

# Page 6

Issue 15

90p

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USERS MAGAZINE



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# Page 6

May/June 1985

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Page 6 is a user's magazine and relies entirely on readers' support in submitting articles and programs. The aim is to explore Atari computing through the exchange of information and knowledge and while we cannot, unfortunately, pay for articles published we hope that you will gain satisfaction from seeing your work published and in turn we hope that you will learn from articles submitted by other readers. All published material is eligible for search in the Annual Readers Hall and may receive additional Editorial awards as announced from time to time in the magazine.

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Some of the exploits of Atari's new machines is now dying and more realistic targets being set. I doubt if all the things announced at the Las Vegas CES will come into being but most will and Atari will be a strong force once again. The most important thing they must do is to deliver the products on schedule. In the States Atari are taking some hard knocks from competitors who are vociferously saying that ST's don't exist or have problems or will not be out on schedule. All these remarks are being made out of fear by competitors with inferior or overpriced machines but the world listens to newsmen and Atari must be careful that any action or inaction on their part does not give credence to those seeking to maintain a market share by 'rebuking' better products. In this country Sir Clive Sinclair has been the most vociferous in his attacks - he probably has the most to loose - and has been quoted as saying that the ST will not appear this year (perhaps he knows of another manufacturer whose 16 bit machine was a year late?) and that the QL is superior. In response I cannot resist printing a quote attributed to Josh Trammil "The ST is to the QL what the motor car is to the GS".

Atari must get these machines onto the market as promised. I hope that by the time you read this, a few STs will be around and by the next issue will be in the high street shops. If not the competitors will say 'I told you so' and the public will listen.

Last issue's cover was a nice idea that lost something in the processing but that's the way it goes! The entire image, except the words USER MAGAZINE which were too fine to digitise, was done on an Atari 2000 graphics computer. A lot more could have been achieved but time was short (and expensive) and, although the screen image was superb, it didn't quite translate to print. Never mind, just wait till I get my ST with Gerd Drass. I might be able to prove yet again that an Atari is capable of matching the dedicated systems. Perhaps I should wait for Atari's 32-bit JAG? Perhaps not, \$5000 is a bit expensive for a magazine cover!

Issue 14 of PWD6 could have been the last but least not we live on! The shake out of the computer industry last year meant that several companies went into liquidation or 'no longer exist' among them Channel 8 Software, C-S Software, Microspot, Home Entertainment Ltd, Stack Computers and Micro Research Ltd. They all owe us money. Then along came the tempting offer from Database Publications who were looking for an Editor for The Atari User. I thanked them kindly for the thought and started work on this issue. Having done this lot, why give it up when I know that many of you can't wait for the next issue of PAGE 6. Thank you all for the encouragement.

*Leo Elling*

Down into W.H. Smith lately? I don't blame you, but it will probably be worth a look this week to find THE ATARI USER, a new nationally distributed Atari only magazine published by Database Publications every month. Cover price is £1 with a 12 month subscription at £12. Overseas subscriptions should also be available. If your local newsagent does not stock it, you can ask him to order it for you. Watch out also for other Atari promotions from Database.

W.E. Electronics whose products were reviewed last issue (FOUR ADD-ONS) now have a true 64k RAM expansion for the 600XL which will run all XL software including the few available titles that switch out the Operating System. Price is £71.95.

Atari have recently re-organised their European distribution, warehousing and administration by centralising operations in Rotterdam. The move is in preparation for the European launch of the ST and XE range in mid-April and is designed to achieve maximum economy in handling volume sales to the European and UK markets. Future trade deliveries in the UK, will be met through a computerised call-off procedure linking factory production to the Rotterdam warehouse. All part of Jack Tramiel's plan to "bring Atari computers to the masses not the classes".

Silica Shop have recently set up Silica Distribution Ltd to handle trade distribution of Atari and Atari-related products to retailers nationwide. They will handle only Atari and aim to connect up to 5000 trade outlets in the UK, to encourage the stocking of Atari products. If your local retailer does not stock Atari hardware or software tell him to get in touch with Geoff Helm or Adrian Quinn on 01 303 1111. There is a vast amount of Atari software available and your local retailer can get it - if you insist.

## Received for review

The following items were recently received but too late for full review.

**THE PAY-OFF** A 48k disk based text adventure from Atari at only £2.99. Set in New Jersey it looks like a 'Mike Hammer' style tuesday around the city streets only you are not the detective, just a small guy who owes the big guys money. It says on the pack, "no instructions, no help, you're on your own".

**MY ATARI XL AND ME** a book aimed at 'children and total beginners'. Written by an older beginner it starts at the very beginning and aims to allow users from 6 years upwards to begin to understand the computer. Published by Dacworth Publishing at £2.95.

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# Readers write

## ENGLISH SOFTWARE APOLOGY

Dear Les,

Any chance of pointing out in your next issue that **FORBIDDEN FOREST** which was reviewed as being really awful in issue 14 is **NOT** from English Software but is published by U.S. GOLD in the U.K.

I would hate to think that this game will undeservedly give **ENGLISH SOFTWARE** a bad name!

Philip Morris,  
English Software.

—Oops, sorry. That is obviously why it is not as good as Jet, Boot Jack! Perhaps all U.S. GOLD titles are 'really awful' and that is why they never send any out for review!

## TOUCH TABLET ADVICE

Dear Page 6,

I thought that you might like to know of an undocumented feature of the Atari Atari cartridge used with the Touch Tablet, to allow pictures to be saved in Macropainter format.

The method is to press the **INSERT** key while the picture is on screen and the picture will be saved with the filename **PICTURE**. Because to have a disk ready as there is no prompt. Once saved the picture can be loaded into a Basic program with any of the published picture loaders.

Mike Power,  
Manchester

— Many thanks. This is one of those little bits of information that I thought everybody knew but apparently not as I have had several letters recently asking if this can be done. One thing to watch is that all pictures will be saved with the filename **PICTURE** so it is important to use option **E** of **DDOS** to rename the file before saving another. You can also use this in reverse. Take any 62 sector format picture and rename it **PICTURE**, go to draw mode and press the **CLEAR** key and the picture will load in and can then be worked on as usual.

## TOO EASY?!

Dear Les,

I would like to register a complaint about how easy some of Atari's games are. For example I bought the official **TENGO** a while ago and it was so easy that by the next day I could reach over 300,000 with just two lives on the hardest level. Even though the game is almost the same as the arcade version graphics wise, I still think it was a waste of money.

Paulo Frappano,  
Bristol

— I haven't tried **TENGO** but I wish I could find some easy games! Can you imagine how difficult it is to write reviews when you can't even get off the first screen?

## GO TO GERMANY

Dear Page 6,

I am a British civilian living in Germany and purchased an **800XL** here last year. Having found the manual totally useless, I decided to wait and visit to the U.K. to purchase some decent books.

I stayed in Manchester which is by no means a small town and was totally amazed at the lack of Atari literature and software available. The **800XL** is very popular in Germany, second only to the Commodore 64 according to German magazines, and both specialist computer shops and departmental stores are full of Atari literature and software. German computer magazines tend to have more news articles, tips and listings for the Atari than their U.K. counterparts.

I spent many weeks deciding whether to buy an **800XL** or a Commodore 64 and I am convinced I made the right choice but wonder what owners in the U.K. feel?

Malcolm Pearce,  
W.Germany.

— This is still the biggest problem Atari face in the U.K. They have always had the best machines so the fact that the new range is even better will not automatically gain them the recognition they deserve. Unless and

until retailers start keeping a good range of Atari software and supporting material Atari have very little chance of getting anywhere near the C64, BBC or Spectrum let alone catching them. This is an area that Atari and their distributors **MUST** give priority to otherwise all the promises will remain unfulfilled.

## MISSING MEMORY

Dear PAGE 6,

Can you please tell me why so much memory is lost with 64K RAM module on a 600XL. Only 3k is lost to the O.S., screen display and Basic on a 16k machine. Now I lose 16k to the O.S. 8k to Basic and 3k to the screen and other 'bits and bobs'. Even the Atari Helpline cannot answer this. Can you tell me why?

Michael Phillips,  
S.Wales

— Any 8-bit machine (which all the existing Ataris are) can only access 64k total memory which must include the Operating System and language as well as RAM. The memory on all models is made up as follows. The first 1791 bytes are used by the Operating System, up to the 48k boundary is RAM (if installed) and the final 16k is the Operating System. The basic cartridge always occupies the area from 40k to 64k. On a 16k machine RAM is installed only up to the 16k boundary but the top 16k of Operating System is also there as is BASIC which still occupies the same area. If you like your 16k machine is really a 40k machine so when you upgrade to 64k you only get an extra 24k which is why you feel that you are 'losing' more. Originally Atari called their 48k RAM machines '48k' despite the fact that total memory was 64k but then Commodore started calling their machines 64k and Atari lost sales. The XL machines are called 64k for commercial reasons and although you might think you have been cheated they do in fact have more 'user-RAM' than the Commodore 64!

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QUOTE PAGE 6

# TYPO II AUTO DELETE

Add these program lines to TYPO II from issue 14 and  
you can delete TYPO II from your listing automatically.  
Your program can then be SAVED or CSAVED without  
going through the procedure of LISTing to tape or  
disk.

First change lines 32080 and 32090 to

```

00 32080 IF LINE#="END" THEN 32090
00 32090 POSITION 0,0:PRINT "CONFIRM DELETED"  
000:POSITION 0,0:PRINT ""

```

Now add the following lines

```

00 00000 TYPO=32080
00 00040 POSITION 0,0:PRINT ""
00 00050 FOR DEL=1:TYPO-10 TO TYPO:100 STEP  
10
00 00060 PRINT DEL:PRINT "TYPE 042,LIST  
000:LIST:CONF"
00 00070 POSITION 0,0:PRINT 042,LIST:TOP
00 00080 IF TYPO=32080 THEN TYPO=TYPO+100  
0000 32040

```

When you have finished typing a listing and the prompt  
'Type a program line' is on the screen type the word END  
and TYPO II will be deleted. Just SAVE or CSAVE your  
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# The Wanderer



by Stephen Pedler

Most games have always been popular puzzles, both before and since the advent of personal computers. However, the graphics capability of computers means that we can now travel through a maze as though we were actually inside it—the 3D maze game, "The Wanderer" is just such a maze.

## TYPING IT IN

This is straightforward, but notice that there are several groups of very similar lines contained in the program. You can save yourself some typing time by using the Atari's editing facilities to duplicate the first line of a group and the making changes as appropriate.

## PLAYING THE GAME

Brief instructions are summarized in the program itself, but are amplified here.

On running the program, you are first presented with a reminder of the instructions. Pressing the START button then shows you the maze from a bird's-eye view complete with your starting position and that of the exit. Note that the exit and start positions change each time you play a new game, but that the maze itself is constant.

Pressing start again puts you into the maze. You move through the maze using the joystick (up = North, right = East, down = South and left = West). The number of moves you have taken is displayed at the bottom of the screen, as is the direction you are facing. If you wish to look in another direction, simply press the corresponding key (N,S,E,W). Note however that pushing the stick up will move you North. This can be slightly confusing until you get the hang of it.

If you get stuck help is at hand. Pressing the 'H' key gives you your position relative to the exit, while pressing 'M' shows you the maze from above complete with the positions of yourself and the exit. In order to prevent the game from being too easy, you can only use these facilities a small number of times in each game. Using the 'M' key also adds 5 steps to your score as an additional penalty.

Finally, pressing 'Q' allows you to quit the game with an option to play again (with different start and exit positions). If you don't want to play another game, the program will erase itself from memory. Pressing 'I' allows you to remind yourself of the instructions.

```

BT 10 REM *****
EI 20 REM # THE WANDERER #
TC 30 REM # BY STEPHEN PEDLER #
EC 40 REM # *****
PD 50 REM # PAGE 5 MAGAZINE - ENGLAND #
EP 60 REM *****
OE 70 REM
GC 100 BARPDPPEERLEEDIPERE LEE, BARPDP-1
#
L1 140 GRAPHICS 0:P0KE 700,1:POSITION 0,0
I7 "TURNING A MOVIE..."
L0 100 REM MAKE 117,179,188,143,200,040,PC
43,00101,00050,00140,00110
00 100 00**000100001000000011**00**000000
000000**
GC 170 G0540 170:G0540 0000
T0 100 G0540 0140
00 170 0010 000
00 200 REM *****
GC 210 GRAPHICS 0:COLOR 1:METCOLOR 0,1,0,1
:METCOLOR 1,1,0,10
00 220 00 FAC G010 000,000,070,000
02 230 00 J01 TO 4:IF P057-J00 THEN P100
:IMENT J10010 000
0L 240 P10:IMAZE 0P057-J,P050:IMENT J10010
000
00 250 000 J01 TO 4:IF P050-J10 THEN P100
:IMENT J10010 000
10 260 P10:IMAZE 0P057,P050-J:IMENT J10010
000
02 270 000 J01 TO 4:IF P057-J01 THEN P100
:IMENT J10010 000
P0 280 P10:IMAZE 0P057+J,P050:IMENT J10010
000
00 290 000 J01 TO 4:IF P050-J10 THEN P100
:IMENT J10010 000
1F 300 P10:IMAZE 0P057,P050-J:IMENT J
70 310 0F P10:03 00 P10:04 THEN 01:01:0000
000
00 320 0F P03:03 00 P03:04 THEN 01:01:0000
000
00 330 0F P03:03 00 P03:04 THEN 01:01:0000
000
10 340 0F P04:03 00 P04:04 THEN 01:01
7C 350 000 J00 TO 4:LEAD L3:00:0000:L3:00:00
000 J
53 360 00 FAC G010 070,000,000,000
00 370 000 J00 TO 01:0000:L3:IMAZE 0P057-J,
P050+J:IMENT J
00 380 000 J00 TO 01:0000:L3:IMAZE 0P057-J,
P050-L:IMENT J
P0 390 POSITION 10,0:IF 00:01,00:00000 000
10010 470
20 400 000 J00 TO 01:0000:L3:IMAZE 0P057+J,
P050+J:IMENT J
0F 410 000 J00 TO 01:0000:L3:IMAZE 0P057-L,
P050+J:IMENT J

```



```

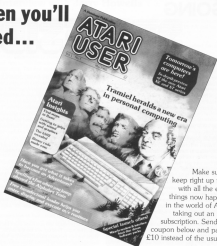
BY 1270 IF MADEICMP,1,0,0 THEN 1290
JM 1300 MAKEEXIT,0,0,0
BE 1270 B11000
FM 1300 RM [XXXXXXXXXXXX]
KY 1310 GRAPHICS 1,0,0,PAGE 700,ROWTOP=0,F
PAGE 0,0,PAGE 0,ROWTOP=0,0,1,0,0,0,0,0
XXXXXXXXXXXXXXXXXXXX:PAGE 0,1,4,0,PAGE 0,1,5,0
EXIT="
CA 1320 SETCOLOR 0,F,0,SETCOLOR 0,1,0
CM 1330 FOR ROWS TO 17,FOR COLS TO 17
IF 1340 MAKE12000,COLOR,POSITION COLOR,0,0
M1 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
LE 1350 NEXT ROW
IE 1360 POSITION POSX+1,POSY+1 0,0,0,0,0,0
ZP+1,0,0
GE 1370 POSITION 4,10,0,0 0,"XXXXXXXXXXXX"
FE 1380 POSITION 4,20,0,0 0,"XXXX XXXX"
GL 1390 POSITION 4,30,0,0 0,"XXXXXXXXXXXX"
SM 1400 PAGE 1207,0,0,PAGE 0,0,0,0,0,0,0,0
CM 1410
M3 1420 POSITION POSX+1,POSY+1 0,0,0,0,0,0
ZP+1,0,0,0
ML 1430 RM [XXXX]
NY 1440 FOR JLS TO 12,0,0,0,0,0,10,10,F00
L=0 TO 10,0,0,0,0,0,0,0,0,0,0,0,0,0
BT 1450 RETURN
ZC 1460 RM [XXXX]
FC 1470 OPEN 0,0,0,0,"E"
EL 1470 ? "POSITION 3,20,7 "FOR 0,0,0
OR
IV 0,0,0,"EXIT"
EO 1480 IF 0,0,0 AND 0,0,0 THEN 1470
MO 1490 IF 0,0,0 THEN GOTO 0,0,0,0,0,0,0,0,0
GOTO 700
ME 1500 IF 0,0,0 THEN GRAPHICS 0,POSITION
0,1,0 ?"You gave up after "MOVE" row
0,
IM 1510 PAGE 700,0-POSITION 3,2,7 ?"Pia 0,0
0,0,0 IV 0,0,0,"EXIT"
JM 1520 IF 0,0,0 AND 0,0,0 THEN 1540
MM 1530 IF 0,0,0 THEN GOTO 0,0,0,0,0,0,0,0
0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1,0,0-C0,0,0,0
M5 1540 IF 0,0,0 THEN PAGE 0,0,ROWTOP=0,0,0
0,0,0,0,0,0,0,0,0,0
MI 1550 RM [XXXX]
FM 1560 IF HELPS THEN ? "Some more help 1
0,0
0,0 FOR this message" 1,0,0,0 1,0,0
LF 1570 0="XXXXX","XXXXXXXXXX" ? "
MO 1580 IF 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
NO 1590 IF 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
1,0-POSX+0,0,0,0
FM 1600 WRIT=POSY
GL 1610 WRIT=0,0,0-FROM 0,0 0,0,0,0,0,0
0,0,0,0,0
FM 1620 GOTO 1670
MM 1630 RETURN
ML 1640 IF 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
FROM 0,0,0,0 1,0,0
MM 1650 WRIT=0,0,0-FROM
MM 1660 WRIT=POSY-EXITIF WRIT 0,0 THEN 0,0,0
"XXXXX"
IG 1670 ? "You are "ARRIVED!" steps to
the "C" " "
FM 1680 ? "and " "ARRIVED!" steps
to the "C" "
LE 1690 ? "Press [XXXX] to go on."
SM 1700 IF 0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
MM 1710 RETURN
ZC 1720 RM [XXXX]
MM 1730 GRAPHICS 1,0,0,1,0,0,0,0,0,0,0,0
,0,0
YM 1740 POSITION 3,2,7 0,"XXXXXXXXXXXX"
"

```

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# GOING STATESIDE

There are lots of products advertised in the American magazines which are difficult to obtain here. Will they become available? To find out I spoke to Jerry Howarth who is General Manager of Software Express, a mail order company in Birmingham who specialises in Atari, and who recently took a trip over to the States to find out whether these products could be made more easily available in the U.K.

**PH:** What made you decide to go over to the States in search of software?

**JH:** Well, although you can get a lot of Atari product in England there is still one area that remains neglected. That is the utility side and there are similar areas that U.S. Gold and others have not hit upon such as the magazines. Although you can get them in this country they are not easily available. Also the other stuff like the APS files and the public domain files. Software wise products from people like O.S.S. and MMG have only been available in small quantities but there has never been enough. The only advertising you get is in *ANTIC* and *ANALOG* so what we basically decided was to go over and see those companies in order to see if we could get them into this country. We managed to get the exclusive rights to MMG and OSS to distribute in this country, plus we will be handling the advertising in the specialised magazines so we can get more people aware to make it worth while by selling in quantity. We know that they are not going to sell like Blue Max, Beach Head or anything like that but what we do expect is that more serious users who have wanted these products will come to an English supplier and get what they want without all the chop-and-errand hassle of sending money abroad. We are trying to fill a section of the market which will not only increase our business but also give Atari what it has been waiting for - the good serious products.

**PH:** Who did you visit first?

**JH:** I flew into New York and then drove to English Town, New Jersey where MMG have got their base.

**PH:** What sort of Company are MMG?

**JH:** Rather like us in size - about 8 people. The vice-president who lives was Greg Frenzer who is responsible for the everyday running of the Company. Although they started out as a partnership - MMG standing for Mike, Mark and Greg they were bought-out by a bigger company. The operation has been kept separate. Amongst other things the

Atari products include the BASIC COMPILER and an old title called Final Flight. They do a lot for the Commodore but also do a lot of contract work for Atari, IBM, Lotus and many others. Although a small company they have their fingers in a lot of pies. They did the templates for Lotus 1-2-3 and work for IBM - all the big business systems. Turnover is \$2 million a year. The dealer has been offered an exclusive for the U.K., possibly Europe, and we will be handling all their advertising. The latest product they have for the Atari is a sound digitiser which can take ordinary recordings and digitise them onto the Atari using the four voices. The quality is truly amazing. They can't wait to get the OEM and then what they can do with sound is nobody's business.

**PH:** So MMG plan to write for the new machines?

**JH:** Oh, you definitely. Although I didn't see any machines it is quite easy to develop software on the 800XL and then refine the products when the XE is available. The technical specifications are there so programs can be developed now. Atari are encouraging developers to begin work on software for the XE and have promised that XE machines will be made available to those people as soon as they are ready.

**PH:** What products will you have available from MMG?

**JH:** The main product will be the BASIC COMPILER. There is a new program called Inside the Atari Rib which is described as similar to Ultima III but sufficiently different to make it a whole new game. We are currently evaluating this one. Also there will be DATA MANAGER II which they describe as being as good as SYMBLE. We are testing this and initial impressions seem to be that it has a lot of features that many databases lack. Another product is called Career Counselor which is a questionnaire for school children or adults which asks a series of questions and seems to be very accurate. Basically you answer questions and are given a suggestion of career choices. We are not sure yet if this will be available.

**PH:** Where next?

**JH:** Up to the Canadian border to a town called Rochester to see Computer Software Services who do the XL FIX which is a hardware modification to allow the XL machines to run 400/800 software without any translator. They have a new product coming out called, I think, The Scientist which is a very small circuit which fits inside a 3050 or an

## an interview with Jerry Howells

830 and makes it evident that there is no noise whatever, all you can see is the busy light. We will probably bring that in but only as a retailer not as a distributor. The market will probably be quite small.

**PH:** Did you get over to the West coast?

**J.H.:** Yes, I drove back down to New York, another 500 miles, and then flew to San Francisco where I thought the trip really came alive. The first meeting was with ANTRC publications. They are a weird and wonderful outfit. Like most others they are a very young company and they have been going two and a half to three years. They remind you of the old journalists of the fifties with tiffins and cigars. Obviously having a lot of fun. Les Tomak was the first guy I met and we discussed ways in which we might help each other. They are very interested in the U.K. market. They have virtually split their company into two with the publication side and the mail-order side which promotes books, APK and disks of public domain. Basically their own products. They do not sell software in the same way we do. They have some new books on the way. I then met with Jim Caparelli, ANTRC's Editor and Publisher, and we talked about the American and U.K. markets. From what he said the two markets are very similar - they had the slump in the same way as we did last year but it is picking up very well now. They were impressed that I had gone out to the States so I was invited back later to discuss ways in which we could help them in the U.K. We ended up with an agreement to be sole distributor for ANTRC magazines in the U.K. as well as for all the APK titles, books and other software that ANTRC promote in their catalogue.

**PH:** You must be close to Sanyo now?

**J.H.:** Yes, my first appointment was with Mike Peters of O.S.S. who is the President and also Bill Wilkinson. We ended up with an exclusive distribution deal for all their products. Although the cartridges have been available here the Tool Kits have never been available although there has been the demand. We will now be distributing these. Not much new product although they will be making all of their products for the ST and XL range. They will be promoting their products more in the U.K. They had a few bad experiences in the past which is something I found with all the companies I visited. They all knew about the British market and had in fact lost a lot of money through English distributors and were a bit paranoid but the fact that we went out there convinced them that we mean business. The deals were much better than I thought we would get.

**PH:** Will you talk about the new Atari DOS which I believe Bill Wilkinson wrote?

**J.H.:** Yes, I saw DOS 2.5. It is a lot better than DOS 1. Bill Wilkinson says that DOS 3 was not good enough and DOS 2 was okay so he decided to write something in between. He has several projects which he is working on but does not

plan to promote commercially. He seems to work all right on odd bits of programming. DOS 2.5 will be available shortly and Bill Wilkinson did write it.

**PH:** If you were in Switzerland, you must have gone to Atari headquarters?

**J.H.:** Yes, I met with Sig Hartman who is the head of AtariSoft. Atari U.S. is very impressive in a five story modern building. Sig Hartman was extremely nice but very powerful. I met a guy called John Stuch and we chatted for a couple of hours about the U.S. and U.K. markets. They were very interested in our Maths project, as were a lot of other companies. They were impressed by the presentation and content. It was the first time they had seen a complete course. There have been plenty of Revision aids but not a complete course. Unfortunately the school system here is totally different so we may not be able to do anything in the States. They were impressed enough to offer assistance in producing other software which we are thinking of at present. Unfortunately I did not have enough time at Atari but it was very impressive just being there. I met briefly with Sam Trammel and Leonard Trammel as well as Sig Hartman all of whom were very aggressive people in a very positive way - people that others listen to. I certainly came away with the impression that whatever Jack Trammel says he will do will be done and I believe that a lot of other people believe that too.

**PH:** How will you distribute all the products you have agreements for?

**J.H.:** We are planning to set up a separate company called The Software Factory to provide distribution to a select number of retailers who want to support Atari and we will make available to them the more serious products that they have not been able to get in the past. Software Express will sell products by mail order but those retailers who are interested in the Atari will also be able to get the products.

**PH:** What were your overall impressions about how third party companies view Atari given their past history?

**J.H.:** Many of them are still wary but most do believe that Jack Trammel will do what he has promised. Certainly there is a much better atmosphere for companies to begin supporting Atari again. After the takeover a lot of people became very wary as nothing seemed to happen for a long time but now that STs are beginning to become available as development packages, more companies are beginning to believe in Atari again. I certainly feel that Atari are going to come through well and I hope that we can provide U.K. owners with greater support. The games market has been the one which the big companies have concentrated on but with the agreements we have been able to negotiate we hope that Atari owners over here can begin to find it easier to get into the more serious side of Atari. ■

## 7. MISSION: ASTEROID

**Background:** Roberta Williams is a country girl whose childhood revolved around fairy tales, magic and fantasy. She read alot, fantasized a lot and told stories to her friends. Some years later, after getting married and moving to Los Angeles, her husband introduced her to an entirely new form of story telling - computer Adventures.

Ken Williams was a programmer on an IBM mainframe and used to bring a terminal home every night. As it happens, the computer had some games on it including the classic Crowther and Woods original Adventure! After playing it at home, Roberta said to herself "Gee, I could do that". So she designed an Adventure called "Mystery House" and Ken did the programming. It was a fairly simple game inspired by the Agatha Christie novel "Ten Little Indians". It had black and white line drawings and was only available for the Apple, but it was a start.

They formed On-Line Systems (which later became Sierra On-Line) so that they could distribute the game. Before long they released a second game called "Wizard and the Princess". It had full screen, high resolution colour graphics and was heralded as a major breakthrough in Adventures. On-Line's success was now assured.

Over the next couple of years, the number of Adventures increased with each new release seeming bigger and harder than the previous ones. The one exception was "Mission: Asteroid". This was written as a beginner's Adventure and was accordingly given the number 0. These are now seven in the series, but only five even numbered ones are available for the Atari. Who knows? Maybe the others will one day be translated as well. The full series is listed below:

- #0: Mission: Asteroid
- #1: Mystery House (not available for Atari)
- #2: Wizard and the Princess
- #3: Grantstar Manor (not available for Atari)
- #4: Ulysses and the Golden Fleecce
- #5: Time Zone (not available for Atari)
- #6: The Dark Crystal

**Review:** We'll take a look at *Mission: Asteroid* as if it's the first in the series, but most of the comments are equally applicable to the whole series. When the game is first booted, the program checks for undismanted sectors on track 3. This results in the dreaded gaaaaah... gaaaaah... gaaaaah that I've come to hate in Sierra On-Line's copy protection. I wish they wouldn't do that! Haven't they ever heard of bad sectors and duplicate sectors and short sectors and skewed tracks and...

Anyway, you are then asked to flip the disk to side 2 and press RETURN. When you've done so, a triangle appears along with the message "IF TRIANGLE APPEARS BLUE PRESS THE START KEY. IF IT IS NOT BLUE PRESS THE OPTION KEY." The triangle on my screen could best be described as orange (which definitely isn't blue), so I pressed the OPTION key. However, I soon realised that I could press the START key and there was absolutely no difference in the pictures. I reasoned that the test was necessary because the game used anti-aliasing. They needed to determine whether the computer had a CTA or GTIA chip, then the program could compensate so that the colours looked right. However, this only applies if you have an NTSC computer and television (as in the U.S.A.). It does not apply to we PAL users in Australia and the United Kingdom, so you can press either key and it doesn't make the slightest difference.

The game then commences and you get your first glimpse of the much acclaimed graphics. What do you think? Terrible aren't they? Apple owners can't be very fussy! The pictures look like they've been drawn by a kindergarten child. To make matters worse, the anti-aliasing mentioned above just doesn't work on PAL televisions. Instead of the glorious technicolor that we're used to on the Atari, we get just two colours - black and a horrible yellow that looks like oil vomit.

The screen layout is just like GRAPHICS 8. Most of the screen is devoted to a high resolution picture of your surroundings except for the four lines of text at the bottom. Each time a new picture is shown, the ball stops from the console speaker. (This also happens with *Wizard and the Princess* and *Ulysses and the Golden Fleecce*, but *The Dark Crystal* uses the TV speaker) If there are more than four lines of text, then the first four lines will be printed and you have to press RETURN to continue with the next four lines. This prevents the text from scrolling under the picture before you get a chance to read it. Unfortunately, no matter how hard you try, you nearly always forget to press RETURN before starting to enter your next command. As a result, you are punished with another repulsive bell, but this time it's three times as long as before. In a short period of time, I got rather annoyed with this to say the least. A reviewer in another magazine was ready to throw a brick through the TV before his family dragged him off screaming. Another resorted to pulling his computer apart and disconnecting the console speaker!

If you're thinking that there must be a less drastic fix, then you're right. Use a paper punch to cut a write protect notch in side A of your Adventure disk and run the program at the end of this column. Hey presto! No more bells! Note that if is

by Garry Francis of Sydney, Australia



will void any warranty you may have on your disk, so make sure you are very careful not to make any mistakes. The program has all the instructions you need and is written in such a way that there is no way it will alter your disk unless it is identical to mine. (Try it on any of your other disks if you don't believe me.) If you follow the instructions, you can't go wrong.

At this point, I must give credit to a friend named Peter Asteroid. He was the one who originally thought of the fix and passed it on to me. I merely repeated the procedure and wrote the utility to allow any mag to fix his own disks.

Peter began by searching the disk for the bell character, i.e. \$FD. Unfortunately, it appeared about a million times. Not only did it appear as data or part of an address, but it also turned out to be a 6502 opcode. Obviously, the search would have to be narrowed down. (Incidentally, don't bother checking track 3, because it is unformatted and will cause your drive to have a seizure.)

He then searched for the sequence \$1F, \$00. This is the hardware register CONSOLE, in LSR, MSR format. Most readers should be familiar with reading this register to see whether a console key is being pressed. It can also be written to to control the movement of the cone in the console speaker. If a sequence such as \$0D, \$1F, \$00 (or STA \$CONIF in assembly language) was found, he'd be in luck. Unfortunately, no such luck. This was becoming a real Adventure in itself.

He then took a look through the Operating System source listing for a disk and accidentally stumbled across the label BELL, in the cross reference map. It turned out to be a sub-routine in the display handler that rings the bell. This is where I became involved. The obvious next step was to search the disk for the sequence \$20, \$0A, \$1F which translates to JSR BELL (or JSR \$F00A) in assembly language. This sequence occurred five times. Aha, jackpot! The first occurrence was found at sector \$02 byte \$31 in Mission: Asteroid and Wizard and the Princess and sector \$05 byte \$32 in Ulysses and the Golden Ploose. It was used to ring the bell to let you know that you had to turn the disk to side B. I decided to leave this intact.

The second occurrence was at sector \$F2 byte \$71 in Asteroid and Wizard and sector \$08 byte \$71 in Ulysses. This sounded like the bell after each picture was drawn. I replaced this with \$EA, \$EA, \$EA which translates to three NOPs in assembly language.

The third, fourth and fifth occurrences were immediately after one another at sector \$F3 byte \$02 in Asteroid and Wizard and sector \$E9 byte \$02 in Ulysses. This was the triple length bell that occurs if you forget to press the RETURN key when there is more text to print. I again replaced these with NOPs.

Each disk was modified and tested. The results? Silence. Beautiful silence!

Incidentally, the JSR BELL is an illegal entry point. If the programmers have done it once, then they have probably done it several times. This implies that the Sierra On-Line Adventures may not run on revised Operating Systems such as Revision B, but this shouldn't affect us as Revision B was never issued in a PAL version. KL users will probably need the XL translator disk. If in doubt, try to check that the programs run okay on a system similar to your own before

```
03 1 00000000000000000000000000000000000000000000000000000000000000
04 2 0000 00 000000 00-LINE 00LEMON 0
05 3 0000 00 00 000000 00 0000 0000 00 00
06 4 0000 00 00 0000 00 0000 0000 00 00
07 5 0000 00000000000000000000000000000000000000000000000000000000000000
08 100 000 000 000000 00 0000 0000 00 00000000 0000
09 00 00 0000000000 0000 00 0000 0000 00 0000 0000 00 0000 0000 00 0000
10 100 00 000 00 0000 0000 000000000000
11 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
12 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
13 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
14 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
15 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
16 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
17 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
18 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
19 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
20 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
21 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
22 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
23 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
24 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
25 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
26 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
27 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
28 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
29 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
30 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
31 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
32 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
33 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
34 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
35 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
36 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
37 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
38 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
39 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
40 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
41 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
42 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
43 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
44 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
45 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
46 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
47 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
48 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
49 00 00 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
50 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
```

continued on page 19

# BLANK DISKS

**5¼" BLANK DISKS - PRICES PER  
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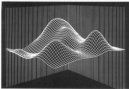
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### MISSION: ASTEROID

continued from page 17

you buy them. I don't think you'll have any trouble, but it's better safe than sorry.

Up until this point, my comments have been very negative. This is not to say that the game is no good. On the contrary. As far as Adventures go, Mission: Asteroid is very good! The aim of the game is to blow up a huge asteroid before it collides with the earth. The game commences at 12:00 noon and the asteroid is estimated to hit the earth at 7:15 P.M. This gives you 7 hours 15 minutes of game time to complete your mission. Each move takes 5 minutes, so you effectively have 87 moves to solve the game. The puzzles are fairly simple and logical, making it ideal for beginners. It is the time element that's the real killer.

Mission: Asteroid also has one of the most intriguing mazes that I've ever encountered. Although the game gives you a route through the middle of it, it is not the most efficient, so you should try mapping the maze to find a better way. It's quite a challenge, but I'd say very few people have bothered. Even the two books of Adventure solutions mentioned below have conveniently left it out!

**Hints:** There are no hints this issue because some of the problems seemed hard enough to warrant them (and I couldn't think of anything particularly clever anyway). It's just a matter of working out what to do, then doing it in the shortest possible time. If you get really desperate, a complete solution can be found in "A Shortcut Through Adventureland" by Jack Cassidy, Peter Katz, Richard Owen Lynn and Sergio Wolman (Datamation) and "The Book of Adventure Games" by Kim Schaefer (Amiga, Inc.).

# The New Machines

## UPDATE

### Rumours or Facts?

By now the Hannover Computer Fair will be over and Atari's new machines will have had their European launch. Maybe we will know which of the machines and peripherals will be available and at what price. Meanwhile several rumours circulate in the States - most from very reliable sources - and we report them here, in the absence of any official announcements, for those of you desperate for any news on things to come.

— Production models of the XE and ST range were shown at a California User Group meeting in early March with LOGO as the installed language in the ST. BASIC, if required, is said to be available on a separate purchase although users' opinions may well change Atari's mind.

— The XEP portable 8-bit computer is to be dropped due to lack of interest (not surprising) but a portable ST is planned instead.

— The XEM music machine has been postponed indefinitely due to problems with the sound chip.

— All new software for the XE range will run on the 800XE and 800 but will look for the extra 64K RAM of the 1300XE and use it if found.

— 25 to 30 software packages will be immediately available for the ST when it is put on sale.

— Prices - the promise that no software will be more than \$49 has now become 'no more than \$100' but the majority will be under \$50. The \$150 5000K disk drive has now become a \$200 600K disk drive.

— The ST will be released initially in 512K only as the OS will not be in ROM until bugs are sorted out.

— A previously unannounced 256K ST is said to be planned for \$499.

— The 1350 drive will gradually be replaced by a compatible 5 1/4" drive - the XT521 - at around \$150. The new Disk Operating System - provisionally DOS 2.5 - is by Bill Wilkinson of O.S.S. but a further DOS will be developed for the 3 1/2" drives.

— New Atari software for the 8-bit range to include SHOPKEEPER - an easy-to-use small business accounting package that also tracks inventory and includes an electronic cash register. SONG PRINTER is a music construction program controlled by joystick.

Keep your eyes and ears open over the coming weeks. Some of these rumours will now be facts. Some will be forgotten. The only way to report facts is to see things in person and send issue PAGE 6 will bring you a first hand report of the Hannover Computer Fair. Don't miss it.





# KANGA

by Allan Knopp

Kanga is a maze game in which you control a jumping kangaroo moving around various platforms. In order to progress to the next screen you must first get to the sparkling jewel in the centre of the screen and jump up to touch it. This causes a further section of the platform to appear which will enable you to reach the exit.

Coming too close to the edge of the platform will cause the kangaroo to fall into space and lose a life. Lives can also be lost by being hit by a laser which fires at random from the windows in the left hand wall. There is a time limit which causes the game to end when it reaches zero. The score remaining at the end of each screen is added to the total and displayed at the end of the game as the final score.

```

EI 100 REM *****
SP 2 0000  *      *  *  *  *  *  *
ET 0 REM *      *  *  *  *  *  *
IU 4 0000 *      *  *  *  *  *  *
IY 0 REM *  PAGE 0  KANGAROO  -  ENGLAND *
IS 6 0000 *****
IM 7 0000

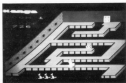
IM 100 0000 1000
IM 105 0000 1000 0000 0000
IM 110 0000 700,00 0000 700,00 0000 700,00
IM 115 2000 0000 0100
IM 120 REM *****
IM 125 REM *****
IM 130 00000 000
IM 135 000 000 001,00 100,00 001,00 100,00
IM 140 000 *****
IM 145 REM *****
IM 150 000 000 000 000 000 000 000 000 000
IM 155 000 *****
IM 160 000 000 000 000 000 000 000 000 000
IM 165 000 000 000 000 000 000 000 000 000
IM 170 000 000 000 000 000 000 000 000 000
IM 175 000 000 000 000 000 000 000 000 000
IM 180 *****
IM 185 *****
IM 190 *****
IM 195 *****
IM 200 *****
IM 205 *****
IM 210 *****
IM 215 *****
IM 220 *****
IM 225 *****
IM 230 *****
IM 235 *****
IM 240 *****
IM 245 *****
IM 250 *****
IM 255 *****
IM 260 *****
IM 265 *****
IM 270 *****
IM 275 *****
IM 280 *****
IM 285 *****
IM 290 *****
IM 295 *****
IM 300 *****
IM 305 *****
IM 310 *****
IM 315 *****
IM 320 *****
IM 325 *****
IM 330 *****
IM 335 *****
IM 340 *****
IM 345 *****
IM 350 *****
IM 355 *****
IM 360 *****
IM 365 *****
IM 370 *****
IM 375 *****
IM 380 *****
IM 385 *****
IM 390 *****
IM 395 *****
IM 400 *****
IM 405 *****
IM 410 *****
IM 415 *****
IM 420 *****
IM 425 *****
IM 430 *****
IM 435 *****
IM 440 *****
IM 445 *****
IM 450 *****
IM 455 *****
IM 460 *****
IM 465 *****
IM 470 *****
IM 475 *****
IM 480 *****
IM 485 *****
IM 490 *****
IM 495 *****
IM 500 *****

```

```

NO 120 REM *****
NO 125 *****
NO 130 *****
NO 135 *****
NO 140 *****
NO 145 *****
NO 150 *****
NO 155 *****
NO 160 *****
NO 165 *****
NO 170 *****
NO 175 *****
NO 180 *****
NO 185 *****
NO 190 *****
NO 195 *****
NO 200 *****
NO 205 *****
NO 210 *****
NO 215 *****
NO 220 *****
NO 225 *****
NO 230 *****
NO 235 *****
NO 240 *****
NO 245 *****
NO 250 *****
NO 255 *****
NO 260 *****
NO 265 *****
NO 270 *****
NO 275 *****
NO 280 *****
NO 285 *****
NO 290 *****
NO 295 *****
NO 300 *****
NO 305 *****
NO 310 *****
NO 315 *****
NO 320 *****
NO 325 *****
NO 330 *****
NO 335 *****
NO 340 *****
NO 345 *****
NO 350 *****
NO 355 *****
NO 360 *****
NO 365 *****
NO 370 *****
NO 375 *****
NO 380 *****
NO 385 *****
NO 390 *****
NO 395 *****
NO 400 *****
NO 405 *****
NO 410 *****
NO 415 *****
NO 420 *****
NO 425 *****
NO 430 *****
NO 435 *****
NO 440 *****
NO 445 *****
NO 450 *****
NO 455 *****
NO 460 *****
NO 465 *****
NO 470 *****
NO 475 *****
NO 480 *****
NO 485 *****
NO 490 *****
NO 495 *****
NO 500 *****

```



```

IM 460 000 *****
IM 465 *****
IM 470 *****
IM 475 *****
IM 480 *****
IM 485 *****
IM 490 *****
IM 495 *****
IM 500 *****

```



```

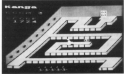
000 000 POSITION 0,1017 00174''''POSITION
0,1017 001''''POSITION
001 000 POSITION 02,017 00174''''POSITION
12,017 001''''POSITION
002 000 POSITION 03,017 00174''''POSITION
13,017 001''''POSITION
013 000 POSITION 7,1017 00174 8''''POSITION
7,1117 00170''''POSITION 0,1707 00174''''
8''''POSITION 0,1817 00174''''
004 000 POSITION 11,017 00174''''POSITION
11,017 001''''POSITION
005 000000 001700000 700170000 7001000
7000 0,1017 001''''POSITION 1000000 7001000
0 700
007 000 0017011000 700 0000 070,000,000,00
0,070,000,0001700000000000000000000000000
70007000000000 01000000 700
008 070 700 70000 70 4 0000 -2100000 1,5,3
0,0000007 510010 000
011 070 000 00000000000000000000
000 000 700 710,0010000 700,0010000000
001 000 700 700,10010000 700,100100000000
00 070 700 710,10010000 700,1101000000
00 070 700 710,10010000 700,100100000000
00 700 700 710,10010000 700,1101000000
00 710 0000 000
00 710 000 0000
00 700 000000 700,700 001 70 000000 010
0000 0,0,10,01000 001 70 10,0000 00000
7 01000000
002 700 0000 101,101,70,101,101,102,101,10
1,70,101,102,102,101,101,000
003 700 0000 70,100,100,100,100,101,100,10
0,102,101,101,70,101,101,000
004 700 0000 101,101,70,101,101,102,101,10
0,70,100,100,70,101,101,101,101,101,10
1,0,0,0,0,0,0
005 010 00000 1,100,14,141500000 0,100,14,1
0,000000 1,101,18,00100000 0,100,14,14
006 700 000000 700,700 001 70 1000000 010
010000000000000 1100115,0000000000000
0000000000001,000
007 070 700 700 70 1000000 0,0,0,0,000007 0
008 700 0000 104,104,104,70,100,107,100,0,1
70,0,100,100,00,001,00,000,101,00,010,
100,100,043,000,100,100,104
009 700 0000 00,100,1,1,000,100,70
010 700 0000000100100000 7001000000
001 000 000 0000000000000000
002 070 POSITION 0,017 001''''00100''''
00100''''
10 070 POSITION 0,017 001'''' 0100001''''
00100''''
01 000 POSITION 0,017 001'''' 101000001''''
00100''''
02 000 POSITION 0,017 001'''' 101000001''''
00100''''
03 070 POSITION 0,417 001'''' 101100001''''
&''''
04 070 POSITION 0,617 001'''' 100100000
&''''
05 1000 POSITION 0,017 001'''' 101100
1''''
06 1000 POSITION 0,717 001'''' 1001000000
00100''''
07 1000 POSITION 0,017 001'''' 101100 0000
1000''''
08 1000 POSITION 0,917 001'''' 1001000''''
10000000''''
09 1000 POSITION 0,1017 001'''' 101100000000
00000000''''
10 1000 POSITION 0,1117 001'''' 100100000000
00000000''''

```

```

04C 1000 POSITION 0,1217 001'''' 100100
00100''''
11 1000 POSITION 0,1317 001'''' 10010000000
01 00100''''
12 1000 POSITION 0,1417 001'''' 101100 000000
00100''''
13 1000 POSITION 0,1517 001'''' 10010000000
&''''
14 1000 POSITION 0,1617 001''''101100 0000000
000000''''
15 1000 POSITION 0,1717 001''''0010010 000000
000000''''
16 1000 POSITION 0,1817 001''''101100 0000000
000000''''
17 1000 POSITION 0,1917 001''''001000000000000
0000000''''
18 1000 POSITION 0,2017 001''''001000000000000
00000000''''
19 1000 POSITION 0,2117 001''''0010000
10100''''
20 1000 POSITION 0,2217 001''''0010000
00010''''

```



```

00 1000 POSITION 0,2317 001'''' 1000000
1000''''
01 1000 001000
02 1000 000000101 2-POSS 701,03-POSS 700,3
&'''' 700,01-POSS 700,10-POSS 700,2
03 1000 POSITION 7,017 001''''01000''''
04 1000 POSITION 0,017 001''''001''''POSITION 0
0,017 001''''00100 00000''''
05 1100 T''''PRESS 000000 TO BEGIN
00000''''
06 1110 IF PRESS 00000000000 700 0000
00 1120 POSITION 0,117 001''''0010000 10 0 0000
011''''
07 1125 700 001 70 10010000 0,0,10,10000
01 0010000 0,0,0,0
08 1130 00100
09 1135 000 00000000000000000000000000000
10 1140 001000 0070
11 1145 00100 0070
12 1150 00100 0070
13 1155 00100 0070
14 1160 00100 0070
15 1165 00100 0070
16 1170 700 001 70 1000000 0,0,0,0,000000
17 1175 IF 0000 70000000000 700,00070
18 1180 IF 0070 7000 00 0001 7000 0000 00
19 1185 700 100 70000 00000000 0000000000
0000000000000000
20 1190 000 0001,001011
21 1195 00000 100000000000000 700,00070
22 1200 700 000 00 100210000 00000000,0000
000000000000 0
23 1205 700 001 70 100000 000000000000000
24 1210 IF 0000 7000 00000
25 1215 IF 0070 7000 00 0001 7000 0000 00
26 1220 700 100 70 10000 00000 000000000000
0000000000000000 00000010000 0
27 1225 0000 7
28 1230 0000 0

```



# Contact

BR 1200 0010 179, 227, 35, 222, 270, 271, 227, 1  
 27  
 DE 1210 0010 C  
 EM 1215 0010 00, 15, 21, 21, 42, 53, 66, 227  
 FO 1220 0010 3  
 GM 1225 0010 179, 224, 24, 222, 169, 222, 22, 22  
 2  
 GV 1230 0010 -  
 HH 1235 0010 179, 225, 65, 225, 179, 225, 65, 22  
 5  
 IJ 1240 0010 0  
 JM 1245 0010 0, 224, 222, 222, 222, 221, 247, 24  
 7  
 KN 1250 0010 0  
 YO 1255 0010 227, 222, 222, 222, 221, 171, 127,  
 227  
 OE 1300 0010 2  
 OM 1305 0010 0, 2, 1, 1, 2, 2, 3, 7  
 FO 1310 0010 4  
 OC 1315 0010 0, 0, 1, 1, 2, 2, 7, 7  
 SC 1320 0010 -  
 AS 1325 0010 224, 224, 225, 225, 224, 221, 246,  
 247  
 MB 1330 0010 3  
 OJ 1335 0010 00, 15, 21, 21, 42, 42, 427, 427  
 FO 1340 0010 0  
 PV 1345 0010 227, 227, 210, 222, 222, 122, 124,  
 124  
 ZO 1350 0010 0  
 OJ 1315 0010 26, 47, 129, 124, 67, 65, 146, 58  
 GO 1320 0010 7  
 SO 1325 0010 147, 129, 25, 27, 124, 25, 17, 221  
 15, 1220 0010 7  
 OM 1335 0010 22, 22, 26, 26, 224, 224, 22, 22  
 OM 1340 0010 0  
 TW 1345 0010 40, 40, 129, 27, 27, 22, 22, 249  
 OK 1350 0010 0  
 MA 1355 0010 220, 220, 169, 224, 24, 122, 122, 1  
 22  
 JE 1359 0010 7  
 ME 1360 0010 0, 127, 127, 127, 127, 127, 127, 12  
 7  
 JA 1370 0010 -  
 CM 1375 0010 0, 224, 224, 224, 224, 224, 224, 22  
 4  
 IS 1380 0010 -  
 JM 1385 0010 0, 225, 225, 225, 225, 225, 225, 22  
 5  
 HC 1390 0010 0  
 MM 1395 0010 220, 220, 220, 220, 220, 220, 220,  
 220  
 FM 1400 0010 7  
 TC 1405 0010 0, 12, 12, 12, 12, 12, 12, 12  
 MM 1410 0010 -  
 DM 1415 0010 224, 224, 224, 224, 179, 179, 25, 1  
 22  
 BO 1420 0010 2  
 DP 1425 0010 220, 129, 149, 149, 220, 129, 129,  
 220  
 AO 1430 0010 0  
 HJ 1435 0010 26, 122, 129, 26, 26, 129, 26, 122  
 26  
 YG 1440 0010 0  
 JP 1445 0010 220, 220, 240, 221, 220, 220, 0, 0  
 BT 1450 0010 0  
 SS 1455 0010 0, 224, 0, 220, 220, 127, 0, 0  
 MM 1460 0010 0  
 FG 1465 0010 0, 222, 220, 220, 220, 222, 0, 0  
 TO 1470 0010 0  
 SO 1475 0010 0, 127, 220, 220, 129, 0, 220, 124  
 0  
 MO 1480 0010 0  
 LR 1485 0010 153, 25, 66, 153, 153, 66, 24, 153  
 BR 1490 010000

**ALPHACON 42 PRINTER:** For sale in perfect condition. £45 o.n.o. Contact Phil Rodman on 01-299 2381 most evenings after 8.30 pm. or at weekends.

**TUNBRIDGE WELLS AREA:** Am I the only owner in Tunbridge Wells? Surely not! I would like to meet other users in my area. Also can anybody tell me how to archive the books in the opening sequence of Hitch Hiker's Guide to the Galaxy? Tony Chamberlain, 25, Albany Hill, Tunbridge Wells, Kent, TN2 3RX. Tel. Tunbridge Wells 20694.

**COVENTRY AREA:** New owner would like to get in touch with others. Needs help with programming etc. 26 A Toleys, 33, Lord Street, Chapelfields, Coventry, CV5 8DA.

**CHILSNFORD/BRAINTREE USER GROUP:** I want to start a local user group. Anyone who might be interested please phone me on Chelmsford 448512. Ian Leonard.

**FIN-FALS (WORLDWIDE):** I would like to correspond with other owners anywhere in the world. I have an Atari 800 with disk drive. Ray Lynch, 24, Oakdale Road, Anfield, Liverpool, Merseyside, L4 2SR.

**COSMIC BALANCE:** Anyone wishing to get their best designs of ships against others from around the country in a competition please contact me by letter or phone. Ross Ford, The Manner, 46, Lindlays Lane, Kirby-in-Ashfield, Notts, Notts. Tel. 0502 624758 between 9 am. and 6 pm. any day except Wednesday.

**1027 PRINTER:** Does anyone know how to code the C signs in letters? Someone must know! Ross Ford as above. (Several people have asked this. If someone will write in with the answer, I will publish it. Ed.)

**EARTHQUAKE ... 1986:** How do you get past the 'YUK-CONC?' Is the name/significant? Please help Mark Jones, 18, Gable Road, W. Parsonage, Cambridge, Cambs, ND4 1HA.

**CURSE OF CROWLEY MANOR:** How do you get past the numerical lock? Have I got to go? Mark Jones as above.

**ANALOG/PAGE-6:** Anybody got ANALOG 1 - 6, 10, 10, and 23? Also PAGE 6 issue 17. Needed to complete my collection. Good prices paid or I have ANALOG 9 and 11 to swap plus 3 ANTICS and 12 COMPUTES. Mark Jones (again). Address as above.

The CONTACT column may be used for any purpose other than the exchange or sale of software. If you have a problem send it in to CONTACT. If you can help someone else, get in touch with them.

# SUBSCRIBE!

## DON'T RELAX DO IT!

# The BOOSTER



There are two versions of this program, one for the 400/800 and one for the XL models. The only difference is in the program to make the Cassette Booster. Overboosted's program can be loaded on any machine so you will have no problem if you upgrade to an XL.

Fed up with waiting fifteen minutes for that program to load? Running short on cassette storage space? Look no further for Cassette Booster will not only save you valuable time but money as well.

### WHAT IT DOES

The program will enable your own programs to be saved out to tape 50% faster than normal and programs thus saved are automatically loaded back in 50% faster. There is no special loader program or reprogramming required once Cassette Booster has been loaded.

### HOW DOES IT DO IT?

The cassette handling routine in ROM saves data out to tape at 600 baud (bits per second) but to take account of motor variations and tape stretch etc. it can load data at different speeds, usually between 300 and 900 baud.

The Cassette Booster inserts a new cassette handle into memory which writes data out at about 900 baud. This rate was chosen for two reasons. Firstly, rates in excess of 900 baud became unreliable with frequent loading errors and secondly, I wanted to avoid the need for a separate loader program having to be loaded prior to each program.

On loading, the computer calculates the baud rate from speed data automatically saved out with the program and adjusts itself accordingly to the faster rate.

### HOW TO GET BOOSTED

The programs are in Basic and will run with any size memory. The BASIC program will create a machine code 'boot' tape. Type in the version specific to your machine and, having checked your typing with **TYPO**, **CSAVE** a copy before running it. Now **RUN** the program. There will be an introductory message and a short wait before your computer 'beeps' twice. Place a blank cassette in the recorder then press **Record** and **Play** on the recorder and any key on the computer. The machine code data will be saved to tape.

When the recorder stops and the **READY** prompt appears on the screen make sure that you have **CSAVED** the Basic program (just in case) and then reinitiate the machine code program you have just created. You are now ready to boot in the Cassette Booster.

If you wish to use the Booster to save your programs in future the following procedure should be followed each time you switch on your computer. Make sure that the Cassette Booster machine code program is in the recorder (**NOT** the Basic version). Switch on the computer with the **START** key held down. You will hear a single 'beep'. Press the **Play** key on the recorder and then any key on the computer. The Cassette Booster will automatically load into memory and protect itself from being erased by **SYSTEM RESET** etc. (only switching off the power will remove it) and will then hand over control to your **BASIC** or **ASSEMBLER** program.

You can now program away to your hearts content and when you **CSAVE** or **SAVE** or **LIST** to the cassette, your program will be automatically saved out faster and will henceforth load in later every time. It's as easy as that!

### CAUTIONS AND ADVICE

The **BASIC** program **POKEs** the code for the boot maker into page 6 of memory and the code for the cassette handler into page 20. The **USR** call passes control to the boot maker which then takes the data for the handler from page 20 and saves it out to tape in boot format.

As page 20 is used for the data, this **BASIC** program will not work with **DOS** installed. If you want to save it to disk, save it before running it or the data will be corrupted.

The machine code Booster program cannot, unfortunately, be used with **DOS** installed either as both use the same memory area.

If you use English Software's **ACE** you can still enjoy the benefits of the Cassette Booster by developing your program with **ACE** installed as usual, saving the named program to tape, booting in the Cassette Booster, loading your program back in and then saving it out again at the faster speed. Interestingly, 100% machine code programs can also be 'boosted'. If you use one of the published back-up programs just install Cassette Booster first, then load and run the back-up program. This results in the back-up being saved faster, and as some of these programs normally take 10 to 15 minutes to load, the reduction to 5 to 10 minutes is a welcome benefit.

I hope that you find the program useful. All who have used it are now busily going through their program library and re-saving/boosted versions thus freeing more tape for additional programs. Now you have no excuse for not typing in all those long listings!

by Phil Davies

01 1 0000 \*\*\*\*\*  
02 2 0000 # THE BOONIES - 400/4000 WARR. #  
03 3 0000 # by PHIL SANDERS #  
04 4 0000 # \*\*\*\*\*  
05 5 0000 # PAGE 6 MAGAZINE - ENGLAND #  
06 6 0000 \*\*\*\*\*  
07 7 0000 \*\*\*\*\*  
08 10 T " CASSETTE BOOSTER MARKS 400/400  
# "  
09 11 T " BY PHIL SANDERS"  
10 12 T 1 1 P  
11 13 T " please wait a few seconds  
"  
12 14 T 1 1 T  
13 100 FOR 41130 TO 4411300 B/PAGE 6, 6  
MARKET #  
14 101 0476 104, 107, 11, 107, 1, 107, 04, 1, 107,  
# 107, 74, 1, 107, 107, 107, 75, 1, 107, 75, 10  
7, 04, 1, 107, 6  
15 102 0476 107, 07, 1, 107, 04, 107, 40, 40, 107,  
11, 107, 04, 1, 107, 0, 107, 04, 1, 107, 10, 107,  
04, 1, 107, 0  
16 103 0476 107, 72, 1, 107, 1, 107, 72, 1, 107, 04,  
107, 04, 11, 107, 11, 107, 04, 1, 11, 04, 107, 4  
0, 1, 74, 0  
17 104 0476 07, 04, 107  
18 100 FOR 40470 TO 4404700 B/PAGE 6, 6  
MARKET #  
19 105 0476 0, 4, 0, 7, 17, 7, 107, 04, 141, 1, 141,  
107, 141, 141, 107, 1, 107, 14, 107, 0, 141, 10  
1, 1, 107, 10  
20 106 0476 170, 104, 104, 107, 10, 170, 100, 10  
1, 107, 11, 104, 70, 104, 0, 107, 10, 1, 104, 0, 10  
0, 9, 107, 100, 100, 107  
21 107 0476 04, 100, 147, 04, 70, 107, 07, 107, 0  
0, 1, 100, 107, 71, 107, 10, 1, 100, 107, 7, 107,  
10, 1, 10, 107, 7  
22 108 0476 114, 7, 111, 107, 104, 7, 7, 104, 74,  
107, 74, 07, 7, 0, 107, 07, 141, 107, 0, 107, 4,  
141, 107, 1, 74  
23 109 0476 100, 41, 107, 100, 41, 01, 107, 10  
1, 4, 100, 1, 101, 0, 100, 14, 70, 74, 01, 107, 10  
0, 04, 1, 70, 1, 107  
24 110 0476 0, 141, 107, 1, 70, 107, 107, 141, 10  
7, 1, 107, 1, 10, 100, 140, 04, 107, 107, 07, 141,  
4, 100, 107, 4, 141  
25 111 0476 0, 140, 107, 04, 1, 1, 10, 104, 1  
10, 107, 01, 141, 1, 107, 1, 107, 07, 141, 107,  
107, 01, 141, 1, 107  
26 112 0476 100, 144, 42, 1, 100, 17, 140, 107, 1  
74, 42, 1, 100, 147, 107, 0, 100, 41, 144, 1, 10,  
100, 01, 107, 0, 4  
27 113 0476 100, 01, 100, 1, 104, 107, 140, 1, 70,  
107, 100, 10, 0, 0, 107, 0, 101, 01, 70, 107, 10  
7, 1, 40, 0, 100  
28 114 0476 1, 107, 04, 141, 1, 11, 70, 100, 01,  
140, 10, 107, 107, 4, 107, 100, 10, 0, 0, 40, 100,  
040, 107, 140, 0  
29 115 0476 107, 0  
30 112 FOR 40444 TO 4404440 B/PAGE 6, 6  
MARKET #  
31 116 0476 4, 100, 14, 100, 107, 104, 10, 0, 7  
0, 100, 7, 140, 100, 1, 107, 04, 141, 101, 1, 141,  
104, 1, 107, 07  
32 117 0476 10, 10, 0, 70, 141, 1, 1, 107, 0, 141,  
0, 1, 107, 141, 0, 1, 107, 1, 141, 7, 0, 107,  
100, 044  
33 118 0476 4, 1, 107, 70, 141, 0, 1, 107, 0, 141,  
1, 1, 107, 04, 141, 0, 1, 107, 1, 1, 100, 04, 100,  
01, 140  
34 119 0476 0, 100, 100, 100, 1, 1, 100, 01, 141,  
11, 1, 107, 04, 70, 100, 141, 04, 1, 107, 1, 107,  
04, 107, 0

01 1 0000 \*\*\*\*\*  
02 2 0000 # THE BOONIES - 41 VERSION #  
03 3 0000 # by PHIL SANDERS #  
04 4 0000 # \*\*\*\*\*  
05 5 0000 # PAGE 6 MAGAZINE - ENGLAND #  
06 6 0000 \*\*\*\*\*  
07 7 0000 \*\*\*\*\*  
08 10 T " CASSETTE BOOSTER MARKS 400/400  
MARKS"  
09 11 T " BY PHIL SANDERS"  
10 12 T 1 1 P  
11 13 T " please wait a few seconds  
"  
12 14 T 1 1 T  
13 100 FOR 41130 TO 4411300 B/PAGE 6, 6  
MARKET #  
14 101 0476 104, 107, 11, 107, 1, 107, 04, 1, 107,  
# 107, 74, 1, 107, 107, 107, 75, 1, 107, 75, 10  
7, 04, 1, 107, 6  
15 102 0476 107, 07, 1, 107, 04, 107, 40, 40, 107,  
11, 107, 04, 1, 107, 0, 107, 04, 1, 107, 10, 107,  
04, 1, 107, 0  
16 103 0476 107, 72, 1, 107, 1, 107, 72, 1, 107, 04,  
107, 04, 11, 107, 11, 107, 04, 1, 11, 04, 107, 4  
0, 1, 74, 0  
17 104 0476 07, 04, 107  
18 100 FOR 40470 TO 4404700 B/PAGE 6, 6  
MARKET #  
19 105 0476 0, 4, 0, 7, 17, 7, 107, 04, 141, 1, 141,  
107, 141, 141, 107, 1, 107, 14, 107, 0, 141, 10  
1, 1, 107, 10  
20 106 0476 170, 104, 104, 107, 10, 170, 100, 10  
1, 107, 11, 104, 70, 104, 0, 107, 10, 1, 104, 0, 10  
0, 9, 107, 100, 100, 107  
21 107 0476 04, 100, 147, 04, 70, 107, 07, 107, 0  
0, 1, 100, 107, 71, 107, 10, 1, 100, 107, 7, 107,  
10, 1, 10, 107, 7  
22 108 0476 114, 7, 111, 107, 104, 7, 7, 104, 74,  
107, 74, 07, 7, 0, 107, 07, 141, 107, 0, 107, 4,  
141, 107, 1, 74  
23 109 0476 100, 41, 107, 100, 41, 01, 107, 10  
1, 4, 100, 1, 101, 0, 100, 14, 70, 74, 01, 107, 10  
0, 04, 1, 70, 1, 107  
24 110 0476 0, 141, 107, 1, 70, 107, 107, 141, 10  
7, 1, 107, 1, 10, 100, 140, 04, 107, 107, 07, 141,  
4, 100, 107, 4, 141  
25 111 0476 0, 140, 107, 04, 1, 1, 10, 104, 1  
10, 107, 01, 141, 1, 107, 1, 107, 07, 141, 107,  
107, 01, 141, 1, 107  
26 112 0476 100, 144, 42, 1, 100, 17, 140, 107, 1  
74, 42, 1, 100, 147, 107, 0, 100, 41, 144, 1, 10,  
100, 01, 107, 0, 4  
27 113 0476 100, 01, 100, 1, 104, 107, 140, 1, 70,  
107, 100, 10, 0, 0, 107, 0, 101, 01, 70, 107, 10  
7, 1, 40, 0, 100  
28 114 0476 1, 107, 04, 141, 1, 11, 70, 100, 01,  
140, 10, 107, 107, 4, 107, 100, 10, 0, 0, 40, 100,  
040, 107, 140, 0  
29 115 0476 107, 0  
30 112 FOR 40444 TO 4404440 B/PAGE 6, 6  
MARKET #  
31 116 0476 107, 04, 107, 0, 4, 100, 01, 100, 1, 1  
10, 107, 104, 10, 10, 0, 70, 101, 7, 141, 100, 1, 107  
04, 141, 100, 1  
32 117 0476 141, 104, 1, 107, 07, 10, 10, 0, 141,  
1, 10, 1, 107, 0, 140, 1, 1, 107, 141, 0, 1, 107,  
10, 07, 141  
33 118 0476 0, 100, 100, 100, 1, 1, 100, 01, 141,  
11, 1, 107, 04, 70, 100, 141, 04, 1, 107, 1, 107,  
1, 100, 04, 100, 01, 140  
34 119 0476 0, 100, 100, 100, 1, 1, 100, 01, 141,  
11, 1, 107, 04, 70, 100, 141, 04, 1, 107, 1, 107,  
04, 107, 0

## US DOUBLER

### Double Density on the Atari 1050

Are you considering purchasing a disk drive for your Atari? Do you want more disk capacity than is available on the normal single density format? Are the double density drives from Trak or Attra unavailable or the Inland drive too expensive?

Like many others I have come to realize the inadequacy of the storage capacity and speed of the single density drive especially when using a compiler disk and when compared with the Apple or BBC drives for example. However I am accustomed to using DOS 2 on my 810 drive and did not particularly want to change to a completely different system or format. I was thus very attracted to GDS's DOS XL which claimed compatibility and could also be used in double density format if I were ever to purchase a double density drive.

When Atari reduced the price of the 1050 drive by £100 to £199 this became a much more attractive product as it offered DOS 3 with dual density, but does anyone like DOS 3? I certainly did not and was content to use the dual (medium) density format offered by the 1050 with DOS 2 as amended with the enhancements published in Atari Magazine, August 1984. This gave me 963 single density sectors (120K data) instead of the original 720 (90K data), a non-revolutionary approach but it represented about 33% improvement.

Finally I have just received the US Doubler (US meaning UltraSpeed) from ICD Inc. This is a package containing two custom integrated circuit chips and a new advanced DOS called SpartaDOS. The new chips are straight replacements for two originals on the 1050 PC board and very full instructions for their removal and installation are given. Believe me, it is really very easy. No soldering was required, I had merely to pull out the originals and push in the replacements. Now my 1050 drive is a true double density (180K data) drive while still offering the original single and dual density formats and full compatibility with other DOS's is maintained.

The US Doubler package costs \$79.95 direct from ICD Inc. and may now be available from their UK distributor Zoomsoft.

So for the cost of the 1050 (about £200) plus the US Doubler (about £70) we can at last have an economical true double density drive. You should be aware, however, that opening up your disk drive will almost certainly make your warranty null and void.

SpartaDOS is a completely new DOS for the Atari that ICD claims to have modelled on the IBM PC-DOS. It supports single, dual and double densities, single and double sided 5¼" and 8" disk drives and even claims to be



Reviewed by R A Matulko

ready to support a hard disk drive when it becomes available. It also contains a special stripped down DOS using very little memory for loading game disks.

Most of the SpartaDOS functions are resident in RAM and therefore no data is lost when switching to and from DOS. However it does take up about 1.5K more of your scarce RAM and you might want to consider using DOS XL instead especially if your main programming language is BASIC XL. The big advantage claimed for SpartaDOS when used with the US Doubler is that it writes and reads three times faster than DOS 2 or DOS XL.

As a test I loaded and saved 'House of Secrets' (one of the longest programmes ever published in Page 6) under DOS 2, DOS XL and SpartaDOS five times and averaged the results:

	Read	Write
DOS 2 (with verify)	30 secs.	55 secs.
DOS 2 (without verify)	20 secs.	20 secs.
DOS XL (single density)	20 secs.	21 secs.
DOS XL (double density)	16 secs.	18 secs.
SpartaDOS	7 secs.	10 secs.

What this might not be an ideal test it clearly shows that SpartaDOS does in dual perform I/O operations at a much faster rate, it reads about three times faster than the single density DOS's and writes between about two and five times as fast. Think how much time you can save using this DOS and in double density too. You could save wear and tear on your disk drive and halve your disk costs!

A full review of SpartaDOS will follow when I have been able to understand and appreciate its advanced facilities.

I am very pleased with the US Doubler package and can unreservedly recommend it to you.

#### Address:-

ICD Inc.  
628 Green Meadow Avenue,  
Rockford,  
Illinois 61107,  
U.S.A.

Zoomsoft,  
46, Hantsworth Road,  
London NW1 6DB

## THE BOOSTER 400/500 version continued

```

VV 127 0476 3,288,76,288,0,76,288,0,76,127
V,222,76,288,228,175,0,3,288,248,187,87
:848,4,248,187
VT 128 0476 4,248,0,248,20,248,228,188,12
:273,22,0,48,0,288,188,182,0,22,187,22
P,287,22,248,0
WV 129 0476 211,273,23,0,288,288,22,148,0
23,22,187,234,76,277,233
XX 129 T ""
XX 131 T ""
XX
XX 132 T ""
XX 133 T ""
XX
XX 134 0000000000
XX 135 T ""
XX 136 T "" BOOT TAPE NOW WRITTEN"
XX 137 T ""
XX 138 T ""TO 252""
XX 139 T ""BOOT IN BEFORE STARTING PROGRAM
MENU"
XX 140 T ""SAVE/LIST/PRINT/PUT TO TAPE ON
MENU"
XX 141 T ""PROGRAMS WILL BE OUTPUT FASTER
"
XX 142 T ""TRIM NORMAL THIS SAVES TIME ON
A TAPE"
XX 143 T ""
XX 144 T ""WILL LOAD IN FASTER ON MY 400"
000/91"

```

## THE BOOSTER XL version continued

```

VY 127 0476 1,2,72,173,71,2,248,26,187,0,
22,187,284,268,19,228,72,22,5,218,184,
178,244,282,189
VZ 128 0476 0,141,72,2,141,285,289,248,0,
22,148,0,288,244,1,0,187,0,222,88,188,
0,3,272,0
VY 129 0476 0,76,188,142,24,0,287,1,122,0
9,173,0,0,288,76,288,0,76,272,0,76,128
:22,76,212
VZ 128 0476 228,173,2,2,18,248,187,87,142
:4,218,187,4,141,0,218,22,22,228,188,7
0,188,22,228,173
VZ 131 0476 22,148,0,288,27,228,182,0,12
:228,227,187,22,141,0,218,27,22,22,22,
:224,22,228,228
VZ 132 0476 22,128,224,76,4,228
XX 140 T ""
XX 141 T ""
XX
XX 142 T ""
XX
XX 143 T ""
XX
XX 144 0000000000
XX 145 T ""
XX
XX 146 0000000000
XX 147 T ""
XX 148 T "" BOOT TAPE NOW WRITTEN"
XX 149 T ""
XX 150 T ""TO 252""
XX 151 T ""BOOT IN BEFORE STARTING PROGRAM
MENU"
XX 152 T ""SAVE/LIST/PRINT/PUT TO TAPE ON
MENU"
XX 153 T ""PROGRAMS WILL BE OUTPUT FASTER
"
XX 154 T ""TRIM NORMAL THIS SAVES TIME ON
A TAPE"
XX 155 T ""
XX 156 T ""WILL LOAD IN FASTER ON MY 400"
000/91"

```

## EXPLORING ADVENTURES

on the Atari 48k

by Peter Gerard  
Published by  
Duckworth.

£6.95



An excellent book aimed at those interested in Adventures or who might like to try writing one. The book is part of a series of Exploring Adventures on ... but, apart from certain few unimportant details, has been well adapted for the Atari.

Beginning with a chapter on how Adventures came into being and where they may go in the future it goes on to give hints on how to solve commercial Adventures games before detailing how to write your own adventures in Basic. Showing you how to create your own adventures is the major aim of the book and it does this well by giving not only a step by step guide to programming but also suggestions for adventure themes and an insight into the thinking that goes on behind the programming. By using a full-blown listing of Underground Adventure, each section takes you through one part of the program including all of the major verb handling routines. All of the BASIC commands that you are likely to need for a text adventure are included and, unlike many other books, those commands which are specific to Atari Basic are included. As far as I could tell there were no obvious errors to set you off on a wild goose chase trying to use commands that the Atari does not understand. Underground Adventure is completed in full textual style but there are two other listings to type in which will give you further insight and ideas for creating your own programs.

One of the most interesting and unusual chapters is a series of suggested scenarios for your own adventures. One of your programs, the hardest thing about writing an Adventure is thinking of a idea that is logical and coherent. Each scenario takes a basic theme and discusses possible hazards, additional adventures within the theme and development of the story before suggesting a conclusion. The themes range from the Streets of London to Outer Space and the Wild West.

You might think that writing your own adventure is a daunting task but with each stage of the procedure explained and with ideas provided, it really is not as difficult as you might imagine to create your own masterpiece.

In conclusion an excellent book for anyone interested in writing an adventure and good value at £6.95 for over 240 pages.

# IOCB'S

by Anthony Roberts

When I first started using machine code one of the first problems I encountered was what program to write. To solve this problem I looked through some back issues of computer magazines to see what other people had written. One feature that seemed to crop up fairly often was the use of IOCB's and in particular the section of CIO's. As a result I learned all that I could and finally became proficient in their use.

The name IOCB stands for Input Output Control Block and CIO stands for Central Input Output utility. As the names suggest they also allow the user to control the input from and output to various devices. The devices that are normally controlled using CIO's are cassette recorders, disk drives, printers, the screen and a few others. By changing a few parameters it is possible to send any amount of any sort of data to a device.

So what? Well if you have ever tried to do graphics in machine code or access data files on a disk or cassette or dump a screen to the printer then you will appreciate just how difficult it can be.

Those of you who are familiar with the BASIC command OPEN will have a head start because CIO's are exactly the same thing. If you have never come across the OPEN command then look it up in a users manual.

There are certain differences in the way CIO's are used from machine code and the way they are used in BASIC but these will become apparent as you use them. The main thing to remember is that there is no automatic error checking in machine code so if you make an error and don't check for it, all sorts of problems will arise. The most common mistake is to try and access devices that are not open or to try and open devices that are already open.

## OPENING AN IOCB

Before you can open an IOCB it must first be closed. This is to prevent errors occurring when you attempt to open an already open IOCB.

To close an IOCB, you must first choose which one you are going to work with. There are five possible choices here and they correspond to the numbers 1,2,3,4 and 5 in BASIC. In machine code, you choose the number by loading it into the 'C' register. The number you load is '4'10' for IOCB 1, '4'20' for IOCB 2 etc. When you have decided, use Listing 1 to close that IOCB.

Line 10 tells the computer which IOCB to close. Line 20 loads the accumulator with the number '40C'. This is the number which tells the routine you want to close the IOCB. Line 30 stores the number '40C' in location '3442' offset by

0003	LDC #40C	(IOCB #)
0004	LDA #90C	COMMAND FOR CLOSE
0005	STA \$3442	COMMAND LOCATION
0006	JMP \$B034	CALL ROUTINE
0007	LDA #500	COMMAND FOR OPEN
0008	LDB #40C	(IOCB #)
0009	STA \$3442	
0010	LDA #LAB	LOW BYTE OF DEVICE NAME
0011	STA \$3443	BUFFER ADDRESS (LOW)
0012	LDA #HAB	HIGH BYTE OF DEVICE NAME
0013	STA \$3443	BUFFER ADDRESS (HIGH)
0014	LDA #000	DATA FOR OUTPUT
0015	STA \$3443	
0016	LDA #000	JUST TO BE SAFE BUT NOT NEEDED
0017	STA \$3443	
0018	JMP \$B034	
0019	LDA #900	GOING TO SEND STRING
0020	LDB #500	(IOCB #)
0021	STA \$3442	
0022	LDA #400	LOW BYTE OF MESSAGE ADDRESS
0023	STA #3443	
0024	LDA #000	HIGH BYTE OF MESSAGE ADDRESS
0025	LDA #000	
0026	STA \$3443	
0027	LDA #100	MUST BE MORE THAN MESSAGE LENGTH
0028	STA \$3443	BUFFER LENGTH FIELD (LOW)
0029	LDA #000	JUST TO BE SAFE
0030	STA \$3443	BUFFER LENGTH FIELD (HIGH)
0031	JMP \$B034	
0032	LDA #90C	CLOSE IOCB #1
0033	LDB #100	
0034	STA \$3442	
0035	JMP \$B034	
0036	END	END OF PROGRAM
0037	AS 'E'	DEVICE NAME
0038	AS 'RTAB	
0039	COMPTERR	
0040	ARE CIOB'F	
0041	END	END OF LINE CHARACTER

Listing 1

## DEVICE NAMES

These are the names used when you open a device.

E	Screen editor (see Basic Manual)
S	Screen graphics for graphics routines
P	Printer (output only)
K	Keyboard (input only)
C	Cassette recorder
D**	Disk directory
D:filename.ext	Disk files

X. Because X has the value of 110 in it the number will be stored in \$252. The reason we have to use the 'X' register is because the computer uses the value in the 'X' register to decide which one to close. Line 40 calls the operating system routine that actually performs the close operation.

Now that the KOCH is closed you want to open it for a device. When you do this you need to declare the device name, which is best done by storing it in an ASCII string. The conventions I will use are those used by the SYM-ASSEMBLER but there are conventions at the end of this article for the ATARI ASSEMBLER-EDITOR. Listing 2 will open an KOCH.

The program opens KOCH 1 for the screen editor (E). Lines 50, 60 and 70 tell the computer you want to open up KOCH 1. Line 80 is loading the accumulator with the low byte value address of the label LAB. For example, if the address of the label LAB was \$1234 then the low byte value of the address would be \$34. Line 90 stores this value in a location where the computer can find it for later use. Lines 100 and 110 do the same thing as the two previous lines except they are loading and storing the high byte value of the address (e.g. \$12). The reason for these four lines is so that when the computer comes to perform the open it can look in locations \$348 and \$349 to find the address where the name of the device is located (E is the name of the device). Lines 120 and 130 put a \$408 into \$34A,X. The contents of location \$34A,X initiates computer which direction the data will be travelling (i.e. to or from the

device). In this case the 8 means we will be sending data. Lines 140 and 150 are just to be tidy because the 0 in the location has no effect on this particular KOCH. Line 160 calls the routine to do the open.

## USING THE KOCH

Now that the KOCH is open you want to do something with it. In this case because we put a \$408 into \$34A,X we want to send data. To send data to the device we use the routine in Listing 1.

The routine will print the message on the screen. Lines 170 to 190 are putting a \$408 into command location (\$342). The \$408 tells the computer to expect an undetermined amount of data. This is the printing string in BASIC, because you don't need to know how long the string is to print it. The computer will stop printing data when it reaches a \$49B. Lines 200 to 230 are instructing the computer how much data to send. Because we have used a \$408 in \$342,X the number in these two locations only has to be more than we want to send. If you are sending a known amount of data then these two locations should contain the number. \$344,X is the low byte and \$345 is the high byte. Line 230 executes the operation.

If you are not familiar with the low byte, high byte notation it simply means the storing of numbers greater than 255 in two consecutive locations. Because the maximum value in one location is 255 we have to store numbers greater than this in a special way. The high byte location contains the number of 256's in the number and the low byte location contains the number of 1's in the number. If you wanted to store the number 1027 you would place 4 in the high byte ( $4 * 256 = 1024$ ) and a 3 in the low byte ( $3 * 1 = 3$ ). The result is  $1024 + 3 = 1027$ . The same principle is used when storing an address.

When you have finished writing the program you must close the KOCH by using the first part again.

Now the best thing to do is to practice sending or receiving data from other devices such as the printer. You can have more than one device open at a time so that you can read data from a disk using one KOCH and print it to the screen using another. Have fun!

## continued overleaf

LOCATION	USED FOR	POSSIBLE VALUES	RESULT
\$408	Calls the routine to set up KOCH	None	Execution of KOCH
\$342	Tells the size the KOCH will be used	0	Open the KOCH
		10	Close the KOCH
		7	Get binary record
		11	Put binary record
		4	Printing
		8	Output string
\$344	Low byte value of buffer address	0-255	Tells the computer the low byte address of where to put your data
\$345	High byte value of buffer address	0-255	Name to store only high byte
\$348	Low byte value of buffer length	0-255	Tells the amount of data to be received low byte
\$349	High byte value of buffer length	0-255	Name to store only high byte
\$34A	Specifies direction of data transfer	4	Read data
		0	Write data
		10	Read and Write data
		6	Open for device
\$34B	Used mainly for graphics	0-255	See graphics table

### Some conversions:

SYM-ASSEMBLER	ATARI ASSEMBLER-EDITOR
\$LAB	LAB&255
/LAB	LAB&254
.AS "ATARI etc."	.BYTE "ATARI etc."
.HS 9B	.BYTE \$99B

With the Arat Editor you will need a \$= \$4000 at the start of the program.

## I.O.C.B's continued

### GRAPHICS TABLE

The following program will open the screen for graphics mode 2 and print a message.

```
00010          GRAPHICS MODE 2 PROGRAM
00020
00030          LDA #10          : CLOSE DOOR #1
00040          LDA #40C
00050          STA $042,X
00060          JBR $040,X
00070          LDA #000        : OPEN DOOR #1
00080          LDA #110
00090          STA $042,X
00100          LDA #0A0000     : DEVICE NAME (LOW)
00110          STA $044,X
00120          LDA#0A0000     : DEVICE NAME (#HIGH)
00130          STA $046,X
00140          LDA #010        : SPLIT SCREEN + OUTPUT
00150          STA $048,X
00160          LDA #002        : GRAPHICS MODE
00170          STA $040,X
00180          JBR $000A
00190          LDA #011        : PUT BINARY RECORD
00200          LDA #100
00210          STA $042,X
00220          LDA #100        : AMOUNT OF DATA TO SEND (LOW)
00230          STA $044,X
00240          LDA #000        : AMOUNT OF DATA TO SEND (#HIGH)
00250          STA $046,X
00260          LDA #0A0000     : LOW BYTE ADDRESS OF MESSAGE
00270          STA $041,X
00280          LDA#0A0000     : HIGH BYTE ADDRESS OF MESSAGE
00290          STA $043,X
00300          JBR $000A
00310          BRK            : END OF PROGRAM
00320          AS #0          : DEVICE NAME
00330          AS #MODE 2"
```

When the graphics screen is opened the mode number goes into location \$040C. Location \$040A contains details of the type of screen you want to split screen configuration. The diagram below shows how to obtain the different types of screens.

128	64	32	16	8	4	2	1
		C	S	W	R		

If bit 'C' is set (i.e. equal to 1) then when the screen is opened the current display will not be cleared.

If bit 'S' is set then the screen will be set up for a split screen arrangement. This is the same as if you opened a screen in BASIC without putting the "16" on the end.

If bit 'W' is set then this instructs the screen to expect data to be sent to it. This is set when you want to do "PLOT" and "DRAW".

If bit 'R' is set then the screen will be set up so that you can get data from the screen. This is used when you wish to do a "LOCATE" statement.

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## The Wanderer

continued

```
MC 0200 ? "are available?"
MD 0200 ? "1" : @-North : These keys do
  open the"
ME 0200 ? "2" : @-East : direction you do
  on, but"
MF 0200 ? "3" : @-South : not the direction
  is the"
MG 0200 ? "4" : @-West : direction moves y
  ou"
MH 0200 ? "5" : "Press RETURN to continue"
MI 0200 ? "6" : "Press RETURN to see
  them"
MJ 0200 ? "7" : "0"
MK 0200 ? "8" : @-East with option for new
  game"
ML 0200 ? "9" : @-Map displays map the
  W wander" : "You can only see two
  of in each"
MM 0200 ? "space" : adds 5 steps to your
  score"
MN 0200 ? "1" : "0-Map gets your position
  relative to the exit. Can only be set
  on 2 times"
MO 0200 ? "1" : "in each maze"
MP 0200 ? "1" : "0-Instructions are here"
MQ 0200 ? "1" : "The aim of course is to see
  you in 60"
MR 0200 ? "How many as possible"
MS 0200 ? "1" : "Good luck"
MT 0200 ? "1" : "Press RETURN to continue"
MU 0200 ? "6" : "Press RETURN to see
  them"
MV 0200 RETURN
```



# FIRST STEPS

Write to Mark Hutchinson  
at  
P.O. BOX 123, BELFAST,  
BT10 0DB

## A-Z OF BASIC PART 2

### FOR (F)

This is used with NEXT and, sometimes, with STEP to form loops.

Example 10 FOR A=1 TO 10: ? A: NEXT A

A will start off as 1, the current value of A will be printed, and A will then be incremented by 1 to equal 2. This will repeat until A=10 when the program will print this value and finish. STEP changes the size of the increments used, if it is a negative number, will also decrement the value.

Examples 10 FOR S=0 TO 250 STEP 5: SO:0.5,10,10:  
NEXT S  
10 FOR S=250 TO 0 STEP 5: SO:0.5,10,10:  
NEXT S

If no other commands are included in the FOR/NEXT loop, then the computer will run the loop while doing nothing. This is usually termed a 'wait' or 'timing' statement. You can have a loop inside a loop (termed 'nesting').

Example 10 FOR S=250 TO 0 STEP 10: SO:0.5,10,10:  
FOR WAIT=1 TO 50: NEXT WAIT: NEXT S

It is not recommended to use too many nested loops. Sometimes an error 13 will occur (no matching FOR statement). This can be caused by using the same variable too many times. Just change the variable (say, S to SND) to clear this. Of course, you will need to check that your loops do as intended, that the first FOR corresponds with the last NEXT. In the last example if you change NEXT WAIT: NEXT S to NEXT S: NEXT WAIT it will not run properly.

This can be a very powerful statement in graphics. Instead of a series of PLOT/DRAW/TO, it is possible to use a FOR/NEXT loop, incrementing X or Y, and use PLOT/DRAW/TO saving lots of memory.

Example 10 GR:R C:1: FOR X=0 TO 155 STEP 5:  
PL X:0: DR X,319: NEXT X

### FREE

This will test free, and return, the amount of free base RAM in bytes. It takes the form of ? FREE(), where () is a dummy variable. It can also be used in the deferred mode.

Example 10 IF FREE()<X THEN ? FREE(): BYTES  
LEFT

### GET (G)

This is usually used in graphics with the POSITION() statement and will return the data under the cursor and place it in a variable. This will be a character or colour, depending on the graphics mode. NOTE: If you wish to PRINT also GET it is necessary to PUT the data back, as quite often the past value has been corrupted. By OPENING a channel it is possible to read a byte from a file designated by the channel and store it in the variable. This is normally done when retrieving screen displays or other large chunks of data.

Example 10 GET #1,X

### GOSUB (G)

This statement will send the program to a sub-routine. This is a self-contained routine outside the main program. The sub-routine must finish with RETURN to go back to the main sequence. Care must be taken when using nested GOSUBs or a GOTO in the routine. GOSUB uses the system stack to remember where to return to. POP will clear the stack if the sub-routine has not been allowed to finish normally, but this is a sign of bad programming and, after debugging, is not recommended. Calling an often used routine through GOSUB will save memory, but you must use it when in the of value.

Example 10 GOSUB 100: GOSUB SOUND

### GOTO (G)

Similar to GOSUB but does not need a RETURN. Again, be careful of creating endless loops with too many GOTOs.

Example 10 GOTO 100: GOTO SOUND

### GRAPHICS (GR)

Used to select one of the 16 graphic modes. Apart from GR0, these modes will have a text window at the bottom unless 16 has been added to the GR number. By adding 32 to the GR mode, you can set up the text window without clearing the screen by switching off the sound.

Examples GRAPHICS 0  
GR 3 + 16  
GR 37  
GR 39  
GR 200

# GRAPHICS

### IF

A conditional statement used with THEN. When the IF part is true, the THEN part is executed. If it is not true, the THEN part is ignored. If any other commands follow IF/THEN on the same command line, they will only be executed when the conditional statement is true. Nesting can occur in this statement.

Example 10 IF X=5 THEN ? " "  
20 IF X=5 THEN IF Y=5 THEN GOTO 100

In line 10 X must equal 5 for the PRINT to occur. In line 20 (nesting) both X and Y must equal 5 for the GOTO to occur. NOTE: GOTO or GOSUB is not necessary in this statement, as a line number or reference could suffice.

Example 10 IF X=5 THEN 100

Make sure that there is a THEN for each FOR

by Mark Hutchinson

## INPUT (I)

This statement looks for a keyboard response from the user. It will place this response into a variable or string, to be used later in the program. Unfortunately, the program will halt until this response is entered with RETURN. Several responses to one INPUT can be entered at once by using commas. When used with an IOCB number (#) it will request data (string or number) from a specified device, provided that IOCB# has been OPENed first.

```
Example: 10 INPUT X
        INPUT A$
        INPUT X,A$,Y
        INPUT #2,A$
```

**Warning:** An input without a variable may not cause an error report. Also, an input of more than 128 bytes will overwrite the start of page 0, the so-called "safe area".

## INT

This returns the integer (like whole number) preceding the decimal point) and sign of a number. Unlike calculators, it will return the whole number nearest to the complete number given.

```
Example: A=INT(3.44): REM *** Returns 3
        A=INT(-3.99): REM *** Returns -4
```

## LEN

This will give the length of a string in bytes. Until something has been stored in a string, its length will be 0.

```
Example: A$="PAGE 6": ? LEN(A$): REM *** Will return 6
```

## LET (AL)

This will define a variable or variable name. It can be left out (implied LET). However, if you wish to use a command word as a variable, you must use LET.

```
Example: LET X=1.2
        X=1.2: REM *** Implied LET
        LET SOUND=1000: REM *** Compulsory LET
```

# LIST

## LIST (L)

This is a way of saving a program in a form that can be loaded (using ENTER) without clearing memory, either to cassette or to disk. LIST by itself will list the resident program to the screen, in full. If line numbers are specified then only those lines will be listed. Likewise, if the printer is specified the program (or required lines) will be printed.

```
Example: LIST "C:"
        LIST "D: PARTS.BAS"
        LIST 10
        LIST 20,100
        LIST "F"
        LIST "F",10,50
```

## LOAD (L)

This will load a program from disk into RAM. It will clear any existing memory and will need the command RUN to start the program.

```
Example: LOAD "D: PARTS.BAS"
```

## LOCATE (LOC)

For some reason, this is seldom seen now in programs, maybe because people do not understand it. It's really quite simple.

```
Example: LOCATE X,Y,Z
```

This will position the cursor (visible or invisible) at point X,Y and place the information stored there in the variable Z. This will be a number, either 0-255 for a text character or 0-4 for a colour. This is the same as using POSITION X,Y: GET #1,Z. The only problem is that a PRINT or GET after LOCATE may corrupt the data under the cursor. You may need to reposition the cursor and PUT the data back.

# LOCATE

## LOG

This will return the natural logarithm of a variable or expression.

```
Example: L=LOG(5.2)
```

## LPRINT (LP)

This will open a channel to the line printer and will print in direct or deferred modes. As with ? LP, by itself will skip a line.

```
Example: LP "PRINTER"
```

## NEW

This will clear the contents of RAM in either direct or deferred mode. Unfortunately, it will clear all dimensional tables.

## NEXT (N)

Used with FOR, please refer to that section.

## NOT

A logical operator. It will return a 1 if the result is not true. Be careful! A=NOT B is not the computer talking. Be sure to use a space after NOT as confusion could occur with NOTE.

```
Example: A=NOT E
```

## NOTE (NO)

This is used in disk operations to open a channel to the drive and store the current sector and byte in the variables. The DCG manual gives an example program of this command. The first variable is the IOCB#, the second is the sector, and the third is the byte.

```
Example: NOTE #2,SEC,BYT
```

## ON

Used mainly with GOSUB or GOTO, but can be used with other commands. When the variable value is known, the program will go to the sub routine that corresponds to the value.

```
Example: 10 ON X GOTO 100,200,300,400
```

If X=3 then the program will branch to the third choice, ie line 300. This will be a topic for "Five Steps" later in the year.

continues next issue







# THE SOFTWARE REVIEWS

## FRUIT SALAD P.F. Software 16k cassette

Another bargain game at £2.95, but perhaps not quite as strong as others from the same company, FRUIT SALAD is basically the Mastermind game in which you have to guess a sequence of peps by deduction from clues given as to how close your previous guess was. Mastermind has been the subject of many computer translations but this is probably the best I have seen. Instead of plain coloured peps, you have different fruits to choose from and the whole screen with a red-tinted character set looks very good. The game is played entirely with the joystick and there are several enlightening options including 3 or 5 fruits, blank spaces and 1 or 2 players. Mastermind is well known now but still makes an interesting game and is a change from the usual arcade action. Mastermind as a game is not particularly dynamic but this version is very well done and at only £2.95 how can you go wrong?

Reviewed by  
Les Ellingham

## ASYLUM ... Screenplay Inc. ... 48k disk/cass.

Asylum is set in a place that most Adventurers eventually end up! Your task is simply to escape. The Asylum is basically one massive maze of corridors with numerous doors which you must try to unlock using different items. Many of the doors reveal empty rooms but others have objects in them or are occupied by the inmates or keepers of the Asylum. Collecting various objects you go about the adventure in the normal way.

The game allows multiple sentences to be used such as OPEN THE DOOR, THEY GET IN, or UNLOCK THE DOOR WITH KEY, OPEN IT, ENTER DOOR. Generally using multiple commands will save you a lot of time especially when going in and out of rooms. The instruction manual gives very little help regarding the game other than to explain the use of the verbs/day. If you wish you can press the OPTION button to view all of the words recognised by the program and as some of these are pretty obscure you may be forced into using this facility. There are four full screens of recognised words, each three columns across.

The maze is fully animated and is very reminiscent of MARY OUT. Your progress through the maze is controlled by using the four arrow keys which control all movement. As you turn to left or right or they about the maze scrolls across the screen giving a very impressive sense of direction. In the corridors the graphics are just grey walls with occasional objects in boxes on the floor but high resolution pictures are revealed whenever you enter a room. Text occupies a few lines at the bottom of the screen although the graphics can be switched off for more text. If you want a rough preview of the graphics there is a 'peek show' which gives you a preview of some of the rooms you will find in your travels. Although this may seem to some too much like cheating it does give you a good incentive to go on and there are many more rooms.

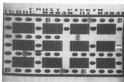
Initially I was not particularly interested in Asylum as most animated graphics adventures tend to offer graphics at the expense of the plot but I quickly became hooked. It represents one of the very best forms of graphics adventure and contains plenty of puzzles to solve in the classic style. The slide show is an excellent feature giving a few hints about what you need to find to leave the Asylum and overall it uses the Am's capabilities to excellent effect with good scrolling action in the corridors and high-res pictures in the rooms. Add to that text adventure style puzzles and the Asylum is a place you may well wish to visit.

## FRUIT PICKIN' ... P.F. Software ... 16k cassette

If you have read previous reviews in PAGE 6 of programs from P.F. Software you might think that we have a vested interest. Not true, it's simply that they keep coming out with budget priced software that offers excellent value for the little money you have to spend.

Lately to be released is FRUIT PICKIN' which sees P.F. Software delve into the use of bits of machine code for the first time. FRUIT PICKIN' is a Pac Man style game in which you must go round the maze picking up various fruits on each level. 'Berries' bounce from side to side in smooth scrolling action along the horizontal lanes whilst in the higher levels 'elevators' rise and fall in certain of the vertical lanes. The enemies are different on each level and include such weird and wonderful things as telephones, mugs, axes, choppers, and CO2 signal. All of these are extremely well designed. Right as is your character who walks and turns in such direction. There are seven levels of increasing difficulty with the seventh level 'a nightmare' according to the author.

FRUIT PICKIN' is a simple game but is well written, challenging and addictive. At £2.95 you won't find better value anywhere and if you look with envy at the hundreds of cheap games for



other mazes than buy this, it is much better than most of these.

You don't get fancy colour inlays or fancy protection techniques with P.F. Software but then you don't pay an extra £5 for that!

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# Beyond ATARI

A series by John J. Smith looking at wider aspects of Atari computing

John J. Smith, winner of last year's Readers Poll begins a new series with this issue looking at the wider aspects of computing.

## SPEECH... THE FINAL FRONTIER?

User-friendly is a term being thrown around at the moment to describe how easy computers are to use but that is not how I interpret this phrase. Imagine crawling out of your bed in the morning and hearing a warm affectionate voice say "Good morning. Did you sleep well? The kettle has boiled and the tea is ready. I await your instructions". Later when you sit down at the keyboard instead of the word READY a warm male or female voice (your choice) says "What are we going to do today." Before we start I must tell you that the office called to say that machine number 27 is on the blink again. I have informed the repair man and he should be there just after lunch". The computer would then stay quiet whilst you get on with your writing or programming unless you asked it a question and wanted a verbal reply. Now that's what I call User-friendly!

You may think that the above example is far fetched but speech synthesis has come a long way over the past 5 years and although they still have some way to go there are now devices available which are quite intelligible provided they are programmed properly.

In 1958 I did some manual searching of library material for information on speech synthesis and speech recognition (although I have never been involved in the hardware for this purpose) and PAGE 4 readers may be interested to know that the earliest reference I could find was dated 1952 in the *Journal of Acoustical Society of America* Vol.24. However I understand that North Staffordshire Polytechnic did a study in 1973 and that references have been found on speech synthesis dating back to 1779! but these must have been mechanical and are therefore hardly relevant today. Nevertheless it is interesting that even with today's technology it is still not perfected, it seemed at the time I was looking incoherent, and a probably still true today, that more material was available on speech synthesis - that is to get a computer to speak - than on speech recognition - getting a computer to understand.

One interesting item was the work being carried out by Sperry Gyroscopic Inc. in the U.S.A. They had apparently built a device called SCEPTOR which stands for Spectral Comparative Pattern Recognition. Other companies were working on this project as well for the U.S. Navy and reportedly the device was used to try and understand the "speech" of Dolphins. An article can be found on this in *Radio Electronics* magazine (U.S.A.) April 1964.

BGA and others were working on a mechanical interface to change speech into a typewriter message in 1962 and Japan were working on a transistorised read/write equal speech to typewriter message system also in 1962. In 1963 the reverse - written message to speech - was being worked on.

People have studied and experimented for many years to make machines that talk but it is only with the advent of the computer and in particular the large scale integrated circuit that speech synthesis has been available to the home user in a reasonable size

package and at reasonable cost.

Times Instruments took the rest of the industry by surprise when it brought out a toy called Speak & Spell (although it appeared to be an expensive toy at the time (was it only 7 years ago?) it was a miracle of modern technology. Several people who were already into computing as a hobby bought one only to discover that Times would not provide any information on the chips nor would they sell them on their own. Personally I think that was a big mistake as given the ingenuity of some hobbyists, I feel that this subject could have advanced even quicker.

## FURTHER AHEAD

For many years I have been saying that one day it would be possible to dial up anything that can be read, watched or listened to. If you can now download a copy of software or transmit it via Teletext it will not be long before you can get a print of that book you wanted or that pop tune or the latest film, all by dialling a phone number and downloading it. Now I am not talking about recording the data on disks or tape or any other mechanical device which must be subject to wear and tear but direct into computer memory. How long, with the cost per bit of memory coming down as they pack more and more into each chip, I think we shall see incredible amounts of non-volatile memory being used in our computers and peripherals. We may expect hearing that the latest micro has half a megabyte of RAM that even get used to store RAM whenever that Operating System gets more sophisticated with GUI Operating Systems now becoming commonplace. If we want instant recall of what we want when we want it, then tens of thousands of megabytes are going to be needed and probably several dedicated I/O chips to process in parallel. Looking even further ahead a data highway could be built into raw houses controlling all our needs from straight information retrieval to adjusting the central heating to automatically adjusting the light coming through the window with some kind of electro-luminescent material that would compensate for lack of natural light and maintain a constant room light - with manual override of course. Main services such as gas, water, electricity, phone and data charge would be read by remote computer accessing each of our systems and billing us accordingly from a credit account.

## GOVERNMENT CONTROL?

As time goes by I believe our computers will not only get smarter but because of the sheer numbers involved and the possibility of unlimited access to information they will become difficult to control. Sooner or later someone will decide that each computer will have its own built in identification code put there by the manufacturer so that, when it goes on line, the Department of DATA will have a source of income. Lets face it if people give up smoking and bought electric vehicles, revenue would have to come from somewhere! I prefer to add that I am not recommending this as a course of action!

I think that computing today is an exciting time as in the beginning but there is still a lot more to come.



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...plus the regular columns.

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# THE SOFTWARE REVIEWS

## COHEN'S TOWERS

**COHEN'S TOWERS** is a pretty obscure sort of game in the sense that precious few people seem to have heard of it which is a great pity because it is an original and highly addictive game with great graphics and even better sound.

In the actual game you play the part of the Boss's nephews Allen, who's starting out in his new job as a mailboy. The game begins with a monologuing supervisor involving a text type message from the Boss. After that, it's on with the job.

The screenplay is a story of a block of flats split down the centre. Allen has to collect the many parcels one at a time from the various levels and deposit them in any of the three available 'maildrops'. Lifts are used to move up and down between the levels but jumping on and off the lifts is a fairly critical operation and requires a great deal of practice in order to time it just right. One false move and Allen plunges his doom, forfeiting one of his lives. Also, if he stays on any individual lift for too long he is in danger of being knocked off by falling plant pots.

Allen is hampered in his work by pesky dogs who pounce him relentlessly on most of the levels. He can either jump over them or jump onto a lift in a bid to escape. At certain stages in the game a young girl and a dogwalker will appear. Allen must touch them before they disappear inside the doors on their respective levels or he forfeits a life. The dogwalker, incidentally, is useless. He looks like something straight from the set of Hammer's House of Horror. Different tones accompany all the various animal occurrences and they are of excellent standard.

Once Allen has deposited all the parcels in the mail drops, the Boss shows up and leads him off to the next building where the whole thing begins again, only much harder.

**COHEN'S TOWERS** is an excellent title game that I can highly recommend.

*Jim has been awarded an Atari 100M cartridge for his reviews. What about sending in your reviews?*

## MR ROBOT AND HIS ROBOT FACTORY

Big Five's Miss 2049er spawned a whole new generation of jumping and climbing games. **MR ROBOT** is a variation of the basic theme but it is so much more than just another jumping and climbing game. Quite simply, it is the best game of this type currently available for the Atari.

The complete software package is really two different games in one, **MR ROBOT** being the main game while the **ROBOT FACTORY** just added bonus. In the main game, you control Mr Robot and the idea is to collect all the power pills in order to advance onto the next level. You are hampered by many 'alienifer' which patrol the various platforms. You can jump over them or, alternatively, collect an eraser which immediately shrouds Mr Robot with a force-field, enabling him to dispose of the alienifer merely by touching them. Presumably, the force field effect lasts only for a limited amount of time.

There are 22 levels of play, each level completely different from the previous one. You will encounter various modes of transport such as ladders, tread-mills, escalators, poles to slide down, bombs to walk over and explode, trampolines, teleporters, magnets to enable you to jump over large gaps and much, much more.

The graphics are superb and DLF's have been used to create some interesting rainbow colour effects. With 22 different levels of play, the game is a constant challenge and you will not tire of it easily. **MR ROBOT** has more variety than **Miss 2049er**, superior graphics, colour and sound and is an all-round better game. I certainly rate it in my top 5 'all-time' Atari games.

**THE ROBOT FACTORY** is certainly a game in itself. It allows you to create up to 26 different screens and save them to disk in order to produce your very own version of **MR ROBOT**. The possibilities are endless.

## THREE FROM DATAMOST ALL 48k DISK ONLY Reviewed by Jim Short

### MONSTER SMASH

Three eyes to prove that simple games are generally the most addictive. You see a change of a grid that is being invaded from two different sides of the screen by mischievous monsters. You must entice them into the grid by opening various doors and quickly trap them by closing the doors behind them. Then you must smash them to pulp with your palveriser! The doors are controlled by the joystick and the palveriser by either the joystick or the fire button depending on whether you wish to operate the left or right sets of palverisers or both. Each monster you smash earns you a certain number of points with high points being awarded for smashing multiple monsters. Any monster that manages to escape off the screen is counted against you. When a total of 10 monsters have escaped the game is over.

At certain points during the game, depending on your current score, the

play pauses momentarily before advancing onto the next level. Also your 'escapes' total is reset to zero. In the higher levels the monsters become much more tricky as play speeds up considerably. Visitors (humans) are introduced to the game and you must allow them to pass safely through the grid while you are still busy smacking the monsters. If you accidentally smash 3 visitors the game is over; however, you score large bonus points for allowing visitors to pass safely through the grid. A High Score table is incorporated in the game for all those who like to see their name in lights.

The outstanding thing about **MONSTER SMASH** is the opening title tune. It is, without any shadow of doubt, the best musical score I've ever heard in a computer game. It is almost worth purchasing the game just to listen to the music. Yes, it is that good!

# AUTOCAR

## An Analysis utility for your Petrol and Oil consumption

by Peter Franey

Formatting data for screen display is a very powerful feature of *Atari* basic. It is well known that the tab stops on the screen can be changed and reset from within a string. Apart from formatted display, formatted input can be produced in the same way. By far the easier method of changing tab stops is by the use of strings. Once the strings are set up, they need only be printed to the screen to produce the desired results. There is one other method, which is to poke in directly the values required. This technique is used in the main program presented here. The decimal locations 675 to 679 control all the tab locations on the screen display. The screen is 40 columns across and each of the above locations controls eight bits or eight potential tabs on it. The reason there are so many locations is that they control one logical line, or three-screen lines. To change the tabs for display, only the first five locations need be changed. To cancel all tabs a zero is poked into each location. If a zero is poked into 675 then there would be no tab in the first eight columns (00000000). If the same was done with location 676 then the first two bytes or 16 bits or 16-screen columns would look like this, 0000000000000000. This means:

- Location 675 controls columns 0 to 7
- Location 676 controls columns 8 to 15
- Location 677 controls columns 16 to 23
- Location 678 controls columns 24 to 31
- Location 679 controls columns 32 to 39

If you wish to place a tab stop in column 25 then you must use location 678. However there is a problem, supposing you want to set tab stops at columns 25, 27 and 30, how do you do it? The answer is that the eight tab stops covered by each location is really a binary number. The decimal equivalent must be poked into that location. If we wish to have tab stops at columns 25, 27 and 30, the eight bits or single byte covered by 678 should look like this, 01010010. There is a one at each tab position. We need to poke the decimal equivalent into location 678. In this case the value that must be poked into 678 is 82. To reset the default tab-stop system reset. The tab stops should not be confused with *PTAIN* location 301, which controls the distance between print statements using commas. Once the tab

### Program Requirements 48K DISK

positions are set, the cursor can be moved to each position by pressing the [TAB] key.

It is not the purpose of this article to delve into conversion of binary to decimal, but before I continue with details of the program I will say that a good conversion utility (BINARY-HEX/DECIMAL) can be found in *Mapping the Atari*, a CompuLink publication.

### PLANNING THE PROGRAM

Before starting any programming project such as this it is very important to have a clear objective in mind. Even before the planning starts there must be a clear idea of what is to be achieved and if possible how. Only then can any program begin to take shape in the mind. This is particularly important if you do not want things to come to a sudden halt, when the ideas run out, or the results do not turn out as expected.

The first things to do is to ask yourself a series of questions. They usually begin with, "What do I want the program to do". In the case of *Autocar* this was easy but "What is the best way of analyzing your car's petrol consumption" was a little harder. Further questions came to mind like "How much does the tank hold" and "Will I run-out of petrol if I run the tank too low." These questions are relevant because you need to know how much fuel is used. Happily there is a simpler answer to all this confusion.

When you next fill up with petrol, and I mean FILL UP or the system will not work. Make a note of the DATE, QUANTITY, PRICE and clock mileage. Enter the data into the program. When you next decide to visit a petrol station make a note of the details again and ENSURE that the tank is filled. The amount now replaced in the tank is totally representative of the mileage covered. Continue with this until a number of data entries have been made. The program will show clear differences between the consumption for town work, measure distances, and motorway long hauls. There are still inaccuracies using this method but, over a period of time, the true facts will emerge.

If when buying petrol you do not fill the tank, then save the details and add them together before entering them into the program, with the clock mileage at the time of the last fill up. REMEMBER before using this addition method, you must have completely filled the petrol tank at the point at which you decide to enter the details, otherwise the results will be meaningless.

## SUMMARY OF THE PROGRAM FUNCTIONS

There are two program listings for Autoexec. The main listing is here and the second listing covering the graph functions will appear next issue. The programs enable the user to enter the clock mileage, the date, the quantity in gallons, or pints, and the cost. The programs will then analyze costs and consumption, in figures or graphical form. The graph option has been disabled in this list listing but the program can be used as it stands.

The program features **ANALYSIS BETWEEN ANY TWO DATES** and **ANALYSIS OF ALL DATA**. The average values are given for **MILES/GALLON** or **MILES/PINT** and **PRICE/GALLON** or **PRICE/PINT**. Totals are given for **MILES COVERED, GALLONS OR PINTS CONSUMED** and **COSTS**.

## PROGRAM OPERATION

Anyone who is only interested in entering the program, and using it, should first read the **PLANNING** section, in order to obtain practical information on the use of Autoexec.

### GETTING STARTED

The listing in this issue is the main program. Type it in carefully, using **TYPE II** if you have a copy, and save the program to disk using **SAVE'D:CAR'**. **Before running the program delete line number 300**. Run the program. The main menu will now appear. The program will not allow any selection to be made, from this menu, until **Oil 'O'** is pressed, or **Petrol 'P'** is pressed. The main menu will now display the selection made at the top of the screen.

**Creating the disk data file:** Select option 'O' from the main menu. The computer will now save a data file to disk. The data for both Oil and Petrol are saved together in the same file. Re - enter line number 300, or re-load the program from disk.

Every time the program is now run, all data previously saved by it will be automatically loaded, before the main menu appears.

## USING THE PROGRAM

Data is entered and saved using the program in this issue. The graphics program to be published next issue will chart the data entered from program one. Both programs will be chained together on the disk drive. Each program runs for only 10 seconds. It is therefore important that the correct filenames are used for each, when saving them to disk. Listing one should be saved using **SAVE'D:CAR'**, while **SAVE'D:GRAPH'** should be used when you add the **GRAPH** listing.

### 1. ENTERING DATA

When this option is selected the next screen will ask for **E-EXIT** or **D-ENTER DATA** to be pressed. Exit will return the program to the main menu. If data entry was selected the screen will go blank for some seconds and the next screen will show a formatted data entry including **ENTHY**

**No.**, **DATE**, **MILES, GALLONS** (or **PINTS**) and **PRICE**. The entry number will already be displayed at the far left of the screen. Make the entries in each field in the format shown above each field title. After each entry press the **'TAB'** key. The cursor will now jump to the next field. Continue this process until the last field is reached. After the entry in the last field, do not press the **'TAB'** key, press **RETURN**. At the bottom of the screen the option to add more data 'W' or to exit 'E' will be given. Exit will return the program to the main menu. If the add option is chosen the cursor will update the available memory at the top of the screen, and return to directly under the previous entry, where the process may be repeated. The new entry number will also be displayed. When the screen is filled with data entries, the program will clear the screen and give the option to exit, or make further entries.

### 2. DELETE DATA

This routine asks for a simple date entry in the format of **MM/DD/YY**, as displayed on the screen. Enter the date and press **RETURN**. If the entry is not found the program will ring the bell, and the option to re-enter the date or to exit, will be given. If the date entered here is found the data will appear instantly. A machine language subroutine is used in the program to provide such a fast response. When the entry is found the choice to continue search, exit or re-enter the date will be given. The continue search option is provided on the slim chance that two dates which are the same may be in the records. This could happen if a long journey is involved, or the date was entered incorrectly in the first place. If delete data has been chosen (**SELECT**) the program will display, **ERASING DATA PLEASE WAIT**. After deleting the data, if it occurs in the middle of the file, a gap will now exist. The program will now take a few more seconds to close this gap (**CONCATENATE THE FILE**). If the entry which was deleted was in in the middle of the file and it is necessary to replace it in a similar position, **OPTION 6**, the insert data routine must be used from the main menu. (**SEE 6. INSERT/DELETE ALL DATA**).

### 3. VIEW DATA

This part of the program is a series of routines, to display the data entries to screen. Among the options are **STEP THROUGH DATA**, **SINGLE DATA SEARCH** and **DATE RANGE OF DATA**.

**Step through data:** This routine will display all data to the screen.

**Single data search:** This selection will require a single date entry. **'END OF SEARCH PRESS ANY KEY'**, will appear. If the entry was found, it will appear instantly. If not, then nothing will be displayed.

**Date range of data:** The purpose of this option is for the user to enter a range of dates, between which the program will display all data. (**DATE1 & DATE2**). The dates which

are entered for those may be dates which are not actually in the records. The program will still display all data entries between them.

#### 4. PRINT DATA

This option will print all data in the memory to the printer. SEE **PRINTER SUPPORT**, for more information.

#### 5. SPECIAL CALCULATIONS

Among the options given in this set of routines are **ALL TOTALS AND AVERAGES**, **GRAPHICAL ANALYSIS**, and **COST ANALYSIS**.

**All Totals and Averages:** This routine can, if used correctly, be the most useful in the whole program. The program prompts the user to enter two dates. The first date must be earlier than the second. If RETURN is pressed without entering anything for either prompt, the program will default to analyzing all the data entries in the memory. The instructions for using this routine are clearly shown on the screen. Whatever combination is used, the dates entered, must be dates actually in the records, or the program will again default to analyzing all data. If the results are unexpected, check your dates by using option 3 from the main menu, **VIEW DATA** or, if you have a printer, option 4 **PRINT ALL DATA**.

The first choice is to press RETURN for the first date, and enter the second. The program will then analyze all data up to first date. Choice two is the reverse, enter date one, and press RETURN for the second date. The program will then analyze all data from the date entered, up to the last entry. If both dates are entered then the program will analyze any entries between them. All results may be sent to the printer.

**Graphical Analysis:** If 3 is pressed, the computer will load, and run the graphing program (to be published next issue).

**Cost analysis:** Before selecting this part of the program, whether for oil or petrol, ensure that more than one data entry is in the program, or the display will be blank.

The program will analyze the data between each pair of entries, giving the dates, (date1 to date2, date2 to date3), the mileage between them, the corresponding consumption in **MILES/GALLON** or **MILES/PINT** and the **COST/GALLON** or **COST/PINT**. These last two items are shown in graphical form if **GRAPHICAL ANALYSIS** is chosen.

All results may be sent to the printer.

#### 6. INSERT/DELETE ALL DATA

When data is entered into the program using option one, it is not sorted into date order. The enter data routine assumes that each successive date is later than the first. The insert routine presented here will insert data between existing entries. This will be carried out according to date and mileage. It must follow that if a date entry neatly fits in chronological order, between two existing entries, the clock mileage must also fit in at the same point. However for long

journeys, the petrol tank could be filled up twice on the same day. This will also be taken into account. If the program will not accept any entry in which the date is later, insert the new entry with reference to the mileage. The program will not accept any entry in which the date is later, or the mileage greater, than the last entry. The last entry will be displayed.

One further point should be made about this routine, and that is that the greater the number of entries, the longer this process will take.

**Delete all Data:** The purpose of this routine is that once the memory is full, all the records may be cleared to start again.

#### 7. SAVE DATA TO DISK

This option is used to save oil and petrol records to disk. It should be used after any new data entries are made. It is recommended that you keep at least one backup copy of your data file on another disk.

#### 8. LOAD DATA FROM DISK

This part of the program may be used to re-load a data file from disk. It may also be used to load different data files, for example, for another vehicle. When a different data file is loaded, any previous file will be erased.

### PRINTER SUPPORT

All printer output is tailored to forty columns. The program supports output to an 80 column dot matrix printer. As presented the code is designed for forty column **DOUBLE WIDTH** output for the Epson type of printer. If you have a dot matrix printer and the codes are not compatible with the Epson, then you will have to change lines 6000 and 7400 in the program to the appropriate codes for your printer. If your printer is not dot matrix then alter lines 6000 and 7400 to TRAP9000 only.

#### LINE BY LINE

3 - 280  
580 - 770

780 - 1250  
1340 - 1420

1470 - 1540  
1610 - 1640  
1650 - 1800

1830 - 1970  
1980 - 2170  
2040 - 2140

2180 - 2250  
2260 - 2320  
2330 - 2420

2430 - 2460  
2470 - 2530  
2540 - 2740

2800 - 2910

INITIALISATION  
MAIN MENU & SELECTION  
ROUTINES  
ENTER DATA ROUTINE  
VIEW DATA MENU &  
SELECTION  
SINGLE STOP THROUGH  
DATA  
SINGLE DATA SEARCH  
DELETE DATA ENTRY  
ROUTINE  
DELETE DATA ROUTINE  
RANGE OF DATA ROUTINE  
SPECIAL CALCULATIONS  
MENU  
CALCULATION OF TOTALS &  
AVERAGES  
DISPLAY RESULTS  
STRING SEARCH ROUTINE  
SAVE DATA ROUTINE  
LOAD DATA ROUTINE  
PRINTER ROUTINE  
COST ANALYSIS  
DATA FOR STRING SEARCH  
ROUTINE









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Here are a couple to start with.

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Number 0225 23276 (ringback)  
Access times 23.00 - 05.00 weekdays  
21.00 - Noon weekends  
Sysop Mark Templeman

Send n.a.s. for information sheet.

### SCOTTISH ATARI B.B.S.

Number 0698 884884  
Access times 24 hours every day  
Sysop Nick Rowan

The first bulletin board in Scotland.

AUTOCAR continued from page 49

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100 0000 0000 0000 0000 0000  
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15 0200 000 0000 00 0000 0000  
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