyweight slugger match - no fancy footwork involved, just a left and right the blooded shuffler back and forth across the ring - and tactics are limited to jabs, bodyblows and throwing up a guard to prevent you from getting a nose like Karl Malden, but then what else is new in boxing?

Each of the characters have their own personal style of fighting, their own strengths and weaknesses (apart from the **BRONX BOMBER** who has no weaknesses), and their own 'secret weapon' which they unleash whenever they are in deep trouble. **HU HIM**, for instance, lashed out with a karate kick which wouldn't impress the W.B.A. (No, not West Bromwich Albion. — World Boxing Authority. Or is it Association?) but is, apparently, perfectly acceptable in

## CAVERNS OF ERIBAN



Firebird  
£1.99 cassette  
only  
1 player  
1 joystick

Yet another new version in Firebird's 'Silver HW' budget range, **CAVERNS OF ERIBAN** is a game with some sort of logical method to it instead of the usual 'zap & blow' stuff.

As part of a mine supply ship it's your job to pick up surface supplies from the main depot and deliver them to various mining depots situated deep in the underground caverns of the planet Eriban. You are limited to carrying 3

supply pods at a time and, once they've been dropped off, it's back to the surface for refuelling and more supplies.

Nothing to it, old! No such luck. The caverns are protected by various defence mechanisms and the old trigger finger will be put to the test at every turn. And have you tried to manoeuvre a spacepod through the right caverns and chambers of Eriban? No, I bet you haven't. Imagine trying to pilot Concoque through the Wooley Hole and you'll get some idea of what's required!

This game reminds me of **THRUST** in many respects, but the additional elements give it less mere depth and certainly more long lasting appeal. One more thing - if you bought **THRUST** and couldn't handle the keyboard only input, you'll be pleased to learn that **ERIBAN** features full joystick control.

Not in the same league as **WAR HAWK** maybe but still cheap at twice the price. Move please Firebird!

**FIGHT NIGHT**. KID KASTRO has his 'Carnage Crusher' and the **BRITISH WELLSHO** his 'British Rail Roundhouse', but old Benjo likes himself - the **DIP STICK** - possesses the most diabolical secret weapon of the lot. If you drive him into a corner against the ropes he launches into a wild sort of contention and strikes at you with his 'wacker punch' diagnosed as a convolution. Even though you know it's coming it still seems to give you every single time!

Another quality product from US Gold which includes just about everything you could possibly wish for, right down to the clever documentation complete with it's hilarious end-up of the five main contenders. **FIGHT NIGHT** puts the fun into boxing when it comes online before. Worth every penny of the asking price.

**NR** The instructions mention a cassette option but whether this applies to the Am2 or not is anyone's guess. Best check with your dealer.

## CHICKEN CHASE



**Bug Byte**  
£2.99  
cassette  
only  
1 player  
1 joystick

**Bug Byte** have a habit of releasing old Atari games, so I'm not quite sure whether this fits into that category or not. I'll give it the benefit of the doubt seeing as I've never heard of it before.

It's egg-hatching time in the henhouse and your job as 'Super Kooker' is to protect the eggs from marauding rats and hedgehogs. You then wait for the eggs to hatch, usher the young chicks to safety, and help's your sister!

If only it was that simple. Yes, a Kooker's life is not a happy one and you must find time between chores to gobble worms and grain in order to keep your strength up. And pigs help you if you make a hash of things cause that's when the 'missus' puts in an appearance and belts you over the head with a rolling pin. In gives a whole new meaning to the word 'beasted'!

**CHICKEN CHASE** is a nice simple, uncomplexed game with reasonable sound and graphics plus a sense of humour. It's in machine code too which is a step in the right direction for **Bug Byte**. Worth looking at.

## ROBOT KNIGHTS



**Red Rat**  
48k disk  
48k cassette  
1/2 players  
1/2 joysticks

Mad genius **Evil Otto**, a son of 23rd Century Dr. Frankenstein, escapes from Postcardworld into the past. Your **Robot Knights** follow him and must find his laboratory and destroy the monster by his control before time runs out. You'll have to fight off the **Guardian Zombies** who will attack you with fireballs as you progress through all the dungeons & chambers of **Castle Klug**. This sets the scene for **ROBOT KNIGHTS**, another new release this month from **Red Rat**.

It's a platform game with an added adventure theme to add some originality and features single player gameplay or a 2-player combined option. In single player mode you control **SIR BRAVE** or **SIR BOLD** if you prefer, a Knight of great distinction, who is equipped with a handy Deflector-Shield. This is used to fend off fireballs and plasma-globes which are launched at you by Otto's guardian creatures. Zombies are the most common. These pitiful creatures are the result of Otto's failed experiments on the peasant villagers of the area.

You begin the game with only one life and 1000 energy units. You lose energy by contacting a fireball, plasma-globe, missile or other creature, or by falling off a platform above head height. You gain more energy by collecting energy sources which are found in some rooms of the castle. Lose all your energy and you lose your head... literally!

There are nine different rooms to negotiate - **Dungeons I & II**, the **Secret Passage**, the **Lost Cavern**, the **Store Room**, the **Great Hall**, **Otto's Room**, the **Transformer Room** and, finally, the **Laboratory**. Each room has to be cleared of all it's items and inhabitants before the door opens to allow you through to the next one. You repeat the process in subsequent rooms until you reach the laboratory where **Otto** is located. Destiny lies before the monster destroys you!

In 2-player mode, the second player controls **SIR BOLD** who is armed with an **Energy-Bow**. You can fight each other or, more usually, combine your resources against **Otto** and his creatures.

The 2-player mode is a lot of fun and gives you double the chance of advancing through the dungeon levels.

**ROBOT KNIGHTS** runs just below the two 'Cauldrie' games but it still is a cut above most of the recent releases. The graphics are big and bold, the screens well designed, and gameplay at a suitable level of difficulty for most people to cope with (I used play level three as the other two are a bit 'slow motion' for my taste). Oh yes, and the high score table with it's **Old English** text is a nice touch and complements the 17th Century game setting.

If **Red Rat** maintains this standard, each new release will command the same attention as those early Synapse games. Who said the 8-bit was dead?

## HOUSE OF USHER



**Midas/Kingsoft**  
48k cassette  
1 player  
1 joystick

**HOUSE OF USHER** is an Am2 free (I think) from **Midas Software** and takes it's name from that infamous tale of horror by **Edgar Allan Poe**.

It's a platform game vaguely similar to **Midnight** and, indeed, the main character looks a lot like our old friend **Bonny** (but dressed up in a pirate suit (A pirate suit? ... oh well, it takes all sorts)).

**Pain** (he starts off in a maze).

**Reception Hall** containing maze doors. Each door gives him access to a further nine rooms and the idea is to work your way through these rooms, negotiating the various hazards involved to complete the overall puzzle and, eventually, escape into the safety of the outside world.

The 'mindful challenges' devised by the 'wardens' (much of **Strangard** madmen) are all pretty routine stuff and you won't find anything you haven't encountered before in many other games of this type. In fact, the biggest challenge involves trying to get **Pain** (he safely off the top of a ladder without sliding all the way down to his doom). It appears to be a 'bug' in the program, but if it's included by design then I'm definitely not amused.

The graphics are fairly simple (borders & levels set against a black

black background), the sound-effects reasonable enough for this type of game, and the theme music raptorial if somewhat repetitive — it sounds like a scrambled version of 'Jungle Bells' in my ears, but if someone decides it's 'Friedie in B Minor from Mendelssohn's Unfinished Choral Symphony' then it'll do for me!

A couple of points worth noting. The cassette label features a hi-res screenshot of an entire screenful of House Of Usher, but it's not part of the Atari version as far as I know. Play that. Also, the instructions advise you to 'LOAD' the cassette hinting that it's a Basic program. Misas are doing the game a great injustice here with what amounts to a major 'misprint'. Please ignore it as the game is an auto-load, EP, machine-code game.

No prices accompanied the review copy. As a budget game(?) it's a good effort. Not in the same class as Firebird and Mastertronic's best but it's early days yet. Check it out.

are several such levels of increasing difficulty.

The only thing which ruined the original version was the theme music — a slow, painful rendition of 'Would you like to fly in my beautiful balloon?' — but it's missing from this re-release. I guess Mastertronic's like it either!

A delightful program with charming cartoon style graphics and it is also one of the first non-violent games around — not a rap in sight. Go on, spoil yourself! It's worth three quid surely? \*

## SPIKY HAROLD



**Firebird**  
**£1.99**  
**48K cassette**  
**only**  
**1 player**  
**1 joystick**

A budgeting is not the most exotic creature to base a computer game on. The 'Flych' men turn into wings and herry drivers turn them into 'budgeting sandwiches', but Firebird have decided to turn them — or one of them at least — into a computer hero. Surprisingly enough Harold turns out to be quite a cute little dude.

You must help our spiky friend to prepare the illumination by guiding him through the 51 chambers beneath the hedgerow in search of food. Various obstacle-course-like must be avoided, as well as confusers, sulphur clouds, bouncing balls and peeping periscopes (ah!).

The graphics are fresh and lively with an uncommonly visible use of colour — all initial objects are coloured brilliant white to distinguish them from the background scenery. Food, and other 'ah!' objects. The screens are redrawn quickly and neatly as Harold moves from one location to the next and the animation is tidy and flicker-free as it always should be on the Atari. The realistic movement of the flying mugs warrants a mention as it is particularly impressive. In fact, the overall quality of the program is astounding and I can't understand how they do it at these prices. I'm not complaining though!

Progressing through each location requires precision timing and a great deal of patience (keep a sweet-tooth, handy). Definitely for the connoisseurs this one and the degree of difficulty is such that a hefty 50 lives are allotted at the start of

every game and further lives are gained by collecting coins which can be found in random locations. Harold can also collect wine glasses which make him drunk. This has the effect of reversing the joystick control for a short while. Even so, progress is painfully slow at the best of times.

Probably have gone back to their roots with an enjoyable game in the style of their early efforts which pioneered their 'budget' label. WASHAWK put them on top of the Atari budget league. SPIKY HAROLD will ensure that they stay there. \*

## MOLECULE MAN

**Mastertronic**  
**£2.99 cassette**  
**1 player**  
**1 joystick, keyboard**

This is one of those 3-D maze arcade adventures initially made famous by Ultronix on the Spectrum when they pioneered this style of game with hits like ALIEN 8. Firebird recently introduced Atari owners to this format with a cute little number entitled 'Chimera' and this

## UP, UP & AWAY



**Bug Byte**  
**£2.99 cassette**  
**only**  
**1 player**  
**1 joystick**

Bug Byte have reimagined another 'Golden Oldie' from Starcade which dates from 1983 when it was a product of Ringlight Software. You control a hot-air balloon travelling sedately across a scorching wasteland. Your journey is a precarious one and lightning, upward fires, downfalls from windmills and updrafts from factory chimneys will keep you on your toes. A words course in elementary ballooning is recommended!

And then you have to contend with delinquent Loads Ltd. (see how there any other kind?) throwing stones at you, many aeroplane pilots who obviously trained with the 'Gary Numan School of Safe Flying', and also mischievous birds who seem to be... no they can't be doing that, can they? They couldn't do that!

Extra fuel is gained by landing at strategic stopping places along your route and, if you survive long enough to reach your starting point again, the game advances to the next level of play. There

## SHOOT 'EM UPS



**Various**  
**US Gold**  
**2 cassettes**  
**£9.95**  
**disk £14.95**  
**1/2 players**  
**1/2 joysticks**

SHOOT 'EM UPS is the title of the latest 4 game compilation from US Gold, but it might well have been called 'The Good, The Bad & The Ugly' for it is a pretty mixed bunch quality-wise.

First the good, and they don't come any better than DROPOUSE. Super sound, dazzling rainbow colour graphics, slick animation and warped scrolling combine to make this DEFENDER clone a nifty game in every sense of the word. It's worth loading this one just to view the title screen and high score table which are better than most GAMES currently on the market!

DROPOUSE proves once and for all that the graphic capabilities of Atari 8-bit computers are second to none (the Craypedere version doesn't come close).



game runs along much the same lines.

**MOLECULE MAN** - a sort of golf ball on legs - is lost in an enormous maze of 256 different locations. Time and rotations are against him and you must guide him to safety via a teleporter. Possible to 100 percent are required to operate the teleporter and these must be found and collected first.

Cash is the key to everything. Find a coin and you can buy more, life pills or bombs which will destroy parts of the maze normally impossible. You begin with only twenty seconds on the clock to find your first coin and, so far, I've never even which way but loose but I've never come across one yet! I'd appreciate some help here!

The graphics are largely in black and white due to using the highest resolution mode available. The maze artwork is astounding with plenty of intricate detail thanks mainly, I suspect, to the genius of S.A. Blasing who is responsible for the Atari version. Am I right in assuming this is the same S.A. Blasing who programmed 'Asteroids' for English Software?

**MOLECULE MAN** is a 'tautolog' which should keep determined gamers very happy during the long winter months. ■

## DOMAIN OF THE UNDEAD



**Red Rat**  
\$9.95 disk  
\$7.95 cassette  
1 player  
1 joystick

Spirits and Ghosts and things which go bump in the night... with moody darkness really, Red Rat have delved into the mystical world of the Evil Dead to bring us this new one.

Your primary aim is to collect something called the 'Master Key', though exactly why it doesn't say. Being a brain sort of chap (or even a slightly insane) you decide to go for a midnight stroll through the graveyard. Oh yes, and there's a full moon of course!

Shadows rise up, literally, from their graves and attack you on all sides. And the vampire bar peddled on top of that vampire bar is there for decoration either. Get within striking range and it

swoops down on you like an airborne Count Dracula. A clove of garlic would come in really handy here!

You can ward off the evil forces with your Anti-Spirits Bob (yes, in other words) but, like all fairly paid-up members of the Walking Dead, they refuse to lie down and attack you with renewed vigour. Traps spring up all over the place hoping to catch you unaware, and Red Rat provides Lightning, Devils Train, Gaspedes and various other Winged Creatures in the later stages but I've never survived long enough to encounter them. I'm not sure I want to either!

All this Hammer-style drama sets the game up as a comic from 'Zombie Movie-mania' or similar, but it's basically a left to right, blast everything in sight, scrolling job. Not a bad little game by any means - the musical effects are excellent. However, with Fairlight and Mastertronic producing top quality software at bargain prices, full price software has to be special to justify the extra cash. I somewhere feel **DOMAIN OF THE UNDEAD** would have been better suited to the budget end of the market. ■

An undoubted classic - possibly the best Atari game ever. If you don't have it in your collection then you don't have a collection. It's as simple as that.

Also in the 'Classic' category is **FORT APOCALYPSE**. Quite popular with the completion brigade as it has figures in English Software's latest 'Miss' release. In a cross between *Choplifter* and *Sherlock* you must leave the Redline defenses and fly your jet-copter into the depths of the desolated Fort Apocalypse to rescue all the prisoners held captive there. Heavy helicopters, tanks, SAM's and missile drones are easily dealt with (easily??), but the laser chambers and RPE shells are a different kettle of (red) reds (or even fish). They bring a strategic element to the game and you'll soon realize that this isn't just a game of brute force and ignorance. Not one of the many superior programs which made Synapse the premier Atari software company only a few short years ago. Whenever happened to them, I wonder?

Bad is an apt way to describe Sega's **SUPER ZAXXON**. As a follow-up to the enormously popular **ZAXXON** it took the Zaxxon theme to new heights in the arcade, but the Atari version is just

in comparison with the original. Both games feature scrolling action in simulated 3-D as you guide your spaceship against the might of the immense Zaxxon space fortress. In **SUPER ZAXXON** the robot guarding the second and final fortress has been replaced by a dragon (or mother-in-law (aka) phoenix), which requires no hits in it's gaping mouth to destroy it. Sadly all the other changes are not for the better. The graphics in **SUPER ZAXXON** have been condensed so that everything appears on a much smaller scale. It's a big stain on the straight and the realistic office of the ship riding and diving over the fortress is all but lost. The colours are not dullsville but, worse than that even, the Atari version is inferior to certain other computer variants of the game. Sarcasm? The new rare Sega release a decent Atari game it will be their best since the original Zaxxon.

Finally it's the ugly one. **BLUE MAX 1001** was a very related follow-up to the classic **BLUE MAX**, a 3-D World War I bi-plane shoot 'em up which borrowed the basic Zaxxon idea and then imposed on it a thousandfold. If Synapse released a better game I've yet

to see it. Perhaps too much was expected of its successor? Anyway, it turned out a disappointment.

The action is set in the year 2000 with Max Chatterbox IX, direct descendant of the legendary 'Blue Max', piloting an octagonal jet-copter (if you want to call it a spaceship) hovering over the zone business... it looks like an octagonal jet-copter to me! against the evil Puma empire who have taken over the earthline, Gamma IV.

Control of the jet-copter is via the diagonals, making it a nightmare to fly, far less precise than the straight and levers, with any degree of accuracy. If you fancy shooting down a few enemy spacecraft, forget it. It's easier to get a laugh out of Ted Rogers on 3-3-8!

**BLUE MAX 2001** was almost the last game released by Synapse. What a pity they couldn't finish on a higher note.

Completions like this are a great idea as they help introduce new Atari owners to some of the older games they may have missed out on. If US-Ghost had substituted **SUPER ZAXXON** and **BLUE MAX 2001** with their original counterparts (**ZAXXON** and **BLUE MAX**) this package would have been unbeatable. ■

# ANTS IN YOUR PANTS

by Allan Knopp

Benny is being attacked by a horde of marauding ants intent on invading his Bermuda shorts! His only defence is to stamp on them, but he is fighting a losing battle. It is only a matter of time before he is overcome by their weight of numbers and suffers the ultimate indignity. How long can he hold out?

*Ants In Your Pants* makes use of page flipping for the movement of Benny's legs. His legs are controlled with a joystick and there are seven different leg positions, each position stored as a different screen. The movement is achieved by displaying screens according to the position of the joystick. If you read my article on page flipping in *Page 9* issue 29 you should be able to follow the program, the initialization is very similar to *Brancing Beat*.

Player outside graphics are used for the ants because they are independent of page flipping. The screen colours for sky, grass and the flashing tickle line are implemented using a display list interrupt created with DLI Maker, which was published in *Analogue No. 38*.

If you have trouble typing in the control characters in lines 840 to 858 then listing 2 will create them for you. Be sure to save the program before you run it because it will delete itself from memory, just leaving the required lines. After running you should be left with just lines 840, 845 and 858. LIST these lines to cassette or disk then ENTER them into the main program. I have included a checksum which should catch any errors in the DATA statements.

**Can you stop the ants  
invading Benny's bermudas?**

```

80 1 800 *****
80 2 800 *      ANTS IN YOUR PANTS *
80 3 800 *              ^
80 4 800 *              ALLAN KNOPP *
80 5 800 *
80 6 800 *
80 7 800 * PAGE 5 PALMISTE - ENGLAND *
80 8 800 *****
80 9 800
80 100 8070 0000
80 105 8080P-00000000
80 110 80700 0000
80 115 0000
80 120 80700 00000000 000
80 125 80700 00000000 000
80 130 80700 00000000 010
80 135 80700 00000000 005
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80 180 8080 80000000 010
80 185 8080 80000000 005
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80 195 8080 80000000 010
80 200 8080 80000000 005
80 205 8080 80000000 010
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80 995 8080 80000000 010

```







# WHY HAVE YOU EVER TIME SCREEN



Would you like a more attractive screen to type in all those programs? How about a time check as well? TimeScreen will give you just that and is fully reset proof. One other bonus is that the keyboard is speeded up to make typing easier.

The new screen on TimeScreen gives you black text on a white background with a blue border. At the top of the screen a 12 hour digital clock is displayed showing hours, minutes and seconds, unless in time elapsed since starting a session or in the correct time of day. Typing in the program is simple using Type 0 key, unfortunately, as both TimeScreen and Type use page 6 of memory it will not be possible to run both together for future listings. You can, however, use Type to check a program that has already been entered if you follow the procedure below.

When you run the program the word 'Time...' will appear at the top of the screen. The current time can be entered by typing six digits representing the time in a 12 hour digital format. For example, enter 060000 (the half past six). Press the RETURN key and the clock will start. You may reset the clock to zero at any time by pressing CONTROL-4 and restart it by pressing any key.

TimeScreen should only be used for typing or working with DOS as the routines used may clash with other programs. System Reset is entered through GAMING to a machine code routine located at page 6 (4600). The code uses a single VBI to update the clock and check the display list. If location 580 (display list pointer low byte) is altered, the VBI resets the screen making graphics calls impossible. It also ensures that the display stays put when you use DOS. Before running a program the VBI should be switched off which can be achieved by pressing SHIFT-CONTROL-4. This will perform a proper Graphics Reset. System reset will reset TimeScreen.

Just a couple more points. If you wish to use page 6 for any reason, type POKE 9,1 if you are using a disk drive or POKE 9,0 if not, then press System Reset. TimeScreen will no longer be usable. When using DUP-DISK, return from the menu by using Option 0 (Run Cartridge) and then press System Reset. This will reset the VBI.

I hope you enjoy the new screen and maybe now you will notice the time in those long programming sessions!

## XL/XE ONLY

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100 0 000 *****

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STORE CODE AT 4600

by Chris Fox

# Contact

## HELP WANTED

**ST TRANSPUTER:** Microvare Atari Club-writer to learn from experienced C programmer via post experience in CCL-CAH by the late ST computer from Kama Pappas write to Microvare Atari Club (MAC) 29, Oakdale Road, Airdrie, Liverpool, Merseyside, L4 2SR.

**INTERCOMPT BASIC:** Do you fit the criteria, decide previous experience does not work correctly. Can anybody who has found this problem offer a solution please? The Atari magazine did not know of it. Please write to Chelmsford 04049 56009

**JOBBE BASTINGS (A&P):** Improved in File and Network Hunt testing (with contact). Would like assistance with programs etc. 19000 and disk in present but considering purchase of 51 unit. Don Bailey, 173, Leighton Avenue, Grimsby, South Humberside, Phone 79000

**INFOCOM:** Could anyone give me hints on BALLS AND WIGWAGGERS. I am having trouble getting into Roommatters trailer in BALLS AND WIGWAGGERS and getting the wall in the wall bridge in Wigwaggers. I have studied my hints and translated them but I can't find any way past Chris Johnson, 26, Redoubt Street, North Bournemouth, Q, 079, 079, Australia

**HINTS AND TIPS:** I am compiling a list of hints and tips for Atari's wide range of software and I need your help. If you know of any other ones, personally, then let me please write to me: David Butler, 26, Redoubt Street, North Bournemouth, Q, 079, 079

**HOW HELP:** Could anyone tell me if it is possible to change indices on the 1024 printer and if so how? Write to David Butler, 26, Redoubt Street, North Bournemouth, Q, 079, 079

**STEVE PHILLIPS' CO. HINTS:** I have had your full address and wish to contact you about my virtual Atari interests. Please write to Andrew Cole, 45, Alderley Road, Bridgwater, Somerset, TA6 7TF

**PAPERCLIP:** Help required using this with 5200 801 printers, particularly configuring files. Please write or phone. A. J. Donohue, 45, Harwood, Edinburgh, Midlothian, TW3 195N, Tel 041 3457

**HELP WITH SAM 801:** We have an Atari 801 and are delighted with the print quality but cannot find any programs to run with it. Can any of the 1024 printer programs from PR-42 be adapted? Any help at all with software, info or print programs would be greatly appreciated. John and Lani Crockett, 75, Kilmac Lane, Slough, Berks, Berkshire DG7 7E

## PEN PALS

**PEN PALS WANTED:** From Ireland and anywhere in the world. I have an Atari 800XL and 1010 recorder. Please write to: Deane Gilroy, Belfry, Crossadell, Kelly, Co. Mayo, Ireland

**WANTED:** Pen pals to swap hints and tips on adventure games on arcade. I have 1900L, 1050-disk drive and 1017 printer. Also interested in making electronic add-ons for my Atari (Contact Simon Jenkins, 4, Greenford Road, Water's Village, Abersham, Newport, Gwent, S. Wales, NP23 6JA)

**ST PEN PALS WANTED:** I would like to swap hints and tips about hard and software with ST users worldwide. I have a 500ST + (3 meg), SP114, (2) TSP-41 80 printer and colour monitor. Please write to: Michel van Drumpt, Postbus 114, 1700-AB Lelystad, Holland

**PEN PALS:** I am searching for pen pals all over the world to swap hints and tips. Please write to: J. P. Adriaens, Lubbekestraat 5, 1961 S.N. Zandvoort, Holland

**PEN PALS:** I am 15 years old and I am an 800XL, 1010 recorder and 1050 disk drive. I would like a pen pal anywhere in the British Isles. Please write to Robert Goodwin, 21, Herbert Avenue, Hull, HU5 6JH

**ST FRIENDS WANTED:** For swapping hints and tips. Can be of any age and from anywhere. All letters will be answered. Please write to: Gavin A. Baker, Room 04, Shirley Hospital, Shirley, Kent DA1 2HF or phone 0393 324262 extension 1074 and ask for Room 04 (evenings only)

**ST PEN PALS WANTED:** I wish to contact other ST users around the world to swap hints and tips. All letters will be answered. Please write to: David Matthews, Balmans, Edinburgh, Co. Ayr, Scotland. Also a special letter to B.B. users under 18

**FROM FRANCE:** I am a French Atari user and I want to know more about English Atari users. I wish to correspond with an Atari friend to exchange ideas and learn English. I own an Atari 800XL with 800K disk drive and an Atari 5200ST. Monsieur Ledoux, Val De L'Orive, Post 07040, 67000 Arelanc, France

**PEN PAL WANTED:** Especially in Germany or the U.S. I own an 800XL and 1050 disk drive. I would like to swap hints on gaming. All letters will be answered. Please write to Richard Pearson, 54, Middlefield Avenue, Haver Green, Halesowen, West Midlands, B63 9JL

## FOR SALE

**LT 110400:** For sale at only £1800. V.20 800XL, with power unit, 2.5, ANTTIC V.20 issue 3, A&S and Vol. 3 issue 2, 2.5, Machine Language for Beginners, 2.5. Please write to Chelmsford 04049 56009

**FOR SALE:** Atari cartridges - Parnas, Commodore, Dendy Rom, Dig Dup, Qix, Qix and Asteroids Edition, 2.5 each plus 350 cartage or 2.50 the lot. 800 computer with RAM 800. I own 4 disks 1 Y&B BASIC book and more write in upgrade to 200K, 2.50 inc. plp. M ANTTIC and ANTTIC magazines plus ACE newsletters, 2.50 plus plp. Please John Dunmore on 0400 22001

**1017 PRINTER:** For sale, including spare ink roller and Atari Writer disk, 2.50. Also Commodore 1281 printer, includes leads to connect to an 800XL, 1281 printer offers considered. Contact B. Q. 11007, West Street, Haverhill, York, YO8 3PZ (evening or telephone)

**FOR SALE:** 1005 printer with AtariPrinter, 2.50, 1020 printer with 1050 disk paper, pins and graphics soft ware, 2.50. Magazine 11, V.20, 1005 Graphics 11 magazine, 2.50 the package. Machine Language for Beginners, 2.50. Programmers Reference Manual (PRM), 2.50. The Atari Reference (Aari 52 Edition), 2.50. Photo Area Document on Novelties H122, other items please

**FOR SALE:** 800 disk drive, 2.50. Software HP-8000 Commodore printers, 2.50. Post Chip ROM for the 800/800, 2.50. 800 replacement operation keyboard, 2.50. Atari Asteroids Edition case, 2.50. Speech Synthes for 800/800 systems, 4.00. Empire of 11 for Commodore, 2.50. M. K. Karpovich GFB Software, 2.50 each. Tel. B. W. Hoare on 0400 80000

**MAGAZINES FOR SALE:** ANTTIC Vol.2 No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, Vol. 3 No. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12. Also issue of ANTTIC Vol. 1. Will accept offers in John George, 4, Hill Garden, Peterhead, Peterhead, Tel. 0892 74071

**COMI RELEASE:** For sale. Unreleased game requires 80-202 and custom software. Price 2.50 or will accept the Touch Tablet, A.R. Software, 40, Heron Road, Oakdale, Lincs. TA20 2JL

**1017 PRINTER:** For sale in perfect condition with Atari Writer disk, 2.50. Stephen Williamson, Tel. 0401 275594

**FOR SALE:** PR-42 issue 11 to 24. Atari 11041 July '95 to March '97. Atari Asteroids Edition, 2 Commodore hints, Atari 811 Graphics handbook, 2.50. Be item. All in excellent condition. Offers please. Call David on Waltham 01931 64841

**FOR SALE:** Philips 80-colours green screen monitor, composite video input, 245. ALEX random access laser with 6.50 per year rental software 800/120 based, 2.50. Also not include monitor. Please Nigel Abel on 01 110 6200

**FOR SALE:** Be the Atari, Brady Atari Club, Pina and Bruce's Books of Computer books and Company, Book of Graphics, Synthes, 2.50. New Paperback with Synthes, 4.00. Offered to sell full memory of 10000 10001. Tel. Maurice K. Pearson on 0655 2495

**ATARI 800:** For sale with data encoder. 0400 no offers. Tel 0782 281599 or write to David Butler, 26, Redoubt Street, North Bournemouth, Dorset, DT2 4JT

**COMMODORE FOR SALE:** 1000, 1010 disk drive, 1010 plus Heavy disk drive, peripherals, cartridges, BASIC 11, cassette disk, 2.50 worth of software, books and magazines. Work over 2.50. Will sell for 3.50 on will plus James Kemp, 64, Springfield, Victoria, East Sussex, TN3 7BE or ring 0400 00000 after 7 p.m.

More overleaf

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## Contact

**FOR SALE:** Atari 800, 1040 disk recorder, joystick, software (Astoria, Atari Games and Star Trek), PDAII 8 tapes 1.5 program, Modem (magazine used for program). Computer still under guarantee, £100 o.n.o. Tel. P. (Dunmurry) on 0782 932111 (evenings)

**SYSTEM SALE:** Atari 400 SL, 1280 disk drive, 5250 cassette, joystick, cables, 1 BASIC programming books plus variety of software. £120 plus tax. J. Parkinson, 68, Elm Road, Chatterton, Bury, S79 5AF. Tel. 01 907 6486

#### WANTED

**MAGAZINES:** Old numbers of PACE & ANALOG ANTIQ. Best price paid. Please let me know something from you. Soffley Robert, Bruchem 836, D 50 Bruchem, Belgium

**BOOKS WANTED:** Wanted to collect books on Atari 800XL and XEGSII computers. Also Atari special magazines, computer programs (for Atari 800) for use in 800mg video, designed to view applications. J.C. McNeil, 11, Delorain Drive, 044 Kijungwa, Southside, 0100 9247

**BACK ISSUES:** I am looking for the following PACE magazines, Issues 1 to 12 and 14 to 18. Please write with price. Lambert Marc, Bruchem 14, 4100 Bruchem, Belgium

**TRIPLES BOARDS:** Can anyone edit a TRIPLES BOARD made by Computer Support. I have the 300 chip but need to rewire and do I/O. Or can anyone give me details of the board as I believe Computer Support have gone out of business. M.J. O'Neil, 96, Valley Way, Southwood, Bury-on-Trent, Staffs, S41 1JG

**READ ASSEMBLERS:** Cartridge wanted. Please phone Andy Mills with price. 0823 27940 between 6.30 a.m. and 4.30 p.m.

**BACK ISSUES:** Copies of PACE 6 Issues 1 and 19 wanted in complete set. Would consider a loan for photocopying (postage will be refunded). Please contact Dave Logan, Cardiff (0332) 421429 after tea or 0846 evenng

**CONTACT** is free for private individuals or clubs. Entries are accepted at the Editor's discretion. We will not normally accept notices for the sale or exchange or disk or tape based software. Just write your notice on a sheet of paper headed **CONTACT** and send it to:

**WANTED:** SAM 800 printer or software-less parallel interface to suit 1300E. Contact Bob Knowles 0144 50002

**PRINTER WANTED:** I have an Atari 400, 400 recorder, BASIC cartridge, manual and software. I want 800 or 1040 printer/printer interface or 800 interface. Anyone offer this or other things please call 0457 584 422

#### CLUBS

**MACKLEFIELD-COMPUTER CLUB:** Meets every other Tuesday evening at the Bulls Head, Market Place, Macclefield. Atari well represented. New members very welcome.

**STARTARI UK:** Welcome come from all over the world to connect plans for books and tips and share on all Atari matters. All Orders successful and help where required. Write to: John Rogers, 26, Beaman Gardens, Farnside, Houghton Regis, Dunstable, Bedfordshire, England, LU7 9SL. Tel. 0455 66674

**LONDON ATARI CLUB:** Requires genuine Atari users. We cater for a wide range of interests. The club is not limited to London. For a membership form, please write to us at London Atari Club, P.O. Box 25, 18rd, Essex. Please use new address



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