

Sorry, no computers



but I can sell you a hard disk drive (well, maybe)

Luckily there are still some folks supporting your Atari so don't give up
Page 6 supports your Atari with the world's oldest and best dedicated magazine ...
as well as the world's best PD library ...
as well as providing commercial software ...

Don't be like the guy above
return the favour

Keep supporting Page 6

Page 6 Publishing's

NEW

ATARI USER

The Resource for the ATARI CLASSIC and the ATARI ST

Issue 79 - November/December 1996 \$2.50

FOR THE ATARI CLASSIC



❖ **DISK DIRECTORY MOVER**

A classy program to give your disks the professional feel

❖ **RAM BANK UTILITIES**

At last something that uses the extra memory

❖ **THE BLACK BOX**

The ultimate hardware add-on?

Guerrilla

THE WIDER SCENE

THE INTERNET WITH AN 8-BIT
COMPUERVE'S SPECIAL ATARI PAGES



PLUS... THE EPICENTER... THE PPG... A TROUBLE SHOOTER... STORING KEYBOARDS... and more!

This issue's

Thanks

Les Ellingham puts it all together and fills up the gaps but the real thanks goes to the talented who made this issue possible

Sandy Ellingham who takes care of all the office work, advertising and mail order

For their regular contributions

John G Dearson
Alan G DeWolfe

Paul Nixon
Allen J. Palmer

For their contributions this issue

Andy Dullinane
Richard Gore
Frank Walters
John Peckert
Zed Debutis

Ken McEneaney
Kevin Gander
B. Tomlin
Dean Gerraghty
James Whitlock

Inspiration

I happened to look in G magazine and saw that Mary Chapple Cooperine had a video CD and so Paul is happy the band is in order to get enough together to buy it. Initially a bit disappointing, being less strong than her earlier stuff but it is growing and in an album I always find that the albums I am not impressed with usually turn out to be the best. Maybe with this one. Also played this time was Peter Williamson's The Island of the Missing Sea, again initially unimpressive but now like a lot of his previous albums, a superb piece of song-writing and poetic composition. One song in particular, about his son, has a huge impact. Another Williamson release.

CONTRIBUTIONS

Without contributions from its readers, NEW ATARI USER would not be possible. PAGE 4 welcomes and encourages its readers to submit articles, programs and reviews for publication. Programs must be submitted on disk or cassette, articles should wherever possible be submitted as text files on disk. We seek to encourage your participation and do not have strict rules for submissions. If something interests you, write a program or article and submit it!

COPYRIGHT

All original articles, programs and other material in NEW ATARI USER remain the copyright of the author as indicated. All reproduced material is copyright PAGE 4. Permission must be sought by request writing to reproduce any material. Unless you have otherwise stated on your request the ownership of articles and programs and the contents of advertisements PAGE 4 cannot be held liable in any circumstances made by subscribers.

NEW ATARI USER is published bi-monthly at £3.95 (US\$ 12.95) per annum. All orders should be sent to PAGE 4 at 200 High Street, London E15 2JF. All orders should be sent to any other country or post office.

Editorial address: P.O. Box 94, Stanford, ST16 1QR, ENGLAND Tel: 01753 541153
Editor & Publisher: Les Ellingham - Advertising: Sandy Ellingham
Page layout by PAGE 4 - Printed by Dolphin Press, Fife, Scotland 01222 771103
NEW ATARI USER is published bi-monthly on the last Thursday of the month prior to cover date

'The Magazine for the
Dedicated Atari User'
ISSN No. 0488-7766

Issue 78 - November/December 1988

PROGRAMMING

REGULARS			
EDITORIAL	4	RAM BANK UTILITIES	5
MALDAG	10	Finally some use for that extra memory	
DISK BONUS	20	TURBO TIPS	25
GLWTWS		DUEL	40
CLASSIC PD ZONE	34	A turbo player game	
THE TIPSTER	40	DISK DIRECTORY MOVER	42
ACCESSORY SHOP	51	Give your disks that professional touch	
ST PD ROUNDUP	52		
CONTACT	60		

FEATURES

ADVERTISERS			
MICRO DISCOUNT	22	TEXTPRO MACROS PART 4	24
		Printing tips make TextPRO even better	
		GET ON THE NET	32
		Can you use an Atari Atari?	
		THE NOSTALGIA COLUMN	38
		A look back at the day-day of Atari!	
		JOURNEY INTO CYBERSPACE	58
		Computerize pages checked entirely by Atari	

REVIEWS

THE BLACK BOX	16
The ultimate hardware add-on that lets you use hard drives and 387 drives on your Classic	

SUBSCRIPTIONS

MAGAZINE ONLY

Annual subscription rates (6 issues)

UK	£12.00
Europe (Air Mail)	£17.00
Europe (Sea Mail)	£13.00
Europe (Air Mail)	£22.00

Overseas rates collect only the difference in postage costs

DISK SUBSCRIPTION

A disk containing all of the best programs from each issue of NEW ATARI USER is available either separately or as an add-on option. Single price £1.95 per disk, a disk subscription costs you almost £4 a year. Subscriptions rates (6 issues)

UK	£15.00
Europe	£21.00
Europe (sea)	£13.00
Europe (Air)	£22.00

Please make cheques payable to PAGE 4 PUBLISHING and send to PAGE 4 Publishing, P.O. Box 94, Stanford, ST16 1QR

In order to complete this issue in time for Christmas I had the shortest possible time to complete it, and worried that I might not be able to make it in the allotted few days. As it turned out, I completed it in record time and with a day to spare! The reason was the superbly prompt and willing articles and programs that turned up for this issue, all submitted on disk and virtually all ready to run with only little work required. This is the sort of service I have had from John Davison over many years - his articles are always a joy to do as they almost never need any work and can be ported over to Fleet Street straight away. Now it looks as if other contributors have caught the bug and are trying to make my life a duster!

All modifications get the same treatment, even if they are from known regulars (and even this editor!). Anything submitted on an 8-bit disk is ported over to a master 8T disk for the issue and the articles are loaded into Protex. First job is to get the format right, taking out unnecessary carriage returns, joining or splitting obvious paragraph anomalies, putting in subheadings and the like before running through the spell checker. Everything is spell checked even if it has already been done by the author. I have even been able to find the odd spelling mistake in John Davison's column! Next job is to print out a draft and read it through to see if it makes sense to me, both from the point of view of grammar and whether what is being in is in fact correct to understand/define. Occasionally I have to make some major changes because the intention of the author has not come through clearly (not this time!). On rare occasions I have to give up and reject something. I'll not understand it, chances are you won't be able to either!

After this read through, corrections are noted and the article is amended in Protex before being loaded into Fleet Street for layout. At this stage it is virtually complete although sometimes I have to go back and chop-out parts if an article overruns by a few lines, but generally I can get everything to fit in.

Although it is a joy to get articles and program contributions almost ready to run, I don't want to put off those of you who are not the best of writers. By outlining what happens to contributions I hope you can see that any problems with spelling or grammar, or the sense of the piece, are taken care of. I have always said that the important part is sharing your ideas and enthusiasm with fellow users and you don't have to be a professional writer to get something published in New Atari Times. There are no rules like those laid out by the big publishers, just write it down (preferably on disk) and I will do the rest.

I hope that this has encouraged those of you who have not contributed before. Of course I will welcome many more articles from our regular writers and contributors!

ANOTHER YEAR!

As we come to another year end, one or two problems during the year but we have received yet another year bundle to your support, either as a subscriber or a contributor. New Atari Times (or Page 0) has to be the longest surviving magazine for the fixed (including even Atari themselves!) and possibly one of the longest running magazines for any computer. We now look forward to another year end, provided you keep sending in the contributions and keep the subscription renewal coming (as well as the odd new subscription). I shall see you all in this spot in twelve months time.

Meanwhile have a Happy Christmas and another year of Atari computing. It looks like 1997 might be a good year, certainly with more promise than the past few years. Keep sending. Keep computing!

Leo Ellingham

RAM BANK UTILITIES

by Andy Guillaume

If you've tried out my RAMTEST program from NAU #75 then you may notice in the article that I hinted at the possibility of using a machine code routine to access the extra banks behind BASIC's bank. This means that you don't have to worry about your programs growing into the bank switch area and it can be an big an you want. The Main Bank is switched out by the routine for whatever action you want to perform and replaced before returning to BASIC - which creates an environment.

With this routine you can either Load data into any bank from disk, Save data back onto disk from any bank and Copy data from any bank to any other address or vice-versa. This means that you are using the Banks for data storage only so you would usually Load a bank at the start of your program and copy parts of it out at the relevant time.

Type in the first program and save it to LIST#RAMUTIL.LIST, 10000,10000. This contains of four Procedures - the entry of the Machine code routine and the Load/Save/Copy Bank routines. It's handy to save in LIST# format so that you can easily merge them into files with existing programs such as the Screen programs (see below).

USING THE ROUTINES

You MUST first RUN the RAMTEST program so the Bank switch table is required. If you haven't modified this program then the table starts at address 1000. First the number of Banks (n) (100) then the Row value list (207) - for selecting the Main Bank again - and then the list of Bank select values (1000 assumed). The r/n routine assumes that the table starts at 1000, though you can alter this by typing in the Address list and changing the value of TABLE. The r/n routine is PORTED into page 0 from address 1001 to 1004, above the Bank switch table.

Note that in the RAM TEST DEMO program (also in NAU #75) the Banks are referenced as 0 to 4 (lines 70 and 220), 0 to the Main Bank and 4 the 4th Extra Bank. When using THESE routines the Banks are referenced as 0 to 3, 0 to Extra Bank number 1 up to 3 as the 4th Extra Bank. You do not have to consider the Main Bank as this is handled by the r/n.

Use the SETUP procedure to initialise the r/n routine and variables - see SCREENS line 60.

The Load Bank Procedure LMBANK does exactly what you would expect from it's title. Before jumping to this routine, using EXEC.

BLANK, you should set the Destination address for the data (DEST), the length in bytes (LENGTH) and which bank to use (BANK) — see BULKNO line 158. First the BCCB number is set (you can see any free BCCB). The same m/c routine is used for Loading/Setting and the MODE variable is set accordingly, 7 for Loading (i.e. BCCB BCCBNO Compressed byte value). The channel is opened to BASIC (with a 4 in the OPEN statement) meaning BCCB0 then the m/c routine is called with the LMB statement on line 16000. The basic Bank Procedure follows the same lines as above. The BCCB is 11 for loading and the 8 in the OPEN statement means WRITE. Remember to first set the address from which to save (FROM), the length in bytes (LENGTH) and which bank to use (BANK) before EXECUTING BSAV — see BULKNO line 270.

CBANK, used to Copy data is quite simple. Just set the address from which to copy (FROM), the address to copy to (DEST), the length in copy in bytes (LENGTH) and which bank to use (BANK) before EXECUTING — see BULKNO line 300. Note that this is bidirectional, the FROM and DEST address can be used to copy into a Bank or from it to any other address in memory.

You don't have to use those procedures (except from BCTLR) but I've presented them in this form to make them simpler to understand and easier to use in your own programs.

THE DEMO PROGRAM

The demo program shows how easy it now is to manipulate the Extra Banks. First RUN the MARSHIST program as mentioned above then follow MONYing of control type in the demo program and usage in the Utility procedures

```

00 1 BCCB *****
01 2 BCCB # BANK UTILITIES DEMO #
02 3 BCCB # by Andy Gill/taze #
03 4 BCCB # ***** #
04 5 BCCB # NEW ATARI BCCB - NOV 1994 #
05 6 BCCB *****
06 7 BCCB
07 8 BCCB *****
08 9 BCCB *****
09 10 BCCB *****
10 11 BCCB *****
11 12 BCCB *****
12 13 BCCB *****
13 14 BCCB *****
14 15 BCCB *****
15 16 BCCB *****
16 17 BCCB *****
17 18 BCCB *****
18 19 BCCB *****
19 20 BCCB *****
20 21 BCCB *****
21 22 BCCB *****
22 23 BCCB *****
23 24 BCCB *****
24 25 BCCB *****
25 26 BCCB *****
26 27 BCCB *****
27 28 BCCB *****
28 29 BCCB *****
29 30 BCCB *****
30 31 BCCB *****
31 32 BCCB *****
32 33 BCCB *****
33 34 BCCB *****
34 35 BCCB *****
35 36 BCCB *****
36 37 BCCB *****
37 38 BCCB *****
38 39 BCCB *****
39 40 BCCB *****
40 41 BCCB *****
41 42 BCCB *****
42 43 BCCB *****
43 44 BCCB *****
44 45 BCCB *****
45 46 BCCB *****
46 47 BCCB *****
47 48 BCCB *****
48 49 BCCB *****
49 50 BCCB *****
50 51 BCCB *****
51 52 BCCB *****
52 53 BCCB *****
53 54 BCCB *****
54 55 BCCB *****
55 56 BCCB *****
56 57 BCCB *****
57 58 BCCB *****
58 59 BCCB *****
59 60 BCCB *****
60 61 BCCB *****
61 62 BCCB *****
62 63 BCCB *****
63 64 BCCB *****
64 65 BCCB *****
65 66 BCCB *****
66 67 BCCB *****
67 68 BCCB *****
68 69 BCCB *****
69 70 BCCB *****
70 71 BCCB *****
71 72 BCCB *****
72 73 BCCB *****
73 74 BCCB *****
74 75 BCCB *****
75 76 BCCB *****
76 77 BCCB *****
77 78 BCCB *****
78 79 BCCB *****
79 80 BCCB *****
80 81 BCCB *****
81 82 BCCB *****
82 83 BCCB *****
83 84 BCCB *****
84 85 BCCB *****
85 86 BCCB *****
86 87 BCCB *****
87 88 BCCB *****
88 89 BCCB *****
89 90 BCCB *****
90 91 BCCB *****
91 92 BCCB *****
92 93 BCCB *****
93 94 BCCB *****
94 95 BCCB *****
95 96 BCCB *****
96 97 BCCB *****
97 98 BCCB *****
98 99 BCCB *****
99 100 BCCB *****

```

Include = INVERSE CHARACTERS - | | = CONTROL +
 CHARACTER - < > = INVERSE CONTROL + CHARACTER

using ENTER TO PARALLEL LIST. You can now save this as BULKNO.BAS.

Upon RUNNING, the program displays some text and asks for a filename for a picture file to load. This file will be a straight 80-character image (using just the picture info 17800 bytes). The file is then loaded into Bank 0 (line 300). Press any key at the prompt to display the screen. Copied from Bank 0 to the SCREEN address line 300. Hit any key to return to main text. If you now press "F" the picture is moved to disk from Bank 0 with the name PICTURE (line 270) — no charge disk, OK! Any other key ends the demo.

You can see that it's very easy to control those routines. Just set the control variables and EXEC the required routine. Use line 80 to dump the code. Line 180 to Load a Bank. Use 200 to Copy data and line 270 to store a Bank.

THE ASSEMBLER LISTING

You can see that the routine is quite simple, the main points being the BCCB usage and pulling various numbers from the stack. The Equates at the start set the address for the FROM, DEST and LENGTH bytes. These are placed in page 8 for quick access and for using indirect addressing. BCCB comes the BCCB pointers to BCCBNO (Compressed Byte), BCCB/7H (Buffer address Low/High bytes) and BCCB/7H (Buffer length Low/High bytes). These are all that is needed to use the BCCB.

PTABLE is set at line 180 to 1500, with BCCB/7H pointing at the Bank value and BCCB/0 to the first Bank select index. Remember to change this if you name PTABLE in the MARSHIST program.

```

00 1 BCCB *****
01 2 BCCB # BANK UTILITIES DEMO #
02 3 BCCB # by Andy Gill/taze #
03 4 BCCB # ***** #
04 5 BCCB # NEW ATARI BCCB - NOV 1994 #
05 6 BCCB *****
06 7 BCCB
07 8 BCCB *****
08 9 BCCB *****
09 10 BCCB *****
10 11 BCCB *****
11 12 BCCB *****
12 13 BCCB *****
13 14 BCCB *****
14 15 BCCB *****
15 16 BCCB *****
16 17 BCCB *****
17 18 BCCB *****
18 19 BCCB *****
19 20 BCCB *****
20 21 BCCB *****
21 22 BCCB *****
22 23 BCCB *****
23 24 BCCB *****
24 25 BCCB *****
25 26 BCCB *****
26 27 BCCB *****
27 28 BCCB *****
28 29 BCCB *****
29 30 BCCB *****
30 31 BCCB *****
31 32 BCCB *****
32 33 BCCB *****
33 34 BCCB *****
34 35 BCCB *****
35 36 BCCB *****
36 37 BCCB *****
37 38 BCCB *****
38 39 BCCB *****
39 40 BCCB *****
40 41 BCCB *****
41 42 BCCB *****
42 43 BCCB *****
43 44 BCCB *****
44 45 BCCB *****
45 46 BCCB *****
46 47 BCCB *****
47 48 BCCB *****
48 49 BCCB *****
49 50 BCCB *****
50 51 BCCB *****
51 52 BCCB *****
52 53 BCCB *****
53 54 BCCB *****
54 55 BCCB *****
55 56 BCCB *****
56 57 BCCB *****
57 58 BCCB *****
58 59 BCCB *****
59 60 BCCB *****
60 61 BCCB *****
61 62 BCCB *****
62 63 BCCB *****
63 64 BCCB *****
64 65 BCCB *****
65 66 BCCB *****
66 67 BCCB *****
67 68 BCCB *****
68 69 BCCB *****
69 70 BCCB *****
70 71 BCCB *****
71 72 BCCB *****
72 73 BCCB *****
73 74 BCCB *****
74 75 BCCB *****
75 76 BCCB *****
76 77 BCCB *****
77 78 BCCB *****
78 79 BCCB *****
79 80 BCCB *****
80 81 BCCB *****
81 82 BCCB *****
82 83 BCCB *****
83 84 BCCB *****
84 85 BCCB *****
85 86 BCCB *****
86 87 BCCB *****
87 88 BCCB *****
88 89 BCCB *****
89 90 BCCB *****
90 91 BCCB *****
91 92 BCCB *****
92 93 BCCB *****
93 94 BCCB *****
94 95 BCCB *****
95 96 BCCB *****
96 97 BCCB *****
97 98 BCCB *****
98 99 BCCB *****
99 100 BCCB *****

```

Include = INVERSE CHARACTERS - | | = CONTROL +
 CHARACTER - < > = INVERSE CONTROL + CHARACTER

07 1000 RPN <u>REV BANK 0111,010</u>	24 1020 <u>DISPLOC</u>
08 1008 RPN <u>BY 4,011,010</u>	25 1028
09 1016 RPN <u>REV - NUMBER 1776</u>	26 1036 RPN <u>SETUP CODE</u>
10 1024 RPN	27 1044 RPN <u>SETUP</u>
11 1032	28 1052 PORTS=0417-PTABLE=1504
12 1040 RPN <u>LONG BANK</u>	29 1060 RSET=PT01-PTABLE=011 JUMPBANK
13 1048 RPN <u>LONG BANK</u>	30 1068 <u>PT01-PTABLE=0106 PORTS=0017</u>
14 1056 RPN=01-PT00=7-1000 <u>2,1000,041</u>	31 1076 RPN <u>01X01=0407=0101=0400</u>
A	32 1084 RPN <u>NOTHING 1504</u>
15 1060 RPN <u>0100=0100,0,10,10,000 <u>0,0000</u></u>	33 1092 FOR N=0100LS TO 0100LS+124
16 1068	34 1100 RPN <u>0100 01-PT00 N,0</u>
17 1076	35 1108 RPN <u>NOT X</u>
18 1084	36 1116 RPN <u>DISPLOC</u>
19 1092	37 1124 DATA 104,104,104,104,10,10,10,10,10,
20 1100 RPN <u>LONG BANK</u>	104,107,0,0,0,104,107,10,0,104,107,0,
21 1108 RPN <u>LONG BANK</u>	0
22 1116 RPN <u>LONG BANK</u>	38 1132 DATA 104,107,0,0,104,104,101,10
23 1124 RPN <u>LONG BANK</u>	1,107,0,0,104,104,107,0,0,0,104,100
24 1132 RPN=01-PT00=11-1000 <u>11-1000,0</u>	39 1140 RPN <u>070,1,211,0,0,0,10,1,0,10,1</u>
25	211,0,0,10,1,211,0,1,0,070,0,0,0
26 1140 RPN <u>0100=0100,0,10,10,000 <u>0,0000</u></u>	40 1148 DATA 25,0,0,101,1,211,0,104,104,104,
27 1148	104,101,10,0,104,100,104,100,100,100,
28 1156	104
29 1164	41 1164 DATA 100,100,104,100,100,104,100
30 1172	100,104,100,100,10,10,1,0,100,100,100,0
31 1180	107,0,0
32 1188 RPN <u>DISPLOC</u>	42 1180 DATA 100,100,100,100,100,0,100,0
33 1196	04,100,100,100,0,100,104,100,107,0,0,0,
34 1204 RPN <u>SETUP BANK</u>	00,100,100
35 1212 RPN <u>SETUP BANK, FROM, DEST, LONG</u>	43 1204 DATA 200,100,0,0,0
36 1220	

***** INVERSE CHARACTERS - | - CONTROL CHARACTER - ~ - INVERSE CONTROL CHARACTER

THE DISKLS ROUTINE: The routine is assembled into address 1500. The first byte being a temporary store for the bank number to use. An DISKLS instruction starts at 1501 (M0510). When the routine is called (from BANK0) using the USA statement, BANK0 first stores the number of items following the m's address in the statement on the stack. The items themselves are then stored in order. All items, even if only 8-bit values, are stored as 16-bit values using two bytes each. When pulling bytes off the stack, the High byte

comes first (then the Low). Thus the number of items to first PUSHD and DISKED, then the H0CB, DEST, LENGTH and BANK High/Low bytes are stored. (NB: each DISKLS consists of 18 bytes therefore you just multiply the H0CB number by 18 and put it in the X register to use as an index in whichever K0CB you're using.)

The SWTCH sub-routine is called at line 430 to switch banks. The M000 value is then pulled from the stack and stored into H0CBM.

continued on page 88

10 PAM Bank 0100	800 L0A PORTS	Get PORTS status
20 By A Callout	800 AND 40	Mask ROM output
30 March 1985 to 1987	801 00A R0RTE	Get the R0RTE value
40	802 07A PORTS	Get new PORTS
50 FROM=000	802 RTE	Return to BANK
60 FROMA-FROML+1	804 SWTCH	
70 DESTL=000	800 L0A PORTS	Get PORTS status
80 DESTH=DESTL+1	800 AND 40	Mask ROM output
90 L0A=007	801 07A BANK	Get Bank number
0100 L0A=L0A-1	800 00A STABLE #	Get the BANK value
0110 000A=004	800 07A PORTS	Get new PORTS
0120 000A=000	800 RTE	
0130 000A=007	801 00P	
0140 00L=040	800 PLA	Number of items
0150 00LH=041	800 PLA	BANK HI-BYTE
0160 PTABLE=1500	800 PLA	BANK LO-BYTE
0170 R0RTE=PTABLE-1	800 07A BANK	
0180 STABLE=R0RTE+1	800 PLA	
0190 PORTS=0407	801 07A FROMH	FROM HI-BYTE
0200 000=0004	800 PLA	
0210 ~1000	800 07A FROML	FROM LO-BYTE
0220 BANK ~+1	800 PLA	
0230 00P=0	8110 07A DESTH	DEST HI-BYTE
0240 PLA	800 PLA	
0250 PLA 00CB HI-BYTE	800 07A DESTL	DEST LO-BYTE
0260 PLA 00CB LO-BYTE	8100 PLA	
0270 ASL A	800 07A LENH	LENGTH HI-BYTE
0280 ASL A	800 ASL A	
0290 ASL A	800 ASL A	
0300 ASL A	800 ASL A	
0310 TXC	800 ASL A	Multiply 8 by 10
0320 PLA	800 TXC	Number to X
0330 07A 0CBALX	800 07A 0CBALX	DEST HI-BYTE
0340 PLA	800 PLA	
0350 07A 0CBALX	800 07A 0CBALX	DEST LO-BYTE
0360 PLA	800 PLA	
0370 07A 0CBLLX	800 07A 0CBLLX	LENGTH HI-BYTE
0380 PLA	800 PLA	
0390 07A 0CBLLX	800 07A 0CBLLX	LENGTH LO-BYTE
0400 PLA	800 PLA	
0410 PLA	800 07A BANK	BANK HI-BYTE
0420 07A BANK	800 07A BANK	BANK LO-BYTE
0430 00P SWTCH	800 00P SWTCH	Switch Banks
0440 PLA	800 PLA	
0450 PLA	800 PLA	
0460 PLA 00CBM,X	800 07A 00CBM,X	Bank C0V
0470 00P 00V	800 00P 00V	
0480 RESET	800 00P RESET	
800 L0A PORTS	Get PORTS status	
800 AND 40	Mask ROM output	
801 00A R0RTE	Get the R0RTE value	
802 07A PORTS	Get new PORTS	
802 RTE	Return to BANK	
804 SWTCH		
800 L0A PORTS	Get PORTS status	
800 AND 40	Mask ROM output	
801 07A BANK	Get Bank number	
800 00A STABLE #	Get the BANK value	
800 07A PORTS	Get new PORTS	
800 RTE		
801 00P		
800 PLA	Number of items	
800 PLA	BANK HI-BYTE	
800 PLA	BANK LO-BYTE	
800 07A BANK		
800 PLA		
801 07A FROMH	FROM HI-BYTE	
800 PLA		
800 07A FROML	FROM LO-BYTE	
800 PLA		
8110 07A DESTH	DEST HI-BYTE	
800 PLA		
800 07A DESTL	DEST LO-BYTE	
8100 PLA		
800 07A LENH	LENGTH HI-BYTE	
800 ASL A		
800 ASL A		
800 ASL A		
800 ASL A		
800 TXC	Multiply 8 by 10	
800 07A 0CBALX	DEST HI-BYTE	
800 PLA		
800 07A 0CBALX	DEST LO-BYTE	
800 PLA		
800 07A 0CBLLX	LENGTH HI-BYTE	
800 PLA		
800 07A 0CBLLX	LENGTH LO-BYTE	
800 PLA		
800 07A BANK	BANK HI-BYTE	
800 07A BANK	BANK LO-BYTE	
800 00P SWTCH	Switch Banks	
800 PLA		
800 PLA		
800 07A 00CBM,X	Bank C0V	
800 00P 00V		
800 00P RESET		

Mailbag



A BUMPER MAILBAG!

Some nice long letters this time from some of our more regular correspondents to whom many thanks. Letters from the regulars are always welcome but how about some letters from those of you who haven't written before? There is still lots to talk about and don't forget it's good to talk! (Wish I'd got as much money as Bob Hoskins for saying that)

Les Elingham

MORE POWER TO YOU

Let's kick off this issue with a solution for those of you who have dead power supplies. Charlie Agnes from Wind Green in London writes: "Just a short story which may be of interest to you and all our readers. About a month ago I purchased Transubik IV to transfer all my tapes to disk. I set up my cables - 80002L, two 1000 drives and a 1010 monitor - only to find that one of the AC power adapters had ceased to function. This adapter is Atari part number CO 90509-04/T81 T808. Rather than buy I decided to check it out to see if I could sort out the problem, so it was out with the test meter to check the external wiring which turned out to be okay. This meant stepping the adapter to get to the internals. Unfortunately the case is held together by four rivets which looked difficult to remove. I solved the problem by using a 12/84 file to file the bit in the old black and Delecker. This will not drill out the rivets, which are very thin and brittle, but it does ease on the rivet and split it just enough to heat up the plastic so that the rivet can be pushed out of the plastic

without any damage to the casing. The next step is to remove the bottom plate which reveals a transformer. I carefully removed the transformer which reveals a plastic covered object connected to two terminals. I then considered one real fix: the transformer and removed the plastic sleeve. This reveals a fuse which is held between two-rail caps (fuse is 30mm x 5 cmpl). So it was back to the spare box to see if I had a replacement fuse. Luckily I managed to find one and after replacing it I reinstalled the connections to the transformer, not forgetting to replace the plastic sleeve. I then decided to test it out so connected it up in the test meter and found it was pushing out just over 11 volts. I then connected it up to the 1010 monitor and found it worked perfectly. This led me with just one problem, how to reassemble the case. This turned out to be even easier than I thought by using 'W' pop rivets which fit very nicely into the holes left by the drilling out of the original rivets.

Fused power now fully working power supply of a sort of our replacement here and four pop rivets. I hope this will be of use to those Atari users to repair a power supply rather than trying to find

a replacement.

☛ Charles is obviously expert enough with this sort of fiddling up but this doesn't seem to be too difficult to do. Isn't it astonishing that Atari seem to such lengths to hide a simple fix? Could it be that they would rather you buy a new power supply from them rather than a fuse from some one else. Perhaps the thought

Based on attendance information from the organizers, I think I made the correct decision.

PC TO ATARI

On the matter of communication between computers, Steve Corroghy asks regarding Mike Daddleson's letter, transferring both text and binary files between the Atari and the PC (and back again) is actually very easy. You need some special software for the PC to read and write to Atari disks, and you also need a floppy or harddisk drive for the computer which is capable of formatting to 160K. You also need MyDOS. If anybody wants to transfer files, but doesn't have the lot to do it, then I can do it for you. Please see 011200-905026. A small charge will be made for the service to cover costs.

Mike also mentions Basic on the PC. I would say that using Atari Basic as a stepping stone to versions of PC Basic is probably not a good idea! Visual Basic on the PC is a form of a language and looks nothing like Basic on the Atari. VB is extremely powerful and is capable of creating commercial quality

applications, but the Basic element is really just there to string together the event-driven GUI facilities. It is also a procedural version of Basic with no line numbers. You can even program recursive functions if you are wanting to use VB or similar on the PC. Does the best way to get a good look at VB. Most are well over 1,000 pages and can run up to 4752"

THE PD DEBATE

We can always rely on some comment from long letters from Brad Rogers, and even welcome it to see Brad state of both comments on the often married software situation which I asked all of you to let me have your thoughts on. "Continuing the current debate about releasing commercial software into the public domain, I offer the following.

Yes, Kevin Cooke is, strictly speaking, correct. Somebody does still own the copyright to all that software. The trouble is, what's often very hard to find out. Sometimes, companies release copyright to the relevant authors, sometimes not. This really only becomes an issue when a company fails, or is bought out. What happens then? It





often isn't possible to ascertain who holds the copyright. It's one of those things discussed at length on the Internet, as an example. Last month, an e-mail message was forwarded about someone claiming the rights to their software. Back came the answer - no, no longer have the source code for this. Neither are there any letters (or agreements). Furthermore they wouldn't even know where to start looking for them. In light of this what are we to do? A rhetorical question, really.

Law suggested that this might be finally settled for discussion on the Net. As I've indicated, it already is - at length, and virtually ad-infinitum. It's been an interesting linked series of messages on the subject also, and another source. Ultimately, there is no consensus of opinion, though. It must be said that there are archives of Altair II software available for download from the Net, both PD and commercial. Whilst some companies will deplore the appearance of the commercial releases, with attitudes of corporate like Locomotion, where also can we archive this material?

To be fair, the people contributing these archives are doing so for laudable reasons. Again, an example I have a disk copy of a game,

which has copy protection that I haven't bypassed. For some reason or other, the disk gets trashed. I'd like another copy of the game. It could ask to use of the Internet, encourage to purchase a second-hand copy. Really, this often produces nothing, especially when one realises what it letters are in the USA. This leaves me one option, that is to download a cracked copy of the game from the Net. If the software has been out of production for ten years or more, little harm can come of it. Now, if the software was available from the likes of David Perry's Mouse Discount, then that would be a different matter entirely.

I know that in the past piracy on our favoured platform has cost companies millions (quite literally) but it has been suggested, though, little change is in these days.

Let me say at this point, I do not say advocate piracy. That if I've got an original copy of a piece of software, I'd like to be able to have a back-up somewhere. And so too would everyone else I suspect. Even the people wanting these archives on the Net request that we don't try to download copies of stuff we don't already own. They're providing our back-up for us, that's all. Nothing more, no-

thing less."

If interesting stuff, then, I don't really understand the comments from Locomotion, or at least they are not thinking along the same lines as I am about this matter. There is no need for anyone to give up the rights to a program or game those rights are to require also and, mostly themselves, not need to find source code and the like. What is needed is not the permission for someone else to market a game but for the company owning the rights to state that they have no objection for a specific computer version of a game to be freely distributed among users. I can fully understand, and suggest, a company's desire to retain control over a particular program's idea or structure as they can consent that program to other computers, or game systems, that might come along in the future.

What I can't understand is what benefit to the company there is of retaining control of a specific version of the program for a computer that is no longer available. And what the interest is of allowing free distribution of that version? If we take the Altair, after all that is what we are all concerned with, what is the chance of Locomotion making any more money out of a program like Galaxian? Now, what is the chance of

anyone else making money out of selling the Altair version commercially? Virtually none. What then is the point of retaining full control of the Altair version of the software when nothing can be done with it? Instead of avoiding the issue by talking about missing source code, why not simply say "We give permission for the Altair version of Galaxian to be advanced in its freely distributed". Nobody is going to take money away from Locomotion, since there is no possibility of them earning any more. No other company is going to make loads of money from the program if we simply know that they can get a copy free from the Net or from their users. Where's the objection?

If I had time I might expand this into a full article but my job is to get this issue overprinted so let's go on to the next part of David's letter which continues in the same vein with some very interesting views. The basic things are sometimes very clear cut though, like Chadwick (but do you mean, you don't know who he is?) is currently talking of putting Mapping The Altair on the Net somewhere. When this was mooted, people started shouting about copyright being owned by Computer CD courses when has happened in

that Computer have occurred the copyright in law. As such, he can do whatever he likes with it.

1. As a enlightened company? The magazine publishers seem to be the only ones who understand that things have only a limited value?

MORE ON PD

Dean Georghiog also commented in his letter on this subject. Regarding the ongoing debate on making old commercial software PD, this was commented on in the Internet years ago. There were some pretty good arguments for and against, but nobody could ever really make their minds up. Although the software is no longer in production, somebody will own the copyright and will do so for 80 years. Finding these people is NOT easy. All we have to go on in most cases is the name of the company who published it. Some of these were huge companies, many of whom are still in business but these were loads of companies operating out-of-the-garage type enterprises and tracing these people is as good as impossible. You can't just make the software PD, because that is a violation of copyright. You have got to get

permission, from wherever you're in. This is virtually impossible because of the reasons I outlined above.

WHAT FORMAT?

As part of this long letter regarding correspondence about the game raised the matter of how to submit articles and letters. Something Law has talked about in SAU is article submissions on disk. In that case letters in Mailbox are taken in this form. A question - what because of the disk cost? Are they returned in the software I wonder? It's purely because of this, then I still need to try letters on paper. Well, that and the fact that the "Supplies are hard to come by."

I. Well, that you have reached upon something else I can not say good as I have to admit that most of the disks just end up being filed, although I sometimes send a batch of disks in someone who has sent in a few disks over a period. It's one of those situations that should be easy to deal with but somehow never is. And you, after typing in a letter of this length (there's more to come), I am sure tempted to be with out some way of ensuring that you send in disks in future!





HARDWARE

Dread's letter continues: "Mike DeBenedetto requests that prices etc. of hard drive upgrades etc. are published in N&A. Plain! That's quite a tall order. There are loads of hardware possibilities available to us. As such there are too many variables to make any variable price list. He goes on to ask what sort of drives should be sought out. Nowadays, it comes down to a choice of two types. Either a SCSI or an IDE workstation. It depends on which drive technology is used.

Mike also makes mention of 514" drives. Again, such things already exist. There are various hardware projects available, one of which allows the use of both a 514" and a 20" drive from an XT/ST1 controller. Of course, getting hold of an XT/ST1 might prove difficult. He goes on to mention both CD-ROM and 300MB drives. I believe that someone is working on a method of interfacing a CD-ROM to the Atari 8-bit machines but, apparently, it isn't cheap. As for connecting a 300MB drive, I've seen no mention of it, but then I haven't really looked!

Finally, Mike asked about interlocking to a PC and how compatible PC and Atari disk

formats are. As easy one to answer, this. Get hold of 800MPC, which interfaces the PC to the Atari's 800 port and enables the Atari to use the PC drives etc., and vice versa. If, on the other hand, Mike wants to know about the compatibility of ST disks and MS-DOS, then it's even easier. The two formats are very similar, so little needs to be changed.

These things are all out there on the Net. I'll just have to get round to gathering the information and sending it to N&A for publication. This shouldn't cause any problems with publication rights, because that's why it is all there in the first place. Which leads to another question.

What format would like be submitted to? Paper, disk, or both? If it is disk, is satisfactory, what about the format? That is, some word processor, or plain ASCII?

Oh, I'll start up now."
 ♣ Please my/anger with/you trying all that in Britain, every month for writing Dread. I could be sorry to get some information from the Net that you could include in future issues because, as I've said before only the recently used 800 access. Best format? On disk either ST or PC, formatted to single density or disk which I can post over. I use Protext which has it's

own conventions but is quite readable. If you are using another word processor, it is probably safer to stick with plain ASCII, or some option both in ASCII and the program's own format. Stuff downloaded over just be dumped on a disk so it is and I'll not it out.

DO IT LIKE THIS!

Full not much response to me How Do They Do That? and some but Joel Goodwin has a little bit of advice in his letter together with a couple of solutions to problems not covered since of the letter "On N&A issue disk 79. The second Mailbox issue doesn't work properly. To get it to work properly, don't use it from the N&A issue disk, as it boots Turbo Basic - run it from ordinary Discs. This should clear up the demo's problems.

While I'm here, I'll try to answer a couple of James Whiteley's questions in the How Do They Do That? article issue 79. Programs can perform "auto-voice" tasks during I/O by using an immediate I/O routine. The OS automatically disables the deferred I/O during I/O to ensure that critical timing is unaffected. This means that

your I/O routine must be short and snappy. It's possible to develop your own I/O routine so that something more sophisticated could be accomplished. Personally, I'm very happy with the service the OS offers! On the question of data compression, a common technique used is the "LZW" compression algorithm which looks for recurring patterns of data. I recall the "Mega Magazine" covered this in one of their earlier issues.

Oh, one last thing. In John Finkler's Board Selector article issue 79 it appears that there may be a small bug. On line 40 of the demo program, it looks like the last 800MB statement should be 800MB S,J,K,L. I recall knowing through the listing of the main program and noting a similar discrepancy. Could John let us know if this is a bug?

♣ Yet again an apology from me for problems with a program on the issue disk. A really is quite difficult to know whether there are problems if they are not obvious. The one for obviously known exactly how the program is supposed to run and will solve any problems immediately. In every program should run with Turbo just as well as with Disc. But it doesn't seem to be so.



HARD DISKS - A FINAL WORD

If any of you were foolish enough to think that Atari's "wrecker" with the Atari disk manufacturer JTS might be their solution, Dean Corrophy has a solitary note: "About a year ago I bought eight JTS 940MB drives because I couldn't get any other brand at the time. What a BIG mistake. One by one they have died, and to make matters worse my supplier went bankrupt and I've been left to replace them at my own cost. Some just packed in completely but others developed strange faults which caused impossible to understand problems I've asked around the industry and everybody I have spoken to has had problems. One company said they had 54 of them and 47 died within two weeks! Stay away from JTS hard drives!"

ANSWERS TO EVERYTHING!

It was good to hear again from Ron McGowan in the USA who has been thinking about various letters in previous

issues and has finally found the time to write them all down. If you were disappointed not to find follow-up in some of the letters in past issues read on, it might be here!

♣ "Think in issue 79, M. Tomlin of Hamilton in Great Britain asked viruses on the Atari Classic. You should note that the Atari Classic has to be turned off to load another program. A virus on one program would be lost as soon as you turned the computer off so could not be transferred to another program which is what viruses are supposed to do. Because of this, programming a virus for the Atari Classic would be impossible as it would not be worthwhile. Why would anyone make one? The answer would have to be N&A On another issue David Stevenson in issue 79 is talking about viruses on the Atari 800 and ran the Atari Classic.
 ♣ In issue 79, Jack Verrera asked about using Print Shop work. Print Shop does not have a save work feature but there is a program called "Print Power" that works like Print Shop that will save your files work. It is in issue DOS format so you can copy your work off the disk and save it. If you want to use it again, it also does upper and lower case plus several different.



views of text. There is also a program by another company that will let you transfer Print Shop images to the Print Power format. I don't know if it was sold in the UK, but it certainly works a treat. I could look around for one. I use it with SuperDisk on my hard drive and it works very nicely. On the hard drive it is very fast. In the same issue Daniel Barnetask asked about extra memory. There were several full disk copy programs that used the extra memory plus PaperClip 3.0 used up to 528K of an Atari Classic's memory. MacWrite, SuperFile, and SuperDisk used up to 128K. Duxin XL from CDS would let you program for 128K of memory. There was also a PD program that loaded and stored Kodak pictures using the extra memory. It would take a picture in the extra memory and use it as extra memory and then show the picture to make memory and then move the extra memory picture down to make memory and show it and load another picture up into the extra memory. It made the picture showing very fast. There are some others that I cannot think of just now but that is a list to help out with.

On the subject of IBM type keyboards, also noted this issue, I have added an

IBM 105 keyboard to my Atari Classic 1300XZ. It is a real nice addition to the Atari Classic. It is made possible by a board called a TransKey. It brings back the 1200XL function keys on the IBM's first four function keys such the same function as the 1200XL. On another note you should say IBM PC and not just PC as that could be any personal computer which is what PC stands for. When you just say PC it could be an Atari PC or an Amiga PC or an Atari Classic PC and not just an IBM PC.

In issue 74, Brian Arnold mentioned High Density disks. Except for the XFD11, in order for an Atari 1050 or 1010 drive or any of the 540 drives for the Atari Classic to format a disk, the disk must have the enhanced zero or ring in the middle of the disk. Check the disks and if they do not have this enhanced ring or ring in the middle of the disk then you should trade them with one of your Atari friends that has a XFD11 drive. The XFD11 uses a drive mechanism which is the same as the IBM drive mechanism, if you're not sure you are right here. So, as I have used disks both with and without the enhanced ring without problems. My experience is that in the early days of disks had this note-

ment and I felt it was left off later as an economy measure. disks said today for the PC tend to have the enhanced ring but they are priced for business users who don't know any better and just pay the money. E.J. Bell mentioned does not mean that the sectors are not fixed. There are preformatted IBM disks but they can be formatted again and in Atari format. You just need to use an XFD11 or an IBM drive mechanism. I have seen an Indus-CT drive format them. I think that drive would format a paper plate if it was possible!

Johnny Chan talked about his Stars Database to this issue. I don't use Turbo Base so I have the CDS Base language, Base XL, and Base XL. I like them better as I don't like to reload any programming language each time I go to CDS and copy something and they have pretty much the same user commands. CDS Bases are on cartridge. I converted your program to the CDS Base. It is being used on a 1300 base with American stars added and the Postball and local British TV stars deleted. I converted it over for them. It is still the same program, just means to work with the CDS Bases instead of Turbo Base. Very nice program. Thanks Johnny!

BACK ISSUES

Back issues of **NEW ATARI USER** are still available from **ISSUE 31** up to **ISSUE 78** except for the following

ISSUE 61 and 65 - SOLD OUT

ISSUE DISKS

All issue disks from **ISSUE 14 ONWARDS** are still available

DON'T FORGET!

ISSUE DISKS

1 to 13 now available!

Check the **Accessory** shop order form for further details and prices

In issue 78, Ray Thompson of Leeds asked about Atari Classic DSK's. There are several Atari Classic DSK's here in America. Here in Spokane we have two. The first one is the Starship Statiks. I don't know if you want to call to America for a DSK but if you make lots of money the phone number is (509) 338-3942. It supports ATARCI to 80 or 90 columns. It also supports NTSC, ASCII and ANSI. It runs on an Atari 1300XZ with a 1050 mag hard drive. There are some in Portland, Oregon as well. In fact the one who owns the Carina DSK system for the Atari Classic runs out in Portland and would like to have someone from England test out his program there. If you think you would like to try it, then write me. On the Starship Statiks, if you take off the S on the front and back of Statiks what do you have?

Dave Deering from Gillingham in Kent wrote about MacWriteW. I agree on that MacWriteW Devol program. I have mine on my hard drive and modified for loading up to 8-drives. The defaults are changed to what I like and it has a purple screen which is my favorite colour plus the colour tells me it has been converted. It no longer keeps where I press L to load a file. I also took out the 80000 load

module and have the cursor speeded up. My printer is also on the list of printers in the printer list with its codes, if you would like some info on how to do these please let me know.

Also finished off this letter with the comment that this is the most he had typed in a long time, and no wonder! Many thanks for taking the time to put it all down on disk. Also, I am sure that a number of readers will find some useful comments here. My gene permission for his address is included if you want to write to him or have it for Star Flighters. See 10072, Spokane, WA 99209, USA

That's all for what looks like being a longer Mailbag. We still have one or two letters for next time but of course all yours need more. Try writing a letter before you write into the Christmas spirit, or if you get too bored on the Christmas holidays. Let's make the next Mailbag an interesting one this one.

Write to:
MAILBAG
NEW ATARI USER
P.O. BOX 54
STAFFORD
ST16 1TB

THE BLACK BOX

In recent issues readers have raised the matter of connecting up various extra pieces of hardware to the Atari Classic. One of the solutions is the Black Box and Ron Hoffman brings you a review to help make up your mind

The Black Box is an add-on board made by Computer Software Services (CSS) for the Atari 800XL (8144), 800XL, and 130XE computers. CSS is owned and operated by Dale Puff. Bob Puff is the one who gave us Super BASIC and Super BASIC plus DiskOps and DiskTerm.

The Black Box is a T-shaped board that plugs into the PDI port of the XL computer or the 800L and cartridge ports of the 1300XL. Connectors for both types of computers are built into the Black Box so no adapter boards are necessary. A cartridge port is available on the board itself for 1300XL users since the board plugs into the cartridge port. The board is 12 inches wide and 3 inches deep, sitting back 3 inches from your computer. It has two switches, two push-buttons, and a set of DIP switches on the top.

LOTS OF FUNCTIONS

The Black Box provides many unique and useful functions. The four primary functions are:

- RS-232C serial modem port
- Parallel printer port
- 565K/76.2K hard-disk port.
- Operating System enhancements

The RS-232C port provides the full 9600 baud specifications signal levels for a modem or other serial device. It emulates the Atari 850

interface very closely, but goes beyond by providing 10000 baud capability. The 850 driver is built in and does not use any user memory. The Black Box is the only interface to support hardware flow control. This enables owners of high speed modems (4800 baud and up) to use their modems at full speed and not worry about data loss due to a slow 850 or terminal program.

The parallel printer port interfaces to most Centronics printers. You may assign the printer number and line feed options from within the Black Box's configuration menu. The Black Box allows buffering of the data to be printed. A printer buffer allows you to quickly dump your file to be printed, then go do something else with your Atari computer as it sends the data to your printer. The Black Box will use either the new MAM if you order the 80K version or the 1300K (and compatible) extended memory banks. This is all controlled by the configuration menu.

CONNECT A HARD DISK

The hard-disk part was the real reason for the Black Box. You may connect almost any hard-disk controller that is MAM or 80K compatible or drives with embedded 80K controllers. It is totally compatible with the current versions of MyDOS and SuperDOS (both of which have a limit of 16 megabytes per logical drive). Combine that with nine drives and that's over 128 meg available at any given time, but your total storage is ultimately limited. The Black Box is the only interface to provide a convenient toggle for drives capable of only 512 byte sectors. Many of the new 3.5-inch embedded drives have this limitation and previously were unusable. The Black Box splits each 512 byte sector into two 256 byte sectors, so your DOS will still only see what it requires. Another advantage:

in 512 byte mode is storage space. Many drives/controllers will give you more storage when using 512 byte sectors (some as much as 15% more).

A partition is defined as a part of the hard disk which is seen by the computer as a separate disk drive. Since many hard disks are very large, it is useful to split the drive into several individual "drives" or partitions. The Black Box gives one step hardware to not only letting you define the partitions for each of your 8 available drives but allows you to have a lot of up to 96 partitions with names. Since a partition can be very small, you can make several small partitions of 710 sectors (the same size as a standard floppy disk), and store copy any of your own proprietary programs to these partitions. Now you can assign that partition to an drive 1 and load your program at hard disk speed!

JUMP OUT AND BACK

The configuration menu is the "heart" of the Black Box. You can enter the menu from wherever you are by simply pressing one of the buttons on the board. You may run into the hard-disk configuration, exchange drive numbers, enable/disable the modem and printer ports, or go into the 850K monitor. After you are finished, pressing ESCAPE will get you right back into the program you were using and right where you were before going to the menu. No memory or screen display is destroyed by using the menu.

The 850K monitor is very handy for machine language programmers. How often have you wondered where your program was, or what record as appeared, "look up"? Entering the monitor will show you all the program registers and display the disassembly of the instruction it was about to execute where you pressed the button. Users of BASIC, DOS, DDT

REVIEW

will feel right at home with commands. Two pages is left unformatted.

FASTER DISK ACCESS

The Black Box speeds operations in floppy drives if they are capable of high speed reads. STPS II, modified IBM's, and floppy 814 drive covers will experience high speed operation with virtually all programs, not just specialized utilities. IBM/MSX covers will appreciate the HELP/INJECT excellent utility, allowing reformatting of the cassette from any backup, while retaining the data in the RAMdisk.

A text or graphics printer dump of your screen may be done at any time by pressing one of the buttons on the Black Box. (The graphics dump is only available for dot-matrix printers capable of graphics.)

You may enter-protect ALL of your hard disks by flipping a switch on the board. This can be a real life saver when running new or unknown software. The Black Box provides disk I/O menus with separate pitches for disk reads and writes to your hard disk, so you hear what's going on. This option may be disabled from within the configuration menu.

EXTRA OPTIONS

The Black Box Enhancer is a plug-in module for the Black Box, enhancing the printer functions and adding an instantly available, full featured menu editor. If you buy the Floppy Board the Enhancer comes with it. If not, then you can buy the Enhancer by itself.

The built in Task Master sector editor is the most powerful sector editor I have seen for the Atari Classic. It contains a sector editor featuring multiple copies, automatic format-

ting, and uses all available memory. Since the Black Box provides Ultra Speed data transfer to modified floppy drives, this makes for fast disk duplication.

The Task Master is not limited to only floppy disks. It can handle up to 16MB hard disk partitions down to the sector super model. All these densities are supported. The sector editor allows editing for hexadecimal or character mode of individual sectors on a floppy or hard disk. You may search for a sequence of bytes (logic in hexadecimal or character mode) and even disassemble the contents of a sector into 8086 code. Since the Black Box gives you the capability to do across dumps to your printer, you can make hardcopies of your editing.

The Task Master sector editor provides full DOS support for MyDOS, SuperDOS, and Atari DOS derivatives. Subdirectories are fully supported. You may look through individual files to simply moving through the directory and highlighting the file you wish to edit. 16 bit and sector map linking are supported for hard disks and 11 bit linking for floppies. It is ideal for quickly editing files and repairing damaged directories.

While you are in Black you can list your program in your printer and your printer will print all of the control and device characters.

EXPANDING THE EXPANSIONS

The Floppy Board which is an add-on expansion board for the Black Box interface to the first floppy drive interface to support "high density" floppy drive mechanisms that are used in IBM type computers. Up to four floppy drive mechanisms can be connected. The Floppy Board supports not only 720KB and 1.44MB 5 1/4 inch drives but also the popular

1.2MB and 2MB 5 1/4 inch drives. Also supported are the older 160KB 5 1/4 inch, 204KB 5 1/4 inch and the 8 inch drives. The Floppy Board reads and writes disks in single, double and enhanced densities. Built in is the Floppy Board to the Black Box Enhancer and a version of the Super Archive to allow copying of protected disks to 5 1/4 disks or to the 5 1/4 inch format.

Since the Floppy Board uses the parallel interface on the Atari computer, disks formatted on the Floppy Board are accessed at parallel bus speeds, providing substantial performance increases over better even on an Atari Classic. When first loading the computer a Floppy Board drive will load MyDOS 4.50 four times faster than an Atari 1050 with ultra speed. Formatting the disk and writing MyDOS to the disk and reformatting will load MyDOS even faster.

Floppy Board drives connect to the Floppy drive port on the Black Box and are configured through the Black Box configuration menu. Floppy Board drives are addressed differently than internal drives (Atari drives) so they do not interfere with their operation. Through the Black Box configuration menu, you can have four external drives and four Floppy Board drives online at the same time! Included with your Floppy Board is a program to read and write to IBM and ST formatted disks. This makes the Floppy Board the best way to transfer files to or from an IBM or ST computer.

Built in to the Black Box configuration menu for the Floppy Board is another selection for formatting disks. You can format in single (800KB), Double (1600KB), 1024 (2048KB), Quad (2400KB), or High (3200KB) densities. If you create a disk formatted, you can jump back to the menu and format a disk and go back to your program and nothing will be lost. Formatting a 2 1/4" 1.4 meg disk in SuperDOS format will give you STPS II free sectors and in MyDOS format it will give you 32768 free sectors. That

is a lot of free sectors!

FASHION ACCESSORIES

CBS offers a complete line of accessories for the Black Box. The Black Box case, a durable black plastic housing for the Black Box, sells for \$29.95. Built in the Black Box serial cable - a ready-to-use modem cable - and the Black Box printer cable - a ready-to-use Centronics printer cable - sell for \$9.95 each. You can make your own cables as I did for the \$6.95 you can't lose yourself cost. CBS also sells 24" and 36" drives and hard drives.

The Black Box is \$199.95 for the basic unit and \$249.95 with an enhanced 64K printer buffer. The Black Box Enhancer sells for \$49.95. The Floppy Board sells for \$199.95. You would have to check with CBS for the shipping costs.

CBS's address is:

Computer Software Services
PO Box 17000
Richardson, New York
1508 14017

Their phone number is (716) 420-0800 and they are there from 10 am to 5 pm EST, Monday to Friday. They do take MasterCard, Amex, or Visa.

CUSTOM SOFTWARE

I have AtariWare on my hard drive and you have not seen anything until you watch how fast it loads. Eight seconds from typing AT all the main menu appears. I have AtariSWrite+ mod'ed so it looks as up to 4 drives. I also have the Dictionary as one of the partitions and it used to install it in for drive 2

MICRO DISCOUNT

202 Chester Road, Streetly, West Midlands, B74 5EA, England
Tel: 0121-353-9758 FAX: 0121-353-1889
Internet e-mail: 101755.2443@compuserve.com

NEW! ATARI JOYSTICKS

NEW! 8-BIT PD SOFTWARE DISKS DOWNLOADED FROM THE INTERNET

NOW AVAILABLE - Catalogue No. 18 - price £1.50

40 pages of software and hardware
including PC XFormers 3.5 on CD ROM

the "FOOL DISK" CD-ROM
containing 600kbs of 8-bit PD software

SPECIAL CHRISTMAS OFFERS

PHONE US NOW FOR DETAILS OF SOME SUPER BARGAINS
AND A COPY OF OUR SPECIAL OFFER LIST

THE BLACK BOX

continued

when I wanted to use it but I now have the great program installed to look for the dictionary on drive B. It checks the spelling very fast. I have had my Black Box and Floppy Board since 1999 and I love it. If I was to say anything bad about the Black Box and the other goodies it would be on the manuals. They come on A4 sheets of paper that are stapled at the left top with one staple. There is no contents page so you have to search through the papers. Each item is well laid out so you should have no problem setting everything up but it would be nice to have a contents page so you did not have to search for things. There are lots of hand drive utilities such as a program to check fragments, a backup program, a park program and lots more.

The only thing you can't do with the drives connected to the Floppy Board is the same problem that the 38750 I has and that is that you cannot flip a disk over and read or write to the back side. I just format the disk 32KBD and I am still able to use all of the disk. The speed you have and things you can do, make the Black Box and Floppy Board well worth every penny. If I were you I would save my money and get one. Get Full of CDS is very much an Atari Classic fan and is always ready to help his customers and is always improving or updating his products.

I do not work for me do I get a commission from CDS for selling their units but I like to support people who support the Atari Classic. I like what CDS's products can do for the Atari and I think you will too.

DISK BONUS GUNTRIS

by Richard Gore

Copyright © 1996, Richard Gore - distributed by Page 6

GUNTRIS is based on the classic game of Tetris (tm), but with several new twists. **GUNTRIS** plays horizontally. The ground/rocks come from the left of the screen to the right. Again, steering the edge of the screen to another rock the moving block will fall. Your job is to align similar blocks in rows of three or more either vertically or horizontally, and this is done. These blocks will disappear making space for more.

The vertical starting position of each block is randomly assigned. As each block moves across the screen you may time it to stop vertically by pressing the SPACE BAR on your keyboard. Be sure though to operate movements in parallel.

Also on the screen you will see a colored cross-hair/mouse. You can move this using either a joystick (in 320 x 200), a light gun (in 640 x 200), or an 800 compatible mouse (in 640 x 200), all accessible from the file screen using the "SELECT" key. You use the cross-hair to shoot and remove any blocks that you don't want, the blocks can be moving or stationary but beware you only have 50 shots (represented at the bottom of the game screen) to test you throughout the whole game! After ten line clearances you move up a level (indicated in the top right corner of the screen) where the action becomes faster!

To help you out there is a facility to display the piece that is due up next. This is accessed from the Pause Menu, see below.

PAUSE MODE

At any time during the game you may pause the action by pressing the OPTION key. Doing this will produce a mini-menu at the bottom of the screen. From this mini-menu you may press "START" to end the game, "SELECT" to continue or "OPTION" to toggle the next piece display on or off.

SCORING

The scoring is as follows:

1 point for every block that lands, 10 points for a quadruple block clearances
2 points for a triple block clearances, 25 points for a pentuple block clearances.

Clearances are worth 2 points less if the next piece display is turned on.
No points are scored if hit for shooting or moving blocks.

All the Game Over stage 2 points are added for every shot that has not been fired.

GUNTRIS was written by Richard Gore and remains his copyright. It may not be distributed in any form by anyone other than Richard Gore and Page 6 or their names. **GUNTRIS** is NOT PUBLIC DOMAIN SOFTWARE! **GUNTRIS** was written using the C/C++ programming language (available from OUS in the UK). The Quick source code for **Guntris** is included on the disk under the filename GUNTRIS.CPP. Please remember this is also copyrighted but you may of course examine it and edit it etc. for your own learning experience and/or other purposes. **GUNTRIS** features sound effects in stereo for those with Quick compatible upgraded stereo computers. (Quick compatible for those without).

Just as the 800 series levels required to access the various input devices the speed of gameplay is slightly different for each input device. The mouse option is just slightly slower and easier with less speed variation between keys than the other two options.

The author had intended to make this a full commercial release but due to the current lack of interest in people buying commercial software decided the best way of getting the software out to most Atari 800 users was to do it Page 6 release it as a bonus on their issue disks. The game is fully finished and plays without any bugs I hope. Richard has ideas for improving it and adding bonus features, the multiple line clearances and the clearances after which nothing but three will take a while to complete. So a second version may follow, but in the meantime enjoy **GUNTRIS**...

This great program is the BONUS on this issue's disk. If you are not a disk subscriber you can still obtain a copy for £2.95 from NEW ATARI USERS, P.O. BOX 54, STAFFORD, ST16 1TB. Please make cheques payable to PAGE 6 PUBLICATIONS or order by telephone with your Visa or Access card on 01 755 281133

The CLASSIC PD ZONE



Welcome to this issue's Classic PD Zone! This time I have reviews of three more disks for you. If you're looking for some Christmas presents for the family, or simply a stocking filler or two, look no further!

IT'S A WORLD OF MUSIC!

WORLD OF WONDERS VOL. 2 (28871) is a music demonstration disk which pushes your 8-bit to the limit.

The disk starts off with an impressive piece of the Egyptian Pharaoh Tutankah... Tutankah... Tutank... oh, you know the one that I meant. Anyway, along with this, a good piece of music plays whilst an millennium-type display on the left-hand side of the screen displays the drum beating along with it.

A press of a key takes this out and the disk loads a main screen.

This colourful little number gives you the option of selecting 7 different tunes, or returning the one that appeared when the disk was first loaded.

The tunes, if I remember rightly, were all converted from the Amiga, hence are called things like "Ami-Commodore Soundtrack" and "Ami Fever". Although each tune takes a few seconds to load, the music can be returned to instantly by pressing the BREAK key.

With this type of disk, it's equally hard to be disappointed by the presentation of the disk,

and by the music quality. On both counts it scores full marks, with the music quality being extremely good. The tunes sound a little as if they are being played on a synthesiser but, even if you don't like this sort of thing, I'm sure that this disk will appeal to you. It really is first class!

Overall, World Of Wonders is a highly recommended purchase.

PACMAN'S REVENGE?

PACMAN (14208) written in 1980, is clearly a PacMan clone.

The first thing to appear when you load the disk is the choice of having either eight opponents or none when you play the game. If you select the none, you then get a choice of one of three different levels, all of which are OK.

The main game is played on a Douglas G screen, meaning, so you can probably guess, the graphics are not stunning. The dots of the maze are made of full stops and the PacMan character is made of a red-lined letter 'P'.

When Pacman differs from PacMan is that, rather than there being a main and ghost, Pacman is alone on a grid of dots. However, some of the dots are (unwisely) missed out thus, should Pacman land on one of these spaces, he will be killed. The object of the game is to guide Pacman around the maze, eating as many dots as possible before returning into such a space. For each second that

you stay still and don't move, only possible when at one of the corners of the grid, your score counts down. Should this reach -20, the game will end.

The only purpose of the game is to try and beat your last score - there are no different levels (although you do get different grid designs when starting a new game) and there is no two-player mode either.

Although the maze in Pacman is fairly good, the sampled speech is generally very poor. The 'Pacman' speech at the start is recognizable (just) whilst one quote, only encountered when you score 100+ points is just the gah-hah-gah! The only remotely acceptable phrase is the 'got ready' at the start of every game. Probably best to stick to the music!

When cagles include the fact that, when the maze stops, the only way to restart it is to press the RESET key and type in RUN (then press RETURN).

You may think that I'm going to say that Pacman isn't very good. True, it's not very good at all to the audio-visual departments but, on the other hand, the game is extremely addictive. It's not saying that you won't forget about it after putting it away in your disk box but, on the other hand, when you do stumble across it again, you'll be playing it for ages!

If you're looking, adventuresome (and perhaps you have a bit of space change with nothing to spend it on), this is worth a try for someone's sake. However, if money is tight, take a look at the next disk...

I'LL HAVE A BURGER AND FRIES PLEASE!

BURGER KING (14204) is an excellent platform and ladder game, written by Game class author Gordon Knapman in Turbo BASIC.

The game is a clone of the old arcade game Burger Time (a bit before my time, I think). The object, basically, is to guide your chef along a series of platforms, on which pieces of burgers lie. When you run over the entire length of the burger piece, it drops down to the platform below. The object is to get all pieces of the burger stacked on top of each other below the lowest platform.

To hinder your progress, you chef is chased around by Billy Wiley, Fred the Egg and Mr Pisher! Storing a handful of peppers in their face will stop them for a few seconds.

Although you only have three bits of pepper per level or, alternatively, you can make a burger piece drop to a lower platform when one of these snakes is standing on it - this happens of them temporarily but they soon reappear somewhere else on the screen.

The graphics in the game are extremely good - in fact, it could have been a commercial release and would still have been worth the money. The animation and design of the sprites is also very good, making the game feel that little bit classier! There are also 8

by Kevin Cooke

RAM BANK UTILITIES *continued*

going either a Load or Save command. You then just **USE COPY** (line 878) to start the Load or Save.

The **RESET** routine then switches back the Main Bank before doing an **RTS** to return to BASIC.

SWITCHING THE BANKS: The **SWITCH** routine first gets the status of **POKIN**, and performs an **AND #3** operation. This is to Mask-off the ROM select values (bits 0 and 1) - you may be thinking that this is not needed as the **ROMIN** value in the **KAMTBANK** program should do this job. I can only say that it should, but doesn't - I eventually assumed that after doing a **USE** in Turbo BASIC, TB itself changes the ROM select so that your **USE**'s routine can use the original ROM routines. This is essentially close so the **AND #3** is needed to preserve the **Y** in converting a **USE**'s routine from **YR** ROM select values. TB then changes back the **ROM** upon reentering an **RTS** and returning to BASIC. I could be wrong though - but the **AND** operation it needed!

The Bank number is loaded into the **Y** register which is used as an index into **TABLE**. The value in the accumulator is logical OR'ed (**ORA**) with the required Bank select value and stored back into **POKIN** to switch banks.

THE COPY ROUTINE: The Copy routine is fairly standard. After the **BANK**, **FROM**, **DEST** and **LEN** parameters have been pulled and stored, the Bank is switched. You can see that indirect indexed addressing is used with the **Y** register to get and store the bytes. The **FROM** and **DEST** addresses are stored by incrementing the relevant bytes depending on if a page boundary has been reached. The **LEN** is decremented by the same way and jumps to **COPYLOOP** if bytes are still to be copied. Now that **LEN** is increased by 1 (line 708) because during the copy loop, **LEN** is decremented before being checked. This it must always be one higher than required.

After all bytes have been copied the program then jumps to **RESET** and back to BASIC.

levels to keep you playing for a long time to come... these levels get HARD!

What makes the game particularly unusual is that it's bursting at the seams with player help. This is not a game that you'll tire of quickly and, in my books, it's an absolute bargain at this price. Don't miss this one, whatever you do!

Well, I'd better finish now. I would, however, like to wish all readers an extremely happy Christmas. I also hope that next year is even more exciting for the #500 than this year's *Geysal*! *Geysal*, editors of *Smart Munny* coming through thanks!

ARE THEY REALLY ANY GOOD?!!

BURGER CHEF (#204) 98%
Yep, it's really that good... some might think I've been nice but, hey, if it ain't broke then don't fix it!

WORLD OF WONDERS (#871) 87%
more than wouldn't have you come for this excellent!

PUCMUC (#190) 86%
very playable... shame about the graphics and samples!

XL/XE TUTORIAL

TEXTPRO MACROS PART 4

In this final article on getting the best from TextPRO's macro feature, Frank Walters give you some printing tips

ENHANCED GRAPHICS

ENHANCED GRAPHICS

ENHANCED GRAPHICS

I never considered using TextPRO as my word processor until I included the feature that saves the printer routines in the configuration file. Then I could assign letters to paper size letters to send printer codes and not have to go back to my printer manual every time I wanted to print using TextPro.

In this article, I will explain how to set up a print driver for your printer. I'll give you some ideas about additional help files and their associated routines, so you can create which special format print letters you have defined for each printer function. I'll present a simple idea to print an entire address list on labels. Finally, I discuss printing to two columns with TextPRO and a short-cut you can use to make the last page come out to equal length columns.

PRINT DRIVER

First, you have to get out your printer owner's manual to look up the ASCII codes for various functions. Next, decide which special format print key (codes) to assign for each

function you wish to use. Finally, save these codes and associated print key to your **TEXTPRDR.08P** file as they are available whenever you load **TextPro**.

The easiest way to create a print driver is by typing all 26 inverse upper case letters to the editor like this:

```

<A>=0
<B>=0
<C>=0 etc.
  
```

Pick which letter to use for each printer code. Try to use letters that are similar to the function selected. I use <E> for Eject, <P> for Print, <C> for Condensed, <D> for Double Strike, <S> for Strokes, <O> for **NO** (not), <A> for Reverse Linefeed, <W> for Super and <S> for Super, <U> for continuous underline and <W> for double Width. I assign the remaining codes to the letters left over. If you go overboard and use up all 26 upper case letters, there are two lower case letters that have associated functions and can be defined exactly like upper case, <a> and .

Now look up the ASCII codes that require escape followed by another number. Replace the 0 (zero) with the ASCII number following 20 in your printer manual. On the same line, type a description of the code so you can make up a help file using that information, for example:

```

<E>=77 <E>77 Eject draft (10cp)
<P>=111 <P>111 Data NRG (12cp)
  
```

For any function requiring three characters, just use the value immediately after the 27. Some printer codes require three characters. My printer uses 27,48,49 to turn underline on and 27,48,48 to turn it off. Since I use 48 and 49 for several other 3rd characters, I've defined the following inverse numbers: <O>=48, <I>=48, <O>=50, in my print driver. By using inverse numbers which do not cause ESCapes to be used, **TextPro** will not

insert the inverse numbers for computing when to break the line & print. For example, if <A>=1 is used to turn underline on, **TextPro** would count the '1' as one of the 98 characters even though it is part of the printer escape sequence and would not actually print on the paper. Using <U> instead, **TextPro** ignores the inverse characters in the count, as it should. The code sends 27,48 while the <I> sends 49, to complete the 3 character printer code for continuous underline on.

When you finish, you may still have some unassigned letters that are equal to zero. You can always redefine these later. Now you are ready to load **TextPro** to read the equates into the configuration section of memory. There are two ways to do this. You can move the cursor to the bottom of the text and use **[CONTROL][W]** (or Text Mode) to find the page and line at the cursor position. This moves the equates into the configuration section of memory as long as the cursor is below all the equates. Or you can instantly print the file to get a hard copy of your equates list. This will install the equates in memory at the same time.

Before saving the configuration, make sure **TextPro** is configured to send the ESCape (27) character whenever it sends the value of an inverse upper case letter. Type **[COPY][TRAIL][2]** and reply **[N]** to both the "SEND" and "Unsend" prompts. Reply **[Y]** to the "Add ESCape" prompt. Type **[SELECT][CONTROL][W]** to save the configuration to **TEXTPRDR.08P** on your default drive so it will load automatically whenever you load **TextPro**.

KEYBOARD CONVENTIONS

Please refer to the last lesson for details of the conventions used to show how various commands are entered into **TextPro**.

HELP FILES

Now you are ready to make a print driver help file. I use the same format as other help files. What also looks like is shown in Table 1. Print key letters, numbers, and most other characters are inverse, along with heading and bottom line.

Notice the right side includes lower case letters (j-o) which should be inverse. They indicate the values you also need if you use printer commands on that line. This is a reminder that page width is changed and you may also need to change your margin numbers for different sized fonts.

When you finish your help file, save it to disk with your other **THHELP** files. Notice the last line of mine is #13, so I use the filename **THHELP.13**.

Now you have to load **TEXTPRDR.08P** and add the macro to display the new help file. I

decided to use **OPTION [R]** for my macro key for the print driver help file.

```

P=>=<CTRL_C,Opp=>=<CTRL_C>
THHELP.13[RETURN]
  
```

Notice the "Data" macro key, linking the upper case "P" to lower case "p" since you need it to work with other cases.

Save **TEXTPRDR.08P** to your default drive and then load it into the macro buffer with **[CONTROL][W]**. Test it out by pressing **[OPTION][R]** to see the help file displayed on screen.

If you redefined some inverse numbers to your print driver, add **THHELP.08** to reflect the new values for the inverse numbers. Load **THHELP.08** and add the macro key to display your new help files and then save it back to disk.

DISK MACRO HELP FILE

While on the subject of help files, I made another help file as shown in Table 2, listing all of my interactive disk macros with short descriptions.

I only included an abbreviated listing to show you how to do it. The text is the top and

TextPro 5.0X Print Driver		
Key	Parameter	set pr:
A	6 lines per inch (default)	600
B	8 lines per inch	480
C	Compressed chart 4 OFF	1100
D	Double strike ON 3 OFF	
E	line draft	400
F	Data NRG	1200
I	Index ON 3 OFF	
P	Print NRG	100
Q	Proportional CH ON CO OFF	650
R	Print draft (default)	600
S	NO CH Cursor ON Bold PS ON OFF	
T	Reverse Underline Pn>27"=50line	
U	30 Superprint 30 Subscript	
V	Sub/Superscript OFF	
W	Underline ON CO CO OFF	
X	Double Width ON CO NO OFF	
Y	Page=on DISABLE 2 ENABLE	
#13 HELP=Menu START,Load Macro		

Table 1: Print Driver Help Screen

TextPro 5.0X Macro Library	
Macro	Function
CARDON CL	PS Card/Cond (17) Pg/Lst
CRDRPH RL	PS Card Time (12) Pg/Lst
CR	Reverse Carriage Return
CRST	STC CRMT Right plan
DWY DWY	Reverse PS size (double)
LPR	Line load to back [2] & [4]
#14 HELP=Menu START,Load Macro	

Table 2: Macro Help File Screen

bottom line to return. Do not put a [RETURN] at the end of the bottom line of any TRIMPL file. This will retain the cursor on that line when it is displayed on screen, giving you one extra line before it scrolls the title. Save this as TRIMPL.14. AM another macro key to your TRIMPRO.MAK file to display this help file. These macros use [CONTROL][M] to load I use [OPTION][M] to read it, but [OPTION][M] (for Macro) would work just as readily. Use the example for [OPTION][P] above and substitute the new letter and change the file extension to .14 instead of .13.

PRINTING ADDRESS LABELS

Here is a tip I worked out for my state who had to mail 250 envelopes. His need to print labels from his address list. This is as easy way to do it.

The address list must be a simple text file, which you can create with any word processor. Each address must have enough carriage returns to total six lines. A 3-line address should be followed by three blank lines with [RETURN] characters only. A 4-line address would be followed by two extra [RETURN] characters. Save your address list to disk. If your list is over 250 addresses, you might consider splitting the list alphabetically. Use ADDRESS.AM and ADDRESSING. This will keep you from filling the buffer. You can print the two files separately, using wild cards in the DOS command.

A standard 8 1/2" x 11 1/4" label will permit about 20 characters per line at 10 cps, or 20 characters at 12 cps. Set the labels in your printer with the print head on the second line of the first label. A label will hold 5 lines at the default 6 lines/inch spacing. Use DOS to copy the address list from disk to printer, typing the source and destination like this:

```
>ADDRESS.TLP[RETURN]
```

That's all there is to it. Pretty simple, huh? You can send any font to the printer before copying the address file, but do not name off the printer between installing the font and copying the file. Do not try to print the address list from TRIMPRO as it will not margin and send page breaks. But you can use TRIMPRO to configure the printer as desired using the previously described print driver commands and then run to DOS and use the Copy command to print the address file(s).

PRINTING TWO COLUMNS

I made a hard copy of my state's address list for her and printed it in two-column per page to save paper. It explains how to format TRIMPRO for two-column printing.

For an address list like the one described above, you have to make a separate file with only five lines per address. Load the 4-line list, use [CONTROL][D] and type [CTRL_+] three times. (Remember to type [ESC] before the [CTRL_+] to get the special "Control" character that looks like a bent arrow. This states three [RETURN] characters at the "Print" prompt. Press [SETUP] and enter two [CTRL_+] characters at the "Change" prompt. After the global replace, your address list will have one [RETURN] character removed from each address, leaving 3-lines each. This will allow 11 addresses per page in each column. Now it under a different filename than your 6-line list.

At the top of the list, insert the following two printer format lines:

```
<?>1<?>1<?>1<?>20<?>4<?>20  
<?>?<?>?<?>?<?>?<?>?<?>?<?>?<?>?<?>?
```

The top line is for printing the first page. The

bottom line follows an tab/c character and is not used until the second pass. With the top and bottom margins set at 4 and 58, it will allow exactly 50 printed lines, or 11 5-line addresses. No addresses will be split between columns or pages.

<?> tells TRIMPRO to start printing at page 1. The second line starts at page 2.

<?> tells TRIMPRO to skip 1 page when printing. Thus it will print all the odd numbered pages when the first format line is active (1, 3, 5 etc.).

If there is more than one file in your list, add the "gen" command for printing linked files at the end of each file except the last. Due to a bug in 4.54 and 5.0, the maximum length of the device name not recognized by the "gen" command is 10 instead of 15. My example uses only 10.

```
<?>D:ADDRESS.MD[RETURN]
```

Insert the paper with the top line under the print head and print the address list with [CONTROL][P]. When finished, roll the paper back to the original position, insert an insert/c character at the top of the first line, [CONTROL][DELETE] the/c from the second format line. Print the second pass with [CONTROL][P]. It will start printing the right column with page 2 and all the even-numbered pages.

I wanted to print a footer with page numbers and a title, so I created the text printed page and made a new file to print just the footer line. Let us assume it is six pages. Set the paper back in the first page, clear the editor and enter a footer line like this:

```
<?> TITLE OF ADDRESS LIST <?>page  
<?>[RETURN]  
<?>?<?>?
```

The left margin of our document was set at 1 and bottom margin the left margin so I left a space after the <?> as the title would line up

with the left column. Since I want to print letters on six pages, I needed to add the insert/c character, to force next-page five times. In a total of six pages.

Print the footer file and it will add the footer text and page numbers on your two-column document. That wasn't too difficult was it? You can use the same principle and similar margins to print two-column text files. You might want to include <?>1 in your format line to justify the right margin, like in magazines, although it is not necessary. When printing text like this way, the last printed page will not come out even. There is an easy way to correct this.

Print the two-column text file as explained above. Tear off the last printed page with seven columns. Before the two printer format lines from the top of your file with [CONTROL][D] and [P] below.

Use [SELECT][CONTROL][P] to find the first five marks at the top of the last page. Put the cursor on the first mark and enter [SELECT][CONTROL][M] to "Delete in TOP" of text. Reply [Y]es and you will be left with only the text on the last page.

Type [CONTROL][P] to replace the format lines from the page header, be sure that the/c is to the front of the second line, not the first. Count the total lines on your printed last page and divide by two to find how many lines you want on each side of the page. Assume you have 54 lines and want 48 in each column. Add the top margin (4) to find line number 48. Change bottom margin to <?>48. Print the left column and reset the paper to the top. Move the/c from the second format line to the top and print the right-hand column. Load your footer file and replace the/c's with the actual page number and remove the inverse <?> at the end. Insert the last page and print the footer. Voilà! You now have an evenly spaced last page to add to the other two-column pages of your document.

continued on page 28

GET ON THE NET

M. Tomlin is a keen Atari supporter and is willing to try and stretch his Atari to the limits, even to mixing it with the big boys on the Internet

If you are as interested as me in the Atari and the Internet, I hope that my experiences on the Internet with just an Atari 8-bit will prove informative. In this article I will quote from the information and instructions I have discovered from Internet service providers whom I have so far contacted like CompuServe, Demos and Europe-on-Line. There are more service providers sitting in the wings such as BT or United Artists who have been on offer and are now ready to also to get jump on the band wagon with the rest to get their slice of the cake. These other service providers do work out expensive with their

charges, though, so you should bear this in mind.

Electronic communication will be the next step forward. The Royal Mail, as we know it, is now under attack from the Conservatives and if they have their way will be the next thing to be privatised. There are many other e-mail services currently available but you will have to work out these for yourself to see if you can get a better deal for a connection to your address.

CAN YOU REALLY USE AN ATARI?

I am just a 'normal' Atari user, a WCF driver by trade and not a computer expert, but I have tried to find out as much as I can about connecting my old Atari 8-bit, just a PC compatible up to the Internet. At the very least it is possible to send and receive e-mail, and also it seems to download a good FD software stack, I have been told, there is a lot of.

I have very much enjoyed reading the recent article in *New Atari User* by John S. Davison and Gordon Hooper, about taking the Internet which have prompted this article. Their articles did not throw much light on using an 8-bit Atari so I have tried to rectify this by looking at the Internet from an Atari 8-bit users point of view. John Davison and Gordon Hooper it seems were using a PC and then looking very hard for access for the old

TIPS by John Foskett

Atari 8-bit as a modem. I decided to work more information from the service providers to see if they could provide me with connections for just the 8-bit Atari.

The information and advice I have received has ranged from 'You're joking, Ha, Ha, Ha' to 'What? you say an Atari 8-bit? Well I myself don't know', 'Why ever my head what you are trying to explain to me?', 'You did say an Atari 8-bit?', 'What the hell is an Atari 8-bit?' to 'Okay I will find out for you as I am also interested myself to see what the hell an Atari 8-bit is'. That last one was from CompuServe and will show to those, at least they have a staff who like to know about the computers from the past.

SUCCESS!

I must say now that I found CompuServe to have been the most helpful and they have even provided me with written details on how to set up the software I already have (mistake here) also how to sign up on line and open an account. You can use a major credit card to pay your bills like your flexible friend, or pay by direct debit or standing order from your bank account each month. At the time of writing your first month after signing up with CompuServe is free of charge, with 10 hours on line, so you can explore the services. Thereafter it is 60.00 per month connection charge but do remember that you will also have to pay your phone bill as well to access these services. I live in Scotland, Essex, England and will have to use a London connection number, my nearest connection, to support my slow modem (1200). There may be a different gateway connection if you live somewhere else of course.

A HELPING HAND

The following is a list of instructions I received from CompuServe to establish a terminal connection to their services. I should stress these were specifically for my circumstances as explained in CompuServe and your experience may be a little different. Of course I am not going to tell you my exact numbers as have replaced them with asterisks. Here is what CompuServe told me on how to connect up for Internet access.

1. Set up your communications software in 7 bits data, 1 stop bit, even parity.
2. Connect to phone number 4171 3706000 (this is a direct CompuServe access number which supports local rates of 1000 to 20,000 pay modes in 1200 - vary slow for this day and age)
3. Hit RETURN when you see the CONNECT 1200 message
4. At the Host Name? prompt, type CSE
5. At the User ID? prompt, type ***** (this is my ID number so yours will be different)
6. At the password prompt, type EXPLORE/WORD

This will connect you to the Membership Sign up area, next you will see prompts for a serial number and agreement number and you see the following Agreement Number: ***** Serial Number: ***** (my issued numbers, yours will be different). You will now need to answer the questions on the screen to create a new account, and next you have successfully done so, you will be faced with your own User ID and Password. Use these the next time you log on instead of the ones above, and this will connect you to CompuServe services where you will then be able

to use the email service.

If you are interested in trying this, which I hope you will, more information can be obtained from Computer's help line which I will list later.

WHAT ABOUT THE WEB?

Please note that my text necessarily painted a somewhat rosy picture of the ease of accessing the "Web" as this requires a minimum of a 6600 baud modem and also a graphical software platform such as Windows, Mac or On/Off. Of course this is not possible with the old Atari 8-bit, which now in old age will have its limitations on the Internet.

My current Atari hardware is a 1300GX, 1000KB, 1.65M drive, 850 interface, and an old Microlink modem of 1200/1200 baud which is really an old Pace Laser. It only just falls within the baud limits required to access the Internet. If you have to beg a modem, get the fastest one you can. You may not need an 850 interface as any interface should work okay. It is still, after all, just a serial transmission, except this time down a phone line. I cannot really say if your equipment is okay, you will have to try your own. Atari setup and see how you get on.

The software I have is Mini-Office II online, DeTronic 1.55a (850 interface version), and ESCAPE online. I will try to stick to DeTronic as I have contacted with the Cambridge University Computer with my hardware so I know it works, but I never had a CD or Floppy to log on so the Cambridge Computer and one call after I could not proceed in the program. I have now signed up with CompuServe but the

first thing I have found after logging on, is it is hard to read the information sent to me by the host computer which displays 80 columns text. It is very hard to read the program so I hope this will not be a disaster. I will let you all know how I get on next time! My first port's of call for an e-mail message will be John S. Gorman and Gordon Hooper just to say hello as they started me off in this new adventure in issues 78, 79 of New Atari User. My e-mail address is 1082202.1404@compuserve.com if you would like to drop me a line with your findings or comments.

NOT SO HELPFUL

The other service providers I contacted for advice, like EUROPE on-line, insisted I need a new modem of at least 6600 baud to access their services, but with CompuServe it is possible with my old hardware even down to a slow baud rate of 1200, the lowest possible today. DeTronic Internet have to date not replied to my request (via email) for information on this subject. It seems they run the most for connection and routing between the lines they are really only interested in commercial users, and PCs. Their fees are a lot higher but give you unlimited access and use of their systems for a monthly set rate. They are probably now laughing in their teeth to think that we Atari 8-bit users want to use the Internet.

I have noticed that Derek Perry (Blox Discworld) uses DeTronic Internet, I hope I can encourage Derek and also I think maybe DeTronic availability of 1200 baud, must have had a go at this as well to settle about their experiments. Perhaps they could add some more

TURBO TIPS

by John Foskett

Further to Robert De Letter's tip for getting keyboard responses using...

```
REPEAT GET KEY(A=INSTR("YNA",CHR(KEY))UNTIL A
```

is `INSTR` (Universal INSTR) is used instead of `INSTR` then the corresponding lower case and inverse characters would automatically be covered for as well. Therefore the statement becomes...

```
REPEAT GET KEY(A=UNISTR("YNA",CHR(KEY)) UNTIL A
```

The above routine is basically a loop which relies on `INSTR` finding a match between the character of the key pressed and a character in the string (i.e. Y, N or A) in order to exit. The `REPEAT UNTIL` loop will only exit when the condition following UNTIL is met, in this case when the variable 'A' is NOT zero. UNTIL A is a logical statement representing UNTIL A=0.

Further to the follow up of GOTO 100-A to go to lines 101, 102, 103, etc. it would be better to use...

```
GOTO 100+A*10
```

to go to lines 110, 120, 130, etc. so that a program being run easily be renumbered (using `RENUM`) in increments of 10 in the normal way without the fear of disrupting the GOTO references.

ments etc. on what they are using, and what I have said. Come on guys, you have an e-mail address, let us all know how you have got on with the list.

TAKING IT FURTHER

If you wish to have a go, in please! CompuServe's free support number - 0800 080450 - is the advice and connection numbers for your well if you live in England. Outside England you will have to find your own local number. Please let us all know how you get on if you try, the New Atari User. I will let you know how I get on and what I find I can do with the Atari.

My get feeling is I will not be as long, at least not with the old Atari. From what I have seen so far it looks very interesting but you do need a PC running Windows. I don't think you'll get frustrated with the limits of the old Atari in using the Internet and give up, but you never know I have a month's free use and will see how far the Atari can get on.

TEXTPRO MACROS

continued

CONCLUSION

These printing tips should make TextPRO more useful to you. If you implement the HELP screens, TextPRO will be more user-friendly, as well. I've enjoyed writing this series of articles about TextPRO for you. Hopefully, this series has shown you that a kinder, gentler TextPRO is out there waiting for you to customize.

This series of articles originally appeared in the US magazine Current Atari which no longer carries the Atari Classic. Do check go for Atari users who published a few magazine for many years.

THE NOYALGIA column

by Dean Garraghty

WHEN ATARI HAD THEIR OWN MAGAZINE

Now that the 40k Atari is in its twilight years there are often few new things of any importance to write about. However, the Atari has been around for some 15 years now, so there are stacks of things from the past that can be looked at. I think it's good to remember the Atari's past. It was full of excitement and certainly left the mark on a lot of people. For the next few issues I will find something from Atari's history and write about it. This issue I'm going to look at Atari UK's *Impact/Chipset* (I/C) magazine.

Impact was a magazine produced by The Atari Home Computer Club (which was run by Atari UK) in the very early 80's. I have issues 1 to 5, and I believe that were all they actually produced. These were strange magazines in that they were produced by Atari, and therefore were slightly biased! Almost all their content related to Atari products, which of course were always described in a very positive way!

Issue 1 (dated Winter 82/83), which I believe is quite rare, wasn't a magazine at all, despite it saying "magazine" on it! It was, in fact, a large fold-out card. Almost a quarter of this issue was taken up by an article on how

an Atari 800 was used to create sound effects for the film *Tron*. This, of course, was the Atari's proudest and made me think the Atari would revolutionize the sound effects industry! I'm not sure that actually happened! The then new release *Compende* was reviewed in this issue without a bad thing to say about it! There was a competition to win tickets to see the then brand new film *E.T.* There was also a total summary of events at the 1983 PCW show, which Atari attended! The rest of the issue was taken over by short type-in graphics listings. Nothing major, but in 1983 you'd have thought your main reason to have a list!

By issue 2 (Spring 1983) I/C had become a proper 84 sized magazine with 24 pages. This issue started out by making some corrections to issue 1. How on Earth's can you make mistakes on a 2 page list of cards? Well, Atari did! There was quite a bit of news to report in this issue. Atari announced a six-a-side football match in Birmingham. There were some 400s and 800s available for you to have a go on, so it was really just a big Atari advertising event! Atari had done these shows since issue 1, and they took the opportunity to tell you how frequently they had done, but would we report them to you otherwise? Atari had also linked up with a radio station in Birmingham where people could go down and compete at games like Space Invaders, Asteroids, PacMan, and Missile Command. The 1983/84 was also detailed, which turned out to be a waste of time because it was never released! An article headed "Minting the

Press" told of how Atari were trying to get coverage in national papers and magazines by lending the press to come along and try using an Atari for themselves. Delia, Galaxian, My First Alphabet, and The House Piling Strategy were new products that were reviewed. There was an article on some software written for the ATF (Association of Technical Professionals), which kept track of income records and various other things. There was a brief article on API software, telling you to write some software of your own.

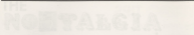
A very long article headed "Hello Mr. Chip" was about the Atari in education, which doesn't make sense to me because the Atari was never adopted in the US as a machine for use in education. The BBC Micro was, of course, chosen. The type-in listings were for Atari's PLATO programming language. There was one BASIC listing for producing that new familiar mode 8 flag! There was a useful article in this issue on how to photograph your graphics. Still useful even today! There was also an appeal for people to send in photographs of their Atari systems, and they did so as I'll mention in my *Shortcomings* of the next issue. There was also a nice article on using sound on the Atari, with a few type-in sound effects listings. The last article in issue 2 was a good review of Graham Goodwin's visit to the Birmingham User Group (BUCG). It was actually very funny, especially his jokes about meeting a translated file also commented: "The town-planners ... have carefully arranged the city so that, no matter where you want to go, you can always see it, but never quite get there". He was talking about Birmingham, and he's spot on! He also commented that as the meeting they appeared the article for a new magazine they were to produce called PAGE 0. Yes, for those of you who don't know Page-0 started life as BUCG's group newsletter.

Issue 3 (Summer 1983) featured Paul Daniels on the cover, with a very badly fitting

wig! The main news this issue was Atari's successful time at the Ideal Home Exhibition. Of course it was a success. Atari were the winners! Apparently famous stars and Royalty visited the stand! Yes, famous people like Michael Rance and Who? I have no idea either, but they were apparently a famous pop group. Atari also reported that they had given loads of Atari systems to various newspapers, magazines, and TV programmes to give away as prizes. There was a brief article on a Computer Camp Atari had given twenty 800s to. New products being previewed this issue were *Carriers of Mars*, *E.T. Phone Home*, *Dig Dug*, and *Pain*.

Next up were some photos people had sent in of their systems as requested in the last issue. I can't honestly see the point of printing photos of people's living room tables with a 400 set on top! One Darren Stone who sent a picture of his system must have been well off. He had an 800, 818, and a printer! I imagine how much that would have cost in mid-1983! Next came quite a technical article on using the Atari's 588 colours. This included DLE, VDE, and writing manipulators. Quite fancy subjects. It came with listings to Basic and Machine Code. M/C was not something typically seen in magazines of this period. Most people were scared to death of it, and I suppose many people still are now!

The main article this issue was on Paul Daniels' use of his Atari 800. He apparently went into a computer shop, handed over £1000 and got an Atari 800 with disk drive and tape deck. Not that good a deal! It also mentions that he wants to write an adventure game. Next came an article on *Planet Monthly Graphics*. This came with a program listing that had been split line by line to show what each was doing. The next article was about the development of the home computer from the original mainframes of the 40's. This rapidly moved on to become just one big advert for Atari's professional Next case with graphics type-in listings. The last article



shared how Atari got its name, which is now well-known information, but it was still quite interesting.

Issue 4 (Autumn/Winter 1983) editorial column discussed "the new generation" of Atari machines. They were, of course, talking about the XL range. They raved on about the 14800LD, which we all know never made it! The main focus of this issue was about Atari's Software Development Centre. They were set up to help Atari compete in the UK software market, mainly by assisting user's software contributions, as well as adapting US software for the UK market. This was to include introducing 800 software to the UK market. The next article was boldly headed "Atari Unveils the Future". What a statement! This was more on the new XL range, and again went on about the 14800LD. It also went on about the CP/M module which didn't make it either.

There were a couple of updates to stories from the last issue. The main one was about Atari loading 20 systems in the Computer Camp. They actually had 100, and they were proud of it immensely! There was also an article about Atari's involvement with sport. They claim "Following the outstanding success of the Atari Soccer 6...", it was in another bold statement "The Atari Challenge, as it was to be called, would allow people to play on Atari computers of various sports centers around the country."

There were some program listings contributed by readers. All the usual early 80's sort of stuff. Next to this were some more photographs of people's systems. Mostly all from the same guy! Next to this was an article on assembly language programming, which is actually quite good. A special "pull out guide" to this issue detailed the new machines and peripherals (1818, 1604, 1605, 1606, 1607, touch tablet, super controller, Trak-Ball). The new software reviewed were Juggler's Rainbow, Juggler's House, Hitting in the Great

Outdoors, TenGon, AtariPipes, Family Fracas, TenFive, Eastern Front (1843), and Dexterity King. The "coming soon" page listed Pole Position, Frog, Star Trek, Dexterity King Jr., Tennis, 60000, memory module, CP/M module (which never made it), Atari Expansion Box (which never made it), Mr. PacMan, Joust, and a "Stop Press" for the then brand-new The Lone Rider. They wanted £24.99 for this so far, about two years later they were giving it away with 60000.ah!

There was an article headed "Tech Space", which detailed the new arrangements for their helpdesk number. This, it appears Atari did once actually support their own customers! The article went on to talk about the customer part and what each job does. It ended by telling you why only Atari customers could, and nobody else. Next came an article headed "Scrolling Verities Hints". This contained details and program listings on how to create the now-famous scrolling colours. After this rather technical article, came "Discovering Atari Hints". This article was more to read with the period in which it was written, with, for example, what a DATA statement is and does. The APS files T and Questions were reviewed next. They both were, of course, fun! One and excellent! Next came "Atari's Outer Limits" which was an article on the benefits and pitfalls of video and computer games. Yes, we need to call them "video games" back in the old days and not "console" as we now have it. There came an interesting article called "Lee Ellingham's PRICE". In this Lee talks about all the joys of reading Page 8, which was only on issue 4 at the time. Lastly came an article about MAGE (Mazehunter Atari Computer Entertainment). They claimed they would create a magazine better than LPS (which wouldn't be too difficult), and PAGE 8! Oh dear, I don't think that happened, or we'd be here writing for issue 80 of MAGE Magazine to turn up!

Issue 5 (Spring 1984) was, I think, the

last issue. This issue kicked off by challenging anybody to write a cricket game for Atari. A £1000 prize was on offer. Prizes compared to what Atari would have made out of it, but back in those days nobody knew any better. The main news this issue was that Paul Daniels had finished his adventure game, and it was on sale in two parts for £24 a part! Great! The other news was that Jeremy Boulter (who was at the time known for "Games for a Laugh") had been given a 60000. He apparently had 60000 sold books he used to cross-reference. Yes, they gave him a 60000 for that! I wouldn't like to attempt that on a PC! He's amazing how many stars Atari tried to get on their side. It was the same in the States, with Alan Alda appearing in their adverts. Also being reported was the recent British Golf Classic which Atari had sponsored. Atari had recently run a Player of the Year competition, with 60,000 entries. Following their donation of machines to the Computer Camp, Atari then donated some to the Holiday Inn to be used for "computer weekends for families". Atari had recently established the Great Hunt Entertainment Spectacular and the PCW store. They were giving touch tablet and light pen demos, as well as running "Atari Theatre" sessions to present computers to the masses.

Next came a collection of reader's programs. Nothing special, just the usual type of stuff for this period of time. Then came the second part of the Assembly Language column. New software being reviewed this issue were Pole Position, Mr. PacMan, Joust, The Lone Rider, Jungle Hunt, Dexterity King, Jr., Halloween 2084, Frog, and the Atari Game 90. There were two longer reviews of the House Piling Manager and Dig Dag, by two people from Silica Sleep, as at least these reviews were not in MAGE! Next came a sort of interview with Justin Whitaker who was 17 at the time, and who had just written The Lone Rider for Atari. It apparently took 5 months to write. The "Tech Space" column talked about re-

pairs, protecting your programs, and loading machine code programs.

The longest article this issue was by Jack Schofield, who at the time was editor of Practical Computing, and who is now the editor of the Computer Guardian. The article headed "Practical Peripherals" was a review of the touch tablet, Trak-Ball, and the 1600 paddle. And it really was a review, because he didn't really like the Trak-Ball, and he didn't mind saying so! He seemed to like the touch tablet very much indeed! The next article was about mixing old and new peripherals. This still went on about the CP/M module and the Expansion Box, which didn't actually appear. It seemed to me that Atari Maged third party software companies for not following their guidelines which made so many of their programs incompatible on the new XL range!

Next came a "Profile" of a guy who had used his 160 to generate graphics for a TV commercial he was working on for them. A small "Farewell" column described the differences between using a Computer Video monitor and a TV RF cable. Lastly came an interview with the guy who ran SMAC (South Midlands Atari Club). Yes, you never heard of a club! They apparently produced a newsletter called SMACLET, and they planned to build a robot to be controlled by their Atari!

As far as I know, issue 5 was the last issue of LPS magazine produced. They were all very much Maged towards Atari, but then the magazine was published by Atari so that explains it! However, those mag cost 95p each, so you effectively had to pay for Atari in most adverts at all!

I spent a great deal going through these issues, and kept thinking "I know what happens in the future!", and I wonder where all those people are now! It would be interesting to find out. I really did get nostalgic while reading these mag, more so by the photographs of the people they interviewed. Did we really go around dressed like that?

DUEL

Joel Goodwin
presents a two-play-
er game using the
Motivation routine
from the last issue

Welcome to *Duel*, an addictive arcade game for two players. It is written by **RAMSO** with machine-code thunks for good measure. It also makes use of Motivation, my player-manipulation driver published in the last issue.

THE DUEL

Centuries have come and gone in the Kingdom of Koral. Technology has brought with it new wonders and new horrors. People have gone from living in huts to living in space stations orbiting the planets in the local star system. But ... one thing has always remained constant in the Kingdom - the *Duel*. It has always brought in the crowds, becoming more and more popular with each generation. And now it is televised for all in the Kingdom to see.

Originally in the *Duel*, two warriors would fight each other, with only one of them winning a round, the other being executed. After a certain period of time had elapsed, the *Duel* master would knock his staff on the ground and the *Duel* would occur - the fighting momentarily stops as the crowd is given to unsecured warriors. The battle continues with switching occurring at regular intervals until one of contestants falls.

Of course to modern Koral, no one gets killed any more, and it's all done with state-of-the-art technology rather than swords. The duellists now fight with apparatus, a shield is exchanged between the two craft and the shield-bearer must try to run the other duellist before the shield is lost at the next switch. There's all sorts of complex transportation devices at work to make sure neither duellist is killed in the *Duel*, but it is still the most popular sport in the Kingdom. Are you ready for the challenge?

PLAYING THE GAME

There are variations on the main theme, but essentially the game is as follows. Both players have control of a ship which is displayed on the screen. The left joystick controls the duellist who starts on the left (normally outward green) and the right joystick controls

the duellist starting on the right (normally outward purple).

One of them will have the shield. This duellist will be coloured bright white. The shield-bearer must try to collide with his opponent before the shield scores - 12, when he loses the shield. The time to the next switch is indicated by the bar at the top of the screen.

That is the game. But as I said there are variations on the main theme.

OPTIONS

On the title screen, you will see a list of game characteristics which you change by pressing **SELECT** and **OPTION**. Here I explain what each option means.

APENA: This is the enemy you play against. "Empty" means exactly that. "KB" means there are red crosses dotted about which can kill a duellist (usually **INCLUDING THE SHIELD BEARER**). "Tag" means that a white **lg** is present in the middle of the screen which duellists can hit behind, now that the **lg** merely obscures and does not protect a duellist from attack. "Mixed" means there is both **lg** and red stars on the screen. "Kill +*" means there are a lot of red crosses on the screen. "Tag +*" produces a **lg** which obscures most of the screen.

BOUNDARY: "None" means that duellists can fly off the side of the screen or reappear on the opposite side. "Rubber" means that there are now rubber walls which duellists will bounce off. "Solid" is again more walls, but duellists do not bounce off them. "Fixed" "Yield" means that the walls will now kill any duellist that comes into contact with them in this instance they are coloured red.

SPEED: This is the speed at which the game plays.

SWITCHING: This is how frequent switching occurs. "None" means the period between

each switch is long. "Fast" means switching is unusually rapid and makes for an interesting game. Note the switching speed is independent of the game speed.

GOAL: To win a *Duel*, the opponent must score a certain number of points. Scores are shown at the top left and right of the screen (corresponding to the left and right joystick). The duellist scores a point each time the duellist's opponent is destroyed. The duellist must attain a number of points equal to the *Goal* to win; however, the duellist must have at least **TWO MORE POINTS THAN THE OPPONENT** as well. If one duellist reaches the *Goal* but has not got two more points than the other duellist, then the scoring will turn into an "add-on" system like in tennis. In this case, the scores are blank unless one duellist has got a point ahead of the other. The duellist's score will then read "AD" and this duellist must score another point to win. For example, consider a goal of 10. If both scores are 9 and the second duellist scores a point, then instead of the scores reading 9 and 10, the only score displayed will be "AD" for the second duellist.

LAST REQUESTS

It is possible for both duellists to be destroyed at the same time (e.g. both on a killer wall). In this case neither duellist will score a point.

Duel is a lot of fun for two players and with all the variations possible it should keep you interested for quite some time.

THE LISTING

The listing for *DUEL* is too long to be done in the magazine and is therefore on this issue's disk as a ready to run program. It is also available on request as a TTYO coded printed listing for you to type in.

©1988 by John F. Foscett, "Disk" and "How Do They Do That?"

Reprinted with permission from the author.

DISK DIRECTORY MOVER

John Foscett answers a How Do They Do That? with a great Turbo BASIC utility to move the directory of a disk ... and more!

Moving the directory of a disk to a new location is really a simple matter, but it can prove confusing and may even prove. It is quite easy to load a BASIC program, do the necessary POKEs and save it onto a disk with a repositioned directory, but the trouble comes when trying to transfer a non-BASIC program or file. In other words if BASIC is not present, then the necessary POKEs cannot be done.

The program presented here allows the position of the disk's directory to be moved to a new location and updates the disk's YPOC table to protect it. The program also provides a means of copying files from normal unmodified disks into the repositioned directory of the modified disk. All but the first two sectors (sectors 261 and 262) of the original directory are released to the YPOC table for data storage. The program shows an information header to be created consisting of up to 8 lines for file name positioned and writes it into the first sector of the original directory (sector 261) which will be displayed should the disk be mounted using a conventional DOS. Since two of the original directory sectors remain protected within the disk's YPOC table along with the repositioned directory, it in effect creates a dual directory disk which has one small directory available to a user of your program and the main directory hidden. You may wish to make document files available to a user of your program whilst the program itself remains protected and hidden.

Note that at least DOS file name position in the original directory must remain unaltered to prevent DOS from reading into possible data and spoiling the display of the information header and available files. The two sectors allow a maximum of 16 files to be stored, but the need to leave at least one entry unused, reduces the maximum to 15. If an information header consisting of the maximum 8 lines is used, then the maximum number of files the disk can store to this directory becomes 7. The important point to note is that DOS attempts to find an 8 sector directory. Listing the file names until an unused entry is found. Using only 3 sectors for a directory means that DOS will overrun unless it is restricted by an unused entry.

Using such a dual directory disk means that it is possible to store more than the stipulated 64 files on the disk!

HOW THE PROGRAM WORKS

The position of a disk's directory is determined by a vector stored within the disk's boot sectors. The vector of a normal format disk has a 16-bit value of 1 and a 16-bit value of 268 which calculates using the normal 16-bit two byte method as follows:—

$$10 \times 256 + 1 = 2561 \text{ (sector 2561)}$$

Hence the directory of a normal format disk can be found beginning with sector 2561. This shows that all that is necessary to move a disk's directory is to change the directory

vector and then to format the disk afterwards. The new vector value will then be written into the boot sectors and the directory will be moved into the new selected position. That is exactly how the program presented here works!

GRAPHIC SELECTION

To keep the calculations relatively simple, only the 16-bit value of the directory vector is altered, the 16-bit constant unchanged. Although only altering the 16-bit keeps the calculations simple, it does have the obvious disadvantage of restricting the range to where the directory can be moved. But the restricted range does allow a graphic method of entering the new directory position to be used giving a visual indication rather than by tediously entering figures from the keyboard.

THE INITIAL SCREEN

When the program is run, the initial screen is generated from where the new directory position is selected by pressing the left/right arrow keys to move a pointer along a graphic scale (see included details). The vector 16-bit value and the right directory sectors associated with the current pointer position are shown on screen for reference and are updated each time the pointer is moved. The vector 16-bit location (4173) shows the value to POKE into the location in order to recover the repositioned directory from BASIC.

Once the new directory position has been selected, RETURN is pressed in order to allow which the format density for the disk is prompted for by either pressing 'N' for single density or 'D' for enhanced density. After selecting the format density, 'Y' is pressed to

After you have completed your latest game or utility, it may be wise to put your programming to rest for a while. It would be nice to add the professional touch before releasing it into the public domain. Many disk based programs show an information header when examined by DOS while the actual program itself is hidden away in a repositioned directory.

continue on any other key to exit and upon pressing "Y" the disk currently in drive 1 will be formatted. When the disk has been formatted, the DOS.SYS file is written into the repositioned directory after which the disk's VTDC table is assembled to protect the repositioned directory. When completed, START is pressed to continue.

MONITORING COMMAND SELECTION

THE MENU

Upon pressing START, the following menu is displayed —

1. COPY TURBO BASIC AS AUTOREGULATORS
2. COPY SUBTIME.COM AS AUTOREGULATORS
3. COPY COMPILED PROGRAM AS AUTOREGULATORS
4. COPY DMP.SYS
5. COPY MISCELLANEOUS FILES
6. CREATE INFORMATION HEADERS
7. ALL FILES UNLOCKED
8. WRITE WITHOUT VERIFY

PLEASE SELECT OPTION 1 TO 8 OR PRESS -OPTION/ESCAPE- TO EXIT

The options on the menu are described as follows —

1. Copies the Turbo BASIC language from a normal disk using the file name "BASIC.TUR" into the repositioned directory of a modified disk as an "AUTOREGULATORS" file.
2. Copies the "SUBTIME.COM" file from a normal disk into the repositioned directory of a modified disk as an "AUTOREGULATORS" file.
3. Copies a compiled BASIC or Turbo BASIC program using the file name "AUTOREGULATORS" into the repositioned directory of a modified disk using the same file name.

4. Copies the "DMP.SYS" file from a normal disk into the repositioned directory of a modified disk using the same file name.
5. Copies a file or program from a normal disk using any file name into the repositioned directory of a modified disk using any file name or the same file name. Note that this option could be used instead of options 1 to 4.
6. Enables an information header to be created using any of the available characters and a maximum of eight lines for file name protection. Once written to disk, the header is re-read from the disk and displayed on the screen.
7. Toggles locking and unlocking of all files in the repositioned directory.
8. Toggles the write function with or without verify.

Note that ESCAPE may be pressed with OPTION to exit from the menu back to the initial screen. After selecting, "Y" must be pressed to exit on any other key to return to the menu.

MASTER UTILITY DISK

It was found convenient to produce a master utility disk for use when moving a disk's directory which contains the program as an AUTOREGULATORS file and the main reference files for copying. If required the program may be assembled and included on the disk as an AUTOREGULATORS file in the normal way. The only point to note is that Turbo BASIC must be included on the master disk using the file name "BASIC.TUR", if otherwise the name is to be used then the corresponding file name in the listing should be changed accordingly.

TECHNICAL DETAILS

POSITIONING THE DIRECTORY

A graphic scale is provided to assist in providing an easy method of selecting the position in which the disk's directory is to be moved. The available range is divided into 80 groups of 4 sectors, any group of which can be selected by moving a pointer along the scale. Using fixed groups of sectors selected via a graphic scale was chosen because of the way in which the disk's VTDC table works. The standard directory position on the scale has been disabled since these would be no point in using it (also it would overwrite the disk's VTDC table header 380). The position on the scale following the standard directory position has also been disabled because the standard directory begins with sector 380 which would overlap the following group by one sector. This is because the standard directory does not fall into a group of sectors beginning with a multiple of eight. The position on the scale immediately before the standard directory position has also been disabled simply to improve the appearance of the display.

THE DISPLAY LIST

The program uses a standard master display list providing 3 lines of mode 5 and 3 lines of mode 1 for the program title and heading followed by 18 lines of mode 5. The display list is initially defined as AB and MOVED into page 0 prior to AB being loaded with sectors for its other uses.

PMOS

The program uses 2 pointers, player 0 defined in the cursor used for keyboard entry and player 1 defined as the arrow pointer for

selecting the directory position. The two player or stripes are initially cleared by MOVING a length of AB (loaded with zeros) into them after which they are defined again using MOVE. CR8 contains the data for defining the cursor and AB8 contains the data for defining the arrow pointer.

TEXT ERASING

When loaded with zeros, AB is used for erasing text from the screen which is achieved by MOVING a length of AB into specific areas of the screen RAM.

COPYING FILES

The main use of AB and the reason for its extreme length is to copy files for seven options 1 to 5. The file is first read into AB from disk via the use of a FOR-NEXT loop using GET to read the file one byte at a time. The loop is used as if it were an infinite loop using the error trap routine to detect the end of file (EOF) error 126. Since the file is read via a FOR-NEXT loop, at the time of EOF exit via the error trap routine, the length of the file is recorded using the loop's variable which is then used in the write process. When ready to write the file to the modified disk, a second FOR-NEXT loop is used to PUT the contents of AB (the stored file one byte at a time) to the disk. Although copying a file using GET and PUT is slow, it does have the advantage that it can copy ANY file whether it be a BASIC program, a machine code program, a WP document, file or even a data file such as a hi-res screen table. To speed up the process, the actual read/write loops are placed at the top of the listing, but the process can be further speeded up by compiling the program.

continued

TRAPPING ERRORS

An error trap routine has been included to detect all disk errors which may occur as well as for detecting the EOF error used when copying files as described above. Because disk errors could occur in several different places within the listing at different levels (that is loops within procedures, etc.) some means of preventing stack errors had to be accommodated. Variable "Y" (which represents PCP) is used for this purpose to prevent the required number of PCPs necessary from the various points within the listing where disk errors could occur.

THE VARIABLES

A good way of understanding from a program writer is to examine its variables ...

THE PROCEDURES

CLEAR	Erases the bottom 2 lines of the screen
CLICK	The key click
COPY	Reads files from a standard disk and writes them into the repositioned directory of the modified disk
ENTER	Gets entries from the keyboard for file names and for the information header
EXIT	Allows and from the menu back to the initial screen to select a new directory position
FILES	Gets file names for menu option 5 to copy miscellaneous files
HEADER	Constructs the information header, writes it to the disk and then immediately reads it from disk and displays it on screen
INIT	Initializing routine
LOCATION	Gets the new position for the direc-

LOCK	Lock and unlock toggle for all files in the repositioned directory
RESET	Resets parameters for writing the ENTRY procedure
SECTOR	Accesses disk sectors for read and write for accessing the VTDC sector(s) and when constructing the information header
VERIFY	Toggles write with and without verify
WRITE	Writes the information header to the repositioned directory

THE ONE LINE LABEL

MENU	Marks the start of the menu
-------------	-----------------------------

THE STRINGS

AS	For storing a file prior to writing it to disk (via menu options 1 to 5). Also used for loading the display list into page 8 and for erasing screen text
ARE	Gets for the answer for selecting the directory position
CHE	Gets for the answer for keyboard entry
DOE	Defined
DEYE	Stores either SINGLE or EMPOWERD, the format density of the disk selected from the initial screen
DOE	Defined
DYE	Defined
FE	For reading the information header after it has been written to the disk
FE	Stores the input file name, the file to be read
FOE	Stores the output file name, the file to be

top, format the disk, write DOE-YYS, erase the VTDC sector(s) to print-out the repositioned directory and trace all but the last two of the original directory sectors for data

GE	without
HE	Used in the ENTRY procedure for storing the keyboard entries
HE	Defined
OE	Defined
OUTS	Defined
POE	Defined
SECE	Buffer for storing the data when a sector is read from disk and when writing a sector to disk
SE	For loading keyboard entries into the buffer (SECE) when constructing the information header
YS	Stores the assembled VTDC data
YOS	The VDI routine
Z	Machine code routine for accessing the internal disk access routines

THE MAJOR VARIABLES

ASOR	Address of AS used when erasing text from the screen
ALEN	Length of AS (25000 bytes) used when loading AS with zeroes
BDH	Indicates the format density of the disk, either 0 for single-density or 1 for an enhanced density
DECE	First sector of the repositioned directory
FILE	Moves out from the error trap routine back to the menu if the menu has already been entered otherwise it is back to the initial screen
FWRITE	Lo-byte of the directory writer
RD	Direction of data transfer, read from or write to disk
LOCK	Toggles the locking and unlocking of all files in the repositioned directory
LOCKERR	For constructing the lock/unlock header should a disk error occur
LOC	For selecting the position of the directory, incremented or decremented by 1 each time an arrow key is pressed
LINE	Count the number of lines when con-

MAX	Stores the information header
MAX	Sets the maximum number of characters which can be entered from the keyboard
PP	Number of PCPs required in the error trap routine to prevent stack errors should an error occur when reading from or writing to a disk
SOEY	The screen field address used when erasing text from the screen
SEC	The sector for accessing
VERIFY	Toggles the write function with or without verify

Many of the programs constants are replaced with variables to preserve memory. They are preceded with the letter "V" and their values do not vary. These variable constants are easily being visible in the listing because they comprise of the value they represent preceded by the letter "V", thus V#1-4, V#5-8, V#9-4, etc.

DIR DIRECTORY	DIR #M
MOVEN	DIR 102
Defined 991 routine	DIR1
Written by	PLA
John Tinsell	PLA
October 1988	AMP 8802

File	DIRK ACCESS
1/24/89	AUTOROUTINE
DIR TT	-----
DIR 991	PLA
DIR 02	DIR 8801
DIR 8307	PT 3
DIR 884	

THE LISTING

The program listing is too long to include in the magazine and is therefore on the issue's disk as a ready to run program. It is also available on request on a TTPO coded type-in listing complete with expanded writing to type in the complicated machine code strings

HEY? HEY?

It's The TIPSTER

The column this time is comprised of tips from two of our regular contributors, with-out whom the Tipster would have failed away. Many thanks to James Madwick and Joel Goodwin for realizing that the Tipster needs constant replenishment. As for the rest of you, only play on a poor creature whose only purpose in life is to bring gaming joy to Atari users around the world and start feeling like a few lines or tips of your own.

Let's start with the James Madwick section! Although James is giving many hints, he usually has help at various points in some of these games, so read through carefully to see if you can provide some answers for the next column.

ALTERNATE REALITY - THE DUNGEON

If you encounter (or call) and kill a healer, he will offer his healing services in exchange for a "transfer of funds". However, if you have little or no money, he will take pity on you, and restore a set number of hit points in exchange for what money you have (which can be nothing at all).

When starting out in the Dungeon, always use a 10' hook as a primary weapon - it makes an excellent club!

HARDBALL

Is it just me or is the computer very biased in one player mode? When I

throw a ball against its player it hangs in the air while the computer's player runs around the bases and scores more points. Yet when I throw a ball against my runner, it comes instantaneously between bases. Never mind. Any help on this game? Particularly with the stats given with the pitchers' button - are the baseball fans hard? The stat lists are AB, HR, RBI and ERA. Any 1 assume stands for average - but average for what?

RAMPAGE

The controls for this game are not very easy to handle, and in order to punch out someone it is advisable to push the joystick in the repeated direction before pressing the fire button, otherwise you will end up jumping off the side of the building. Incidentally, jumping from the top of a building or from the side of a crumbling building is better than falling from them - you will not lose body points that way.

If it appears that you have caused maximum damage to a building, and it is still standing, then it is likely that you have not punched the sides of the building. In order to do this, you must press the whilst climbing up/down a building.

It is possible to attack your opponent, causing him/her damage and giving you points. However, it is not advisable to do this, as your opponent helps you in close levels and draws fire from choppers, tanks and engines.

Should your opponent revert to their (soft) human form, then you can eat them (pull down and press fire) to boost your energy state.

THE LIVING DAYLIGHTS

Another game with tricky controls, but if you jump the joystick in the up/left position, you can make his way (jumping forward) through many levels with minimal damage. In every, however, that some levels require you to kill a big badgie before proceeding to the next level, and so you may not be able to "hop through" the whole level.

Ideal special equipment from G's workshop:

LEVEL 2 - Night vision glasses (allow you to see the holes which can trip you up)

LEVEL 3 - Hard hat (reduces the damage from falling pipes to 2 body points)

LANCELOT

Do not sleep at Bloor as you will get covered in birds' droppings, and for a short time afterwards be dubbed "Lancelot the Smelly" - instead crash down at Merlin's house. From this, Way in Merlin's is N, N, W, W, W, N. While you are there, read the books in his library in the East of the study for hints and points.

Remember to always pray at a place of worship and always accept the surrender of another knight, as any good knight should do.

I cannot get into Melagant - although I can get a side there by a cutter - is this the solution?

In the Great for the Good, do not worry about the cursed problem - if you do not end all of her cubes you will be Lancelot, the Uncharitable, and if you do not them all you will be Lancelot the Glutton. On a philosophical note, it shows a knight's goal can never be attained, but on a more mundane level, Lancelot needs some air placed on him so his aim can be the best knight in the world and so revive the Good. Do not read the crows for the preacher, or kill another knight. Push on upwards on the mountains, despite the disciples' warnings - they are demons in disguise. Do not take the sword or the shield, open the tomb, or try to eat the host as only the best knight in the world, Galahad, can do these

LEVEL 4 - Hammer, Mithras (to stop

the choppers)

LEVEL 5 - Crossbow? To burst the balloons?

The items for levels 4/5 may not be exact as the solution process in G's workshop is slightly, but interestingly, lagged (i.e. what you select may not be what you get). Donald I found this game frustrating and boring. Any comments or other tips?

actions. I have not yet managed to persuade him to do them - this is where I need help. On a final note, use the trap you receive to give to the pilgrims by the well, so that he can drink.

I have not got far in the second part, in Lough, apart from defeating the odd knight or two. I have crossed the lady's back by moving my armour to climb the tree, but when I climb back down, a knight challenges me to a duel, which I lose due to the lack of weapons and armour as I cannot get them after climbing down again. I cannot overcome the red knight to fight for me, or collect the hawk either.

At the stage, how the hero is to get into the castle. The last Knight was the found under a rock (Thompson's manner, I think), but as to how to get out, or pass the arrow trap safely, I don't know - I think it involves the red knight somehow.

I gave up mopping the floor due to sheer tedium writing it - can anyone supply maps of these areas?

Like William Crumey (another level 5 offering) I found this game slightly tedious and dull, but any help on this game would be gratefully received.

Let's finish off by passing over to Joel Goodwin for our final couple of tips this issue.

MERCENARY

There is actually a third way to escape Tug. The Palps ask you, in the British Room, to destroy all of the "Mechanoids" sites; similarly, the Mechanoids ask you to destroy all of the Palps sites. The problem is distinguishing between these sites

continued

MERCENARY

The solution is in the form of the Metal Detector object. When carrying it, the message bar will turn to a colour appropriate to the forces occupying the site you are near. I don't recall the colour cutting off head, but note that some sites are neutral. If you've destroyed, by mistake, any sites of the side you're hoping to impress, then if you fire at the ruins while carrying the Anti-Time Bomb, they will reconstruct before your eyes.

ALTERNATE REALITY (AGAIN)

For all those Atari users who have access to the Web, there is a great web page for AR enthusiasts run by Robert Nagendrohn. It's address is:

<http://www.hsk.sala.se/~sp03rob/dungeons/>

The page has been up since January 1996 and is crammed full of information: blogs, song lyrics, hidden features and words from the creators of AR themselves can be found on this web page. Just a taster - it reveals the name of the Dungeons Gargoyle to be... **WIBROO!** In crude imitation of the sarcasm of the actor who played the Soldier in the Dungeons series, Frank (over)did. You were supposed to learn his name in a later installment to the AR series. I'll let everyone find out for themselves what happens if they kill the Gargoyle when his name is...

HELP!!

James Malachuk can't seem to get the tip for **DRACONUS** to leave 99 to work. Can anyone verify whether it does, or doesn't, work?

No response to the request last issue for help on **MIDNIGHT HAWKQUEST**, **DRUID** and **ZYBEX**. Someone can't have played these games, so here about setting down your findings?

Cover us, guys and gals!



Oh, that's all for this issue. We did find some quite good discs in 'The only one the tipster is able to find is the disc in a very boring thing called 'where most of the money I make if I have the magic word' which it will find the answer to the name of the 'dark, glowing creature'. I could not read what the name was but I can't tell you what it is or whether it would be correct... and... good, that's all, guys, there's all about this and maybe in the future that's not the right one either.

As usual all the letters for the Tipster go to:
**THE TIPSTER
NEW ATARI USER
P.O. BOX 84, STAFFORD
ST16 1TB**

THE ACCESSORY SHOP

DISKS ... DISKS ...

NIBBLER

Working through an unusual labyrinth, find yourself to go wherever words constantly change. As the game advances, levels grow longer and to make moving via yourself. Don't fail!

CLOSEOUT PRICE 90p plus 75p p&p

MAXWELL'S DEMON

A simple yet challenging puzzle game which will get you really hooked. Two games in one for double the fun!

CLOSEOUT PRICE 90p plus 75p p&p

DRUID

Another classic in which, as just one of the Great Druids, you are charged with the duties of keeping order with your mighty Druids for your side in a quest to destroy the evil demon, Zeph. As you take deeper into the dungeons you will find chests containing spells of formidable power to get you out of situations of L.A. which will test and challenge you. Excellent program and our best guesses make this one of the best price games.

CLOSEOUT PRICE £1.00 plus 75p p&p

CASSETTES

LANCELOT

Take a journey into the world of knights and chivalry of the Round Table in a classic quest adventure in which the knights edge off the quest for the Holy Grail. Stunning soundtrack and superb animation take you on an epic journey through atmospheric and highly sophisticated.

CLOSEOUT PRICE £1.00 plus 75p p&p

JUGGLER'S HOUSE

Another new program for 3 to 6 year olds featuring a fun concept of music, colours, shapes and size with juggling, music and juggling.

CLOSEOUT PRICE £1.00 plus 75p p&p

BATTALION COMMANDER

An exciting real time tactical game with you as leader, your soldiers in charge of an entire armoured battalion. Choose from five different scenarios from a training mission against a Soviet tank battalion to tough assignments against the Germans. You can enjoy the realism of major tanks and the excitement of the command from 50 different maps and 5 different scenarios.

CLOSEOUT PRICE £1.00 plus 75p p&p

Transfer these cassettes to disk!



LAST FEW ROMS

BASIC CARTRIDGE

Some programs, especially older video games, contain programs that can be used to help you. We have a lot of these.

CLOSEOUT PRICE £1.00 plus 75p p&p

DESIGNERS PENCIL

A simple puzzle language that is based around the creation of graphical scenes. Difficult to explain but worth a go if you can!

CLOSEOUT PRICE £1.00 plus 75p p&p

TRANSDISK IV

is still available

That's you have to transfer the right-most shows opposite to that you can do many more - over 200 programs successfully transferred!

TRANSDISK IS NOW ONLY 29.95

(price includes 2 1/2" floppy)

AVAILABLE ONLY FROM PAGE 6

BARGAIN CASSETTES

Your choice of
any 5 cassettes for £1.50 plus 80p p&p
any 10 cassettes for £2.00 plus £1.20 p&p

- 180** Eight cassettes, digital audio, 180 minutes each, 100% guaranteed, 100% money-back guarantee, 100% popularity.
- BOMB FUSION** ✓
A defuncted-but-captured truck is the focus of *Flamingo* and you have to go to the bank for it.
- DESPATCH RIDER** ✓
Join the gangster band of desperadoes and witness the destruction of the world as they go to the bank through.
- FEUD** ✓
The most "realistic" gun war film that has ever been made. It's a classic that has never been equalled.
- FOOTBALL MANAGER** ✓
Football manager, see the most exciting football in the world. It's a classic that has never been equalled.
- GHOSTBUSTERS** ✓
The only comedy film of its genre that has ever been made. It's a classic that has never been equalled.
- GUN LAW** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- HENRY'S HOUSE** ✓
Join Henry the schoolboy and his friends as they go to the bank for it.
- INVASION** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- KIKSTART** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- LOS ANGELES SWAT** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- MASTER CHESS** ✓
An action chess movie with a twist. It's a classic that has never been equalled.
- MILK RACE** ✓
A classic film of its genre that has never been equalled.
- MR DIG** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- NINJA** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- ON CUE** ✓
A challenging film of its genre that has never been equalled.
- PANTHER** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- PENGION** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- PLASTRON** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- PROTECTOR** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- REVENGE II** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- ROCKFORD** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- SIDEWINDER II** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- SPEED HAWK** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- SPEED ZONE** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- STAR RAIDERS** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- TAIL OF SEA LIZARD** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- TWILIGHT WORLD** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- UNIVERSAL HERO** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.
- TRANSNISK IV** ✓
The most realistic gun war film that has ever been made. It's a classic that has never been equalled.

ORDER ITEMS FROM THE ACCESSORY SHOP WITH THE ORDER FORM ENCLOSED WITH THIS ISSUE OR WRITE TO
PAGE 8, P.O. BOX 54, STAFFORD, ST16 1DR
TELEPHONE ORDERS ACCEPTED ON 01690 547103 MONS ACCESS OF 0954

ST PUBLIC DOMAIN



ROUNDUP

Hello there! Yes, it looks as if this column is going to be done by me again for this issue. This time I'm going to take a look at two more ST/FO titles - *SAFE AS HUSBAND* (ST174) and *HITMAN* (ST168). For different further info... Ladies and Gentlemen, boys and girls, it gives me great pleasure to introduce... the latest in releases!

NANANANANANANA... BATMAN!

ST168 consists of three discs - *The Bat Demo*, *The Pughook Demo* and *Hellcats Demo*.

First on the menu is the *Hellcats Demo*. Upon loading, some (digitised) sound effects made starts to play whilst only a black screen appears. A few seconds later and a border (with the famous image of Hellcats) appears over the car door as both

sides of it appears. In the middle of the screen, a digitised still from the Hellcat movie appears whilst the music continues to play. The discs in then make up of different scenes from the movie being played, whilst sampled clips from the film are regularly played over the music. The clips are all fairly clear although only in black and white. The music is very good throughout and the samples are quite good, although occasionally a little muffled.

Next up is the *Bat Demo* by the ST legend. This is a one-screen demo, obviously made after the first Hellcats Movie. Very little can be said about this demo. As the bottom of the screen, a plain vertical scroller is to you about the demo whilst above, a Batman symbol becomes up and down.

What is noticeable in the main feature of the demo, I feel, is the sampled rendition of the Batman song that Prince is thought to be Squirelli's work for the movie. However, this is not of a particularly high sample quality and it made up of bits of the song being put into a loop. This is likely to get a little repetitive. This is only

the half-way version of the demo but, even considering the constraints, it's not particularly impressive - I've seen far better demos on the Atari 8-bit. For example. Overall, this one is OK but nothing particularly special.

Finally on the disk is the *Pughook Demo*. If any history lessons were so well, it seems to recall that this was one of the demos that Atari had on show when the ST's were originally released. So it wasn't any good now! I hear you thinking? Well, actually, you'd be surprised. To tell the truth, Atari had to have something fairly impressive on show and this one certainly did the trick.

All this demo consists of is the Atari Pug logo bouncing around the screen with a "Power without the Power" slogan at the bottom. However, the Pug logo spins on a horizontal axis whilst it bounces around in front of the character background. One side of the Pug logo, being grey in colour, changes shade depending how much light would be shining on it. The other side has the full ST out-of-cycle running vertically down it.

Overall, although the (re-

by
**Kevin
Cooke**

Block there has an extra color mode. It's still very good. The animation is very smooth and the effect is an impressive knowledge of its true use.

GO DIRECTLY TO JAIL...

Monopoly... that lovely game where you can send one friend bankrupt before dinner, only to be bankrupted by another? "Monad" after that. That game which, without fail, comes out every Christmas and bank holiday, only to be forgotten about for the rest of the year?

Well, if you're one of those people who, like me, has difficulty getting anyone else to play it with you, or who can't get enough of it but can't be bothered to keep setting the board up, help is at hand.

Safe As Houses is a fairly faithful conversion of the game. When the disk is first loaded, the very colourful board appears on screen with the title of the game in the middle. alongside this, a piece of music which seems to be one for the first two seconds and goes rapidly downhill from there, plays in the background. Pressing any key starts the main game loading.

The first thing that is seen should be Safe As Houses in that, like Monopoly, it allows you to choose your playing piece.

However, in Safe As Houses, up to eight people can play, choosing to be either the traditional home, or a cat, dog, mouse (the computer starts) or yourself!

First up, you get an options screen in which you can customise the rules of the game over so slightly. For example, you can choose to place flats randomly on the "No parking" spaces, choose whether or not you can collect rent when in jail, choose whether you can buy properties on your first trip around the board, choose whether landing on another player should send them back to go, and choose whether landing on the GO square should give you 600 pounds instead of the normal 200. All of these options just show what though for the authors put into the game after all, everyone has their own variation on the rules.

You also have the option, before starting, to choose a different title of game - either Atlantic, Dublin, London, Kewford or the Field. For example, if you choose the English game, the Free Parking square is renamed "The M25", the tax square is renamed "Your Motorbill" and

the jail is called "Through-way". Also, the properties themselves are changed (eg Old Kent Road becomes "Housewife Under Layer"). Safe As Houses is an EXCELLENT clone of Monopoly - the graphics are colourful and very clear throughout. You can also get information on any property (eg, rent, price, rent, etc.) just by choosing the appropriate option from the menu, and you even get to choose when the automatically rolling dice are stopped. A feature even exists to see who owns what, and what properties are owned - just press the F1-F10 keys. As if that wasn't enough, you can also save your game by pressing the "C" key - no more hitting the board! Another one when your child cries get up in the morning! I can't really praise this game any more than to say that it could have been a full-price release and nobody would have minded, these more fanciful items on the title screen would have represented it best. Undoubtedly, the music that does play three steps during the game. This has to go straight to the top of the Christmas shopping list!

GIMME' THOSE RATINGS!!

SAFE AS HOUSES (ST374) 97%

Could have been 98% or 99% if it wasn't for that music!

BATMAN (ST648) 66%

Maybe higher if you're a fan of Batman or Gotham!



JOURNEY INTO CYBERSPACE

John S Davison
explores the
Internet and
discovers all
the wonders
of a brave new
electronic
world



IN SEARCH OF ATARI

We're covered an awful lot of Internet examples and links so far in this series. It's almost time we need some of them to search our Atari related areas to see just what's out there for the Atari mafia man. We'll make it as easy as possible to start with. CompuServe provide us Internet connection, so let's find out what's available within the CompuServe service before venturing outside into the wider world of the Internet.

Finding things within CompuServe is easy, as there's a directory in which you can look up the topic you're interested in. A quick check using "Atari" as the keyword made listed that there were just three areas of interest, based on the Atari Gaming Forum, the Atari Hi Prod Forum (ah), and the Atari Users Network. So, I fired up WinCIM (the CompuServe access software) on my PC and went to each area in turn to check them out.

ATARI GAMING FORUM

This forum, which also carries the 'Jaggy' logo, is dedicated to gaming on the Jaguar, Lynx, 2600, 5200, 7800, and even the PC - but strangely there's nothing for the AT or 8-bit systems. Atari themselves used to participate regularly here, but their forum representatives recently left to join Sega. If games we'll hear no more from them, given that Atari no longer exists as a company and there isn't



Users view of the Atari Computing Forum, with the Library section open showing various available files.

virtually no people left in the Atari division of the company who took them over.

CompuServe forums are divided into two major areas, these being the Message area where you can leave messages and receive replies, and the Library area from which you can download local (available) files. These are then further subdivided into smaller sections, each of which covers a given topic. The Message area for this forum has fourteen sections, including: Games covering the Jaguar (five sections for titles: *Lynx* (2000/1200/7000), *Atari PC Gaming*, plus more general sections for *Forum Business*, *Items and News*); *News/Reviews/Shows*; a "Trading Post" where you can buy and sell Atari related items; and an "Open Forum" area for general discussion. A quick dip into some of these indicated there's still some activity here. For instance, the *Jaguar General* section had 48 separate discussion topics (known as "threads") consisting of a total of around 500 messages, with some lively discussions going on.

The Library area is subdivided similarly, but each section contains files for downloading. There's a general help and information section which contains such things as instructions on how to download files and various utility programs you might need for down-

loading or viewing files. Some of the sections had very little in them, for instance the *Atari PC Gaming* section contained just one file - a demo of *Tempest 3000*. Others contained hundreds of files, for instance the *Jaguar News/Reviews/Shows* section. This was crammed with on-line magazines, FAQ files (Frequently Asked Questions) about *Jaguar* and *Lynx*, game tips, cheats, and lots of other stuff. I downloaded a few examples to find out what they were like.

The first file was the *Spotting 90* issue of *Jaguar Gaming Journal*. This turned out to be 21 A4 pages of detailed news, reviews, and tips on playing *Jaguar* games. Great stuff if you're into the *Jaguar*. Next was *CATips*, produced by Dan Thomas, the recently departed Atari representative. It's basically a *Jaguar* newsletter incorporating a selection of items collected from various sources on the Internet. Next was an issue of *Atari Explorer Online magazine*, this one dated October 95. It ran to over 80 A4 pages and seemed to be focused on the *Jaguar* again, although there was a small section on other Atari machines. A bit to read here, and again great for *Jaguar* fanatics. I guess there will be no further issues of any of these now.

The final item was a fairly hefty download of



over 1MB. It was one example from dozens of similarly named files - all the *Encore* magazines with HTML, so I thought they might have something to do with the ST machine. The file was in Adobe Acrobat format, a portable file format you could view in the PC and Mac, suitable for downloading and viewing electronically published material. It allows you to navigate around, view, and print the material even if you don't have the original software on which the material was produced. Adobe provide a free Acrobat reader utility, so my next job was to download a copy of this from *CompuServe* - number 1-0000.

Fortunately, it was well worth the trouble.

The STB file turned out to be the current week's issue of the *Silicon Times Report*, another on-line magazine of over 100 pages. It's published weekly and is jammed full of news and information from the world of computers. It's not Atari specific, but there were several small Atari related articles in it, including one which compares Nintendo's current behaviour with the way 'Atari's kept leadership. The *Transist* sponsored opportunity alert opportunity with superb and highly marketable products because they seemingly expected the world to 'beat a path to their door'. Some where have I heard those comments before? The Acrobat format allows pictures and diagrams to be included in the document, so the whole thing looks very polished and professionally presented.

ATARI ST PROD FORUM

The name of this forum is really the *Atari Computing Forum* - the name in the *CompuServe* directory was incorrect - and it covers all 8-bit and 16-bit machines. There are lots of interesting sections, including *Telecommunications*, *YOS* and *Emulators*, *MDX*,

Music, *Hardware* and *Peripherals*, separate sections for *8-bit Hardware* and *8-bit Software*, *Graphics*, *Programming*, *FTP*, and much more. The largest section was 'Community Support', an area for general chat and for buying and selling Atari items. It contained 142 messages to 92 threads when I looked.

I also checked out the Library area to see what goodies were offered there. It's divided into rather more sections than the Message area, and contains a very large number of downloadable files. The 'telecommunications' section had a lot of interesting looking stuff, including a fair amount of Internet access software for the ST. I didn't have time to fully investigate, but I noticed *World Wide Web* browsers and software to allow an ST to talk to the Internet via *CompuServe* - material here for a future article, perhaps? There were also general communications programs, file programs, and OS2 related material. There's plenty of basic information here too, for example a list of sites around the world from which you can download ST files using FTP (File Transfer Protocol). It'll be following this up later, too.

ST programmers should find much of interest in the *Programming Tools* section. This is packed with files, including such goodies as compilers for FORTRAN, C, Fortn, and Assembly language. Complementing this is the *Utilities* section, which contains hundreds of programs like virus checkers, file compressors, backup/recovery utilities, file format converters, print spoolers, graphics converters, etc. You could spend hours just browsing around this section. Similarly the *Applications* section - it includes masses of useful programs, patches for fixing various problems, and demos of commercial software. Then there's the *News* and *Relays* section, which contains dozens of other bits and pieces - checks, calculators, alarms, screens-

