



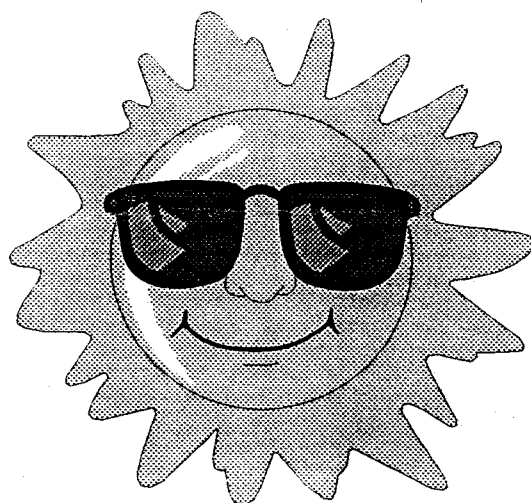
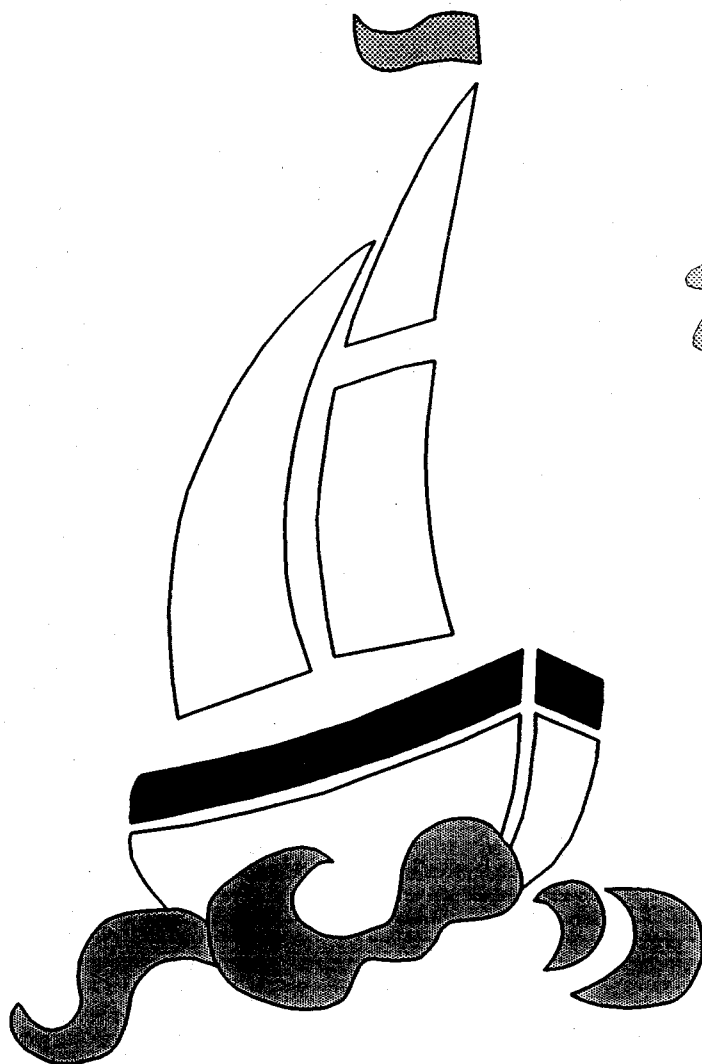
***USER  
MONTHLY***

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*Sixth Birthday  
Double Issue*

**Number 72/73  
August/September 1993**

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HI AND WELCOME,

TO YET ANOTHER MILESTONE. YES FOLKS - IT IS THE 6th BIRTHDAY OF 'ORIC USER MONTHLY'. WE CELEBRATE WITH A DOUBLE ISSUE AND WHAT IS MORE; IT IS IN MY HUMBLE OPINION ONE OF THE BEST TO COME OUT OF THIS OFFICE. AN ENORMOUS THANK YOU TO ALL WHO HAVE CONTRIBUTED WITH ARTICLES, LETTERS, QUERIES AND OF COURSE BY SUBSCRIBING. ALL OR PART OF THE 'CONTACT LIST' WILL BE SENT OUT WITH THIS ISSUE. WE WILL NOT MENTION IN THE LIST WHAT OTHER MICROS THAT YOU OWN AS THIS WILL BE SHOWN SEPARATELY IN A FUTURE ARTICLE UNDER 'ALTERNATE MICROS'.

AS USUAL THE TYPICAL BRITISH WEATHER MEANT A WASH-OUT TO THOSE WHO, LIKE ME, DECIDED TO HOLIDAY IN BRITAIN DURING JULY. EVEN WITH POOR WEATHER IT WAS NICE TO GET AWAY FROM 'THE OLD ROUTINE'. OUR 2,000 MILES IN LESS THAN A FORTNIGHT SAW US TAKE IN DERBYSHIRE, SOUTH AND NORTH WALES. I'LL TREASURE THOSE MEMORIES OF SNOWDON AND PORTMEIRON (WHERE THE T.V. SERIES 'THE PRISONER' WAS FILMED). I WON'T TREASURE THE CINEMA IN PORTHMADOG, WHICH LEFT ME WITH A SEVERE NECK ACHE AND I WON'T TREASURE THE FILM WE SAW - "JURASSIC PARK"!

THERE WERE 3 GLORIOUSLY SUNNY DAYS, WHICH WILL BE REMEMBERED. FIRST A NICE DAY OUT IN SOUTHEND - WHEN WE EVENTUALLY GOT THROUGH ALL THE MAYHEM ON THE M25. SECONDLY A TRIP TO MARLOW TO WATCH A HAMPSHIRE TESTIMONIAL CRICKET MATCH - ROBIN SMITH IS AWESOME - A CASE OF: "CAN I HAVE MY BALL BACK PLEASE. IT LANDED ON YOUR ROOF!"; FINALLY - THE BBQ ON THE EVENING OF THE ORIC MEET - SO NICE TO HAVE A MATTER ABOUT ALL ASPECTS OF LIFE AND NOT JUST COMPUTERS.

NOW TO THE AUTUMN, AND WITH IT A WHOLE HOST OF NEW SOFTWARE FOR YOU TO APPRECIATE. AVAILABLE NOW AND VERY SHORTLY WE HAVE: THE 'COMPILER' AND 'ASSEMBLER' FROM DR. RAY, 'SONIX' FROM JONATHAN BRISTOW, 'COLUMNS' FROM NICK HAWORTH, 'MIND MADNEZ' FROM ARNT ISAKSEN, DUMDISC Nr. 4 (including TETRIS GB) AND OF COURSE - A FEW SURPRISES!

ENOUGH OF THIS IDLE BANTER - LET'S TAKE A LOOK AT THE INDEX:-

Page 1 - THE COVER - a nice one from Jon.  
 Page 2 - THE EDITORIAL and INDEX.  
 Page 3 - NEWS ...NEWS....NEWS.  
 Page 4/5/6 - READERS LETTERS TO THE EDITOR.  
 Page 7 - ORIC SERIAL INTERFACE - all tarted up by Jon Haworth.  
 Page 8 - COOK'S CORNER - something from Colin.  
 Page 10/11/12/13 - RAMBLING IN THE ROM (Part 52) - Jon Haworth.  
 Page 14 - MORE BITS AND BOBS.  
 Page 15 - THE GAMESTER.  
 Page 16/17 - ALTERNATE MICROS.  
 Page 18/19/20/21 - MACHINE CODE FOR THE ATMOS (Pt.28) - Peter Bragg.  
 Page 22 - DUM GRAND DRAW - The results.  
 Page 23 - Dr.Ray's BASIC COMPILER - a review from Nick Haworth.  
 Page 24 - THE MEET - in picture form  
 Page 25 - PRIZE PUZZLE #5 and 'A CHEAP COLOUR MONITOR'.  
 Pages 26/7 - PROGRAMMER'S CORNER - Matthew Coates looks at User Interfaces.  
 Pages 28/9 - THE MEET - full report on the Aylesbury Oric Meet  
 Page 30 - NEW SOFTWARE - the unveiling of MIND MADNEZ  
 Pages 31 onwards - The Back Pages - your Editor taps away at 'all & sundry'!

Sincere thanks to Brian Kidd for typing in some of the articles.

## CLIP ART

Thanks to the PC Transfer utility from Thierry Bestel, the CEO have been able to convert large quantities of Mackintosh and PC pictures to Oric HIRES screens.

These 'Clip Art' discs are NOW available direct from Jon Haworth's Public Domain Library.

Prices, which include postage, are 2 pound per 3.5" disc and 3 pound per 3" disc.

Available at present are:

A) CEO Clip Art 1 - objects, symbols, icons, buttons, arrows and more.

B) 40 ANIMALS - from Bear to Zebra.

C) 'THE NAKED ORIC' - ADULTS ONLY!!!

NOTE FROM THE EDITOR - Item C also depicts an Bear - pronounced the same, but spelt differently.

CH!! - you know who!

Those logging onto the Bulletin Board will be pleased to hear that if they wish to leave a message for Laurent Chiacchierini that they can now just address to Laurent. Hooray!

IF YOU WANT A PERSONAL REPLY TO A LETTER, THEN PLEASE INCLUDE A STAMP.

# WORD-SPEED V2.0

THE UPDATE TO Dr.RAY's WORDPROCESSING PACKAGE ENTITLED 'WORD-SPEED' IS FINALLY AVAILABLE DIRECT FROM ALLAN WHITAKER OF 'ORIC ENTHUSIASTS'. CURRENTLY REGISTERED USERS SHOULD SEND 1 pound. THIS INCLUDES POSTAGE. YOU SHOULD SEND A 3.5" DISC OR ADD 80 pence IF YOU WISH ALLAN TO SUPPLY THE DISC. IF YOU WISH IT ON 3" DISC THEN YOU SHOULD SUPPLY YOUR OWN.

IF YOU HAVE NOT ALREADY BOUGHT THIS SUPER PACKAGE THEN HERE IS ALL YOU HAVE TO DO TO OBTAIN IT:-

SEND 8 pounds FOR REGISTRATION AND EXCELLENT MANUAL PLUS A DISC. IF YOU WISH ALLAN TO SUPPLY THE 3.5" or 5.25" DISC THEN PLEASE ADD 80 pence. AGAIN 3" USERS SHOULD SEND THEIR OWN DISC.

DON'T FORGET THAT 'WORD-SPEED' IS ONLY AVAILABLE TO DISC USERS WHO CAN RUN SEDORIC DOS.

ALSO STILL AVAILABLE ON ALLAN's SHAREWARE SCHEME ARE: ORICOMMS, MEGABASE, SEDORIC DOS ( See later news regarding latest update), GRAPHPAD, E-FILE, ONE-KEY BASIC, and DISC-FORTH. ALL PRICES AS PER LIST IN OUM 63 OR SEND AN S.A. E TO ALLAN OR MYSELF FOR A COPY.

# ORICALL V1.006

The latest version of the BBS package dated 17th July was something I put through a test last night (Aug. 24th).

The first thing noticed was that the menu is now in 2 parts. The first menu contains:- 1) RUN THE BBS SOFTWARE, 2) LINK A DOWNLOADED FILE, 3) WRITE MESSAGES FOR THE BBS, 4) GO TO THE UTILITIES MENU AND 5) EXIT TO BASIC.

The UTILITIES menu contains:- 1) READ SAVED SCREENS, 2) FIND OUT COST OF CALL, 3) DELETE ALL .BAK files, 4) CONVERT 'EASYTEXT' FILES and 5) RUN SERIAL PORT DIAGNOSTICS.

The last two mentioned utilities will be extremely helpful.

I logged on and was informed that we now have 2 more registered users in Dave Utting and Dave Leibniz, and so now there are 10 of us.

A new feature, which I believe Colin Cook asked for, is the ability to print off messages directly as they appeared on screen. In the past one either had to read them there and then or save them to disc. I had been advised that CTRL P should be used to set this facility in motion, but was not told that CTRL P should be used again when you wanted to turn off the printer. Subsequently I printed out all my messages, all my replies, and all the text when I had a chat with the SYSOP. Lesson learnt. Though I personally feel it is a bit untidy as you have to wait for the print to end before accessing another page, which you may not wish to print. Perhaps the PRINT should be of just one page and then the command automatically turned off, rather than a Toggle feature. Just an idea and perhaps not feasible or indeed it might be me just 'nit-picking'.

A Bug was found when I tried to send my messages, but as we go to press this should of been ironed out.

Keep up the good work Nick and I hope that other readers feel tempted to try the system out. We are currently looking at supplies of Modems and RS232's. Interested parties should contact Nick, Jon or myself.

# COLUMNS

On a lighter note, but still with the irrepressible Nick Haworth; I have pleasure in announcing the imminent release of a new software title for Gamesters.

Nick tells me that there are just a few features left to add, namely - a Hi-Score table, Hi-Time and the Music.

A preview of this new release is to be found elsewhere in this issue.

Will COLUMNS be the No.1 for Christmas?

READERS LETTERS ..... READERS LETERS ..... READERS LETTERS...

DEAR DAVE,

regarding an error that I have found on SECTMAP on my version of SEDORIC V2 ( 3.5", 82 track, double sided). This is what happens - the SECTMAP programme is selected from the main menu. Then the SECTMAP title screen asks you to insert disc and select option (output to screen/printer).

With the 'new' disc in you get : "File not found error in 320." Line 320 loads 'SECTMAP.BIN', which is on the SEDORIC master. If the master is in the drive then SECTMAP.BIN will load, but you only get a readout of the Sedoric master disc.

On a lighter note I would like to report a couple of new hi-scores - SPOOKY MANSION - 2,100. Yes! I got up that bxxxxx staircase. The next screen is also a complete B ! It has a swinging pendulum that you have to jump on to. This is about as easy as getting the second key in 'DAMSEL'!

Also I've managed 105,190 on CROCKY - sorry Irene!

I'm chasing after some of G.B's scores, but no luck yet. Am also very close to the LIGHT CYCLES hi-score. Watch this space!

If you thought ALI STAIRWAY was funny then try a knock knock joke with A. ISAKSEN's first name!

- Steve Marshall (Edinburgh).

DEAR STEVE,

regarding SECTMAP. I have checked out my V2 version on 3" disc and get exactly the same response.

I then loaded my SEDORIC V1.007 and that worked fine. That is to say that a could get a readout of other discs other than the master. I did a directory on the old version and the new V2. The V2 has one extra file. Yes - you guessed it - it's the SECTMAP.BIN file.

Ways around the problem - you can of course copy the 3 files to the disc that you want to read each time. A pain in the butt is that idea. I checked the manual and we don't appear to of missed anything. I can only assume that there is a programming error and as such would expect that Allan Whitaker can solve it.

In a lighter vein - keep working on those hi-scores. I must admit that I found Spooky Mansion to be rather jerky and couldn't be bothered with it.

- DAVE

=====

DEAR DAVE,

ta for the back issues of OUM. Lots of interestin stuff there and it's good to see how the magazine has grown, and improved in quality.

I enjoyed the last issue, especially Jon's Paris article. Just arrived are: ORIC - THE STORY SO FAR and the OUM INDEX. Both are excellent & anyone who hasn't bought an INDEX should be ashamed of themselves!

I've now reached 142,735 on CROCKY and enclose some other new hi-scores.

- Steve Marshall (Edinburgh).

DEAR STEVE,

readers will think that you are the only person who will write to me! Not the case, but not many put Love and Kisses at the end of a letter and so you get into print twice!

Nice to see JON'S work appreciated with the INDEX and ORIC STORY - both always available.

All your hi-scores will be in the current 'HI-SCORE TABLE' - unless G.B has had a really stunning summer!

- Dave

=====

DEAR DAVE,

many thanks for the mailshot. I haven't plugged in my Atmos for about 2 years now - not much spare time available.

I had just about given up all hope of getting any more games for it. I'm not one for 'shoot-em - down' quick games. Too old for that now, but I do enjoy the strategy and adventure games.

Am looking forward to your mail order list and thanks again for getting in touch.

- I.A BOOKHAM (Bodmin, Cornwall).

PLEASE TURN TO NEXT PAGE

## LETTERS (Continued)

DEAR Mr. Bookham,

reminds me of KOJAK does that. I bet you remember that old 'cop' series when the lollipop man used to say: "BOOKHAM - CROCKER"!  
Anyway - glad to be of service.

I think you'll find some newer adventure/strategy games in our mail order list. THE LAST WARRIOR is highly recommended as is MAHJONG from the CEO.

By the way - the last time I was in Bodmin I attended one of those Medieval days. There was a mock hanging that went a bit wrong. At first we thought that the foaming at the mouth was all part of the act, but apparently not!

- DAVE

+++++

DEAR DAVE,

here is my method of moving programmes from SEDORIC to ROMDOS:

- 1) ROMDOS - load MONITOR (machine code).
- 2) SEDORIC - load program (not run). Call MONITOR. Note first memory contents (#500 > #504). Note start and finish addresses (#500....?).
- 3) ROMDOS - Call MONITOR program. Change #500 to #504 back. Change #9C and #9D to end of basic.

!SAVE

- Stan Holden

DEAR STAN 'THE MAN',

thanks for your method. Nice to see people working things out for themselves.

The lazy ones like me use FILTRA by Owe Fransson.

- DAVE

+++++

DEAR DAVE,

sorry for giving up my membership by not renewing my subscription.

It's been almost 10 years since I bought my Oric. I've learnt Basic, 6502 machine code, Forth and experienced a lot with hardware extensions. I wrote fragments to drive the stepping motors of a plotter, tried to implement Kermit, re-wrote Fig-Forth to use it with ORICDOS, tried to use the Oric as an online printer buffer and character translator for a MSDOS computer and an ASCII printer, and managed to read and write MSDOS disks with my Oric.

Now I don't write my letters and other texts on it. I use more powerful programs on a PC. At the moment I'm going into the depths of linux, a PC-linux.

I am not giving up my ORIC. I estimate it's concept and a machine I completely know and understand. I will use my Oric and Forth to solve controlling problems.

Membership to OUM does not bring many advantages to me. When I bought my Oric I had to learn that I was isolated with this machine. All my friends bought Speccys or C64's. I was forced to program myself. Now I'm not interested in games, textprocessors or spreadsheets for my Oric. If there was an Internet news group for the Oric then I would choose this way to keep in contact with the Oric (I have access, but no address for INTERNET.).

Don't be worried - I'll be true to my Oric. But for the daily use I have a bigger machine.

So long and thanks for all the paper - BERNHARD GROHNE (Germany).

Dear Bernhard,

It is always sad to lose a reader, especially one that has given our readers such interesting information. I am sure that all OUM readers and CEO readers alike are greatly appreciative of the knowledge that you have passed onto us. It is all being put to good use.

May I also take this opportunity of wishing you every success for the future.

On a final note - may I thank you for taking the time and trouble to inform me that you do not wish to renew your subscription. There are many who don't bother to let me know and this greatly displeases me.

Bernhard - we salute you - a true gentleman, who will long be remembered in the ORIC hall of fame.

- DAVE

=====

MORE READERS LETTERS

DEAR DAVE,

thank you for your recent mailshot about the Oric User Group - I was amazed to find the machine still alive! I enclose the stamps for the QUM pack.

Although no longer an Oric owner, I would be very interested to find out what has been going on in the Oric scene over the past few years, particularly the advances made in software. I have very fond memories of my time with the Oric (a bog-standard 48K machine that I bought when it first came out, with domestic cassette recorder and portable TV). Around 14 or 15 at the time, it was the system I really learnt to program on, first in BASIC, then 6502 assembler. My first project of any size was an embarrassingly crude BASIC program that accepted 6502 mnemonics and translated them on input into machine instructions - a sort of single step assembler I suppose. Once entered, that was it. There were no labels, variable names, debugging facilities, or anything of any sophistication whatsoever. The only thing it did was disassemble code already in memory. With this monstrosity, a friend and I set about learning machine code in earnest and, after many experimental programs and even more "morches" (our word for what the Oric did when it completely seized up - a grim display of faint lines down the screen), completed a game each.

I wrote DOMINATOR, a shoot-em-up game similar to ULTRA from PSS (just about the first arcade game for the Oric) with many bells and whistles, and my friend wrote GRID WARRIORS, a Tron-like light cycles game. DOMINATOR was accepted by TANSOFT for publication at almost exactly the same time as the company who made the ORIC plunged into receivership and TANSOFT went bust. Very soon after that, I found that all my program cassettes had become irretrievably damaged after being left on a hi-fi speaker (my cassette recorders were always extremely unreliable anyway). My heart sank and the Oric was abandoned to the garage. It stayed there until about six months ago when, with heavy heart and a tear in my eye, it was consigned to the dustbin after I concluded it couldn't possibly still be in working condition. GRID WARRIORS enjoyed more success: it was accepted, initially, by Severn Software, who promptly went bust. Another (mail order) company then took it up (I think the company was called FGC or something similar - might it be the HGC known as Oric Enthusiasts?) and renamed SNAKE VENOM. My friend continued to receive royalty cheques for 30p or so for some considerable time after (maybe he does even now).

The Oric must have quite a history behind it by now, and I'd certainly be interested in obtaining a copy of Jon Haworth's "Oric - The Story So Far". I might even (my pulse accelerates and my hands begin to tremble) consider buying an Atmos from Steve Hopps. A price cut of 400% or so, from around 120 pound at the time to 35 pound now, seems like a bargain to me! It would be great to experience once again the simple, innocent pleasures of POKEing machine code straight into memory and CALLing routines that perform such heinous crimes as addressing the screen memory directly. Oh, how long ago it all seems. I'm now a writer for a company called Datapro Research (a subsidiary of McGraw-Hill) for whom I research, analyse and write about the UNIX and open systems market for a subscription service called (can you guess?) UNIX and Open Systems. Discussing IBM's long-term strategy for its RS/6000 line, using such words and phrases as heterogeneous, client/server, and enterprise-wide, and, possibly most unforgivably, using American English spelling and grammar, is certainly a far cry from the joys of going ZAP.

Well, all this reminiscing has finished off my lunch break - I'd better return control of my office PC (a Dell 486P/25) since you ask to more immediate matters. I look forward to receiving the magazine and other articles, and might, who knows, even become an Oric user once again.

- JAMES EIBISCH (Slough).

DEAR JAMES,

when I first received your letter it was the envelope that excited me! You had better believe it. A letter from McGRAW - HILL. They published that hard to get Oric book by Geoff Phillips. Perhaps they have found a pile of them and have been given by name. Now you see I have my own copy, but there are plenty of readers desperate for the book. Cash registers jingle - a quick buck to be made here! You can imagine my disappointment! But still, you have filled a page for us. A very well written and interesting item. I will reply separately on certain points. Now about this book - if you can get any for say 50 pence, then I'll certainly pay 60 pence. ...now let's see readers...plus 8.50 postage...say 10 pound each to you.....

- Dave the shark!

# ORIC SERIAL INTERFACE

ADDRESS REGISTERS



First a short program, which allows conversion from metric weighing machines into the familiar Stones and Pounds or vice versa. It creates a table, from which conversions can be made while on the scales. (Odd numbers of lbs. can be estimated from the values on either side). Anyone over 120 kgs. is sitting too long at the keyboard!

```

2 SP$=" ":FAC=0.4536:VL=179:HL=196
3 REM ** VL=ASCII value of vertical line character of your printer.
4 REM   HL=ASCII value of horizontal line /underline character of your
printer
5 REM **
6 FOR I=1TO61:LPRINT CHR$(HL);:NEXT:LPRINT
7 LPRINT CHR$(VL);"LBS";
10 FOR I=0TO12 STEP2
20 LPRINT TAB(5+4*I);I;
40 NEXT:LPRINT TAB(61);CHR$(VL)
50 FOR I=1TO61:LPRINT CHR$(HL);:NEXT:LPRINT
55 LPRINT CHR$(VL);"ST ";CHR$(VL);TAB(27);"KILOGRAMS";TAB(61);CHR$(VL)
60 FOR ST=0TO18:ST$=STR$(ST):LPRINT CHR$(VL);
62 LPRINT TAB(4-LEN(ST$));RIGHT$(ST$,LEN(ST$)-1);
65 LPRINT TAB(4);CHR$(VL);
70 FOR LB=0TO12 STEP2
80 KG=(ST*14+LB)*FAC:KG=INT(2*KG+.5)/2
90 H$=STR$(KG)
100 LPRINT TAB(6+LB*4);MID$(H$,2,5);
110 NEXT LB
115 LPRINT TAB(61);CHR$(VL)
120 NEXT ST
130 FOR I=1TO61:LPRINT CHR$(HL);:NEXT:LPRINT

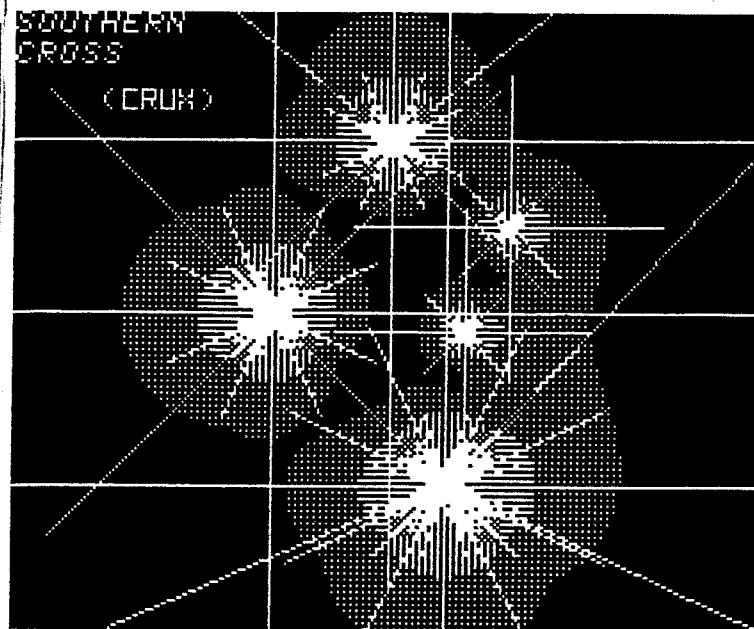
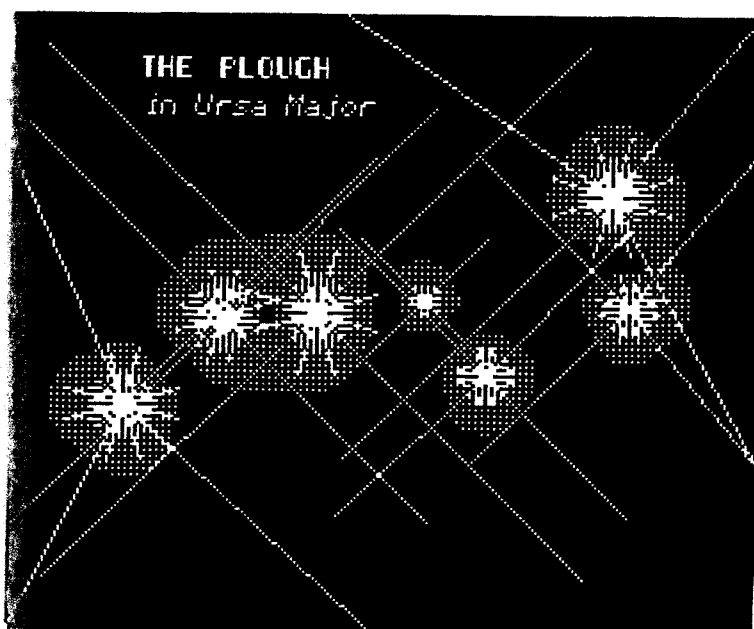
```

### STARRY PICS.

NOW FOR A PAIR OF STARRY PICTURES. THEY WERE PLOTTED BY DRAWING LINES OF LENGTH F/d squared FROM EACH PIXEL ON THE SCREEN TOWARDS A SINGLE POINT CALCULATED FROM ALL OF THE STAR POSITIONS BY VECTOR ADDITION. F IS JUST A SCALING FACTOR OBTAINED FROM THE BRIGHTNESS OF THE STARS, AND d IS THE DISTANCE OF THE SCREEN PIXEL FROM AN INDIVIDUAL STAR. FULL DETAILS AVAILABLE ON REQUEST.

- COLIN COOK

NOTE FROM THE EDITOR: "STELLAR CONJUNCTION" FROM COLIN WAS PLOTTED SIMILARLY AND WILL PROBABLY BE ON A FUTURE OUM DISC.





## B I T S ' n ' B O B S

## ON THE MOVE

ON THE MOVE OVER THE SUMMER HAVE BEEN RAUL HAKLI AND IAN HUTCHINS.  
RAUL HAS MOVED TO ANOTHER STREET - JUST THE LAST 3 CHARACTERS AND THE  
POSTCODE ARE ALTERED. HE IS NOW AT:

KAUPPAKARTANONKUJA 3 F 65  
00930 HELSINKI  
FINLAND.

IAN IS NOW AT :

12 LACON CLOSE  
CLEOBURY MORTIMER  
KIDDERMINSTER  
WORCESTERSHIRE.  
DY14 8EF

TEL: 0299 271294

## PROBLEM SOLVED

SOME TIME AGO EDMUND WISNIEWSKI WROTE WITH THE FOLLOWING QUERY:  
" IS THERE A WAY OF DISPENSING WITH THE QUESTION MARK PROMPT IN AN INPUT  
STATEMENT?

e.g.: 20 INPUT "ENTER NAME ==>> ";N\$

This will print: ENTER NAME ==>> ?

which is both untidy and unnecessary (I think)."

WELL EDMUND - I PUT THIS INTO YOUNG NICK'S PROBLEM AREA ON THE BULLETIN  
BOARD AND JON H CAME UP WITH THE ANSWER. UNFORTUNATELY I MISLAID THE  
PRINT I TOOK . YOU MAY HAVE RESOLVED IT BY NOW,BUT IT MAY BE OF USE TO  
OTHERS.

10 A\$="Name please==>": ?A\$; :A\$=" "

20 ? A\$

30 GET A\$: B\$=B\$+A\$

40 IF A\$=CHR\$(13)THEN 60

50 GOTO 20

60 (rest of program,e.g. ?B\$)

## OUM DISC NO.4

IT IS PLANNED TO SEND OUT THE FOURTH OUM DISC ( TO THOSE WHO HAVE  
PREVIOUSLY BOUGHT) WITH THE OCTOBER OR NOVEMBER ISSUE OF O.U.M. PRICE  
WILL AGAIN BE 3.50.

IF YOU DO NOT WISH TO RECIEVE IT THEN PLEASE LET ME KNOW BY SEPT. 26th.  
YOU WILL BE INVOICED ON DESPATCH,BUT OF COURSE MAY PAY IN ADVANCE IF YOU  
WISH AS THE COST OF AROUND 40 DISCS IS NOT EXACTLY CHEAP.

THE DISC WILL ONCE AGAIN COVER ALL ASPECTS OF COMPUTING. A LIKELY HIT  
AMONGST GAMESTERS WILL 'TETRIS GB' FROM THE PEN OF JONATHAN BRISTOW,WHICH  
WAS EXTREMELY WELL RECIEVED AT THE RECENT 'MEET'.

FOR SALE

RICHARD FARRELL HAS BEEN INSTRUCTED BY 'HER INDOORS' TO DISPOSE OF SOME  
OF HIS COMPUTER COLLECTION. THE WEIRDO HARDWARE IS LISTED ON OUR  
'ALTERNATE MICROS' PAGE,WHILST HERE ARE THE ORIC GOODIES: -

MCP40 PLOTTER/PRINTER IN ATMOS COLOURS - 30 pound (incl. postage).  
ORIC - 1 c/w V1.1 (Atmos) Rom - 20 pound (incl.postage).

RICHARD IS AT:

11 LINCOLN COURT,DARLINGTON,CO.DURHAM. DL1 2XN (Tel: 0325  
486181)

## RAMBLING IN THE ROM - 52

### Another bit of history...

Following his receipt of 'The Story so Far' as one of his Paris meet raffle prizes, Eric Chaplin of King's Lynn has sent me a copy of a letter he received from Kester Cranswick, Editor of Oric Owner magazine, dated the 11th July, 1984. Eric had entered the competition run by the mag for a name for the new 'IQ164' computer. His suggestion was 'Stratus', and the letter informed him that he was one of three prize-winners of a free Atmos upgrade. To quote the letter, "Stratus was certainly a popular choice". So another little gap is filled, and we now know where the name 'Stratos' came from. Keep the tit-bits flowing in...

### Rambling on...

#### REQUEST A )

CFD3 LDA #')	D05F LDA #')	Take the token to test for
CFD5 BYT #2C	D061 BYT #2C	and jump the next instruction

#### REQUEST A (

CFD6 LDA #'(	D062 LDA #')	Take the token to test for
CFD8 BYT #2C	D064 BYT #2C	and jump the next instruction

#### REQUEST A ,

CFD9 LDA #,'	D065 LDA #,'	Take the token to test for
--------------	--------------	----------------------------

#### REQUEST A

CFDB LDY #00	D067 LDY #00	Prepare Y for indirect use
CFDD CMP (E9), Y	D069 CMP (E9), Y	and verify if the correct token
CFDF BNE CFE4	D06B BNE D070	no, error
CFE1 JMP \$00E2	D06D JMP \$00E2	yes, jump to take the next character
CFE4 LDX #10	D070 LDX #10	index 'SYNTAX ERROR'
CFE6 JMP \$C485	D072 JMP \$C47E	and execute the error

#### EXECUTE '-' (change of sign)

CFE9 LDY #15	D075 LDY #15	Index '-' operator
CFEB PLA	D077 PLA	remove return address
CFEC PLA	D078 PLA	
CFED JMP \$CEE7	D079 JMP \$CF73	and simulate an operator

## TAKE THE VALUE OF A VARIABLE

CFF0	JSR \$D0FC	D07C	JSR \$D188	Take the variable address (without creating it) and save the address for indirect use X= numeric/string flag jump if numeric if string, extension bit=0
CFF3	STA D3	D07F	STA D3	
CFF5	STY D4	D081	STY D4	
CFF7	LDX 28	D083	LDX 28	
CFF9	BEQ D000	D085	BEQ D08C	
CFFB	LDX #00	D087	LDX #00	
CFFD	STX DF	D089	STX DF	
CFFF	RTS	D08B	RTS	
D000	LDX 29	D08C	LDX 29	
D002	BPL D011	D08E	BPL D09D	
D004	LDY #00	D090	LDY #00	take integer/real flag and jump if real prepare for indirect use take the high byte of the integer in X and the low byte in Y high byte in A again YA → ACC1 (signed) transfer (AY) → ACC1
D006	LDA (D3), Y	D092	LDA (D3), Y	
D008	TAX	D094	TAX	
D009	INY	D095	INY	
D00A	LDA (D3), Y	D096	LDA (D3), Y	
D00C	TAY	D098	TAY	
D00D	TXA	D099	TXA	
D00E	JMP \$D3ED	D09A	JMP \$D499	
D011	JMP \$DE73	D09D	JMP \$DE7B	

## EXECUTE A FUNCTION

D014	ASL A	D0A0	ASL A	Multiply the token by two and save on the stack and in X as well move to the next character compare to the token for CHR\$ if lower or =, a single parameter compare to the token for KEY\$ if lower, no parameter
D015	PHA	D0A1	PHA	
D016	TAX	D0A2	TAX	
D017	JSR \$00E2	D0A3	JSR \$00E2	
D01A	CPX #DB	D0A6	CPX #DB	
D01C	BCC D042	D0A8	BCC D0CE	
D01E	CPX #E7	D0AA	CPX #E7	
D020	BCC D045	D0AC	BCC D0D1	

### Functions with several parameters

D022	JSR \$CFD6	D0AE	JSR \$D062	Request '(' take the first parameter request a ', ' verify the first parameter is a string recover the token (*2) in X save the pointer address on the stack, high byte and low byte and the token (*2) take an integer value in X recover the token (*2) in Y for indexing but save the value of the second parameter and execute the function
D025	JSR \$CE8B	D0B1	JSR \$CF17	
D028	JSR \$CFD9	D0B4	JSR \$D065	
D02B	JSR \$CE7C	D0B7	JSR \$CF08	
D02E	PLA	D0BA	PLA	
D02F	TAX	D0BB	TAX	
D030	LDA D4	D0BC	LDA D4	
D032	PHA	D0BE	PHA	
D033	LDA D3	D0BF	LDA D3	
D035	PHA	D0C1	PHA	
D036	TXA	D0C2	TXA	
D037	PHA	D0C3	OHA	
D038	JSR \$D80D	D0C4	JSR \$D8C8	
D03B	PLA	D0C7	PLA	
D03C	TAY	D0C8	TAY	
D03D	TXA	D0C9	TXA	
D03E	PHA	D0CA	PHA	
D03F	JMP \$D047	D0CB	JMP \$D0D3	

### Functions with only one parameter

D042	JSR \$CFCD	D0CE	JSR \$D059	Request '(', parameter, and ')' recover the token (*2)
D045	PLA	D0D1	PLA	

D046	TAY	D0D2	TAY	in Y for indexing
D047	LDA BFDE, Y	D0D3	LDA BFDE, Y	take low byte of the function address
D04A	STA C4	D0D6	STA C4	and save it
D04C	LDA BFDF, Y	D0D8	LDA BFDF, Y	take low byte
D04F	STA C5	D0DB	STA C5	and save it
D051	JSR \$00C3	D0DD	JSR \$00C3	execute the function
D054	JMP \$CE7A	D0E0	JMP \$CF06	and verify numeric result

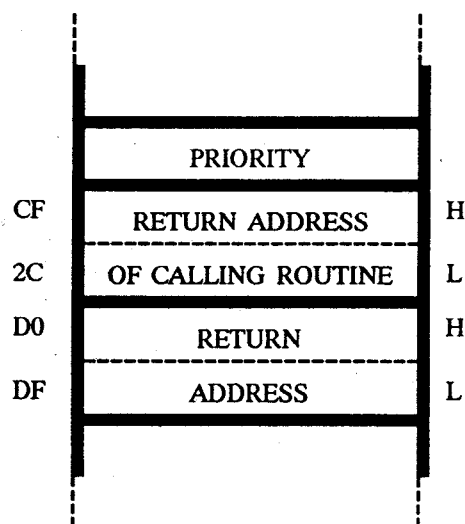


Figure 5 – State of the stack during the calling of a numeric function

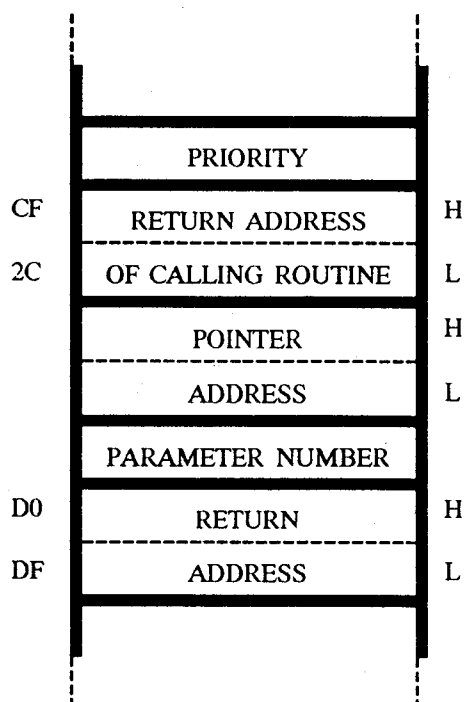


Figure 6 – State of the stack during evaluation of a function with several parameters (MID\$...)

## 'OR' (OPERATOR)

Principal:

In accordance with the law of logic not (A or B) = not A and not B (or indeed A or B = not (not A and not B)), the OR is treated as for the AND, except that the operators then the result are complemented.

D057	LDY #FF	D0E3	LDY #FF	Indicate complementing
D059	BYT #2C	D0E5	BYT #2C	and jump the next instruction

## 'AND' (OPERATOR)

D05A	LDY #\$00	D0E6	LDY #\$00	Indicate no complementing
D05C	STY 26	D0E8	STY 26	and save
D05E	JSR \$D217	D0EA	JSR \$D2A9	ACC1 → #D4-#D3 (right-hand operand)
D061	LDA D3	D0ED	LDA D3	take high byte
D063	EOR 26	D0EF	EOR 26	possibly complement
D065	STA 24	D0F1	STA 24	and save
D067	LDA D4	D0F3	LDA D4	
D069	EOR 26	D0F5	EOR 26	
D06B	STA 25	D0F7	STA 25	and the same for the low byte
D06D	JSR \$DECD	D0F9	JSR \$DED5	ACC2 → ACC1: take left-hand operand
D070	JSR \$D217	D0FC	JSR \$D2A9	ACC1 → #D4-#D3
D073	LDA D4	D0FF	LDA D4	take the low byte
D075	EOR 26	D101	EOR 26	possibly complement
D077	AND 25	D103	AND 25	and AND with left-hand operand
D079	EOR 26	D105	EOR 26	and possibly complement the result
D07B	TAY	D107	TAY	and save it in Y
D07C	LDA D3	D108	LDA D3	
D07E	EOR 26	D10A	EOR 26	
D080	AND 24	D10C	AND 24	
D082	EOR 26	D10E	EOR 26	the same for the high byte
D084	JMP \$D3ED	D110	JMP \$D499	YA → ACC1 (signed)

## Tailender...

By the way, 'Oricall' is now on-line each Monday, Thursday and Friday from 9.30 p.m. to 11.30 p.m. A number of you may have a P.C. with modem. If you wish to log on from the P.C. just give us a call outside those hours and we can set it up. If demand is sufficient we could have a 'P.C.' evening! Finally, there is a real shortage of modems and RS232 leads - if you have one and are prepared to sell it, please get in touch with me or Dave.

We are also chasing W.E. who we think may still have some interfaces, I am contacting Maplin, who used to sell an Oric RS232 kit, and we shall shortly publish a diagram of the Oric RS232 interface circuit for those who want to have a crack and build one themselves. The idea is to be sure that those of you who got hooked on the BBS at Aylesbury can at least have access to the necessary hardware.

Jon Haworth

MESSAGES FROM JAMES CROOK

TO DAVE - THANKS FOR A GOOD 'MEET' AND I HOPE YOU ENJOYED THE CAN OF MURPHY'S THAT I LEFT IN THE FRIDGE.

TO JOHN HUGHES - SPECIAL THANKS FOR GETTING ME TO AYLESBURY AND BACK.

TO WHOEVER - WHO DROVE ME TO TONY CLARK'S AND BACK TO PICK UP THE ATARI 800XL - I THINK IT MAY OF BEEN DAVE UTTING.

TO DAVID WILKIN - FOR DRIVE INFO. AND SOLVING THE SOUND PROBLEM ON MY ATMOS - IT WAS THE C1 CAPACITOR.

=====

SELLING UP

GEORGE POPE HAS DECIDED AT THE RIPE OLD AGE OF SEVENTY TO CUT DOWN ON HIS HOBBIES. AS HE HAS BEEN INTO AMATEUR RADIO FOR 60 YEARS, THEN I'M AFRAID THAT THE ORIC HAS LOST OUT.

THE FOLLOWING IS THEREFORE FOR SALE:

a) ORIC ATMOS in perfect condition with all leads and PSU. Also NIKE Mains/Nicad switch unit (gives sufficient time on mains failure to safeguard work).

Price is 30 pounds - buyer collects or postage at cost.

b) SOFTWARE - Sedoric V1.007 on 80T Single sided 5.25" disc c/w manual.

Wordworth cassette c/w manual

Oricom (Tansoft) cassette c/w manual.

Megabase (Orpheus) cassette c/w manual.

Welcome to Oric and Welcome to Atmos cassettes.

Amateur Radio Locator Conversion on cassette.

Offers on above to George.

c) BOOKS - Oric 1 Basic Programming Manual, Understanding Oric 1/Atmos (McLean), Atmos manual, Oric Advanced User Manual, Meteoric Programming for Oric 1, Introduction to programming ORIC 1, Introduction to 6502 Machine Code.

Offers on above to George.

George Pople is at :

11 Leonard Holden Court, Off Dorchester Road, Taunton, Somerset. TA2 7LN.

Tel: 0823 336897

NOTE FROM THE EDITOR: thank you to George for supporting the Oric and O.U.M over the years and a long and healthy life to you sir.

=====

WHEN A PINT OF BEER WAS TUPPENCE HA'PENNY !

On hearing that I was going to visit Porthmadog during the Summer, reader Ron Key from Llanllechid in Gwynedd (North Wales) sent me a reminiscing note, which may be of interest to 'would-be' visitors.

"I get down to Porthmadog about once a year. I first went there on holiday, staying in a cottage by the Dwyfor estuary called Ty'n y Morfa ( = Smallholding/house of the salt-marsh): smashing spot that cost the 6 of us just 5 pounds a week in 1958, with paraffin lamps. The year after it was 6 pounds a week with electric light. The Ffestiniog railway fell far short of Ffestiniog then (Tal y Llyn, I think) and the entrance to Cwm Croesor ( and Cnicht) was through a private looking arch, still there but bypassed: one of 'Mr. Clough's' good ideas, I suspect. (The 'Wren of North Wales', I was told, who did Portmeiron and the Snowdon Hotel!).

If, on a calm day, you do go out to see towards the rather older, legendary settlement of Cantre'r Gwaelod, where, they say, the mackerel queue up to catch on your spinner, be sure to keep your ears open for the sound of the bell. You may get a chance to reach the shore! A friend from Pwllheli told me that he heard the bell once when he was a lad out with a local fisherman in 'glass' calm conditions. They just made it back and tumbled to the beach through raging surf. He's now a Chef and only (only, huh!) cooks his fish.

NOTE FROM THE EDITOR:- well we didn't get the good weather in North Wales, but still enjoyed the scenery. As a 'PRISONER' fan I immensely enjoyed Portmeiron. The photos we saw of Mr. Clough were not as we expected. No red blotches on his face! Or did you not mean Brian Clough!

Although this has exactly nothing to do with computers; It has something to do with life. Life is for living and is about exploring and relating one's experiences.

=====

THE BRIDE AND 'GROOM'

JAMES GROOM HAS BEEN QUITE ACTIVE ON HIS ATMOS NOW THAT IT IS FUNCTIONING PROPERLY AGAIN. HE TELLS ME THAT HE EVEN CAUGHT HIS GIRLFRIEND LOADING IN 'INSECT INSANITY' BY HERSELF. APPARENTLY SHE IS REALLY HOOKED ON THE GAME.

OTHER TITLES THAT HE HAS BEEN TACKLING INCLUDE: 'ARENA 3000' - 2,953,750 AT LEVEL 200 WITH 13 LIVES REMAINING. HE GAVE UP DUE TO BOREDOM AND CRAMP!

'THE HAUNT' - HE FINISHED THIS ADVENTURE AT THE FIRST SITTING/SECOND GAME AND APOLOGIES TO AUTHOR ROBERT COOK.

'SCUBA DIVE' - JAMES SCORED 9000+ ON 2 OCCASIONS, BUT UNFORTUNATELY HIS VERSION CRASHES WHEN YOU GET ALL THE TREASURE.

'TRICKSHOT' - 4,128 (SCREEN 14) - JAMES USED TO HAVE A METHOD WHICH VIRTUALLY GUARENTEED CLEARING THE SCREEN. UNFORTUNATELEY HE CAN ONLY REMEMBER THE FIRST TWO SHOTS:-

1) MOVE CURSOR UP OR DOWN 2 PIXELS, AND FIRE AT FULL STRENGTH.

2) LEAVE CURSOR ALONE AND FIRE AT FULL.

JAMES WOULD LIKE TO KNOW IF ANYONE HAS FINISHED 'TYRANN' (NO MANS LAND) YET. HE WOULD LIKE TO KNOW TO GET PAST THE FORCEFIELD. WE HOPE TO PRINT SOME MAPS OF FROM JAMES SHORTLY.

=====

MINI - REVIEWS

"INTERTRON" is a nice little Basic game from Frenchman L.Benes. Penned in 1983, it is a variation on the Snake/Caterpillar theme.

The idea is to clear the screen of fruits, without - a) hitting the sides, b) going back over your own route and c) blocking yourself in. Controls are the 4 cursor keys and you get 50 points for each fruit eaten, with a splattering of bonuses at certain stages. The first stage is quite simple - no obstacles.

Stage 2 also has no obstacles - just more fruit and thus it becomes easier to get trapped. In the third stage there are boundary walls to make life a little harder. By the fourth stage you will find the fruit placed in the walls. Pure fun. I managed a couple of thousand points and, when time permits, see what the other stages are like.

"DRIVE POINT" is a commercial offering from the French software company known as SPRITES. Released in 1984 with a graphical intro, which appears to be culled from the 'Atmos Welcome' program.

Cursor keys to move, 'P' for pause and difficulty levels which can be altered at the start of each level and not just at the start of a game.

The idea of the game is to survive the obstacles for a set period of time (not shown on-screen), and then when prompted you may (if you can find a route) make your way to the cube, which is situated in the centre of the screen. You control a dot (hard to spot initially), which turns into a line (another 'snakey' game) as you progress. You must miss the obstacles and make sure to leave a route open to the cube.

The first table is called 'Quatris 3D' and the second is 'Glaces 3D'. As you change direction, so the sound and screen colour change.

The third level needs much concentration as you need to memorise a route. The reason being that the lights go out. I tried Pause, but this has no effect other than pause the whole game - that is to say that you still have to traverse the obstacles in the game.

Quite fun and brings your memory into play.

- DAVE DICK

=====

CAPRI MARKETING

I RECENTLY VISITED 'CAPRI MARKETING' IN MARLOW. THEY ALSO HAVE OUTLETS UNDER THE NAME OF 'COMPUTER CAVERN' AND HAVE A STALL AT MILTON KEYNES MARKET.

I DEALT WITH THEM ON A REGULAR BASIS SOME YEARS AGO AND FIND THEY STILL HAVE SOME ORIC SOFTWARE AND PERIPHERALS. I WILL BE LOOKING AT ACQUIRING THEIR STOCKS SHORTLY. THEY ALSO HAVE STOCKS FOR MANY OTHER 8-BIT MACHINES e.g. MSX.

SEE PAGE 16 FOR MORE DETAILS.

=====

WE START WITH A LETTER FROM RICHARD FARRELL:-

DEAR DAVE,

do you still intend to branch out in to other 8-bit formats? I can foresee some resistance to the idea from some of the die-hard Oric users. Personally, I think the idea is a good one as you say that a lot of other people have other computers and they need information on them, whether it be user group addresses or technical info. There are a lot of people with a great deal of knowledge and we should be sharing it to the benefit of all.

- RICHARD

DEAR RICHARD AND ALL READERS,

we have many readers with more than just

Orics.

It was quite accidental that I started to deal with other machines. It has come about by requests from readers for information or software for other machines. Fortunately Tony Clarke is knowledgeable and local. I have also now been in contact with Capri Marketing and feel that many readers would appreciate some form of help on other machines. If enough people write to say that they object to OUM being used as a 'voice' for other machines then I will cease to deal with other machines through the magazine.

I am fairly confident that this will not be the case.

- DAVE

#### AMSTRAD HELPLINE

Arthur Crawford informs me that Amstrad at Brentwood have a 'Customer Helpline'. On dialling the local number he found a recorded message inviting him to call a 0839 (premium cost) number to obtain technical help. As Arthur says - "I think this says something not very nice about Amstrad concern for their customers."

Well Arthur, I suppose Tottenham Hotspurs Supporters Club favourite Mr. Alan Sugar needs every penny he can get to fight off Terry Venables in the Law Courts and of course to buy some class footballers to compete with the might of Liverpool!

#### FOR SALE

"Where the bloody hell are you going to put all this junk?" - That was Richard Farrell's wife's comment when he took delivery recently of a pair of Apple II's, Three Acorn Electron's and an Einstein. Especially as Richard is already the owner of a wide range of other computers.

To appease 'her indoors' Richard has decided to sell the following (all prices include postage):-

TEXAS TI99-4A - 10 pounds.

CAMPUTERS LYNX c/w 15 software titles and newsletters - 40 pounds.

MILTON BRADLEY VECTREX with built-in 'Asteroids' game - 15 pounds.

EINSTEIN - 64k c/w 3" drive and 15 discs (BBC Basic, Logo and games). - 40 pounds.

Interested parties can write to Richard at:- 11 Lincoln Court, Darlington, Co. Durham, DL1 2XN (Tel: 0325 486181 - I believe he has a telephone in the 'Dog-house'!).

#### BULL ELECTRICAL

'BULL ELECTRICAL' have many bargains in their August newsletter, including the following:-

PC Tape Streamers - 20 pounds, Transformers (12V, 2A) - 3 pounds, 'AT' Keyboard and LCD Screen - 5.99, 'QL' Modems - you get 2 for 12 pounds - one is a manual dial V23 - 1200/75 baud and 1200/1200 baud 1/2 duplex. The second unit is a RS232 control unit designed for use with the first unit. It has full two-way buffering and flow control from 75-9,600 baud. You plug the two units together to end up with a reasonable modem (power supply not supplied)., Racal Milgo package for 20 pounds contains a Multiline adaptor and a modem, Amstrad Laptops (PC compatible) - from 99 pounds, OKI MICROLINE 292 Printers (Siemens badged) - 18 pin, 80 column, Epson EX/FX and IBM emulation, parallel interface. To cap it all it's a colour printer and just 149 pounds., 12" Colour Monitors (RGB/TTL - EGA/CGA compatible) - 99 pounds., Amstrad PC 2000 Modem (Hayes compatible) - call monitoring, auto dialling at the incredible price of 9.99., Monitor to TV Converters - 19 pounds, Spectrum +2 Lightguns (Spanish software) - 1 pound each.

Well that's just a selection folks. For a copy of the newsletter and of their main catalogue just write to 'BULL ELECTRICAL' at 250 PORTLAND ROAD, HOVE, SUSSEX. BN3 5QT. TEL: 0273 203500. FAX: 0273 323077. Callers welcome.

V.A.T has to be added to prices and there is a postage charge of 3 pounds per order.



## A L T E R N A T E M I C R O S

CAPRI MARKETING

CAPRI MARKETING LTD. have their main branch COMPUTER CAVERN at 9 DEAN STREET, MARLOW, BUCKS. SL7 3AA - TEL: 0628 891101.

They also have their Computer Caverns in Swindon, Basingstoke, Reading and Wallingford. They also appear at Milton Keynes Sunday Market.

They stock games for Nintendo, Sega, Atari, Commodore, PC, Amstrad and all 8 bit and 16 bit machines. They also deal in CDTV, are a PC CD Rom specialist, a Citizen Printer dealer and have recently opened up a PC business centre.

I recently picked up a collection of their price lists for a selection of machines.

EXAMPLES:- for IBM PC - CALIFORNIA GAMES - 9.99, COMMODORE DOS (5.25") - 19.99.

for SPECTRUM - INTO AFRICA - 99p, COMBAT LYNX - 1.99, TETRIS - 2.99, PAPERBOY 2 (Spectrum plus 3 disc) - 6.99

for C64 - NINJA WARRIORS - 3.99, SUMMER GAMES - 2.99, Trojan Lightpen - 19.95, Python 1 Joystick - 10.99.

for Amstrad 6128/464/664 - PROTECTOR - 99p, GHOSTBUSTERS - 1.99, PAPERBOY - 2.99, MACH 3 (Disc for 664/6128) - 4.99.

ATARI 7800 Games machine cartridges from 4.99.  
C16 and PLUS 4 discs at 3.99, C16 Rampack - 14.95.

for the BBC - Mr. MEPHISTO - 99p, GEOFF CAPES - 1.99, TETRIS - 2.99, RETURN TO JEDI (Disc) - 4.99, PIPEMANIA (Disc) - 6.99.

for ATARI computer - PRO GOLF - 2.99, AZTEC CHALLENGE - 99p, FLIGHT SIMULATOR II (Disc) - 9.99. They also stock ACTIVISION cartridges.

for MSX machines - TERMINUS - 99p, JET SET WILLY - 1.99, LOGO - 9.99, Joysticks (dual fire) - 9.99.

for the ELECTRON - JET SET WILLY II - 99p, PRO GOLF - 1.99, COLOSSUS CHESS - 3.99.

for the AMIGA - prices from 4.99

for the ATARI ST - prices from 4.99

WELL - that's just a small selection. Many educational and serious titles + peripherals and of course lots of other machines catered for.

There is a postage charge of 50 pence per order, but this is waved for orders over 5 pounds. Orders to Europe are charged 1 pound extra.

How to order: a) You can if you wish send an S.A.E to CAPRI for a price list and order direct from them.

OR

b) Just send 2 x 24p stamps to me for the list that you require. You can then order via OUM and our funds will benefit as Capri have promised 10% of the order value can be held back for the Oric User Group.

CAPRI also have some ORIC titles, most of which can be obtained via the OUM MAILORDER list at a cheaper price. However, they do have a few titles, which are a little bit difficult to obtain. e.g:

WORDSEARCH (CDS) - 2.99

KROCATILE WALTZ (SUPERIOR) - 2.99

COLOSSAL ADVENTURE (LEVEL 9) - 2.99

LOCHNESS MONSTER - 1.99

ASTEROIDS - 1.99

REVERSI (CDS) - 1.99

TEACH YOURSELF BASIC (VISCOUNT) - 1.99

=====

SOME POINTS FROM PETER

I have replied to Staale with regard to the Beebug address, but here it is for others: BEEBUG, 117 Hatfield Road, St. Albans, Herts. AL1 4JS (Tel: 0727 40303).

Unfortunately I missed out on what was said to be a very good demo of Jonathan Bristow's SONIX. I will have to buy it and take the time to try it. Some years ago I bought the famous "Island Music System" for the BBC Micro. Very impressive providing that you were prepared to wait the fortnight that each section took to load! It didn't like my disk system and objected to the sideways RAM; so that was the end of that.

At the moment I am trying to get to grips with "reason codes" in the Wimp and have just managed to get a window set up on the Archimedes. I think BBC Basic V is a form of masochism - no wonder machines like the ORIC are still popular.

- Peter N. Bragg

=====

### History Lesson !

----- Have you read "Oric - The Story So Far" ? It is a very interesting book. Talking to the author, Jon Haworth at the Oric Meeting the other day, we were discussing the fact that Oric's manufacturers were not the only ones in trouble during that 1984-85 period. Sinclair, Acorn and Commodore, were just a few of the names caught out by a collapsing market. So what happened ?

If you were interested in microcomputers at the time, in the early 1980's, it was all very exciting. New machines being announced every month by the magazines. There were regular TV programs like the BBC series. Media hype created an impression that programming would be a real doddle, dead easy. Anyone old enough to hold a pencil could create a super video game in an evening, a wordprocessor and spreadsheet could be produced in little more than a day or so.

However, good computer hardware was a bit thin on the ground for the first two or three years and it's absence helped to sustain the myth that programming would be quick and easy, when that "dream machine" arrived.

About 1983-84, the floodgates opened and good machines with colour poured into the shops. The general public soon found that, while it was easy enough to PRINT "HELLO" and play a few notes, writing real software was a different story. The "dream machine" became a disappointment for many. The home computer boom collapsed and with it went companies like Oric International.

Computer clubs shrunk and many disappeared. It was all replaced by the grey world of the PC clone and ready cooked software, where the user is expected to fit in with the machine's operating system and not the other way around.

We can gain from experience and hindsight. The "computer boom" collapsed because so many people had their enthusiasm and high hopes dashed by reality. Writing software appeared to be more difficult than they thought.

Is it really as bad as that ? When it comes to writing software, you do not have to carry an entire Instruction Set in your head. A simple basic knowledge of how instructions work and a paper list of them is all the programming language that you need. So what is the real problem ?

While this is essentially a series on machine code (Assembly) language programming, it was also intended to provide some insight into how to write programs, so it is worth looking at why people found it so difficult.

The reason is that there are other things that are necessary for successful program writing, that have nothing to do with the computer or language. In particular there are two qualities that I think are essential.

The first is imagination. Specifically, the ability to visualise the software that you intend to write and how you are going to use it. Dont worry if you find this aspect difficult at first. All designers start off by copying and modifying other peoples ideas. Have a look around and see what is that you really like and use that as a starting inspiration. Try to put brief details and sketches on paper if your memory is as dodgy as mine.

The second and by far the most important quality needed for programming is time. Dont be in too much of a hurry to get big results.

Like many other constructive hobbies or pastimes, it needs a little time and patience to get results, when writing computer software. This has always been the main stumbling block for most people when starting out in anything new. They buy all the gear and expect overnight results and then give up if they don't get them straight away.

So just how long does it take, to write a piece of software? That is a question that I find difficult to answer, particularly as I have never written anything that I would consider as completely finished.

A simple utility could take a few days or so. The wordprocessor, produced a few years back, took quite a lot of spare time over a period of a couple of months to get to the point of being, crude but working. However, it was well worth the effort and it is still in constant use and is frequently updated.

When programming, I set myself a target, something that is not too ambitious. It is more interesting when you can see some results, as you go along, even if they are small, because this helps to make it easier, to be patient and take the time to build up a large piece of software.

It is also a good idea to take a break from programming at times. "Time and patience" are important ingredients, but don't overdo it. Be prepared to give it a rest at times. Quite often ideas and solutions to problems occur when you take a break and do something different.

I do have other interests and don't spend all my time writing computer software. As I am not a professional programmer, I can write any software I want in any way that I like. The only limiting factor is the computer hardware and that leaves plenty of scope. As a hobby interest, programming can be fun, like constructing something, or solving a puzzle. The end result, may well be something of value to you, which will not wear out and will last for as long as you have the computer. So now let's continue with .....

#### The Story so far

----- We have looked at the basic requirements for writing machine code programs on the Oric and have now built up a modest collection of useful instructions in form of a small 6502 Instruction Subset which appeared in Part 22 of the series. I have also tried to illustrate some of the programming techniques that I have found useful. Last time, we looked at transparent routines, what they are and why they are useful.

At this stage, it may be a good idea to have a look to see how we can make use of some of these techniques. Earlier in the series we looked at the two most important of the Operating System calls. These were "GTORKB", used for reading input from the keyboard and "VDU" which is used to display items on the screen. You may recall that the keyboard call required a short routine in order to confirm that a key had actually been pressed during the call. There is also a good reason for using a short utility routine to intercept the display call "VDU".

Like many computer users, the first thing that I do when switching on the computer, is to boot up a small selection of useful utilities and routines, so that they are always available, for writing software. The Oric utilities always include several routines, which handle the fiddly bits of the "GTORKB" and "VDU" calls. The routines are not an essential item and only consist of a few instructions apiece. However, they are quite useful and have the advantage that each can be called up by a single instruction, instead of having to be written in full, each and every time.

The listing below, should give you some idea of the type of routines, that I use. They are just for illustration, you don't have to type them in.

```

Oric                                     Utility Routines                                     31 Jul 93.
-----
[ JSR 9010 ]-----[ Test Keyboard Briefly ]-----[ / ]

    ---start---          ---Read Keyboard---
9010:20 78 EB : JSR EB78      : Call "GTORKB" routine, to read Keyboard.

                                ---Test - Key pressed ?---
9013:30 02      : BMI"9017"   : Yes - so skip next instruction only. (Flag N=1)
                                No - so
9015:A9 FF      : "No Key"    : set the Accumulator to show "No Key Press".

                                ---Finish---
9017:8D 01 90 : STA 9001      : Save result of call in Param 9001.
901A:60      : RTS          : Exit.
    ---end---

[ JSR 901E ]-----[ Get Key Press ]-----+

    ---start---          ---Read Keyboard---
901E:20 78 EB : JSR EB78      : Call "GTORKB" routine, to read Keyboard.

                                ---Test - Key pressed ?---
9021:10 FB      : BPL"901E"   : No - so back to read Keyboard. (Flag N=0)
                                Yes - key was pressed so finish.....

                                ---Finish---
9023:8D 01 90 : STA 9001      : Save result of call in Param 9001.
9026:60      : RTS          : Exit.
    ---end---

[ JSR 902A ]-----[ Display Item ]-----+

    ---start---          : Enter with item for display in Accumulator.

902A:8D 02 90 : STA 9002      : Preserve Accumulator contents in Param 9002,
902D:8A      : TXA          : then copy Register X to Accumulator and
902E:4B      : PHA          : use it to preserve Reg X on the Stack.

                                ---Fetch and Display item---
902F:AE 02 90 : LDX 9002      : Fetch display item from Param 9002 into Reg X
9032:20 7C F7 : JSR F77C      : and call "VDU" routine to display it.

                                ---Finish---
9035:6B      : PLA          : Retrieve Reg X item from Stack into Accumulator
9036:AA      : TAX          : then copy them back into Register X
9037:AD 02 90 : LDA 9002      : and retrieve Accumulator item from Param 9002.
903A:60      : RTS          : Exit.
    ---end---

```

Notice that there is a small gap between each of the three routines. Not essential, but quite a useful habit to get into, particularly when writing longer routines. It makes it easy to insert an extra instruction, if you wish to make modifications to your software at a later date.

Because they are quite simple and small, the routines can be put anywhere that you wish. The example's location in the 9001 - 903A area, is about as far away from everything as you can get. I normally use a lower address, which is a compromise decided by the common RAM area available on the three quite different machines, that I have used. An alternative approach is to put one set of the three routines in each piece of software that you write and use them as a vector to the Operating System calls.

There are only five instructions in the routines, that are sensitive to location. They are the LDA, LDX and three STA instructions. The addresses for these depend on where you put your tiny Parameter Block, which only requires two locations. The addresses 9001 and 9002 (not listed) are used for the Parameter Block in this example.

#### Keyboard Reading Routines

----- Doing things in a logical order, we shall look at this first. As you will know from using Basic, there are two ways to read the keyboard. One is the quick test for a keypress, which briefly interrupts program operation and then allows it to continue, irrespective of whether a key is pressed or not. This type of keyboard read is useful for games. The second type of keyboard read, will stop program operation completely and wait for a key to be pressed.

The routines for these two are quite short. Both routines end up with a key press (code) input in the Accumulator, but notice that the routine also saves a copy of that input in a storage location (Params 9001). This is useful if you are not going to use the keypress straight away, because the copy stays there until the next keyboard read. It's useful for debugging too.

In the case of the first routine, a key may not be pressed in the time that the keyboard is read and if so, it is a good idea to register that fact. This can be done, as shown, by loading the Accumulator with a code that indicates "no key pressed" and saving that instead. Obviously, it would be best to use a code that cannot be obtained from the keyboard, for that job.

A keypress will make the Negative (N) Flag in the Status Register change from N=0 to N=1. That affects the operation of the BMI and BPL Branches. BMI will only operate when N=1, but the opposite affects BPL. These two Branches are used in the two routines to detect when a key is pressed.

#### Display Item Routine

----- When we looked at the display call "VDU", I noted the fact that the call uses Register X, to hold the item for display. Tangerine may well have had good reasons to use Register X in this way, but it seems, from personal experience, that the Accumulator would be a much better choice for the job. The Accumulator is the most versatile of the two and more suited to handling single bytes of data, as used by the display call. Register X on the other hand, is more suited for the job of transferring large quantities of data, to and from the data memory.

The routine for "VDU" shown here, changes the register used for the display call, from Register X to the Accumulator and I find that it is a lot more useful than the direct "VDU" call. The main thing about the routine, is that it is transparent, so the registers (Accumulator and Register X) have exactly the same contents coming out of the routine as they had going in. This means that you can use Register X to fetch a series of data items for display, without it losing count of them, when using this routine. That's it for this time.....Get tapping for those winter evenings !



# GRAND DRAW

PAGE 22

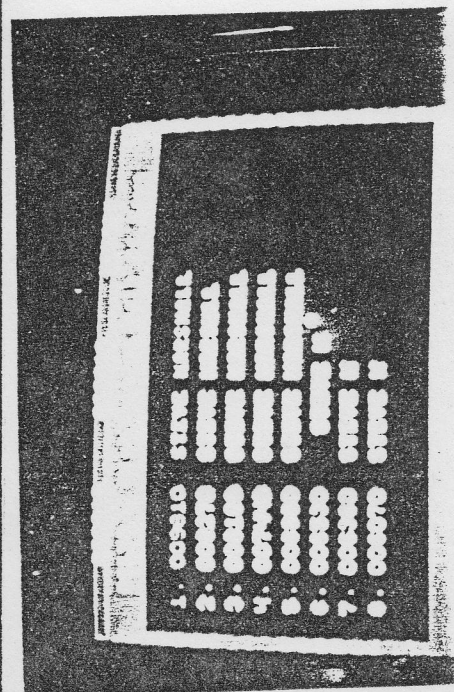
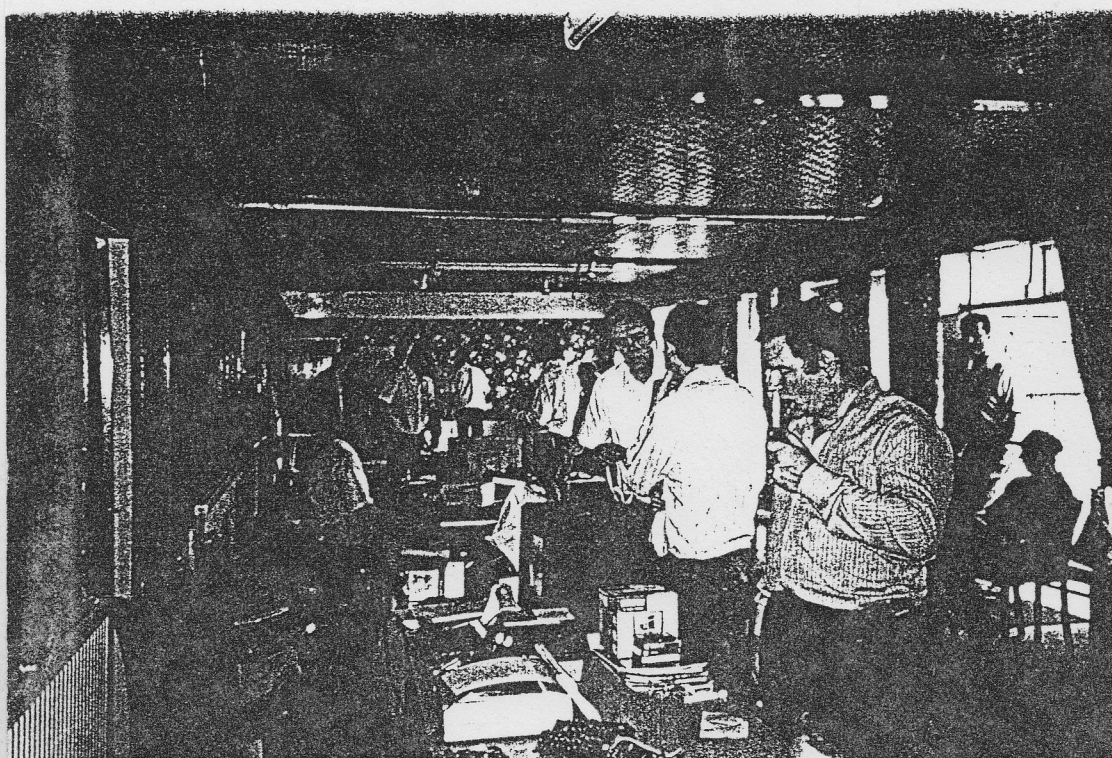
THE GRAND RAFFLE RECENTLY HELD AT THE ORIC MEET WAS AGAIN A HUGE SUCCESS. OVER 140 POUNDS WAS RAISED FOR CLUB FUNDS. A BIG THANK YOU TO ALL WHO DONATED PRIZES ALL WHO BOUGHT TICKETS. A SPECIAL THANK YOU TO KIMBO FOR 'TWISTING' EVERYONES ARMS.

HERE ARE WHERE THE 15 PRIZES WENT:

PRIZE	DONATED BY	TICKET	WINNER
HOLIDAY IN NERJA	Steve Hopps	58	ROB KIMBERLEY
DRAGON 64 COMPUTER	Richard Farrell	66	JOHN PEACH
ACORN ELECTRON COMPUTER	Brian Kidd	108	DAVE UTTING
SHARP POCKET COMPUTER	Colin Cook	118	GERRY AMATO
CEO MAG. SUBSCRIPTION	Club Europe Oric	5	JOHN PEACH
OUM MAG. SUBSCRIPTION	Oric User Monthly	22	JON BRISTOW
SWITCH MODE P.S.U	Jean Boileau	127	DAVE LIEBNIZ
DISC STORAGE UNIT	Dave Utting	101	JAMES GROOM
BOTTLE OF RED WINE	Brian Kidd	78	PETER THORNBURN
CASSETTE SOFTWARE	Dave Dick	103	JAMES GROOM
KLUBB ORIC NORDEN MAGAZINES	Arnt Erik Isaksen	19	JON BRISTOW
KLUBB ORIC NORDEN MAGAZINE	Arnt Erik Isaksen	39	JOHN HURLEY
ORIC BOOK	John Hughes	36	STAN HOLDEN
ORIC STICKERS	Oric User Monthly	49	GAVIN WILLIAMS
ENORMOUS B/W VALVE MONITOR	Dave Utting	124	CHRIS HEARN

NOTES: - The Sharp pocket computer was originally won by Jonathan Bristow, who kindly put it back for a re-draw.

The enormous black/white valve monitor eventually ended up in the back of Peter Thornburn's car along with: a TEXAS TI, 2 off DRAGON 32's, 3 off COMMODORE PET's, a massive 5.25" drive system & various other oddities.



Will BOB  
Buy It ?

DELTA  
4

## Dr. Ray's Basic Compiler

by Nick Haworth

I first heard of Basic compilers it was way back in 1988. I discovered a French compiler named LMPLUS for the Oric. Intrigued by the possibility of faster Basic programs, I attempted to use it, but gave up very quickly, as it would only compile the simplest Basic programs. In short LMPLUS was absolute rubbish.

I first came across Dr. Ray's Compiler when Rob Kimberely sent it to me. I had vaguely heard of it before on the Byte-Drive system but had never tried it out. Ray McCloughlin has now converted his compiler to SEDORIC, and this review is centred around my experiences of using it.

First, a short explanation of what a compiler does...

After you have typed RUN, to start your Basic program, the Basic interpreter sets off to work. It follows through your program, analysing what you have instructed it to do, and then carrying out the relevant command. For instance, the Basic interpreter comes across the token 182 in your Basic program. Looking this up in Basic's keyword table, it finds that it is in fact the instruction CLS. It then jumps to the Rom routine at \$CCCE and performs the instruction. Now it returns to the Basic program and looks for the next instruction. The checking and looking up process slows Basic down considerably. What Ray's compiler does is to eliminate the need to scan the program, and look-up the relevant address. The compiled form of the program just contains the direct jump to the relevant routine. This can give a speed increase of up to 200%.

The package contains the compiler, an assembler and the instruction manual stored on disc. To compile a Basic program you first have to load up the Compiler and then type 'COMPILE' followed by the program name in double quotes. The disc whirrs for a while compiling and producing the '\*.asm' assembler source files. Depending on the length of the Basic program the compilation can take from 30 seconds to 10 minutes. You then reboot and load up the Assembler which automatically assembles your program into '\*.bin' files. Finally, you reboot again and load the Linker program. This loads the various '\*.bin' files created by the assembler, and saves them as one continuous auto-running program.

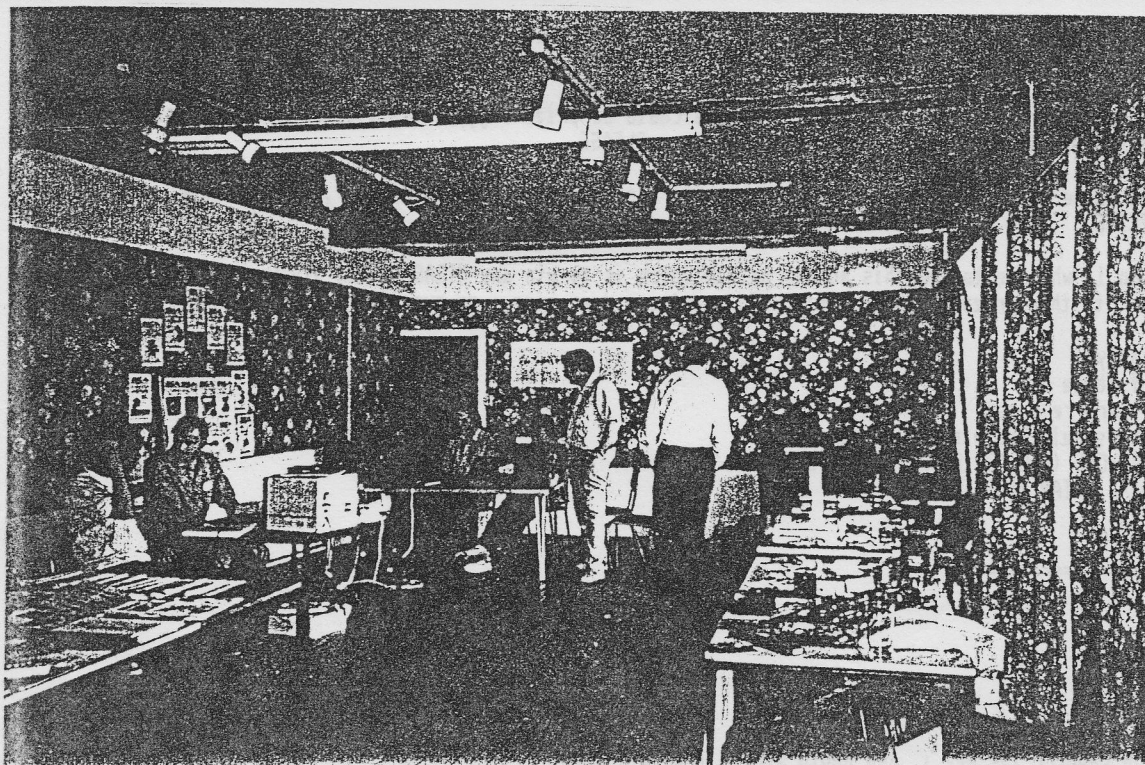
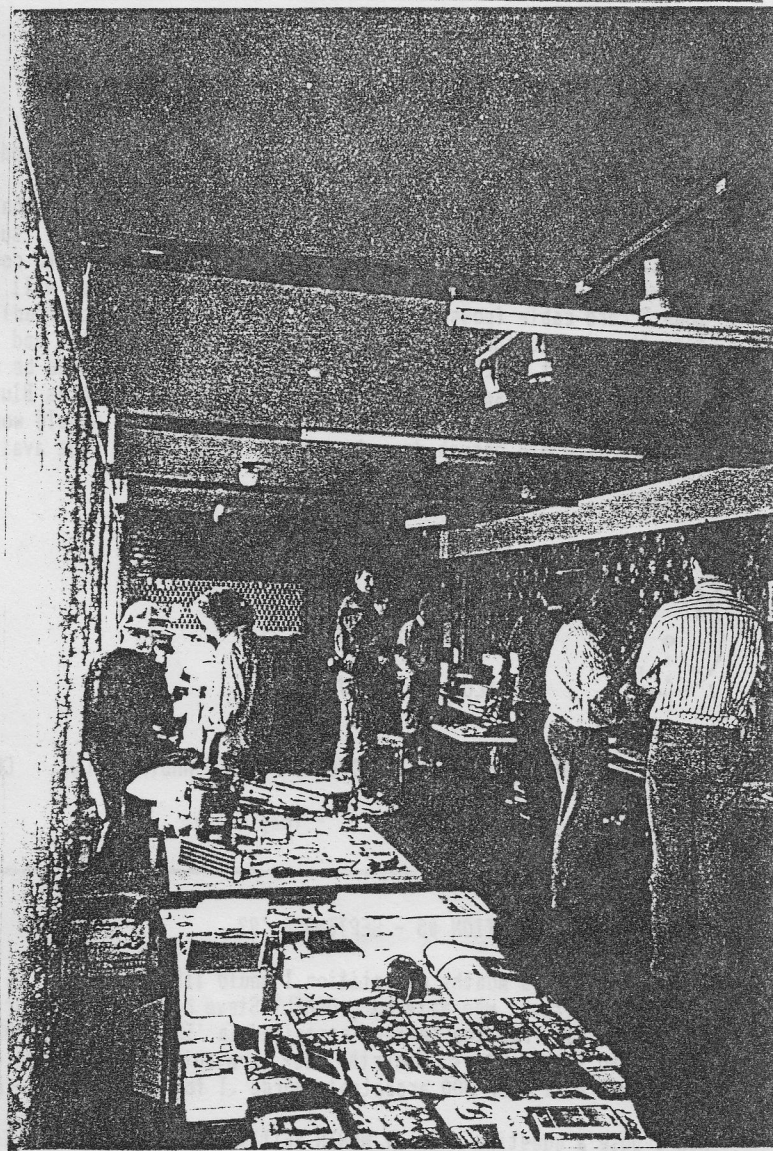
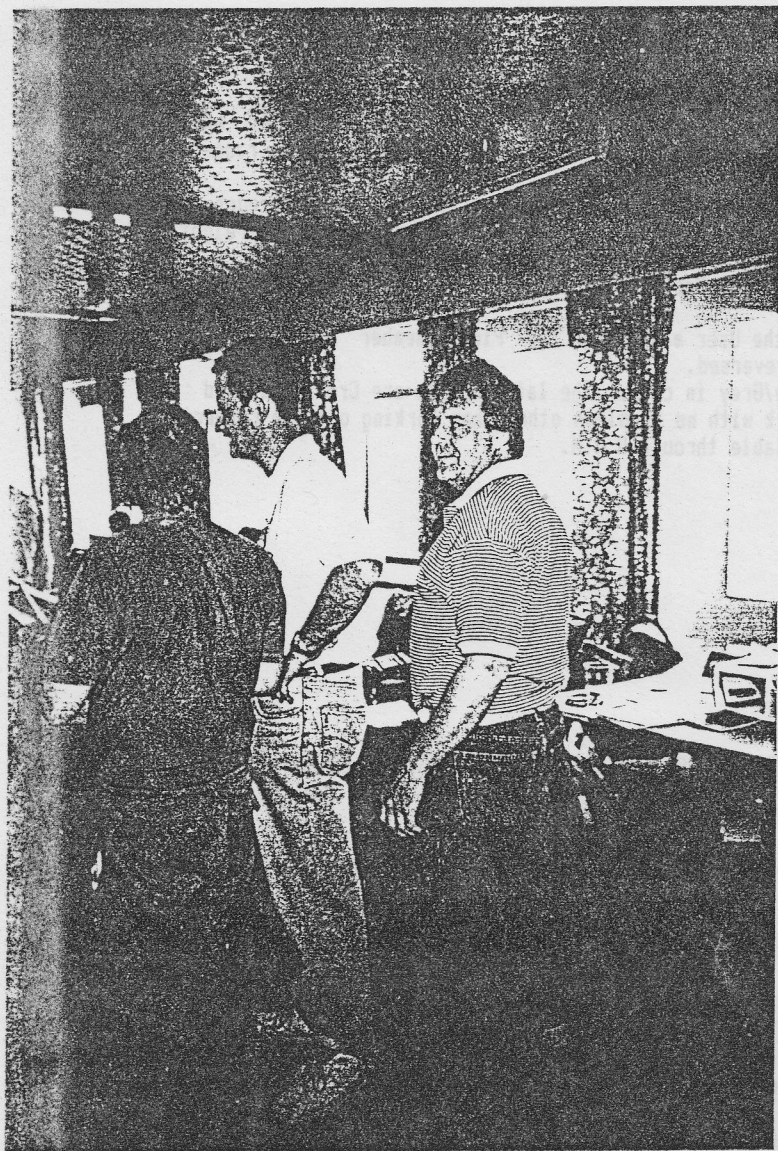
I performed a few tests on the compiler, using various different programs. All proved to be 100% successful, each of the programs compiling perfectly. There were various different speed increases, the best being with mathematically intensive programs. The compiler supports the complete Oric Atmos Basic instruction set including most of the SEDORIC commands. I found that the limit on what the compiler could compile was around 10 to 15K.

In comparison with LMPLUS, it beats it hands down. The LMPLUS compiler failed on all the tests, except the first test which simply was: 10 PRINT "HELLO" 20 GOTO 10

Introducing anything more complex to LMPLUS threw up various errors. Dr. Ray's Compiler came out tops with no problems. In the pre-release version, a few bugs came to light, but after visiting the Oric Meet, I obtained a new copy of the compiler with all of the bugs that I had found already dealt with by Ray. There are very few limitations, the principal one being that the Compiler only runs on an Atmos with SEDORIC. I was pleased to see that it supported SEDORIC and all of its commands with the exception of the sequential file commands - OPEN, PUT, etc.

In conclusion, this Compiler really is excellent. It is the first decent Compiler we have had, and enables Atmos Basic programs to be speeded up to almost 2 times their original speed. I found it very easy to use, and was pleased with its performance and so I can thoroughly recommend it to any one who writes Atmos Basic programs, and uses SEDORIC.





ENJOYED THE PARTY DAVID - NICE TO SEE YOU GUY MAKE!  
HAPPY BIRTHDAY TO RICH  
BIRTHDAY BOYS



## A CHEAP COLOUR MONITOR

The benefits of a colour monitor are better definition of text when word processing and better colour graphics when zapping aliens. The basic colours are Red Green & Blue, which when added to the normal Black background give us a range of eight colours and a further eight flashing colours as well.

The Amstrad CTM640 colour monitor is a versatile bit of kit that can be picked up cheaply at bootsales and through the local paper. It is supplied with the CPC 464 and CPC128 and will suit the Oric nicely. It will also plug straight into a BBC/Electron with no modification, and leads are available to connect it to the Amiga and Atari ST.

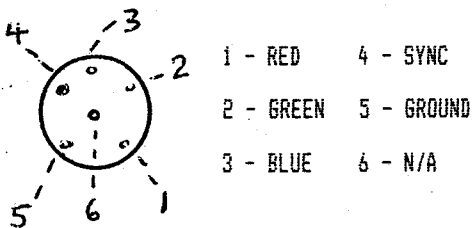
You will have to make up your own. Oric lead. For this you will need a Socket for the Monitor and a Plug for the Oric, plus some 5 core cable (possibly salvaged from an old joystick lead).

Wire the plug to the socket using diagram 1 for the Socket and the User manual for the Plug. Remember that the Oric Manual shows the front of the plug, so the back of the plug has to be reversed.

This article is based on the old style 464 Monitor which is Blue/Grey in colour. The later models are Cream coloured and have a different connector, as it has built in speakers, but should work with no problems other than working out the connection.

If there is a big enough demand, made up leads may be made available through O.U.M.

### DIAGRAM .



NOTE : MONITOR CONNECTIONS LOOKING AT PINS OF AMSTRAD PLUG. CHECK CONNECTIONS OF PLUG IF USING A TELESTRAT.

- Tony Clark

### PUZZLE COMPETITION #5 - SEPTEMBER '93

Before I set this months competition, I would like to comment on last months. This had a fantastic response, and I would like to thank all those who entered, NAMELY Steve Marshall (Edinburgh). Yes only one entry received! . Steve sent in a list of 408 words made from the letters contained in 'THE DIABOLICAL TOWER'. Eight of which were disallowed due to too many repeats/no such letters. A further 80+ were not counted due to dubious nature (eg. Is it possible to be CROWDABLE?). This still left well over 300 acceptable words. I found even more - but that is beside the point.

Now I pose a question - IS IT WORTH SETTING THESE LITTLE PUZZLE COMPETITIONS ?

All prizes are supplied by me alone, and being UNEMPLOYED myself, I sometimes find it a financial strain. Therefore when I receive so few entries I start to feel very p\*\*\*\*d off.

I need feed back from you lot out there regarding the puzzles. This could be prize suggestions, possible new puzzles, and even your views on the puzzles. Are they too hard/easy? Let me know - PLEASE.

If things do not pick up then maybe the competitions will cease while a puzzle page for fun exists, or perhaps even that will cease. ONLY YOU CAN DECIDE.

So decide now - and why not do it while entering this months puzzle which is to win any MIRAGE title of your choice on the format of your choice. Further to this prize, all entrants will receive a free biro - so everyone will be a winner.

The competition is easy - simply :

- 1) Name yourself and place of abode
  - 2) Name any three MIRAGE software releases.
  - 3) State title/format required should you win 1st prize.
- NOW THAT ISN'T TOO HARD FOR ANYONE (ENGLISH EXCEPTED !) IS IT ?  
DONT FORGET - replies to me - BRIAN KIDD.  
by the 23RD SEPTEMBER.

### BIRTHDAY BOYS

HAPPY BIRTHDAYS TO RICHARD FARRELL (25 yrs.) AND DAVID WILKIN ( 25 x 2 yrs.).  
ENJOYED THE PARTY DAVID - NICE TO SEE YOU STAY AWAKE!

Every piece of software can be judged according to two separate criteria; functionality (what it does and how well it does it) and usability (how easy it is to get the program to do whatever it is that it's supposed to do). Functionality is, of course, important but what lets programs down most often is the user interface. This is the part of the program which bridges the gap between the user and the functionality, passing information between the two.

Considering that every computer programmer must also be a user of other people's software, it's surprising how user-unfriendly some programs can be - even those marketed by commercial software houses. So often it's the little things that get overlooked, like being able to redefine the movement keys in a game or not having to sit through the entire demo once it has started. These things aren't difficult to accommodate. They only take a little extra effort but they can make the vital difference between a product which is merely functional ("it does the job, doesn't it?") and one which is actually enjoyable to use.

One of the main principles of interface design is to try to think like a user rather than a programmer. As programmers, we tend to ask "how can I get this information out of the user into my program?". But if you're interested in usability, the question needs to be "how would I (as a user) like the program to interact with me here?". What it amounts to is working backwards from the end product towards the necessary code rather than the other way around. For example, a program might require the user to enter a filename. The simplest solution for the programmer is to use the built-in INPUT function. This approach works (it's functional) provided the user stays within certain limitations. These limitations are usually obvious to the programmer but may not be to the user. What happens if the file doesn't exist, or someone enters an illegal filename? Or what if the user presses one of the cursor control keys? In order to avoid these problems we have to replace a single command with a whole routine, using GET or KEY\$ and checking each keystroke before accepting it. This doesn't really affect the functionality of the program but it does make a big difference to the usability.

That example leads us to another basic principle. Always assume that your users will try every dispicable trick they know to crash your program. Whatever happens, the user should be

protected from the consequences of any foolish or careless actions. The best phrase to describe this is "idiot-proofing". Another aim should be to make your programs intuitive, so that the user can make educated guesses about how things work. Unfortunately, what is obvious to one person can be completely unfathomable to another, depending on differing past experience. This makes it very difficult to produce universally intuitive software beyond a very basic level (such as the RETURN and arrow keys doing what you would expect them to). There are, however, things you can do, and some of these are discussed below.

As you will have realised by now, all this user-oriented thinking greatly increases the amount of time and effort you have to put in any given project. In general I reckon to spend at least twice as much time on the user interface as on the functional parts of a program. So, what are the elements of a good interface? Here are a few of my own suggestions.

- o Menus. Most programs are essentially menu-driven and it pays to put a lot of thought into the structure and presentation of your menus. If there are too many options to fit into a single menu, they should be separated into functional groups and arranged hierarchically. That is, a main menu which provides access to a group of secondary menus, each offering a selection of related functions. I often come across menus in which the options are numbered and are selected by typing in the relevant number. If possible, this approach should be avoided. It's better to use the initial letter of the option (or another letter if the first has already been taken), which then serves as a mnemonic for the function. The user should also be able to make a selection using the arrow keys to move to the required option and then pressing RETURN or SPACE. This is a standard technique in most modern PC software and is not difficult to implement even on the humble ORIC.
- o If possible, take the user straight into the main screen, without making them answer a series of questions first. I habitually use "Wordworth" for my word processing needs because it has a generally high level of functionality. There is a hierarchical menu structure but I have to go through two menus before I can start typing text, which is, after all, the main purpose of a word processor.

Menus should be structured so that the primary function is at the top of the hierarchy rather than at the bottom.

- o Ideally, a program should have just one screen, from which all functions can be accessed. A good example of this is "Don't Panic", since that type of game lends itself easily to this approach. If possible the main menu should be on screen permanently. If not, then when it is called up, it should interfere with the existing screen as little as possible. Clear the screen completely only as a last resort. There is nothing more terrifying for a new user than to see all his work vanish the first time he requests a menu.
- o Give clues to the user with as much on-screen information as possible. It should not be necessary to refer to documentation in order to perform the main functions.
- o Provide shortcuts for experienced users. While anyone should be able to access any function by going through menus, there should be ways of by-passing these to get at the most frequently-requested functions. Galactosmash has a unique main menu which requires the user to dock a ship to gain access to the weapon, engine and shield shops and to start the game itself. This is very imaginative, requires little or no explanation and is fun, but it becomes a bit of a drag after a while. The ESC key provides a shortcut to get into the game but, as far as I know, none exist for the other three options.
- o Allow users to customise applications as much as possible. At the most basic level there should be the opportunity to redefine the cursor control keys in a game. On-screen help should be displayed by default for new users, but there should be the option for experienced users to switch this off. In, for example, word processing software, some people like to have the whole screen available for text, while others prefer the security of borders and permanently displayed menus or help information. These days, where a majority of users are running from disc, any preferences can be saved automatically and reloaded the next time the program runs.
- o Allow users to change their minds. When attempting to save an earlier version of this article, I mistyped

the filename and accidentally hit RETURN instead of DEL. Wordworth then prompted me to "type S to save file". Unfortunately, the program wouldn't allow me to do anything else so I had no choice but to continue with the save. It would be better to make use of the ESC key to cancel any operation at any stage, up to the very last moment. Pressing ESC should cancel the current activity and cause the program to back-track to the previous stage.

- o One thing that helps to make programs intuitive is self-consistency. If a particular key sequence has one effect in one part of the program, where possible, it should bring about the same results elsewhere. The use of the ESC key described above is a good example. Try to use the same layout and conventions throughout.
- o Go for an attractive presentation of main screen and menus. I'm always impressed by a welcome or menu screen that looks interesting. Two examples that spring to mind are "Maze Rally" and "Psychiatric". These are both games but there is no reason why even the most mundane programs should not be fun to use.
- o Testing. Before you allow real users anywhere near your masterpiece, it should be thoroughly tested. There are a number of ways of achieving this. For example: (1) Try it out yourself. This is always useful but it is easy to miss things since you are so familiar with the way everything is supposed to work; (2) Go away for a month and then try it. This is a slight improvement on the first option and it is surprising what you can find wrong with your own programs this way; (3) Find a very stupid or very inventive person and get them to try it out with the minimum of instruction. Then listen to their comments with humility and implement any suggestions they come up with. It is simply a question of attempting to anticipate every action that a user might make in any possible situation. This is, of course, impossible, but you've got to try anyway.

The final rule is that there are no hard-and-fast rules. There are always improvements that can be made to any program and compromises sometimes have to be made. But there are really no reasons why our software should not be just as functional and user-friendly as any available on any other machines.

As Jon Haworth said to me recently - "When someone refers to 'THE MEET' it can only mean one thing - 'The Aylesbury Oric Meeting !'"

The latest meet held on Sat. July 17th 1993 attracted another great turnout.

Though not as big as last years 50 attendees, we did manage 39. Unfortunately Robert Cook (hangover), Richard Farrell (his wife had to have some wisdom teeth put in), Gavin Williams (transport problems), Ken Austim (shift change), S. Friend (under the thumb) & Trevor Shaw were last minute absentees

It was nice to see some of the newer members as well as meeting up with old friends.

The cast list read as follows : Gerry Amato, Jackie + young Brian, Stephen + Christopher (who made the long trek from Birkenhead in their "souped-up" LADA & towing a CARAVAN), Jean 'MR ATMOS' Boleau (all the way from France), Peter Bragg (Sutton), Jonathon Bristow (Thetford), Laurent Chiacchierini (Paris), Matthew Coates (Huntingdon), Colin Cook (Basildon), Arthur Cranford (Billericay), Dave, Mathew, Loise + Ann Dick (mein hosts), James (Worcester fruit picker) Groom, Jon + Nick Haworth (the dynamic duo from Cambridge), Chris Hearn (Tring), Steve Hopps + daughter (Wokingham), John Hughes (Worcester), Brian, Joshua + Lyndsey Kidd (who made the long train journey from Newport Gwent), Rob Kimberley (Leamington Spa), Richard King (Maida Vale), David Leibniz, David Utting + Steve Wright (Leicester), Henry + Rene Marke (Portsmouth), Ray McLaughun (Sheffield), Derek Smith + wife (Walsall), Bob Terry (Aylesbury), Peter Thornburn (Canterbury) and David Wilkin (Sunbury).

Sincere thanks for making it all worthwhile.

The Friday evening saw the arrival of Jonathon Bristow with his updated 'SONIX', 'TETRIS GB', 'The DAVE DICK EMULATOR' (an impossible arcade) + a few other programs !

After a lie-in until 7.00 am on the Saturday morning, the work began. Peter Thornburn, Jon B, the kids & I loaded up cars with software, hardware & literature. 'ORIC' signs were affixed to lamp posts. After endless journeys transporting equipment, meeting trains & ferrying visitors to Tony Clark's clearout sale, my feet finally touched the ground & it was nearly lunch time.

By now Kimbo was doing his arm-twisting with raffle tickets, the youngsters were zapping aliens, John Hughes was trying to get his disc system running, Wilkie was well into repairs & Jon Haworth was 'selling' the C.E.O..

Lunch was consumed & the beer flowed. New friends were made.

Steve Hopps arrived just in time for the food & to be sold some raffle tickets.

The raffle got underway. The first ticket out of the hat belonged to Rob Kimberley (Kimbo). Cries of "FIX!". Rob declined the super B/W valve monitor, weighing a ton & opted for the holiday in NERJA. Full list of winners elsewhere in this issue.

The afternoon session began in earnest. Steve Hopps had brought along 4 of his CUMANA disc interfaces to go back with the French. He spent all afternoon & part of the evening with a soldering iron, finishing them off.

The first demo was of Jonathon Bristow's 'SONIX' (Musical Editor). It was well received & orders were taken for it. After we shut up Jonathon, it was the turn of Nick Haworth & his impressive 'ORICALL' Bullitin board. Next on the agenda was Ray McLaughlin's Compiler & Assembler packages. Both extremely well received & advance orders taken.

Laurent & Jon H. showed off the Telestrats & Derek Smith parted with his cash & joined the ranks of Telestrat owners.

In the corner the gamers were getting hooked on Jon Bristow's 'TETRIS GB'.

An excellent version (will be on OWM Disc #40) with interesting features. One of the features was the increase in volume as the levels progressed, especially as the Atmos was linked to my hi-fi & Jon B. was persuading the kids to 'up' the volume.

After many warnings, from all & sundry, Jon H. finally showed Jon B. the RED CARD & committed him to the SIN BIN. To Jon B. the 'sin bin' is pure hell. Five minutes without an Oric brings on withdrawal symptoms - 10 minutes & he is frothing at the mouth - 15 minutes sees him shed his clothes and turn green ! The Incredible Bulk is here !.

Software, disc drives and printers were sold.

James Groom yielded to temptation at Tony Clark's place. James was going to order a disc i/face from Steve Hopps. Instead he ended up with three old micro's and no money for the following weeks rent. (James has since learnt not to put an Oric PSU into a C16 - BIG MISTAKE !).

Continued overleaf.

By 6 p.m. we had cleared the hall, loaded cars and a transit van and majority had returned to my house. The bar-b-q set I had ordered had arrived and Wilkie kindly brought his along. Wilkie became cook. James Groom got the carry-out from the off licence and the Amato crew cooked up their supper in the caravan parked outside.

Steve Hopps carried on soldering.

An Oric system was set-up in the house for gamers, whilst discussions were held around the bar-b-q.

I had an extremely interesting conversation with Dr Ray and learnt of some of his beginnings in computing.

Steve Hopps soldered on.

As evening turned into night the main assembly bade their farewells and set off for Cambridge, Gloucester, Portsmouth and Huntingdon etc.

Steve Hopps soldered on.

The overnight gang now consisted of Wilkie, Bristow, Peter Thornburn and the Dicks. The Amato gang settled down in their caravan, except for a few visits to our 'little room'. Peter and Louise played table rugby & football with coins.

After a few hands of cards Wilkie fell asleep in an armchair, Ann (my wife) tucked him in with a quilt. She adorned him with fluffy toys. The camera clicked. Unless the negatives can be sold for Twenty Pounds, then what a cover we have for the Christmas issue of O.U.M.!

Come the morning and Steve Hopps soldered on!

Mathew set up his Amstrad GX4000 games console, the lads from the caravan played in the square.

Wilkie and Bristow departed.

After a quiet liquid lunch the phone rang. Tony Clark was now clearing out his garage. The end product was that Peter Thornburn's car would be laden with 3 Commodore Pets, a couple of Dragon 32's, a huge twin drive system and for the second year running - an enormous industrial b/w valve monitor.

Steve Hopps soldered on!

By 4 p.m. all was calm as I perused the disaster zone (home). The soldering had stopped - where was Steve? If the French find him inside one of their interfaces would they please return him.

Two tasks remained. I had to remember to take Gavin Williams TELESTRAT to Brian Kidd's the next day on my way to the next stage of my holidays.

I still had Tony Clark's Amstrad Monitor - this was used by me at the meet and Tony shows you how to adapt it for your Oric in this issue.

I was car less. Ann had gone to see SHAKIN' STEVENS. Ann is very fond of SHAKIN' STEVENS - some guys get all the luck! (Brian Kidd insists that it's because Shaky is Welsh!).

I persuaded Tony to pop around for his monitor. Now Tony has only been an Atmos user for a couple of weeks. After 10 minutes of demos with my disc drive system he was hooked and ordered a drive interface.

The highlight of the meet - too numerous to mention, except perhaps for one. I thought the NAKED ORIC to be a boring disassembly routine. Some routine - what "Bits" & "Boobs". Henry you're sweating!

- Dave Dick

## THE MAILSHOT

I MADE A BIT OF A MIX-UP WITH THE LAST MAILSHOT. I MISLAID A LIST AND CONSEQUENTLY ABOUT A DOZEN OF YOU HAD A LETTER TO SEND OUT 2 MONTHS RUNNING. MY APOLOGIES.

THE MAILSHOT CONTINUES AND THOSE WHO HAD'NY RECIEVED A LETTER PREVIOUSLY WILL FIND ONE WITH THIS ISSUE. PLEASE PUT A STAMP ON IT AND POP IT IN THE MAILBOX.

OVER THE LAST FEW MONTHS WE HAVE REACHED OUT TO ANOTHER 100 OR SO ORICIANS. MEMBERSHIP IS BOOMING - THE JULY ISSUE OF O.U.M WENT OUT TO 112 READERS. CAN WE BEAT THE 114 WHO RECIEVED LAST YEAR'S DOUBLE ISSUE?

- DAVE

## A PLEA FROM JONATHAN BRISTON

OUR MUSICAL MAESTRO JONATHAN IS SEARCHING FOR A MUSICAL SOFTWARE DEMO FROM THE PEN OF 'THE MIGHTY BOGG'. IT IS ENTITLED 'THE BOGG ALBUM'. JONATHAN WOULD LIKE IT ON A COMMODORE C64 DISC.

IF ANYONE CAN HELP THEN WOULD THEY PLEASE CONTACT HIM DIRECT.

## MIND MADNESS

AVAILABILITY: OUT NOW                      PRICE: 4.50 ON 3" or 4 pound ON 3.5/5.25"  
 FORMAT: SEDORIC DISC ONLY  
 AUTHOR: ARNT ERIK ISAKSEN                      TYPE: STRATEGY.

Just as we go to press I have recieved the completed version of Arnt's long awaited Brain teaser. It is available NOW, but is disc based (sorry to cassette users). The program is enormous and each one of the 115 levels is loaded in separately from disc.

### THE INTRO

Arnt has pulled out all the 'stops' on the game introduction!  
 If you decide to opt for the SOUND version you initially experience the MONTY MOLE THEME and some excellent graphics. Then the shadowy frame of Arnt appears, followed by some notes on said author. Arnt explains what he wants out of life (at 19 he has youth on his side). The next screen is 'over the top' - literally! The instructions and options are printed upside down. Just as you get annoyed, they appear the correct way up. A picture of a baby (dummed from a PC), then tells you that it is time to play. It is odd that Arnt chose this picture, as he states in his little intro. that he doesn't want to have children! Her you must press the SPACE BAR or else you get Arnt's little story again. (on first loading you may press the SPACE straight away to skip the intro.).

Another piece of music (penned by Jonathan Bristow and a SONIX demo) brings us to the main loading screen.

### OPTIONS

'O' is for OPTIONS and allows you to play with or without sound. The START LEVEL cannot be amended on your first outing - see later note. The SKILL LEVEL on a rating from 1 to 5 can be amended - the screen will not alter, but you will be allocated less time the higher the skill level. The final option is the GAME KEYS. Defaults are the cursors. Two other sets of keys may be picked from or you can use a DK'TRONICS joystick (we've all got one of those - haven't we!). You cannot define your own keys.

### THE GAME

From the OPTIONS you press 'RETURN' to get back to an intro. screen and then 'P' to Play.

A nice screen asks you to "GET READY". I liked this as not only is it a favourite song of mine from the TEMPTATIONS, but also the design of the letters reminds me of a MOTOWN design - it's a pity the tune wasn't included.

You are ERNIE and must move from the bottom left of the screen to the top right (marked: IQ). You do this by moving through the RINGS. You have a time limit, which varies from screen to screen. Plan your route before you set off, as if you are stranded in the middle of the screen then you die, and you only have one life. You score points for going through the rings and get a bonus relative to the time left - the quicker you are then the more you score.

The first few screens are extremely easy, but by the fifth, then you have to make quick decisions. I didn't have to time to spend hours on it, but scored 381 points and reached the 6th screen.

Because of the size of the program it has to be stored on 2 sides of a 3" disc - the screens on side B, which is a Slave.

### HI-SCORES

At the end of your game you are invited to enter your name in the Hi-Score table. You can then press 'S' to save the table to disc. Pressing 'RETURN' instead of 'S' will just take you back for another game.

The beauty of Saving your best score is that on a re-boot you can continue from where you previously died.

### SUMMING UP

Arnt has put a lot of time and effort into this. The introductions, though not original, are very worthwhile. He has taken a lot of good ideas and put them into a package. The idea of the game is simple, but as in this case: it is the simple ideas that are often the best.

Being a basic game means that the movement is not particularly smooth, especially when in the OPTIONS. The game reminds me a little of SQUEEK, but without the colourfulness.

If you are of the patient type and fancy a challenging game, then BUY IT and solve the 115 screens. It has got to be 'value for money'.

THE EDITOR'S RATING: 78%

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## THE BACK PAGES

DUE TO A HECTIC FINAL WEEK AT THE END OF AUGUST (PARTYING and TRAVELLING) I HAVE NOT FOUND THE TIME TO PREPARE THE LAST FEW PAGES INTO ANY SEMBLANCE OF ORDER. THEREFORE A MELEE OF : NEWS, BITS 'N' BOBS, MESSAGES AND ALL MANNER OF THINGS.

- DAVE

SONIX

SONIX - the musical editor from Jonathan Bristow is available NOW.  
Those who have ordered it should receive it along with this magazine.  
At present it is ONLY available on Sedoric disc. PRICE IS: 6.50 (incl. postage).  
Order direct from OUM

COLUMNS

As we go to Press I have unfortunately not received the Preview copy of Nick Haworth's 'COLUMNS'. We hope to have the preview or even perhaps the finished software to review in time for the next issue.

COMPILER

By the time you receive this issue I will have Dr. Ray's COMPILER package for distribution. It has been held up due to bugs being found in SEDORIC V2.0 and Ray's love of decorating!

In certain circumstances the Compiler does not work as it should with V2.0 or previous versions of Sedoric. Ray has now corrected this and other bugs. Consequently the COMPILER will be despatched on a SEDORIC V2.1 disc, with these bugs removed. It would be advisable to transfer any programs that you wish to compile, to a V2.1 formatted disc prior to working on them. (See also article - "SEDORIC - some bugs!!").

The Compiler with its own small Assembler can be ordered direct from OUM. PRICE including disc and postage is 5 pounds. The manual is stored as a Text file on the disc and can be run off on your printer. If you do not possess a printer then I will send you a print-out.

DON'T FORGET - send in your 5 pound to receive this excellent utility (see review on P.23)

ASSEMBLER

Dr. Ray's ASSEMBLER program is also ready for distributing. A short narrative on this can be found on Page 3 of issue 69 of OUM.

The package includes the source code for FIG-FORTH and comes with a laser printed 20 + page manual. On Sedoric disc, it can be ordered from OUM for 6 pounds.

SEDORIC - some bugs!!BUG No.1 - BOX

Ray has recently provided an update to Allan, which corrects an error message, which is generated when the BOX command is used in TEXT mode. As such it is not an essential update, but if anyone wishes to obtain the update (V2.01) then they should remit direct to Allan Whitaker the princely sum of 50 pence and a disc.

NOTE FROM THE EDITOR: As they now have to say in the Insurance business, here is my Best Advice - forget it, read on and wait.

BUG No.2 - DTRACK/TRACK

In updating V1 to V2, main man Ray caused a bug when you use DTRACK and TRACK (I believe it was to do with setting up a drive as Not Used). The de-bugged version is being sent to Allan as V2.1 and will also be featured on Ray's COMPILER.

BUG No. 3 - DNAME/INIST

This bug was an original feature of Sedoric (it relates to being asked for the Master disc on second use of the command, pressing 'ESC' and subsequent crashes). Dr. Ray has corrected this and again will be sent to Allan Whitaker as V2.1 and the corrected version will be on his COMPILER.

BUG No. 4 - SECTMAP

As mentioned in 'READERS LETTERS', there is an error in the SECTMAP utility. Ray will be looking into this and will send on the corrected version to ALLAN with V2.1

BUGS - a solution

You can wait for Sedoric V2.1 from Allan, buy the COMPILER or alternately wait for the next issue of OUM. In the October issue Ray will explain how to set about correcting the first 3 bugs yourself with the aid of NIBBLE. You will also need 15 minutes spare time.

# THE BACK PAGES

## WANTED

DAVID LEIBNIZ IS WANTING TO BUY ISSUES 7,8,9 & 10 OF 'ORIC OWNER' MAGAZINES.

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## WANTED

STEVE MARSHALL IS WANTING TO BUY ISSUES 9 & 10 OF 'ORIC OWNER' MAGAZINES.

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## GOLDEN OLDIES

TONY CLARK HAS RECENTLY PICKED UP SOME OLD COMPUTERS FOR SALE. HE IS CURRENTLY TESTING THEM TO MAKE SURE THAT THEY WORK. THE LIST FOLLOWS WITH PRICES APPLICABLE IF THEY TEST OUT SATISFACTORILY.

- a) 2 off DRAGON 64's C/W A TWIN 5.25" DISC DRIVE, NEW JOYSTICK AND A LIGHT PEN .... PRICE IS 50 pounds.
  - b) SORD M7 - NO psu, but comes with BASIC INTERPRETER - 20 pounds.
  - c) COLECOVISION GAMES CONSOLE c/w ADAM COMPUTER, ADAM PRINTER, BOOKS, SOFTWARE ON CASSETTE AND 6 CARTRIDGES. THE PRINTER IS A DAISYWHEEL - 80 pounds.
  - d) AQUARIUS - BOXED WITH MANUAL, BUT NO SOFTWARE - 20 pounds.
  - e) COMMODORE 128 - PRICE TO BE AGREED.
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'C'

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WATCH OUT FOR A 'C' COMPILER FROM DR.RAY AND DON'T FORGET THE TINY 'C' FROM RICHARD KING.

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## HI -SCORES

THE LATEST UPDATE TO THE ALL-TIME 'HI-SCORE' TABLE HAS BEEN HELD OVER UNTIL THE NEXT ISSUE. THEREFORE YOU HAVE A FEW WEEKS TO GET ZAPPING AND GET YOUR NAME IN PRINT.

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## SECOND-HAND SOFTWARE

RICHARD FARRELL HAS THE FOLLOWING PACKS OF CASSETTE SOFTWARE FOR SALE. PRICES INCLUDE POSTAGE.

- PACK 'A' - 'WARGAMES' : JOHNNY REB, WARLORDS, SPECIAL OPS, PARAS - 3.50
  - PACK 'B' - 'ORIC-1' : PASTA BLASTA, CENTIPEDE, SPACE INVADERS, SCUBA DIVE - 3.50
  - NOTE FROM THE EDITOR: THE 'SPACE INVADERS' GAME IS FROM 'DIAND' - NEW TO ME.
  - PACK 'C' - 'ADVENTURES' - BUCCANEER, THE HOBBIT c/w THE BOOK, THE HAUNT, HOUSE OF DEATH - 6 pounds.
  - PACK 'D' - 'UTILITIES' - ORION ASSEMBLER, THE QUILL, CHARACTER GENERATOR, SUPERCOPY - 5 pounds.
  - PACK 'E' - 'SPACE' - KRILLYS, CHOPPER, STARWIND, XENON 1, HARRIER ATTACK - 5 pounds.
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## FORTH

GAVIN WILLIAMS RECENTLY DROPPED ME A LINE TO ASK IF I WAS A 'FORTH' USER AND IF THERE IS A RECOMMENDED 'FORTH' BOOK. WELL I'M AFRAID THAT I'M NOT INTO 'FORTH' AND THEREFORE CAN'T SUGGEST A BOOK. I DO KNOW THAT 'FORTH F83' ON DISC FROM THE C.E.O IS WIDELY REGARDED AS AN EXCELLENT WORK. BY GLANCING THROUGH THE CONTACT LIST GAVIN WILL ASCERTAIN THAT WE HAVE A NUMBER OF USERS WHO HAVE AN INKLING FOR THE SUBJECT. DR.RAY IMMEDIATELY SPRINGS TO MIND. GAVIN COULD DROP A LINE TO ONE OF THE USERS OR ALTERNATELY PERHAPS ONE OF YOU GUYS OUT THERE COULD WRITE DIRECT TO GAVIN.

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AND THERE IS MORE

and yet more



**RON'S FAVOURITE**

RON KEY WRITES TO TELL ME THAT HIS OWN FAVOURITE WORD PROCESSOR IS 'AUTHOR' AND THIS IS WHY: " MY FAVOURITE TO DATE (POSSIBLY BECAUSE IT WAS MY FIRST) HAS GOT TO BE 'AUTHOR'. IT HAS A FEW ELEPHANT TRAPS IN IT'S CONSTRUCTION,BUT IT DOES HAVE THE ADVANTAGE THAT TEXT CAN BE STORED SIMPLY IN THE 'RAM',SURVIVES A HARD RESET AND IS EASILY RECOVERED BY RELOADING ANY VERSION OF 'AUTHOR' ON TOP OF IT. MOREOVER,THERE IS PLENTY OF ROOM FOR 'BASIC' (FROM #500 TO #3500 i.e. WRITTEN OR PROGRAMMED AS USUAL) FOR INSPECTING OR REPAIRING THE TEXT OR FOR WRITING A SPECIAL PRINT-OUT PROGRAMME. THE PROGRAMME ITSELF IS EASILY COPIED AND THE BASIC MEMORY POINTS ARE GIVEN IN THE HANDBOOK".

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**DUM CASSETTE**

TO APPEASE CASSETTE USERS OUR WELSH WIZZARD (BRIAN KIDD) HAS BEEN WORKING ON A COMPILATION CASSETTE. I HAVE LITERALLY JUST RECIEVED IT,AND THEREFORE NOT HAD TO TIME TO EVALUATE IT. I AM TOLD THAT ALL PROGRAMS ARE ORIC -1 /ATMOS COMPATIBLE. MORE NEWS IN THE NEXT ISSUE.

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**LISTINGS**

TO MAKE UP FOR THE LACK OF PROGRAM LISTINGS RECENTLY WE PLAN TO SEND OUT A SPECIAL SEPARATE LISTINGS SECTION WITH THE NEXT ISSUE OF D.U.M.

MEANWHILE - DON'T FORGET THE PUBLIC DOMAIN LISTINGS. PLENTY THERE TO KEEP YOU BUSY.

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**A LETTER FROM ROBERT CRISP**

"In DUM issue 70 (page 16),there is an article about a 'C' COMPILER. If anybody is seriously considering converting the Compiler from Atari 8-bit code into Oric code then I can offer help with conversion.

Once upon a time,between getting rid of my BBC computer and getting the Orics, I owned a couple of Atari 8-bits (one 800XL and one 65). I never used them much as I never liked the shape of the text characters after using the teletext style characters on the BBC.

I bought a couple of good books for the Atari's and I kept the books when I gave the computers away. One book is MAPPING THE ATARI and the other is THE PROGRAMMER'S REFERENCE GUIDE FOR THE ATARI 400/800 COMPUTERS. Both books are very detailed and have a total of over 750 pages. I wish the Oric had a similar level of documentation. Zero page addresses are described in detail - one book takes about 33 pages on page zero. However,neither book offers any dis-assembly of the Atari Roms.

If any DUM member is going to have a go at converting the 'C' COMPILER,I can offer photocopies of any relevant sections of the books. All they have to do is to write to me telling me what they want and enclosing an S.A.E. As I am studying in my spare time then I cannot offer to convert the code myself.

I have never considered using a 'C' COMPILER on a 6502 system, but it would be nice to have it available. I got a copy of the Microsoft 'C' COMPILER - it takes up 20 discs,each one holding 720K."

- ROBERT CRISP

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**McGraw-Hill**

Regarding the Geoff Phillips book that is on the WANTED list of many members: I have been in touch with James Eibisch and he tells me that there are no copies left at the publishers. The book was in fact deleted in October 1986.

However, James has given me a couple of contacts, who deal in searches for books. They are: EDGAR BACKUS (Mr. H J H TAYLOR), 22 Fairfield Crescent, Glenfield, Leicester. LE3 8TH (Tel: 0533 871095), and AAB, British Book Searches Services, PO BOX 342, OXFORD. OX1 1NN.

**BILL and TED**

Young Matthew Dick has a problem on his Atari Lynx version of BILL & TED'S EXCELLENT ADVENTURE - readers with the game on other machines may well be able to help.

Here in Matthew's own words are the problems:

" Can you help me? I am stuck on BILL and TED'S EXCELLENT ADVENTURE. I am stuck on Rome 60 BC. In the dungeon there is a White Door behind a Blue Door, but I cannot get to the White Door, because there is a beast guarding it. Can you tell me how to get to the White Door. I also can't find the White Key to open the door"

- Matthew Dick.