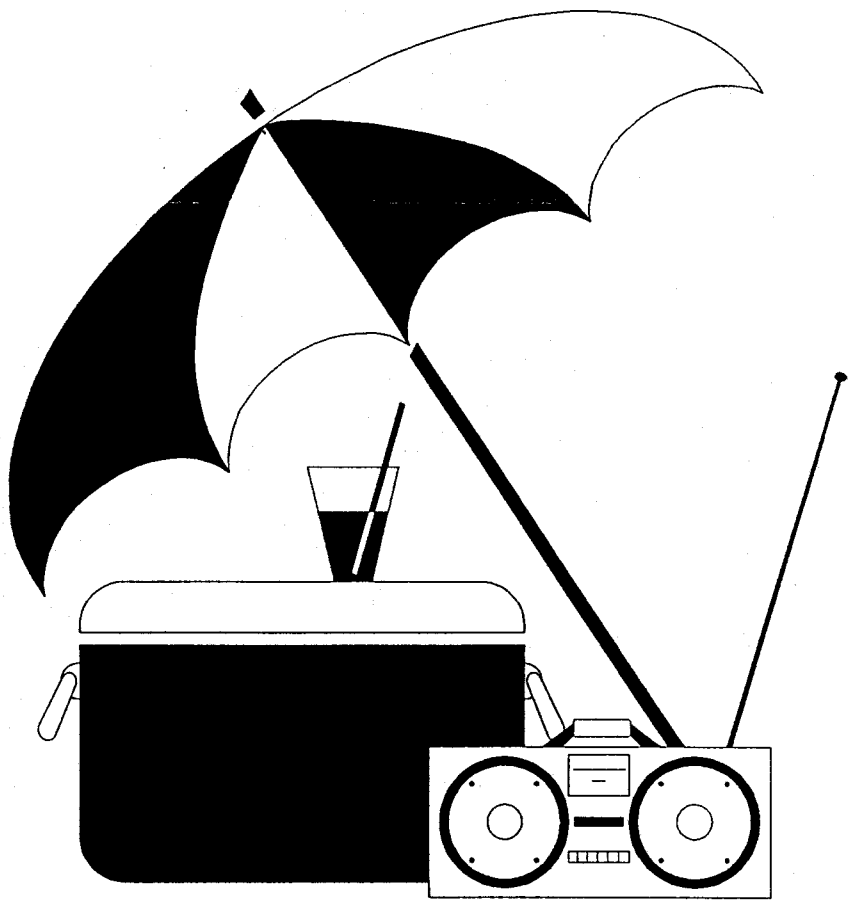
ORIC USER MONTHLY

with Oric Enthusiasts

Fifth Birthday Double Issue

Number 60/61

August/September 1992



Edited and Distributed by Dave Dick, 65 Barnard Crescent, Aylesbury, Bucks HP21 9PW

THE EDITORIAL

Hello and welcome to this our 5th Birthday issue.
What a bumper issue it will be. So big,in fact,that it will be photocopied and collated in two parts. As we move into August, I am putting the finishing touches to the first 20 pages. I don't know what the magazine will contain fully and therefore the INDEX will appear on the Back page.
Nearer the end of this issue there will be updates to certain articles/items already printed. Things are happening very fast at present.
So,without further ado; let's get straight into it.

- Dave Dick

NEWS...NEWS....NEWS....NEWS

ALL FORMATS COMPUTER FAIRS

Latest venues as follows:
SEPT 5 - National Motorcycle Museum (Junct 6 of the M42) - West Midlands
SEPT 12 - Sandown Park,Esher,Surrey (Look out for Wilkie the 'Tic-Tac' man)

OCT 3 - Northumbria Centre, District 12, Washington,Tyne and Wear.
OCT 18 - Brunel centre , Temple Meads,Bristol.
Tickets as usual are 4 pound each.

THANKS FROM GRAEME

I recently put together a disc system for Graeme Burton. Graham has asked me to thank all those who put it together - so here goes.Thanks go to: Steve Hopps for his speedy build of a Cumana Interface, to David Wilkin for the road haulage side, to Allan Whitaker for the speedy supply of Sedoric Dos and the Byte Drive PSU and finally to My young Matthew for 'baling' me out with the loan of a 3" drive, when a new one went down.

O.U.M. READERSHIP

LATEST SALES FIGURES FOR O.U.M ARE AS FOLLOWS:-

JAN'92 - 98, FEB'92 - 97, MARCH'92 - 103, APRIL '92 - 106, MAY'92 - 104, JUNE'92 - 103, JULY'92 - 105

Thanks to all those who have helped in mailshots etc. I am currently,in conjunction with Jon Haworth & Steve Hopps ,embarked in another mailshot. This will be the final year of trying to make contact with others. There is only so much that can be done. In reality, this should of been done years ago!

CEO-MAG

Double issue duly arrived at the beginning of August. 24 pages included: Aylesbury Meet Report, SEDORIC unveiled, FORTH Tutorial, ASSEMBLER Tutorial, A listing of Beethoven's 'LETTER TO ELISA', Error handling on the TELESTRAT, MUSED'91 Preview, Hints,Tips and news. A couple of items will be looked at further in this issue.
CLUB EUROPE ORIC currently has a membership of 88, with 35% being British. The CEO is currently carrying out an advertising campaign in a German based computer magazine,which is also sold in Austria and Switzerland .

DICTAPHONE

When I told the wife that I was going to use my Dictaphone, I recieved a somewhat funny look!
Anyway the Philips 303 model is now a part of my set-up. I acquired it on the cheap. It will help save time. If I am revieving a title,then I would normally have to scrawl notes and type them up later. Now I can record my thoughts.
Though I have figured out most of the functions of the machine; there are a few I am not sure of. If anyone has a manual,then I would appreciate a copy.

THE BEAST

YOU MAY OF SPOTTED ON PAGE 2, THE USE OF THE GRAPHICS MODE IN A WORD PROCESSING PACKAGE. AS I GET TO GRIPS MORE WITH 'EASYTEXT' AND OTHER W.P's , AND OF COURSE THE SEOKOSHA PRINTER; THEN THE PRESENTATION WILL BE VARIED. IN SOME PAPERS THERE ARE PAGE 3 DOLLY BIRDS, BUT HERE AT O.U.M, WE ARE PROUD TO PRESENT THE 'PAGE 3 BEAST'.

YOU WILL HAVE TO TURN THE PAGE SIDEWAYS TO SEE IT CORRECTLY.

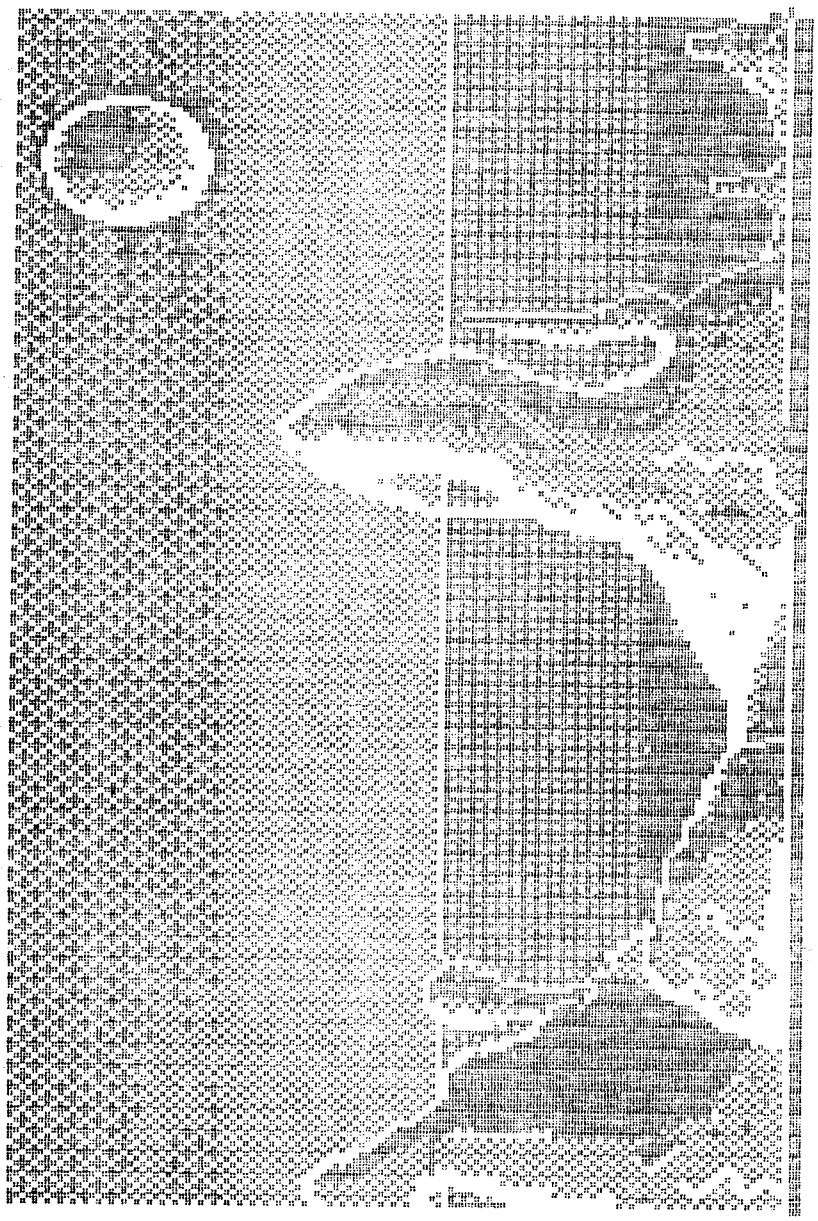
IT IS A JONATHAN BRISTOW 'HIRES' SCREEN DONE, I BELIEVE, WITH THE AID OF 'PIXED'. JONATHAN DID IN FACT SHOW ME A NICE LITTLE TRICK WITH IT TO SIMULATE MOVEMENT. THE SCREEN PICTURE HAS A SUBTLE BLEND OF COLOURS.

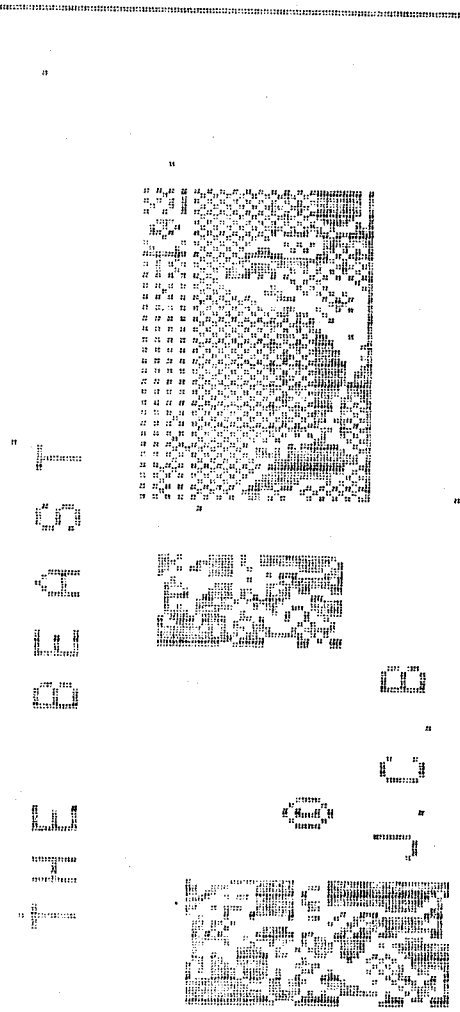
TO GET THE SCREEN TO YOU, I TRANSFERRED IT FROM 'ORICDOS' TO 'SEDORIC' USING THE 'CONVERT' UTILITY, AND THEN PRINTED IT WITH 'LORIGRAPH' FROM 'LORICIELS'.

JONATHAN HAS PROMISED ME THAT HE WILL USE 'SEDORIC' IN FUTURE. WE HAVE RECENTLY FOUND OUT THAT THE 'TELESTRAT' WILL NOT SUPPORT 'ORICDOS' AND THEREFORE A LOT OF CONVERSION WORK HAS HAD TO BE UNDERTAKEN BY THE FRENCH AND MYSELF.

DON'T FORGET THAT IF YOU HAVE ANY NICE 'HIRES'PICTURES, THAT THE C.E.O HAS A LIBRARY OF THEM WHICH THEY KEEP, AND OF COURSE WE AT O.U.M ARE ALWAYS PLEASED TO SEE THEM.

—— DAVE DICK





The Meet and other creatures...

I have to say it again - what a splendid day! Our thanks are due to Dave once again for his organisation, and how nice it was to sees so many new faces as well as the old familiar ones. The sheer numbers were amazing - see the group photo elsewhere in this issue.

There was a marked increase in interest in the Telestrat, which Laurent attended to for most of the day. It was, incidentally, a pleasure to welcome him and his wife Anne at home for the Friday night. I now have a waiting list of interested purchasers; if you wish to be on it, with no commitment to buy, but being told when one is available for purchase, just drop me a line. The cost is £180 including disc drive, rom cartridges, power unit, leads and manuals, plus £20 for the 'Stratoric' Atmos Sedoric emulator cartridge. Welcome also to the two new members of C.E.O., David Leibniz and Richard King.

It was nice to see Peter Bragg's prehistoric 'Microtan', the precursor of the Oric-1. And thanks to Dave Utting for supplying me with a choice selection of magazine clippings for photocopying. I am always interested in such historical things, and am ready to pay postage for the privilege of copying it. It's all grist to the slowly grinding mill of the second edition of 'The Story so Far'.

So, thanks once again to Dave, to all who attended, to Rob Kimberley for his splendid effort with the raffle (why do I always win the booze?), to those who joined C.E.O. or made purchases, and as Dave commented to me afterwards, at this rate we're safe for another ten years...

Let's ramble on...

'LET' (COMMAND)

Principal:

The address where data must be stored is swiftly placed in #B8–#B9. The transfer for numeric variables is commonplace, butnot so for the transfer of strings...

There are several cases to distinguish:

1) the type A$=B$: the string is already in the strings zone, as is the descriptor, but there would have been no temporary reservation. This is swiftly done, and the string transferred there.

2) the type A$="ORIC": Here the descriptor is on the stack. It is necessaruy to take it from the stack, but there is no point in reserving space since the address of the string is directly within the Basic program.

3) the type A$="ORIC"+"-1": In this case there is a temporary reservation; it is then necessary to lift the descriptor off the stack, but there is no point in reserving space because that has already been done by the evaluation routine.

In all cases the reservation is increased, if it existed, and the descriptor is transferred into the variable.

Note: In direct mode, type 2 is treated as type 3 at the time of string evaluation.

```
CAD2 JSR $D0FC   CB1C JSR $D188   Take the variable
CAD5 STA B8      CB1F STA B8
CAD7 STY B9      CB21 STY B9      and save its address
CAD9 LDA #&=     CB23 LDA #&=     look for an '='
CADB             JSR $CFDB        CB25        JSR $D067   (encoded of course)
CADE LDA 29      CB28 LDA 29      save first type variable
CAE0 PHA         CB2A PHA
CAE1 LDA 28      CB2B LDA 28      same for the string/numeric flag
CAE3 PHA         CB2D PHA
CAE4 JSR $CEBB   CB2E JSR $CF17   evaluate the value to modify
CAE7 PLA         CB31 PLA         recover the flag
CAE8 ROL A       CB32 ROL A       and put it in C
CAE9 JSR $CE7D   CB33 JSR $CF09   verify it's the same type
CAEC BNE CB06    CB36 BNE CB50    jump if a string
CAEE PLA         CB38 PLA         recover integer/real flag
CAEF BPL CB03    CB39 BPL CB4D    and jump if real
CAF1 JSR $DEEC   CB3B JSR $DEF4   round off ACC1
CAF4 JSR $D217   CB3E JSR $D2A9   and convert to signed integer in #D4-#D3
CAF7 LDY #00     CB41 LDY #00     Prepare index
CAF9 LDA D3      CB43 LDA D3      take high byte
CAFB STA (B8),Y  CB45 STA (B8),Y  and place in the variable
CAFD INY         CB47 INY
CAFE LDA D4      CB48 LDA D4      then take low byte
CB00 STA (B8),Y  CB4A STA (B8),Y  and save it as well
CB02 RTS         CB4C RTS         and that's it!

CB03 JMP $DEA1   CB4D JMP $DEA9   AACC! → (#B8-#B9)
```

Treatment of strings

```
CB06 PLA         CB50 PLA         adjust the stack
CB07 LDY #02     CB51 LDY #02     index string high byte address
CB09 LDA (D3),Y  CB53 LDA (D3),Y  and take it
CB0B CMP A3      CB55 CMP A3      is the string stored in
CB0D BCC CB26    CB57 BCC CB70    the strings zone?
```

```
CB0F  BNE CB18     CB59  BNE CB62     yes, jump
CB11  DEY          CB5B  DEY
CB12  LDA (D3),Y   CB5C  LDA (D3),Y
CB14  CMP A2       CB5E  CMP A2       and compare the low bytes...
CB16  BCC CB26     CB60  BCC CB70     if string outside the zone, jump
```

Treat string already reserved

```
CB18  LDY D4       CB62  LDY D4       is it necessary to make a reservation,
CB1A  CPY 9D       CB64  CPY 9D       i.e. is the descriptor already in the
CB1C  BCC CB26     CB66  BCC CB70     variables zone?
CB1E  BNE CB2D     CB68  BNE CB77     yes, jump
CB20  LDA D3       CB6A  LDA D3
CB22  CMP 9C       CB6C  CMP 9C       and compare low bytes
CB24  BCS CB2D     CB6E  BCS CB77
CB26  LDA D3       CB70  LDA D3       yes, re-take descriptor address
CB28  LDY D4       CB72  LDY D4       to prepare descriptor transfer
CB2A  JMP $CB43    CB74  JMP $CB8D    and finish (BCC would have been apposite)
```

Reserve the string and transfer

```
CB2D  LDY #00      CB77  LDY #00
CB2F  LDA (D3),Y   CB79  LDA (D3),Y   Take length of string
CB31  JSR $D4E8    CB7B  JSR $D5A3    and reserve place for it
CB34  LDA BF       CB7E  LDA BF       recover descriptor address
CB36  LDY C0       CB80  LDY C0       left by the reservation routine
CB38  STA DE       CB82  STA DE       and prepare the transfer (the reservation
CB3A  STY DF       CB84  STY DF       routine left the address in #A4-#A5)
CB3C  JSR $D6E9    CB86  JSR $D7A4    and transfer the string to the reserved zone
CB3F  LDA #D0      CB89  LDA #D0      take the descriptor address
CB41  LDY #00      CB8B  LDY #00      to remove it
```

Remove temporary descriptor and place in the variable

```
CB43  STA BF       CB8D  STA BF       Save the descriptor address for the
CB45  STY C0       CB8F  STY C0       next transfer (irrecoverable)
CB47  JSR $D74A    CB91  JSR $D805    remove eventual temporary descriptor from stack
CB4A  LDY #00      CB94  LDY #00      and transfer the descriptor
CB4C  LDA (BF),Y   CB96  LDA (BF),Y   the length of the string
CB4E  STA (B8),Y   CB98  STA (B8),Y   to the variable
CB50  INY          CB9A  INY
CB51  LDA (BF),Y   CB9B  LDA (BF),Y   low byte address
CB53  STA (B8),Y   CB9D  STA (B8),Y
CB55  INY          CB9F  INY
CB56  LDA (BF),Y   CBA0  LDA (BF),Y   and high byte as well...
CB58  STA (B8),Y   CBA2  STA (B8),Y
CB5A  RTS          CBA4  RTS          and end
CB5B  JSR $CBF0    CBA5  JSR $CCB3    display the evaluated string
CB5E  $00E8        CBA8  JSR $00E8    and take current character to continue with
```

And still no room for a tail-ender...!

Jon Haworth

P R E V I E W P A G E

QUITE A FEW NEW PROGRAMMES COMING INTO O.U.M AT PRESENT AND THEREFORE A LOOK AT SOME OF THE BETTER ONES.

ENCHANTED

DAVID GOODRUM HAS BEEN BUSY DURING THE SUMMER MONTHS WORKING ON A TEXT ADVENTURE THAT RUNS ON SEDORIC DOS.
AT PRESENT I HAVE THE LOADING SCREENS AND A FORETASTE OF WHAT TO EXPECT. LET'S DELVE FURTHER.

YOU ARE GREETED WITH A NICE AND COLOURFUL LOADING SCREEN, BUT WHAT IS THIS? THE BOTTOME HALF OF THE SCREEN APPEARS TO BE INCORRECTLY DEFINED CHARACTERS.
I LEAN MY HEAD TO THE LEFT, AND THEN I SPOT IT! WHAT A DASTARDLY TRICK Mr. GOODRUM; NEARLY ALL OF THE TEXT INTRODUCTION IS PRINTED SIDEWAYS. DO I GET NECK ACHE OR DO I TURN THE MONITOR ON IT's SIDE?
A NICE ,HELPFUL,IF NOT ODD INTRODUCTION!
AT PRESENT THERE ARE ABOUT 140 LOCATIONS (MORE IN THE PIPELINE), AN 'X - RATED' SCENE SET IN SPAIN (YOU'VE BEEN WATCHING TOO MUCH 'ELDORADO', DAVID. MIND YOU,BY THE TIME THIS ISSUE IS MAILED OUT, THAT PROGRAM WILL PROBABLY OF BEEN SCRAPPED). ANYWAY,WHERE WAS I? THERE IS A HAUNTED HOUSE , A PINK SHACK, A WEIRD CARNIVAL AND THE SECRET OF THE GOLDEN KEY.
LOTS MORE TOO,BUT I WON'T GIVE IT ALL AWAY. EASY USE OF COMMAND AND CHECK YOUR SCORE FEATURE AND AS DAVID SAYS: " A DAFT AND BIZARRE STRATEGY GAME - WATCH THIS SPACE - IT's COMING!"

M O R S E T U T O R

DENIS BONFIELD HAS PUT MANY MONTHS OF EFFORT INTO THIS MORSE TUTORIAL. I WOULD IMAGINE HE HAS SPLIT HIS FREE TIME BETWEEN WRITING THIS AND PLAYING 'TETRIX'.
MORSE CODE IS NOT REALLY MY 'BAG', BUT I MUST ADMIT THAT DENIS HAS MADE THE SUBJECT USER FRIENDLY, AND I FIND THIS EXCEPTIONAL. IT IS FULL OF COLOUR,FULL OF OPTIONS AND FULL OF HARD WORK. ADMIRABLE!
IT TOOK ME A WHILE TO LEARN TO USE THE PROGRAM TO IT'S FULLEST - MANY OPTIONS,SUB-MENUS etc. YOU HAVE TO LEARN WHEN YOU CAN REGAIN CONTROL OF THE PROGRAM.
GOOD WINDOW,SCROLLING & SOUND FEATURES. THE MAIN OPTIONS ARE:-
1) MORSE TEACH-IN,BOTH VISUALLY AND SOUNDWISE. VARYING THE LEVEL OF PLAY, VARIES THE SPEED OF THE 'CALL' THAT YOU HEAR.
2) DECODING EXERCISES. THE CLEVER ONES CAN ENTER THE ANSWERS AS THE MORSE IS PRODUCED. YOU CAN VIEW & LISTEN, OR JUST LISTEN. YOU CHOOSE BETWEEN: a) single character, b) characters, c) single word , & d) words. I FOUND THAT IF YOU OPT FOR A GROUP OF WORDS,THEN YOU CANNOT ESCAPE UNTIL THAT PART OF THE PROGRAM IS COMPLETED.
3) YOUR TURN TO ENTER THE 'DOTS' & 'DASHES'. YOU MUST ENTER YOUR CODE BEFORE THE CHARACTER/WORD SCROLLS OFF SCREEN. THERE IS AN OPTION TO REDEFINE THE MORSE KEY. YOU CAN PLUMP FOR 'KEYING PRACTICE'.
4) IN THE PERFORMANCE TEST, THE BEST PERFORMANCE RATHER THAN THE HIGHEST SCORE (DURING A SESSION),IS AUTOMATICALLY SAVED TO DISC. BASICALLY, IF YOU SCORE 40% AT 'EXPERT', THEN THIS WOULD BE THE 'BEST PERFORMANCE' IF COMPARED WITH SAY 75% AT 'BEGINNER'.

SUMMARY

AN EXCELLENT ADDITION TO THE 'ORIC' RANGE. EVEN IF YOU ARE NOT PARTICULARLY INTERESTED IN MORSE; BUDDING PROGRAMMERS COULD WELL LEARN A THING OR TWO FROM SOME OF THE TECHNIQUES USED. ONE YOU WILL DEFINITELY SEE VIA 'MIRAGE/O.U.M'.
WELL DONE DENIS.

DAVE DICK

B I T S A N D B O B S

COMPETITION WINNERS

A truly tremendous response to our A to Z competition. On the closing date I had our one and only entry thrust into my hand. Well done Jean Boileau. Sixteen correct out of 26 is very good considering that most of the titles were English orientated. Jean will be recieving some MCP40 pens and paper. There was another entry,which got delayed in the post and arrived a couple of days late. As it was 100% correct,then I feel it also worth a prize. Therefore Graeme Burton recieves 'ZEBULON'.
By the way,the funniest momemt for me was explaining 'WILLY' to Jean !
Anyway,the complete 26 answers as follows:-

Acherons Rage, Buccaneer, Cybermen, Dave Dick, Escape, Football Manager, Gulp, Horse, Insect Insanity, Jet Attack, Karate, Last Warrior, Macadam Bumper, Nectarine, Oric munch, Psychiatric, Q , Robinson Crusoe, Special Operations, Two, Ultima Zone, Vingt et un, Willy, Xenon III, Yam (Yahtzee) , and Zebbie.

CONTACT LIST UPDATES

GERRY AMATO phone number should read: 051 608 5880
DAVID HALL new phone number is 02537 66576. David is selling up - elsewhere in this issue will appear a list of what is left.
DAVID GOODRUM has moved - in fact twice in 3 weeks. I think that the Poll Tax man must be after him! Latest abode is : Annexe 7, 33 Whatley Road, Clifton, BRISTOL. BS8 2PS. TEL: 0272 732378
FRANK BOLTON is now at: 204 Elizabeth House, 2 Waterloo Way, LEICESTER. LE2 0QE. Tel: 0533 519163
MATTHEW SHAKESHAFT has decided not to re-subscribe to OUM. He tells me that he has just lost interest in the ORIC whilst studying for exams etc. I have thanked Matthew for his support over the years,as he was one of the first to subscribe - way before I did. Matthew will still answer any queries that you may wish to put to him.

JEAN PITT is another to leave our ranks. She has had a serious shoulder problem for a year and has given her computers to younger members of the family. Hopefully they will get involved. We wish you well,Jean.

ORIC MEET PHOTOS

On the next 2 pages you will see the photos that Jon and Nick H took at the July meet. Your editor gives you his views on apt captions:-

TOP LEFT
Steve Hopps (left) pleads with someone to book his Spanish villa.

TOP CENTRE
Peter Bragg conducts the 'MICROTAN 65' orchestra.

TOP RIGHT
Rob Kimberley looks gutted - too much stodgy food Kimbo

CENTRE LEFT
Your Editor models the latest Oric casual wear - eat your heart out Cindy Crawford!

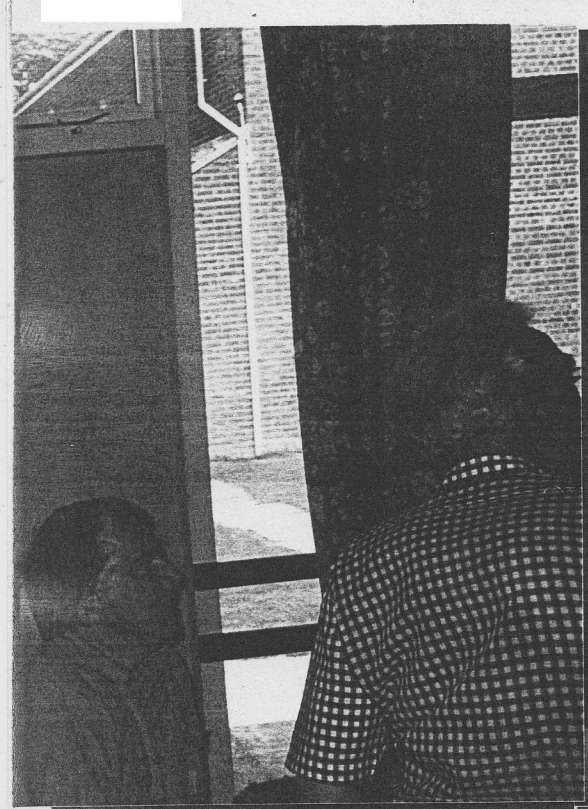
CENTRE RIGHT
Dave Leibniz has the world's only Banana Paintball game. You can see what a mess he has made of David Utting's shirt.

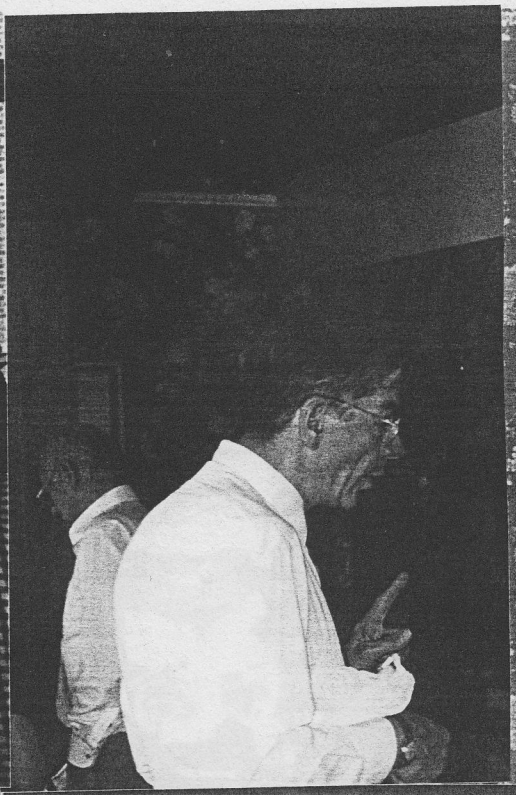
BOTTOM LEFT
Wilkie does his rendition of ' TIE A YELLOW CABLE RIBBON 'ROUND an old MICRODISC'.

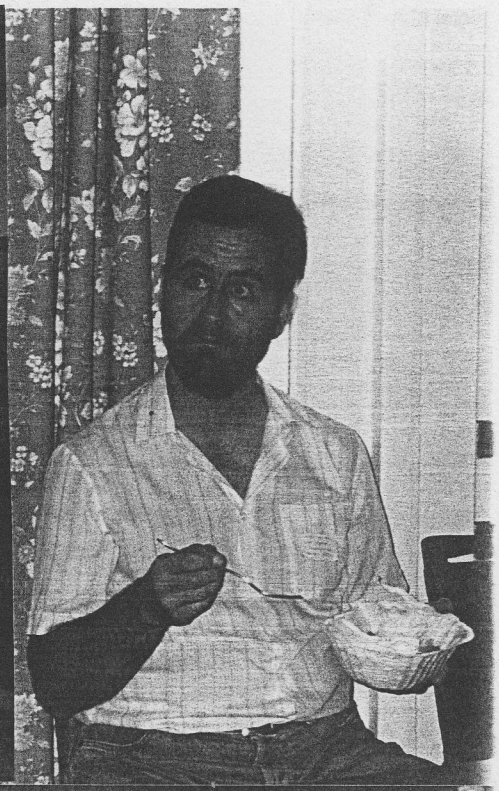
BOTTOM RIGHT
Laurent Chiacchierini,Nick Haworth, and Jonathan Bristow have been like this for 3 hours. They are all thirsty, but all too tight to utter those immortal words - "IT'S MY ROUND CHAPS !"

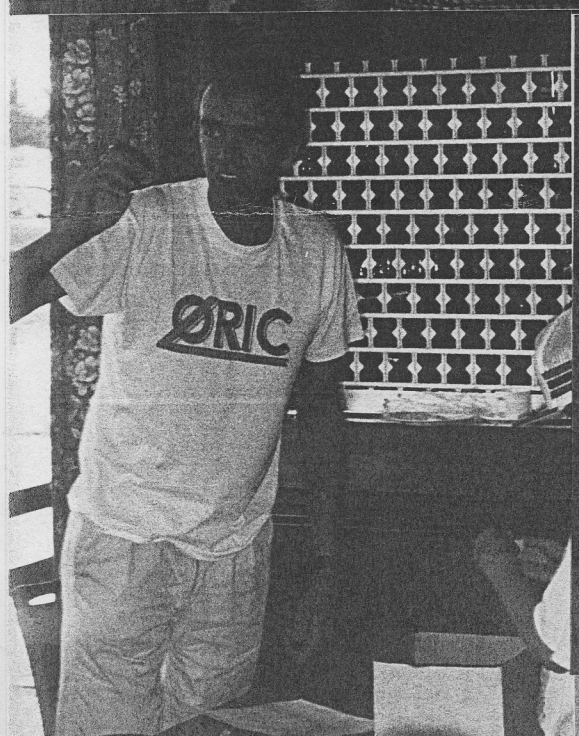
- Dave Dick

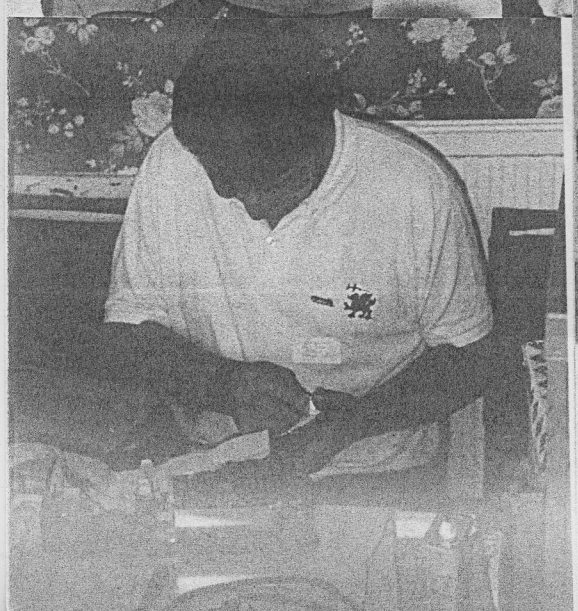
JULY '92 MEET











R E A D E R S L E T T E R S

Dear Dave,
thank you for the OUM material. I found the design,content and presentation very good,and it has re-awakened my interest in DTP!
Have you any members who want to sell a printer? A couple spring to mind - STAR LC10 or EPSON. I can afford around the 50 pound mark (what a dreamer!). Also,has anyone a cheap Oric to sell.
- Chris Dalby, 'NETWORK 23', 74 St.Leonards Road,Bradford, W. Yorks. BD8 9QF (Tel: 0274 487601).

Dear Chris,
I'm glad you found the material of interest,even though you are not an Oric owner. As our readers should be aware from the last issue of OUM; you are setting up a Bulletin Board for older machines. I will leave it to readers to contact you if they have a spare printer and will sort something out myself on a second-hand Atmos.
- Dave Dick

Dear Dave,
I have been referred to you by Brian Kidd.
I was asking Brian about the 'TELESTRAT' - what it does,how you get them,and who in the country has them?
Perhaps you could point me in the right direction.
R.M. FARRELL, 11 Lincoln Court, DARLINGTON. DL1 2XN

Dear Mr. Farrell,
much interest was shown in the Telestrat at the recent 'Oric Meet'. Cost is between 170 and 200 pounds,depending on which cartridges you require. There is a waiting list. Those interested should write to Jon Haworth,who will put them on the list. When one becomes available,the next on the list is offered it. If that person has since changed their mind,then the next person is contacted.
Within the OUM membership (excluding our French readers), Jon Haworth and Andre Widhani are proud owners. The next two machines are due to go to Graham Shaw and Richard King.
As for what the machine does;you will find an article on the machine elsewhere in this issue.

- Dave

Dear Dave,
enclosed cheque for another year of OUM.
I'd like to take this opportunity to say that I'm interested in the OUM disc, and to say through your editorial,how pleased I am with the magazine and all its contributors (especially Peter Bragg with his 'Machine Code for the Atmos').
- Allan Moore (Sheffield)

Dear Allan,
now perhaps Peter will believe me when I say how popular his articles are. It is the article I get most requests from new readers for back copies.
I know Peter puts a lot of time and effort into it.
As for the OUM disc - see elsewhere for full details.
- Dave

Dear Dave,
in response to my letter regarding the switchable ROM;you queried as to how I managed to retain the reset switch's original function,whilst also using it to switch between ROMs. The answer is that the circuit I devised,basically generates a time delay that triggers an unused D-type flip-flop in the Atmos,which in turn switches between ROMs. Therefore,to toggle between ROMs; I hold the reset button down for a second or so. Normal functioning of the reset button is maintained by giving it a quick push as one would normally do. When the ROMs are switched in this manner,the computer locks up,but control is returned with a cold-reset via the MICRODISC's reset button. If you think others would find it of interest, I could produce a short article on it.
- Denis Bonfield (Cricklewood).

Dear Denis,
I thank you for the information. If readers would like an article,then would they please let me know.
Meanwhile, perhaps you could send me an article anyway,as even if we don't get enough response from readers; it could well be that someone in the future would require the information.
- Dave

O R I C R O M S

DAVID UTTING HAS GIVEN ME AN INFORMATION SHEET ON THE 4 ORIC ROMS WHICH WERE PRODUCED. HERE WE GO -

ROM TYPE	PROGRAMMED CONTENTS	VERSION NO. DISPLAYED	? PEEK (#E4B6)	CHIP(S)	CHIP MARKINGS
1 - ORIC 1	FIRST PRODUCTION RELEASE	V1.0	48	2 EPROMS - 2764	V1.0
2 - ORIC 1	SAME AS TYPE 1	V1.0	48	16K MASK PROGRAMMED ROM	HITACHI MARK V1.0 ROM CODE:C07 LOT CODES:3D1/3E1
3 - ATMOS	MAJOR CHANGES - MOST ROM ADDRESSES CHANGED	V1.1	162	AS NO.2 ABOVE	HITACHI MARK V1.1 ROM CODE:C97 LOT CODES:3J1/4B1
4 - ATMOS	SIMILAR TO NO.3 BUT WITH AMENDED TAPE LOAD ROUTINE	V1.1	142	AS NO.2 ABOVE	HITACHI MARK V1.1 ROM CODE: D92 LOT CODE: 4D1

NOTE THAT THERE IS ALSO A ROCKWELL MARKED ROM FOR NO.4 (NO VERSION NO.) - C 3318-11. MEXICO A. 1815 9418.

==========

T H E T E L E S T R A T

AS THERE IS NOW A CERTAIN AMOUNT OF INTEREST IN PURCHASING A 'TELESTRAT', I THOUGHT WE SHOULD TAKE A CLOSER LOOK AT THIS MACHINE. BASICALLY,WHAT I HAVE DONE,IS TO PRECIS THE ARTICLE WRITTEN BY JON HAWORTH (THEN KNOWN AS 'ARCHIMEDES'),WHICH APPEARED IN THE FEB/MAR 1987 ISUUE OF 'YOUR ORIC'.

ORIGIN

ORIGINALLY ANNOUNCED IN THE U.K AS THE 'STRATOS / IQ164', IT FOUND IT'S WAY INTO BRITAIN FROM FRANCE VIA 'W.E SOFTWARE',WHO STILL TRADE AS 'ABBOT COMPUTERS' IN MALVERN.

THE HARDWARE

IT IS BASED ON THE 6502,WITH 64K OF BUILT-IN RAM. SOFTWARE IS LOADED THROUGH 2 CARTRIDGE PORTS,EACH OF WHICH WILL SUPPORT 64K OF MEMORY,WHICH CAN BE ROM,RAM,OR ANY OTHER EXTENSION.
ON POWER-UP,THE LEFT HAND CARTRIDGE IS READ,'TELEMON' ENSURING'INITIALISATION. YOU MAY THEN ADD SUPPLEMENTARY ROM,RAM OR A MIX OF TWO. IF ROM OR EPROM CARTRIDGES HAVE A FORMAT RECOGNISED BY THE 'TELESTRAT',THEY ARE AUTOMATICALLY LOADED.
THERE ARE NUMEROUS EXTENSION CONNECTORS,MOST BEING BUFFERED SO AS NOT TO DELAY THE MACHINE'S OPERATION : - A COMPLETE EXTENSION BUS REPRODUCES THE SIGNALS OF THE 6502 BUS, A DISC DRIVE INTERFACE. THE DISC CONTROLLER IS INTEGRAL WITH THE 'TELESTRAT',AND CAN SUPPORT UP TO 4 DRIVES. THE DRIVE ORIGINALLY SOLD WAS A 3" DOUBLE DENSITY/DOUBLE SIDED ONE,GIVING A FORMATTED CAPACITY OF 340 - 400K. MORE RECENTLY THE 'C.E.D' HAVE BEEN SUPPLYING 3.5" DRIVES.... THERE IS A PARALLEL CENTRONICS PRINTER INTERFACE (WITH 2K BUFFER). YOU WILL ALSO FIND A SERIES RS232 INTERFACE FOR ACCESS TO MODEMS,GRAPH PADS , AND ALSO ALLOWING COMMUNICATIONS WITH OTHER COMPUTERS. THERE IS A TELEPHONE CONNECTOR FOR 'TELETEXT', JOYSTICK & MOUSE PORTS. FOR THE MUSICIANS AMONGST YOU,THERE IS A 'MIDI' INTERFACE. FINALLY THERE ARE TV/MONITOR SOCKETS (WITH SOUND), CASSETTE INTERFACE AND OF COURSE - A 'RESET' BUTTON.

HYPER - BASIC

----- ----- IS A COMPILED LANGUAGE - WHEN YOU 'RUN' A PROGRAM,INSTEAD OF RUNNING AN INTERPRETER TO READ YOUR 'BASIC' PROGRAM INSTRUCTION BY INSTRUCTION, YOU SIMPLY 'RUN' A MACHINE CODE PROGRAM DIRECTLY. BASIC TEXT IS AUTOMATICALLY CONVERTED TO MACHINE CODE.
MOST COMPILERS ARE AWKWARD TO USE, BUT 'ORIC' HAVE SOLVED THIS PROBLEM.
THERE IS EASE OF USE COMBINED WITH A CONSIDERABLE SAVING ON SPEED. IN GENERAL,ALL CONTROL STRUCTURES ('FOR'/'NEXT','GOTO', GOSUB'...) WILL RUN BETWEEN 4 & 200 TIMES QUICKER THAN 'NORMAL' BASIC. THREE HUNDRED THOUSAND 'GOTO's' CAN BE PROCESSED IN ONE SECOND! IN GENERAL , A PROGRAM WILL RUN 2 TO 4 TIMES FASTER, BUT ABOVE ALL,THE SPEED OF EXECUTION IS NOT DEPENDANT ON THE PROGRAM LENGTH.

CONTINUED ON NEXT PAGE

MORE ON THE 'TELESTRAT'

THE EDITOR

Yes folks, a full screen Editor,with syntax analysed on the entry of each line. The editor is very simple to use.
The screen has a super feature, namely SCROLLING. The screen is in fact a window ,which can be moved up & down, and edited at will. Think of all the problems in editing programs,when only so much can be displayed on the old 'ORIC'. With this machine you just scroll to the line you which to edit and implement your change - super!

SYNTAX -ANALYSER

Another superb utility. Each line of input is checked for syntax errors as you go along. No waiting till the end of the program. No vague messages either - the cursor will sit on the character that the Telestrat has failed to interpret. There are even helpful messages to show what you have input wrongly.
AND HOW ABOUT THIS - who bothers to write a program with loops indented? HYPER -BASIC does! The inserts are generated automatically by the TELESTRAT. A FOR,REPEAT or COUNT,and the text is displaced to the right. A NEXT,UNTIL or UNCOUNT and it is back to the left margin. Again,separating key words with spaces looks better and facilitates reading the program,but takes time and memory. The Telestrat generates the spaces for you where necessary; there is no need to type them in. Naturally all this takes neither running time nor memory.

CONTROL STRUCTURES

Numerous commands available. With Hyper-basic there is a structured approach.
Line numbers can be substituted by 'labels'.

USEFUL AIDS

Decimal, Hex, Binary and ASCII
Strings can include direct colour codes, without the old CHR$(27). And the colours appear in the listing!
250+ keywords, e.g - RING to detect a call, SLOAD to load a program via the RS232, MPRINT to write on Teletext.

SUMMING UP

Certainly an impressive machine and of course there are too many functions to list them all here. However, in future issues of O.U.M we will delve a little further - we will look at add-ons produced, and try to find out more.
Of course, if you are thinking of purcahsing a TELESTRAT, then I do recommend that you read the articles in the CEO-MAG

- Dave Dick (with thanks to JH for the original article)

NEWS FROM FRANCE

After a few requests from users that it is not always easy to make out certain tiles on his 'MAHJONG', Laurent Chiacchierini has published a full explanation in the current CEO-MAG of how to use the alternate character set,whose file is already on the disc. It is very easy to do - well I managed it!
Readers who have 'MAHJONG',but do not subscribe to the C.E.O can send an S. A.E to either Jon Haworth or myself.

MS-DOS DISCS

Using the material from OUM subscriber Bernhard Grone, the famed Mr.Forth (Thierry Bestel) has managed to produce a F-83 application that makes it possible to read in MS-DOS files from 3.5" discs and copy them to Oric discs on Sedoric and Telestrat format. An important achievement,which not only bridges the gap between the Oric and the PC, but also other mainstream machines which support MS-DOS e.g. MacIntosh,Atari & Amiga.

TELESTRAT

Vincent Talvas tells me that the CEO is actively looking for more TELESTRATS to sell to French and British members alike. He says that with the interest being shown in the machine in Britain,he will have to translate more of the software. Vincent passes on his apologies for not being able to attend the Aylesbury meet. Congratulations to Vincent on passing his examinations.

==========

AT THE JULY 'ORIC MEET', A GRAND TOTAL OF 88 POUNDS WAS RAISED TOWARD CLUB FUNDS. THANKS TO ROB KIMBERLEY FOR HIS STOUT WORK ON THE DAY. ALSO THANKS TO ALL THOSE WHO DONATED PRIZES AND THOSE WHO BOUGHT TICKETS. THE RAFFLE DETAILS ARE AS FOLLOWS:

PRIZE	DONATED BY	WINNER	TICKET NO.
THINKJET PRINTER	ROB KIMBERLEY	DAVE DICK	96
SET OF P.DOMAIN	JON HAWORTH	JOHN PEACH	24
BOTTLE BEER	GRAEME BURTON	SEAN HEALY	59
BOTTLE BEER	" "	IRENE MARKE	76
BOTTLE BEER	" "	NICK HAWORTH	72
PEN	ROB KIMBERLEY	PETER BRAGG	64
PEN	" "	NATALIE HEALY	101
PEN	" "	SEAN HEALY	58
PEN	" "	TIM PHOENIX	28
PEN	" "	JOHN HURLEY	78
PEN	" "	ALLAN WHITAKER	
PEN	" "	KEN AUSTIN	54
JOYSTICK	DAVID WILKIN	DEREK SMITH	42
3.5" DISC	DAVE DICK	LAURENT C.	32
DISC BOX	LAURENT C.	STEVE WRIGHT	53
DISC BOX	" "	ROB K.	34
DISC BOX	" "	NATALIE HEALY	100
ORIC STORY	JON HAWORTH	TIM PHOENIX	30
BOTTLE WINE	CHRIS HEARN	STEVE HOPPS	98
FRENCH SOFTWARE	JEAN BOILEAU	HENRY MARKE	75
FRENCH SOFTWARE	" "	STEVEN FRIEND	47
FORTH	DAVE DICK	CHRIS HEARN	45
5 x 3" DISCS	PETER BRAGG	RAY McLAUGHLIN	97
5 x 3" DISCS	" "	NICK HAWORTH	73
SWITCH MODE PSU	ALLAN WHITAKER	PETER BRAGG	63
MODEM/RS232	DAVE DICK	JOHN PEACH	20
M/CODE BOOK	JOHN McKAY	ARTHUR CRAWFORD	51
RED WINE	ALISTAIR WAY	EDMUND WISNIEWSKI	55

==========

HEBDOGICIEL

THE SOFTWARE DONATED BY JEAN BOILEAU WAS SOMETHING THAT I HAD NEVER SEEN BEFORE. 'HEBDOGICIEL' WAS A FRENCH COMPUTER MAGAZINE,WHICH PRINTED LISTINGS FOR DIFFERENT COMPUTERS,INCLUDING THE ORIC. TO EASE THE TASK OF 'FINGER TAPPERS',THEY THEN PUT A BATCH OF THESE PROGRAMS ON CASSETTE, PACKAGED IN A BRIGHT YELLOW CASE,AND WITH EXPLANATIONS TO EACH TITLE. 'ORIC No.1' CONTAINED THE FOLLOWING 12 TITLES: ACROBATES,BOUTEILLE, CHARPENTIER,COSMORIC,DAMES ANGLAISES,ENQUETE,INVASION,LABYRINTHE,MEMORIC, PILOT DE CHASSE,TAQUIN,and TIRS CROISES. IF YOU HAVE ANY OF THEM IN YOUR COLLECTION;THEN YOU NOW KNOW FROM WHERE THEY CAME.

==========

APOLOGIES RECEIVED

I HAD A PHONE CALL FROM OUR EX-EDITOR, ROBERT COOK. ROBERT HAS BEEN LAID UP WITH A VIRUS AND IS SORRY NOT TO OF GOT TO SEE US ALL. THERE IS ALWAYS NEXT TIME ROB. THE BAR STEWARD REPORTS THAT TAKINGS WERE DOWN DUE TO YOUR NON-ARRIVAL AND HE WISHES YOU A SPEEDY RECOVERY

==========

SOFTINDEX

WELL, I HAVE FINALLY FOUND OUT HOW MANY RECORDS THAT DAVID GOODRUM's 'SOFTINDEX' (AVAILABLE ON P.D.) WILL STORE. THE ANSWER IS 900.
WHAT DO I DO NOW!!

==========

AUTHOR

RIGHT-JUSTIFICATION ON 'AUTHOR' (TANSOFT) IS ONLY ON THE DISC VERSION AND NOT THE CASSETTE VERSION.

==========

RECOLLECTIONS OF THE JULY ORIC MEET - DAVE DICK

I EVENTUALLY ARRIVED HOME FROM WORK AT 3.45 a.m ON THE MORNING OF THE 'MEET'. I OPENED THE LOUNGE ROOM DOOR AND TO MY SURPRISE FOUND A BEARDED MAN ASLEEP ON THE SETTEE. "WHO ARE YOU?", I MUTTERED. "IT IS I, JEAN BOILEAU",HE EXCLAIMED. I DIDN'T RECOGNISE HIM WITH THE BEARD AND HAD NO IDEA THAT HE WAS COMING. APPARENTLY VINCENT TALVAS HAD INJURED HIS ANKLE AND AT THE LAST MOMENT,JEAN HAD DECIDED TO FLY OVER. AFTER ARRIVING AT GATWICK HE CAUGHT THE TRAIN TO LONDON,ANOTHER TO AYLESBURY AND TAXIED TO MY HOME TO ARRIVE AT 1.a.m. A SUPER EFFORT AND WE SALUTE YOU JEAN.

BY 8.a.m,THOUGHTS WERE TURNING TO WHAT TO TAKE TO THE MEET. AT 9, BOB TERRY RANG TO SAY THAT THERE WAS A PROBLEM WITH THE 'ORIC' SIGNS. BOB FINALLY FINISHED PAINTING THEM AND SET OFF AT GREAT SPEED TO POSITION THEM AROUND THE TOWN. WELL DONE BOB.

WITH BOB'S AND MY CAR FULLY LADEN,WE SET OFF FOR THE HALL. YOUNG LOUISE HAD CYCLED ON AHEAD TO SEE IF THERE WERE ANY NICE YOUNG BOYS THERE. JON HAWORTH,NICK AND LAURENT WERE ALREADY SETTING UP THERE STANDS. DAVID WILKIN WAS UNVEILING HIS CASE OF TOOLS (SOLDERING IRON,SCREWDRIVERS AND OF COURSE THE WD40). JONATHAN BRISTOW WAS RIGGING UP HIS EQUIPMENT - NOT A PRETTY SIGHT!

I SENT DAVID AND LOUISE TO FIND KEN AUSTIN AT AYLESBURY RAIL STATION - HE HAD MADE THE LONG HAUL FROM LIVERPOOL. WITH JEAN IN TOW , I SET OFF BACK HOME TO GET THE REST OF MY EQUIPMENT AND CHANGE INTO AN 'ORIC' T-SHIRT.

THROUGHOUT THE MORNING THE HALL GRADUALLY FILLED UP. MANY NEW FACES THIS TIME.

KEN AUSTIN WAS ARMED WITH HIS NEW 3.5" DRIVE. CHRIS HEARN SOLDERED A FEW WIRES FOR ME AND I PRESENTED KEN WITH HIS NEW CUMANA INTERFACE. FINGERS CROSSED AND WHOOPEE IT WORKS. CHRIS HEARN ALSO HAD AN INTERFACE FOR HIS 3.5" DRIVE AND AGAIN SUCCESS. STEVEN FRIEND HAD BEEN HAVING DIFFICULTY WITH A POWER SUPPLY FOR HIS. I NUDGED HIM IN THE DIRECTION OF CHRIS. I'M NOT SURE WHAT HAPPENED,BUT I THINK HE MAY OF BOUGHT A 'BYTE DRIVE' PSU FROM ALLAN WHITAKER. ALLAN HAD BOUGHT ALONG A FEW OF THEM,AS WELL AS A BATCH OF NON-WORKING ATMOS'S (NOW IN MY GARAGE),MODEMS.RS232's,BOOKS AND A GRAPHICS TABLET.

PETER BRAGG UNVEILED HIS 'MICROTAN 65' FOR THE AUDIENCE TO SEE -WHAT AN INTERESTING BEAST. I DID NOT SEE HIS MINI-CAMERA,BUT MY YOUNG SON MATTHEW ASSURES ME THAT A DEMO WAS GIVEN.

JOHN McKAY BOUGHT SOME OLD SOFTWARE AND MULLED OVER THE IDEA OF GOING ONTO DISC. MALCOLM SCOTT HAD A CHAT. PAT McNEILL TOLD ME OF THE EXCELLENT PROGRESS THAT HIS 10 YEAR OLD TRIPLETS ARE MAKING WITH THE ORIC,WHILST DAVID WILKIN REPAIRED ONE OF HIS ATMOS's. LAURENT GAVE A DEMO OF THE 'TELESTRAT' AND RICHARD KING PRODUCED THE CASH TO BUY ONE. JON HAWORTH SIGNED RICHARD UP TO THE C.E.O AND KEPT EVERYONE BUSY WITH THE CEO SOFTWARE AND MAGAZINES HE HAD BROUGHT ALONG.

COLIN COOK AND STEVE HOPPS TOOK JOHN HURLEY'S OPELCO SYSTEM TO PIECES TO FIND OUT WHY IT WOULDN'T RUN SEDORIC. I THINK IT WAS DOWN TO A LEAD IN THE END. EVENTUALLY SEDORIC WAS PROUDLY BOOTED UP. I HOPE IT IS STILL O.K.

MEANWHILE STEVE'S TWO DAUGHTERS GOT TO GRIPS WITH DPTLQ. SEAN HEALY CAME ALONG WITH HIS TWO DAUGHTERS AND HIS AUNT AND MOTHER (MY MOTHER-IN-LAW). HENRY AND RENE MARKE PLAYED TETRIX. I OFFERED 5 POUND TO ANYONE WHO COULD BEAT HENRY'S SCORE. LATER HENRY UPPED IT TO 100 POUNDS. HENRY CAN NOW BREAK THE 2000 Pt. MARK.

ARTHUR CRAWFORD AND DEREK SMITH ASKED ME ABOUT DISC DRIVE SYSTEMS,WHILST EDMUND WISNIEWSKI WAS CONVERTED TO SEDORIC. DEREK AND EDMUND'S WIVES READ AND MINGLED.

IYAD SABBAGH BROUGHT HIS GIRLFRIEND ALONG. IYAD LEFT WILKIE ANOTHER REPAIR AND SUBSCRIBED TO O.U.M.

BY NOW THE BAR WAS OPEN,LOUISE WAS TAKING ORDERS FOR DINNER AND KIMBO WAS TWISING PEOPLE'S ARMS TO BUY RAFFLE TICKETS.

THE DRAW AS USUAL,SEEMED TO GO ON FOR EVER. CRIES OF 'PUT IT BACK' AS PEOPLE WON THINGS THEY DIDN'T WANT,THINGS THEY HAD DONATED OR IF THEY HAD ALREADY WON SOMETHING OF NOTE.

JUDY SIMMS HAD HER WHEELCHAIR IN TOP GEAR AS SHE TRIED TO GET SOMEONE TO WORK OUT A 'SYRINGE' ROUTINE FOR HER. EVERYTIME SHE BOUGHT SOMETHING,IT WAS ALL METHODICALLY LOGGED ON HER PSION ORGANISER.

KIMBO MENDED BOB'S PRINTER. YOUNG NICHOLAS HAWORTH WAS INTERFACING A LAPTOP WITH THE TELESTRAT AND SPOKE OF THE NEXT PROJECT - THE LAPTOP WITH A TELESTRAT AND AN ATMOS.

CEO MAGS WERE READ,SOFTWARE BOUGHT AND DISCUSSIONS WERE TAKING PLACE EVERWHERE.

(Continued on next page)

)AVE LEIBNIZ JOINED THE C.E.O. DAVID UTTING GAVE ME SOME INFORMATION ON ORIC
ROMS, AND STEVE WRIGHT 'IN THE AFTERNOON' WOULDN'T PLAY ANY OF THE RECORDS THAT
3OB HAD DONATED.
[SPOKE AT LENGTH WITH Dr. RAY,WHOSE FAVOURITE GAME IS 'MANIC MINER'.
JIM PATERSON HAD COME FROM SCOTLAND AND I POINTED HIM TOWARD PETER BRAGG WHO
HAS BEEN IN COMMUNICATION WITH HIM REGARDING THE 6522 PROJECT IN WHEYWELLS BOOK.

ALLAN WHITAKER DONATED 10 POUNDS TO O.U.M. FUNDS - THANK YOU ALLAN. ALL THE
FIVE FRENCH READERS RE-SUBSCRIBED. AT THE END OF THE DAY THE OUM FUNDS
TOTALLED JUST OVER 400 POUNDS;WHICH MEANS WE CAN DO SOME MORE MAILSHOTS AND
GIVE READERS A FEW SURPRISES.
ALISTAIR WAY ARRIVED - WE SAID HELLO,BUT I NEVER DID GET TO TALK WITH HIM
PROPERLY. I THINK HE LEFT EARLY. I THINK KENT WERE LOSING IN THE CRICKET!
WELL, I THINK I'VE MENTIONED EVERYONE. INCLUDING THE YOUNGSTERS AND WIVES etc.;
I MAKE THAT 45 ON THE DAY. FIVE OTHERS PAID,BUT DID NOT MAKE IT.
FROM 3.p.m. ONWARDS THE ONES WITH A LONG WAY TO TRAVEL GRADUALLY BADE THEIR
FAREWELLS.
AT 6 WE STARTED THE TASK OF PACKING EVERYTHING UP. I SEEMED TO GO HOME WITH
MORE THAN I CAME WITH. AS WELL AS THE ATMOS'S FROM ALLAN, I ACQUIRED SOME DODGY
MCP 40's FROM STEVE HOPPS.
BY 7 p.m. I WAS BACK HOME . MOST OF THE GEAR HAD BEEN UNLOADED INTO THE GARAGE,
EXCEPT ONE SYSTEM,WHICH WAS TO BE USED THAT EVENING. THE SUN SHONE, MY WIFE SET
THE BARBECUE UP. WE ATE,DRANK ,CHATTED AND SAW JONATHAN BRISTOW'S 'DON'T PANIC'
(A 'STACK UP' CLONE).
BY 1 a.m I WAS READY FOR BED. THE HEALY's AND THE MARKE's HAD SET OFF FOR
PORTSMOUTH, THE NEIGHBOURS HAD GONE AND JEAN B., JON B and KEN AUSTIN SETTLED
DOWN TO SLEEP.
AN EXHAUSTING,BUT THOROUGHLY ENJOYABLE DAY.
ON THE SUNDAY MORNING, I BADE A FOND FAREWELL TO JEAN BOILEAU AT THE TRAIN
STATION; CHANGED INTO MY SHORTS AND SWEATED THROUGH A 5.5 MILE RUN. NEXT IT WAS
THE TURN OF KEN TO SAY FAREWELL. AFTER LUNCH JONATHAN BRISTOW AND I SET ABOUT
TURNING THE HOUSE AND GARAGE INTO SOME SEMBLANCE OF ORDER. JON ALSO KEPT LOUISE
AND MATTHEW AMUSED WITH 'ZEBULON'. AFTER A RELAXING EVENING AT OUR LOCAL CLUB,
JONATHAN THEN WENT THROUGH THE NEW TITLES HE IS CURRENTLY WORKING ON AND PASSED
ON HIS UPDATE TO 'MUSED' AND SOME VERY NICE 'HIRES' SCREENS,WHICH WILL
HOPEFULLY APPEAR IN O.U.M. OR C.E.O. FOR THE FIRST TIME I SAW JONATHAN'S 'ORIC
MEET DEMO' - I DON'T KNOW IF IT WAS ACTUALLY SHOWN ON THE SATURDAY OR NOT. IT
IS VERY WELL PRESENTED AND HAS SOME NICE SOOTHING BACKGROUND MUSIC WITH IT. I
WILL AMEND IT SLIGHTLY,AND IT WILL BE ON THE FIRST OUM DISC.
WELL THOSE ARE MY RECOLLECTIONS - WELL ALMOST - A COUPLE OF THINGS I'M AFRAID
I CAN'T PRINT!
WE NEVER DID GET TO PLAY TREVOR SHAW'S RENDITION OF POPCORN DURING LUNCH.
THOSE WHO ARRIVED EARLY WOULD OF HEARD IT,ALONG WITH SABRE DANCE AND THE OTHER
'COMPOSER' WINNERS.
UNTIL NEXT TIME - KEEP ON TAPPING!

==========

LUCKY DRAW WINNER

IT's YOUNG MATTHEW TO PICK OUT THE MEMBERSHIP NUMBER THIS TIME. AND THE LUCKY NUMBER IS 109,WHO IS JONATHAN BRISTOW. JONATHAN HAS HIS SUBSCRIPTION TO O.U.M EXTENDED BY 2 ISSUES.

==========

ATMOS MANUAL

AT THE 'ORIC MEET' AN ATMOS MANUAL BELONGING TO JUDY SIMMS WENT MISSING. IF YOU BORROWED IT AND FORGOT TO GIVE IT BACK; PLEASE RETURN IT TO HER. HER NAME WAS IN THE MANUAL.

==========

ORION (LOTHLORIEN)

DENIS BONFIELD POINTS OUT THAT THERE IS A PROBLEM WITH THE BASIC PROGRAM THAT ADJUSTS 'ORION' TO RUN ON THE ATMOS, OR AT LEAST THERE IS ON THE VERSION HE RECIEVED.
THE PROBLEM OCCURS WHEN USING THE BREAKPOINT (B) FUNCTION AND PREVENTS THE USER RETURNING TO BASIC. THIS CAN BE RECTIFIED BY INCLUDING THE FOLLOWING POKES IN THE BASIC PROGRAM:

```
POKE #89F3,#45
POKE #8A8E,#45
POKE #8A99,#45
```

ON A MORE SERIOUS NOTE, DENIS ALSO INFORMS ME OF A NEW HI-SCORE ON 'TETRIX'. IT IS THE AMAZING SCORE OF 2154 - EAT YOUR HEART OUT HENRY MARKE!

==========

A P A I R F R O M F R A N K

LISTING NUMBER ONE FROM FRANK BOLTON IS OF A BINGO / LOTTO / HOUSEY HOUSEY GAME. UP TO 10 PLAYERS CAN TAKE PART. THEY INSERT THEIR PERSONAL TEN NUMBERS AND THE ORIC DOES THE REST. NO NEED TO USE CARDS. FRANK TELLS ME HE USES THIS AT CHARITY EVENTS. NICE COLOUR,NICE GAME,NICE ONE FRANK!

```
0 CLS:S=50000:PRINT:PRINT:PRINT:PRINT:PRINT
2 CHECK=0:BING=0
3 FORN=48036TO48039:POKEN,32:NEXT
5 GOSUB60000
10 PRINTCHR$(17):PRINT:L=1
20 L$="              BINGO":GOSUBS
40 L$="    THIS IS A BINGO GAME WHERE EACH ":GOSUBS
50 L$="PLAYER CHOOSES HIS OWN NUMBERS.":GOSUBS
55 L$="TWO OR MORE PLAYERS MAY HAVE THE SAME":GOSUBS
58 L$="NUMBER. ":GOSUBS
60 L$="NO CARDS NEEDED.  IT'S ALL ON SCREEN":GOSUBS
70 L$="   INPUT AS INSTRUCTED AND THE GAME":GOSUBS
80 L$="WILL PLAY AUTOMATICALLY FOR YOU.":GOSUBS
90 PRINT:PRINT:PRINT"         PRESS ANY KEY":GETK$:CLS
100 DIMA$(10):DIMNU$(10)
110 PRINT:PRINT:PRINT"YOU CAN HAVE FROM TWO TO 10 PLAYERS."
120 PRINT:PRINT:PRINT:INPUT"HOW MANY PLAYERS";N
125 T=N
130 FORM=1TON
140 PRINT:PRINT"PLAYER NUMBER "M:INPUT"NAME PLEASE";A$(M)
141 IFLEN(A$(M))=1THENA$(M)=A$(M)+"     "
142 IFLEN(A$(M))=4THENA$(M)=A$(M)+" "
143 IFLEN(A$(M))=3THENA$(M)=A$(M)+"  "
144 IFLEN(A$(M))=2THENA$(M)=A$(M)+"   "
145 IFLEN(A$(M))>5THENA$(M)=LEFT$(A$(M),5):CLS
150 PRINT:PRINT"HULLO "A$(M)".  GIVE ME TEN NUMBERS."
155 FORX=1TO10
160 PRINT:PRINT"THIS IS NUMBER "X:INPUT"WILL YOU INPUT IT PLEASE";NU$(X)
170 IFLEN(NU$(X))>2THENPRINT"LESS THAN 100 PLEASE.  TRY AGAIN.":GOTO160
175 IFLEN(NU$(X))<2THENNU$(X)="0"+NU$(X)
180 CLS:IFX=10THENPRINT:PRINT:PRINT"THANK YOU "A$(M)". PLEASE WAIT":WAIT200
190 IFX=1THENB$(M)=NU$(X)
200 IFX>1THENB$(M)=B$(M)+" "+NU$(X)
215 NEXTX
220 B$(M)=A$(M)+" "+B$(M)
230 PRINT:PRINTB$(M):WAIT200:IFM=PTHENGOTO600ELSECLS:NEXTM
600 CLS:L=1:PRINT:PRINT:PRINT:FORQ=1TOM:L$=B$(Q):GOSUBS
605 IFQ=NTHEN610ELSENEXT
610 WAIT200:GOTO60060
50000 PAPER6:INK0:PRINT@2,L;CHR$(138)L$
50010 PRINT@2,L+1;CHR$(138)L$:L=L+2
50020 RETURN
52000 FORSEARCH=1TOT:FORWHICH=7TO35STEP3
52015 IFQ$(0)=MID$(B$(SEARCH),WHICH,2)THENCLS:GOTO53021
52020 NEXTWHICH:NEXTSEARCH
52021 IFCHECK=0THENPRINT@5,23;CHR$(138)"NOBODY HAS NUMBER "Q$(0)"     "
52022 IFCHECK=0THENPRINT@5,24;CHR$(138)"NOBODY HAS NUMBER "Q$(0)"     ":ZAP
52030 L=1
52040 FORD=1TOT:PRINT@2,L;CHR$(138)B$(D):PRINT@2,L+1;CHR$(138)B$(D):L=L+2
52045 IFD=TTHEN53000ELSENEXT
53000 WAIT200:GOSUB60090:GOTO60060
```

```
53021 PRINT:PRINTCHR$(138)A$(SEARCH)" HAS NUMBER "Q$(O)
53022 PRINTCHR$(138)A$(SEARCH)" HAS NUMBER "Q$(O):PING
53023 PRINTCHR$(138)B$(SEARCH):PRINTCHR$(138)B$(SEARCH)
53024 WAIT230:CHECK=CHECK+1
53025 PRINTCHR$(138)"LET'S REMOVE IT"
53026 PRINTCHR$(138)"LET'S REMOVE IT"
53028 B$(SEARCH)=LEFT$(B$(SEARCH),WHICH-1)+"   "+MID$(B$(SEARCH),WHICH+3)
53029 PRINTCHR$(138)B$(SEARCH):PRINTCHR$(138)B$(SEARCH):WAIT200:CLS
53030 IFRIGHT$(B$(SEARCH),30)="                              "THENGOSUB61000
53040 IFSEARCH=TTHENGOTO53045ELSEGOTO53080
53045 IFBING>0THENGOTO61020
53050 L=1:FORD=1TOT:PRINT@2,L;CHR$(138)B$(D):PRINT@2,L+1;CHR$(138)B$(D):L=L+2
53060 NEXT
53070 WAIT200:GOSUB60090:GOTO60060
53080 NEXT SEARCH
60000 CLS:PRINT:PRINT:PRINT:P=99
60020 DIMQ$(99)
60030 FORN=1TO99
60040 READQ$(N)
60050 NEXT
60055 RETURN
60060 O=INT(RND(1)*P+1):CHECK=0
60065 IFLEN(Q$(O))<2THENQ$(O)="O"+Q$(O)
60068 PRINT@5,23;CHR$(138)"WHO HAS NUMBER "Q$(O)" ??? "
60069 PRINT@5,24;CHR$(138)"WHO HAS NUMBER "Q$(O)" ??? "
60080 WAIT200:GOTO52000
60090 P=P-1
60100 Z$=Q$(O):Q$(O)=Q$(P+1):Q$(P+1)=Z$
60110 IFP=0THENGOTO61000
60125 RETURN
60130 DATA1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26
60140 DATA27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,
50
60150 DATA51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70
60160 DATA71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88,89,90
60170 DATA91,92,93,94,95,96,97,98,99
61000 CLS:PING:PING:PING:PRINT@13,23;CHR$(138)LEFT$(B$(SEARCH),5)" HAS BINGO"
61005 BING=BING+1
61010 PRINT@13,24;CHR$(138)LEFT$(B$(SEARCH),5)" HAS BINGO":WAIT300:RETURN
61020 L=1:FORD=1TOT:PRINT@2,L;CHR$(138)B$(D):PRINT@2,L+1;CHR$(138)B$(D):L=L+2
61030 NEXT
```

THE SECOND FROM FRANK IS A SHORTY. A UTILITY FOR YOU TO CENTRE A MESSAGE AT TOP OF SCREEN.

```
10 CLS:A$="CENTRED MESSAGE":POKE48005,1
20 X=INT(40-LEN(A$))/2:P=INT(X)
30 FORN=1TOLEN(A$)
40 POKE48000+P+N,ASC(MID$(A$,N,1)):NEXT
50 FORN=48036TO48039:POKEN,32:NEXT
```

INTRODUCTION

Well the summer is nearing its end and holidays have been and gone; it is time to put finger to key to produce another copy of ORIC Enthusiasts for O.U.M. I hope that all of you have had an enjoyable break and are eager to learn some more computing on your trusty ORICs. This month sees the continuation of Geoff Phillip's book in order to complete Chapter 3. I have not received any feedback on this section at present so I would appreciate any response being directed to Dave as to whether the routines are useful and if they are of any interest. It does take quite a bit of time typing the pages in and if they are not required then I could move onto other subjects. I still haven't been able to complete the program on using Sequential Access files, although I have made a start, so I hope to complete that for the next issue.

Thanks must go to Dave and his assistants for organising such a splendid meeting on the 18th July. It was a pleasure meeting familiar faces and names and having a good natter about our ORICs and life in general. Congratulations must go to Rob Kimberley for managing the raffle so authoritatively. It is a novel experience to win a first prize only to be told you are not having it. Actually, Rob you probably did me a favour as I am trying my best to finish the outside of the house off and it would have been too much of a distraction to have a won that ink-jet printer. Still, it is the first time that all the raffle tickets that I have bought have been picked out of the hat so it was good to come away with one of Rob's highlighting pens. As I said on the day, it was possibly the highlight of the day. (Groan! Nurse....the sick bucket if you please!.) It is a pity that I didn't get to hear Trevor Shaw's composition. Did you actually play it on the day, Dave?

Since the meeting I have been sorting out my stocks of cassettes. I considered 300+ copies of LOKI to be a touch on the high side so along with a lot of ORIC-1 cassettes I have pensioned them off to that great recorder in the sky. Next are the 100 copies or so of certain ORIC-1 book titles. Who knows? I may be able to get into my loft after all when I have finished.

With regard to the last issue of O.U.M., I have a few comments on topics therein:-

PARALLEL PORT.... if my memory serves me right, I am pretty sure there was a report in one of the last issues of IOUG about a chap who had coupled a hard disc to an ORIC through the parallel port. Perhaps someone can check it out.

Thanks to Trevor Shaw for the very interesting articles about using the serial interface. With news from the meeting and CEO about linking Telestrats to PCs and reading PC discs on an ORIC it may be that we will soon be able to transfer ASCII files between these machines.

THE FUNCTION KEY AND SEDORIC DOS.... Dave, I think that you will find that it is incorrect to state that the commands generated in combination with the use of the function key are not documented in the SEDORIC Manual. You will find reference to it on pages 19&23. So I would urge any user who needs this sort of information to register for SEDORIC DOS and obtain a copy of the manual. As to the F.G.C. utility for cassette users.... that was ONE-KEY BASIC which I wrote and is currently on my Shareware list for disc users. Certainly it is an advantage for ORIC DOS, RANDOS and CUMANA DOS users who want to type in listings more efficiently. It can also be of benefit to SEDORIC users if they are having to exercise the QUIT command in order to develop their software. As you may know, you can't use the FUNCT key for SEDORIC DOS once you have actioned QUIT. Also, the documentation includes a design for a overlay so that you can label the use of the top two rows of keys in their normal state and in conjunction with the shift key. I do not intend to market it for cassette users but I am prepared to release the reasonably short listing so that users can type it in themselves.

Well I will finish off now for this month. Next time I will also try to include an update of the items that I still have for sale. One is a version of the ATMOS manual in Spanish.

ORIC ATMOS and ORIC-1 GRAPHICS & MACHINE CODE TECHNIQUES

Chapter 3 - BASIC (continued)

copyright of Geoff Phillips

3.14 Relocator program To complete this chapter, here is a program that allows you to move a machine code program to a different address (program 3.4). All 3-byte instructions are modified, where necessary, reflecting the new start address. Since a program may reference locations near to itself, but not actually part of the program (**Note:** This means that it must not overwrite any part of itself that has not been relocated.), the Relocator needs five addresses:

#70,#71 Start address of the whole area.
#72,#73 End address of the whole area.
#78,#79 Start address of the actual program.
#7A,#7B End address of the actual program.
#7C,#7D New start address of the actual program.

The routine can only cope with instructions - it cannot handle data. If your program has imbedded data, you will have to use the utility in stages. For example, to move the instruction: '1000 INC 1234' to #2000 (assuming that 1234 is a location that will now become 2234), you would need to set up the following addresses:

#70,#71 - 00 10
#72,#73 - 34 12
#78,#79 - 00 10
#7A,#7B - 02 10
#7C,#7D - 00 20

The routine is entered from address #440 and does not have any calls to ROM.

```
0440:  D8        CLD
0441:  38        SEC
0442:  A5 7C     LDA  #7C
0444:  E5 78     SBC  $78
0446:  85 76     STA  $76
0448:  A5 7D     LDA  $7D
044A:  E5 79     SBC  $79
044C:  85 77     STA  $77
044E:  A0 00     LDY  #$00
0450:  B1 78     LDA  ($78),Y
0452:  91 7C     STA  ($7C),Y
0454:  29 0F     AND  #$0F
0456:  C9 0D     CMP  #$0D
0458:  F0 29     BEQ  $0483
045A:  C9 0E     CMP  #$0E
045C:  F0 25     BEQ  $0483
045E:  B1 78     LDA  ($78),Y
0460:  A2 10     LDX  #$10
0462:  DD 20 04  CMP  $0420,X
0465:  F0 1C     BEQ  $0483
0467:  CA        DEX
0468:  10 F8     BPL  $0462
046A:  A2 0D     LDX  #$0D
046C:  DD 31 04  CMP  $0431,X
046F:  F0 56     BEQ  $04C7
0471:  CA        DEX
0472:  10 F8     BPL  $046C
0474:  29 0F     AND  #$0F
0476:  C9 08     CMP  #$08
0478:  F0 4D     BEQ  $04C7
047A:  C8        INY
047B:  B1 78     LDA  ($78),Y
047D:  91 7C     STA  ($7C),Y
047F:  D0 46     BNE  $04C7
0481:  F0 44     BEQ  $04C7
0483:  A0 02     LDY  #$02
0485:  B1 78     LDA  ($78),Y
0487:  C5 71     CMP  $71
0489:  F0 04     BEQ  $048F
048B:  90 2F     BCC  $04BC
048D:  B0 07     BCS  $0496
048F:  88        DEY
0490:  B1 78     LDA  ($78),Y
0492:  C5 70     CMP  $70
0494:  90 26     BCC  $04BC
0496:  A0 02     LDY  #$02
0498:  A5 73     LDA  $73
049A:  D1 78     CMP  ($78),Y
049C:  F0 04     BEQ  $04A2
049E:  90 1C     BCC  $04BC
04A0:  B0 07     BCS  $04A9
04A2:  88        DEY
04A3:  A5 72     LDA  $72
04A5:  D1 78     CMP  ($78),Y
```

Program 3.4 (continues on the next page)

```
04A7:  90 13     BCC  $04BC        04D4:  65 7C     ADC  $7C
04A9:  A0 01     LDY  #$01         04D6:  85 7C     STA  $7C
04AB:  B1 78     LDA  ($78),Y      04D8:  90 02     BCC  $04DC
04AD:  18        CLC               04DA:  E6 7D     INC  $7D
04AE:  65 76     ADC  $76          04DC:  A5 79     LDA  $79
04B0:  91 7C     STA  ($7C),Y      04DE:  C5 7B     CMP  $7B
04B2:  C8        INY               04E0:  F0 04     BEQ  $04E6
04B3:  B1 78     LDA  ($78),Y      04E2:  B0 08     BCS  $04EC
04B5:  65 77     ADC  $77          04E4:  90 07     BCC  $04ED
04B7:  91 7C     STA  ($7C),Y      04E6:  A5 78     LDA  $78
04B9:  38        SEC               04E8:  C5 7A     CMP  $7A
04BA:  B0 0B     BCS  $04C7        04EA:  90 01     BCC  $04ED
04BC:  A0 01     LDY  #$01         04EC:  60        RTS
04BE:  B1 78     LDA  ($78),Y      04ED:  4C 4E 04  JMP  $044E
04C0:  91 7C     STA  ($7C),Y      04F0:  EA        NOP
04C2:  C8        INY               04F1:  EA        NOP
04C3:  B1 78     LDA  ($78),Y      04F2:  EA        NOP
04C5:  91 7C     STA  ($7C),Y      04F3:  EA        NOP
04C7:  C8        INY               04F4:  EA        NOP
04C8:  98        TYA               04F5:  EA        NOP
04C9:  18        CLC               04F6:  EA        NOP
04CA:  65 78     ADC  $78          04F7:  EA        NOP
04CC:  85 78     STA  $78          04F8:  EA        NOP
04CE:  90 02     BCC  $04D2        0420:  79 39 D9 EC CC 59 4C 6C
04D0:  E6 79     INC  $79          0428:  20 B9 AC BC 19 F9 99 8C
04D2:  18        CLC               0430:  00 0A 00 B8 CA 4A EA 2A
04D3:  98        TYA               0438:  6A 40 60 AA BA 8A 9A 00
```

Program 3.4 Relocator program (#420 - #43F and #440 - #4F0)

Chapter 4 - THE KEYBOARD AND CASSETTE SYSTEM

4.1 Keyboard **HARDWARE** This is described in the Advanced User Guide. The ORIC ROM routines only look for a single keypress at time (this can be two if you count the shift, control and function keys) but is possible to look for multiple keypresses.

USEFUL LOCATIONS The keyboard routines in ROM leave behind a number of useful locations. The most important address is #2DF which contains the ASCII value of the last keypress. This value is OR'ed with #80 by the keyboard routine to indicate that the keypress has not been processed. This location is subject to delays when the same key is pressed twice because of the autorepeat feature, so often you will want a faster access to the keyboard. Location #208 is set to a unique value when a key is pressed, but there is no direct correspondence between this value and the ASCII sequence - you will need to use a good deal of trial of error. The value here is a combination of two 3-bit column and row numbers. (**N.B.** Geoff is not strictly correct here. There is a link between the key's column/row reference and its ASCII value and this can be obtained from the appendix in the Advanced User Guide. In fact there is a table in ROM which converts this code into the ASCII code for each each keypress, so trial and error should not be necessary.) The two shift keys and control key (**N.B.** and function key on ATMOS machines) are not recorded in location #208, but instead at #209. This makes it possible to differentiate between the left and right shift keys - useful for games, etc.

USEFUL ROM ADDRESSES When fast key action is not required, a machine code program can quickly get the ASCII code of the last keypress with one of two calls:

1 To read a key without waiting, returning the ASCII code in the accumulator, call subroutine #EB78 (V1.1) or #E905 (V1.0). This identical to using KEY$ in BASIC.
2 To wait for a key to be pressed (i.e. like GET in BASIC), call either #C5E8 (V1.1) or #C5F8 (V1.0).

Next month -- more of Chapter 4, with an multi-keypress routine.

A GLANCE AT SCANDINAVIAN SOFTWARE

HELLO,

I am ARNT ERIK ISAKSEN and I want to start a new series with reviews in O.U.M. This series will be of most interest to the 'gamesters'. Some of the Scandinavian titles are well-known to most British 'gamesters', but you are maybe not aware of the roots of the games. Even the legendary company (Oric-wise) of IJK Software released a couple of Scandinavian games,namely :- GUBBIE (Danish) and PLAYGROUND 21 (Swedish). In my series I will take a look at both of these games and some rarer programs from Scandinavia.

ORIC SPILL 1 : AD ELEKTRONIKK 1983 : NORWEGIAN

Almost a decade ago in 1983,we could hear about games like SPACE CRYSTAL,HAPPY LANDING,DIGDOG,MOONSTER,ORIC FLIGHT and MULTIGAMES etc. This was the time of simple games,mostly written in Basic. AD ELEKTRONIKK imported the ORIC-1 into Norway at this time,and they released ORIC SPILL 1,which was a gamespack consisting of four games:

ORMEN (Snake) was the best of the 4 games. This is a classic where you eat mushrooms and have to watch out for the rocks. A quite good game at the time.

ASTROPANIC was a boring game with weird controls.

SPACE INVADERS was a shoot-'em up game of low quality. Some of the graphics are nice,but that can't save the game.

COLOUR MATCH was taken from MULTIGAMES 1 to fill up the tape.

AT the time this tape was one to have in your collection. Today it is just something for collectors of classic software.

RATING: 44%

==========

MAZE RALLY : FGC SOFTWARE 1986 : DANISH

Jesper Jensen and Nikolaj Henrichsen of Denmark made MAZE RALLY together. I believe that I am right in saying that this is the most successful Scandinavian game released for the Oric in Britain,as it was flying high in the charts in 'YOUR ORIC' and in 'OUM' (when Robert Cook was the editor). The point of the game is to drive around in a maze to collect the flags that are laid out there. Other cars are after you and will try to destroy you,but you have your own weapon in the form of a smoke screen that you can activate. You have radar that shows you both your and the other cars' positions. The game is similar to DRIVER from Dialogue Informatique (France),but is faster and more addictive. The game itself is good,but the lay-out on the menu etc. is even more impressive with drawings and good use of colours. The classic piece of music - THE ENTERTAINER,is played while you drive around the maze. This game must be among the 20-30 best games written for the Oric.

RATING: 84%

==========

HOLLYWOOD DIRECTOR : GPD SOFTWARE 1987 : SWEDISH

Have you ever dreamed about being the director behind the big movies that are made in Hollywood? This game by H. Carlsson will give you a chance to make your dreams become reality. You must make manuscripts and produce the films. It is up to you whether you would like to have special effects,music etc. in your movies or not. Your movies can be on tours all over the USA if you wish. You must also advertise for your movies - and maybe your films can get into the top 10 charts. You can arrange parties or donate money if you would like to get better public relations. This game is not too bad. This game by the author of Mr. PRESIDENT (CEO SOFTWARE),may be worth giving a chance,even though it is not an impressive piece of software.

RATING: 60%

==========

Next month I will look at SLALOM RACE amongst others. See you then;

LYKKE TIL - ARNT

THE ORIC SERIAL PORT Part 4

In this article I intend to look at file transfer techniques, and have included details of various protocols which may be used to improve the integrity of the received data. More on this later.

So far in this series we have looked at the uses serial ports can be put to, and we've examined the Oric serial port (modem interface) and discussed how to program it. Anyone with sufficient interest in the subject should now have enough information to enable them to correctly connect the Oric serial port to other devices, and to write simple programs to get it to work (if not you can always write to me and I will help if I can). Later I shall give a bit more information which should help any keen Oric users to have a go at writing a fairly sophisticated communications program.

One thing I am aware of is the fact that my BASIC program listings (given in part 2) set the serial interface to work at 300 baud. This means that they are not much use to anyone trying to use them with the Oric Modem since that will only operate at 1200/75 or 1200/1200 baud. You can of course simply test the programs by connecting pins 2 and 5 of the serial port together, as previously suggested, or could even connect two Orics together using the 3-wire link discussed in part 1. However, the information given in part 3 (last issue) should enable anyone to change the appropriate value in the program so that you can try the programs out with the Oric Modem (for those of you who may not be sure, change line 220 to POKE£383,8 for 1200/75 baud operation).

As stated before though, Oric BASIC is not really fast enough to operate above 300 baud. But this shouldn't stop you from using it, especially for experimenting with the port. All it means is that the data you receive will have missing characters and may therefore take some deciphering! The data you send should not be affected, especially if you are typing it in on-line. The problem is even worse if you are using the Oric-1 rather than the Atmos, since the BASIC is slightly slower and the screen handler routines make use of interrupts which cause characters to be lost at the start of each line. With the Oric-1 therefore even at 300 baud there can be such problems.

Whilst on the subject of the Oric Modem, perhaps I should explain a bit about its operation. When working at 1200/75 baud it is operating in full duplex mode. This means that data can be sent in both directions (i.e. transmit and receive) at the same time. When working at 1200/1200 baud it is operating in half duplex mode. This means that each user has to take turns at being the transmitter or receiver - a bit like using walkie-talkies! The 1200/1200 baud half-duplex standard was intended for user-to-user purposes.

Existing Communications Software

Currently there are only two pieces of communications (comms) software available for the Oric, the Prestel software and Oricomms - both are written in 100% machine code. The Prestel software should work with any viewdata system and does allow screens of information to be downloaded and saved to tape (there is also a partly developed disc saving version available, but it is not very reliable. I can let anyone have a copy who is interested).

Oricomms, which I co-authored, is for use with scrolling bulletin boards, and will also allow two computer users (the other one not necessarily an Oric) with modems to 'talk' to each other over the phone line using the user-to-user 1200/1200 mode mentioned above. You could also of course use it with two computers whose serial ports are connected directly i.e. no modems. (Oricomms is available on shareware). Its main limitation is that it does not provide any file transfer facility, so the user-to-user aspect is more for novelty than anything since it is more practical to talk to someone directly than to type to each other! We had originally intended to incorporate file transfer - in fact some of the prompts are still buried amongst the code of Oricomms from our early attempts. However, because of the cost of phone calls between Manchester and Telford where John Rushton & I, respectively, lived we decided to see how much interest there was in communications amongst other Oric users before spending a fortune on testing and perfecting the file transfer facility. (We had already spent a sizeable amount, but had at least learnt quite a lot in the process).

Interest was not particularly great unfortunately - presumably due to Oric Product's demise and the fact that their modem package had only become available just before they went bust (meaning that few Oric owners had had the opportunity to buy one). Judging by the number of letters I have had about this series I can only assume that interest is still not enormous, but it does exist.

One of the main obstacles now, according to some of the comments I have received, relates to the Oric Modem being relatively outdated and the problems this causes when trying to log-on to bulletin boards (BBs) operating modern modems. I do not have an Oric Modem, mine is a Prism 2000, which is of a similar age, but I have not tried logging onto any BBs recently although I intend to give Chris Dalby's BB a go - see later. It should be possible however for BB sysops (system operators) to modify their setups to compensate for this if you tell them about your problems. If not then the only solution may be to buy a more modern modem - but then some more sophisticated software might be desirable! Such problems should not prevent Oric users who are both using Oric Modems from communicating with each other and transferring files over the phone however. Just think, we could all phone our wordprocessed text files across to Dave, he could save them to disc and then compile them into OUM! Or Dave and Jon could send our software down the phone line! Of course you do not need to use file transfer for such things, you can simply send the files on a floppy disc. The difference is the time taken to deliver. BBs are great for getting information distributed quickly - providing there is a large enough pool of users to make it worthwhile.

Probably a more practical use for most Oric users would be to transfer files between their Orics and another computer at home or at work. For unless enough Oric users want to make use of a bulletin board then it is unlikely that any sysop would be willing to spare space for an Oric area on their BB (but note the offer from Chris Dalby of Bradford in the last issue, OUM 59). If such an Oric area were viable then Oric users could place (upload) files within it for other Oric users to download. Anybody interested? Without such an Oric BB though there is unlikely to be anything much on other BBs that Oric users would wish to download (i.e. transfer to their machine). The only things would probably be text files which can be downloaded quite simply since error free transfer is not really necessary.

A Simple File Transfer Routine

Assuming that I am correct in what would be most useful to Oric users then a simple routine for file transfer would presumably be of interest. Below is information about the technical requirements for a file transfer program. Next month I hope to present a simple BASIC program which should provide for most people's needs in terms of computer to computer file transfer. When used in conjunction with listing 1 (Part 2 of this series, OUM 57) then it will allow you to transfer files between one Oric and another, or an Oric and another computer, by a direct serial port to serial port 3-wire link (i.e. no modems needed).

File Transfer Techniques etc.

Over the years a number of software techniques or protocols have been developed to enable reliable file transfer. These include "Xmodem" and "Kermit" which some of you may have heard of. Generally such protocols work by breaking-up the file to be transferred into blocks of data of a specified length (e.g. 128 bytes). Each block is then transmitted separately together with some kind of checksum. When the block is received at the other end it is checked for errors using the checksum. If any errors have occurred then the receiving end requests the transmitting end to re-send that block. Usually there is a limit as to how many times the block will be re-sent before the file transfer is cancelled/aborted. The limit can be as high as ten retries, but different experts in this area have different ideas about this.

The advantage of such protocols is that they save the whole file having to be re-transmitted, having discovered right at the end that there are errors. Such errors are only likely to occur in one or two blocks unless you have a particularly bad phone line! (In such cases it is usually best to break the connection i.e. put the phone down after cancelling the transfer and ring back a minute or two later). Blocks containing errors are usually quickly re-transmitted if the file is sent using such a protocol. The advantages should be clear in terms of reduced phone bills and frustration!

Kermit is a public domain routine originally developed at a US university to allow students to transfer files between the mainframe and PCs. Lancaster University Computer Centre were responsible for its distribution in the UK and so it should therefore be possible to get the 6502 routine details relatively easily. I have some details about Kermit and also Xmodem, which was developed by Ward Christiansen, and is not in the public domain as far as I am aware. I also have an Xmodem BASIC/assembler listing for a BBC B micro if anyone is interested.

I am not sure whether Kermit or Xmodem are still as widely used as they were. I think Kermit probably is, however, modern modems and comms software tend to include built-in error checking facilities such as MNP. I know little about these, except that they offer several levels or classes of error checking. MNP

class 2 is okay for text, but for more critical data class 5 would be appropriate. The fact that the host setup (i.e. the system you have called up) uses such a modem should not prevent a modem without such facilities (e.g. the Oric Modem) from making contact with it. I think perhaps the error-checking is software controlled. Probably both ends of the link should have MNP switched on or both off as is the case with Kermit and Xmodem.

Most file transfer software will however also allow the simpler whole file transfer to be carried out i.e. without using any error checking protocols. Therefore an Oric file transfer program could simply use this method. For example, if you wanted to download a file from a BB to your Oric the simplest way would be to list the file and to have your comms program save it into memory as it scrolls up your screen. Of course you need some way of preventing files which are longer than the memory space available from overwriting your program, or from crashing your computer. The file transfer routine could either terminate the download with an error message, or it could pause the transfer and ask you to save the memory block (or buffer) to disc/tape, or it could automatically save the buffer to disc/tape. Each of these possibilities requires a little more sophistication from the file transfer/comms program.

If you are simply transferring a file to another Oric then all you need to agree are the start and end addresses of the block of memory to be transferred.

So let's have a look at what a reasonably sophisticated communications program should contain.

Structure and Contents of a Possible Comms Program

Okay, so you would like a communications program with all possible facilities and bells on it too - so would I! However, let's plan this in terms of the Oric Modem setup. More modern modems could be used but then we might want to include even more complicated things such as automatic dialling, and MNP error correction. No the Oric Modem does not provide these facilities, although it might be possible for some clever programmer to come up with a way to get it to send pulses (i.e. pulse-dialling) down the line.....but that's another story!

The facilities I shall assume would be required are essentially those provided by Oricomms but with one or two extras including file transfer. In other words, the program needs some way of configuring the serial port i.e. setting word length, parity, number of stop bits etc. It should also allow received characters to be displayed on the screen, and should allow typed characters to be sent to the host setup. In addition it should allow you to select whether or not characters you type are echoed to the screen. This is usually done by the host computer automatically, but it is a bit disconcerting when it is not since you cannot see what you are typing.

For the file transfer facility, an area of memory needs to be allocated as the buffer. In order to receive files/data, received characters can simply be written to the buffer as well as (or instead of) to the screen. Of course, when the buffer is full, the program should tell the host to stop sending data whilst the Oric asks you whether you want to save or delete the data in the buffer. Once saved/deleted the Oric should then ask the host to start sending data again.

In order to transmit data, you would need to first load a file into the buffer. This could be a program or a screen or text. You would have to set up the host system to receive, or agree this with the other user, then the program should enable you to transmit the buffer. If the host setup needs to pause the transmission then the Oric software would need to recognise the standard flow control characters (these are discussed in the Oricomms manual, called XON and XOFF protocols). Once the buffer has been transmitted, the software should return you to the usual screen after confirming to the host that transmission is complete.

That's about all that a simple comms file transfer program needs. There are of course lots of additional features that could be included, but we have discussed the minimum requirements.

Such a program could be written in part BASIC, part machine code. The most important routines to be written in machine code would be the receive routines. The transmit routines should ideally be in machine code too, but this may not be essential, especially if transmission was to be in half-duplex (user-to-user) mode. In fact if the program were only to be used between two Orics then even at 1200/1200 baud it may be possible to use an all-BASIC program by slowing down the rate at which data is fed to the serial port for transmission, and/or by only writing the received data to the buffer. It is the screen handling which tends to slow down the receive routine.

Well, that's it for this bumper issue article. Next month I hope to present the file transfer program - providing I am able to get it finished and tested in time. Until then, enjoy your serial.....

Trevor Shaw.

software houses

Dave - as requested, some additions and comments (in brackets) to Brian's 'Software Houses' series thus far:

Addictive: **Football Manager** (yes, the selfsame program released on every other format known to man, and still around today. It was released in January 1985, and every copy distributed to shops failed to load! I took the trouble to write to Addictive. They sent me another 'corrected' copy, which after a lot of effort I got loaded with some corruptions. With those sorted, the result was by far the best footy sim. on the Oric. I even enhanced it a bit. Anyone else got an original copy?)

Alligata: **Contract Bridge** (reviewed but never seen)

Brainsoft: **Hypochondria** (medical diagnosis!)

Cascade: **Rats** (strategy, corner the rat)

Express: **Active Computer Learning** (basic Basic tutorial)
Brad Saves the Professor (so the program says)

Channel 8: Brian's biggest omission so far, no less than eleven excellent graphic adventures:

Arrow of Death Pt.1	**Arrow of Death Pt.2**
Circus Waxworks	**Escape from Pulsar 7**
Feasability Experiment	**Perseus & Andromeda**
Ten Little Indians	**The Time Machine**
The Wizard Akryz	**The Golden Baton**

Domark: **A View to a Kill** (they had a part 3 in France)

Eborsoft: A collection of 'business' software:

Busy 2	**File** (these two I have)	
Balance File	**Busyfiles A**	
Costing	(these three I don't)	and:
Cards 1/2	**Cards 3**	**Cards 4**
Cards 5	**Cards 9** (I've never seen any of these five in the flesh - or the next seven, but all were reviewed in 1984)	
4 Board Games	**4 Dice/Board Games**	
9 Dice Games	**11 Dice Games**	
Cocktails	**Housekeeper**	**Shopping**

Chymesoft: **Captain's Log**

Compuden: **Delta 4** (ads in August 1983, but in Feb 84 advertised by Nectarine)
Stockmarket (the Argus title?)

Crunch: **Symbolic Disassembler** (advertised May 1983)

Gemini: **Database** **Spreadsheet Analysis**

Haresoft: **Hareraiser (Finale)** (yes, there was a Part 2)

Headfield: **Anaconda** (ads in February 1984)

Keep up the good work, Brian! Jon H.

A to Z of SOFTWARE HOUSES

You may remember that in the May issue of O.U.M we got as far as 'H' in Brian Kidd's series on ORIC software houses.
On the page previous to this are some additions from the pen of Jon Haworth.
Brian now continues from 'I' with comments in brackets from your editor.

ICB ENTERPRISES
--- ---------- - BRIDGE

IJK
--- - 3DMAZE/BREAKOUT, 3D OXO/BACKGAMMON, ATTACK OF THE CYBERMEN, CANDYFLOSS/HANGMAN, CRIBBAGE, DAMSEL IN DISTRESS, DON'T PRESS THE LETTER Q, DRAUGHTS, CHESS II, FANTASY QUEST, FRIGATE COMMANDER, GHOST GOBBLER, GREEN X TOAD, GUBBIE, INVADERS, PLAYGROUND 21, PROBE 3, REVERSE, XENON 1, XENON 3 (THE GENESIS PROBE), ZEBBIE, ZORGONS REVENGE.

IMF
--- - MATHS 4, PONTOON/CRIBBAGE, TOOLKIT, WAYDOR.

IMPACT
------ - TERMINATOR
J EDWARDS
- ------- - STAR - TREK

JPG ELECTRONICS
--- ---------- - ALIEN PURSUIT/MAZE

J WOLSTENCROFT
- ---------- - QUEST, ZRYMM

JOE THE LION
--- --- ---- - LOKI

JOHNSON A
------- - - ORIC-1 48K TAPE COPIER
JUNIPER
------- - PERSONAL FINANCES, WORD PROCESSOR
KENEMA ASSOCIATES
------ ---------- - AWARI, CROWLEYS HOUSE,DESIGN AID, EXTENSION MONITOR, FILESTAR, HELLS TEMPLE, KEY TRAINER, ORICSTAR, OTHELLO.

KINDERSOFT
---------- - 3 GAMES FOR CHILDREN, 4 GAMES FOR CHILDREN.
KNIGHT
------ - FLIGHT 401
KOMPSOFT
-------- - OR1 BLITZ, OR1 COMPOSER, OR1 FORTH, SPACE DOCKER.
L.A SOFTWARE
- - -------- - PSYCHO 2 & 3 (What about number 1 ?)
LEVEL NINE
----- ---- - ADVENTURE QUEST, COLOSSAL ADVENTURE, DUNGEON ADVENTURE, LORDS OF TIME, SNOWBALL.
LOTHLORIEN
---------- - TWO GUN TURTLE, JOHNNY REB, ORION. (Hang on Brian, WHAT ABOUT - PARAS,SPECIAL OPS & SPOOKY MANSION? - Oh! I see you HAVE THE LATTER UNDER 'MERCURY',WHO I BELIEVE PASSED IT ON FOR RELEASE)
MELLOWSOFT
---------- - CAN YOU SPELL, CAN YOU COUNT, CATCH A KEY, HANGMAN, PICTURE SNAP, PLAY MATHS, SPELL A RHYME, TABLES TEST.
MERCURY
------- - COSMIC INTRUDERS, DIGGER, SPOOKY MANSION, THE CLONE.
MICRODEAL
--------- - ARENA 3000 (Attack of the Cybermen RE-VISITED), SKRAMBLE (Wasn't that a duff one!), SPACE SHUTTLE (Whatever happened to Rita Jay?).
MICROGRAF
--------- - ORICAID

MICROMARKETING
-------------- - ZODIAC

MICROPLOT
--------- - ASSEMBLER/DISASSEMBLER
MIKRO-GEN
----- --- - MINES OF SATURN, RETURN TO EARTH
MOGUL
----- - SUPER TREK
MR.MICRO
-- ----- - DRACULA, LIGHTNING ASS/DISASS.

WELL THAT IS ALL THE ROOM WE HAVE THIS TIME. NEXT TIME AROUND WE FINISH OFF THE LETTER 'M' WITH 'MIRAGE' TITLES.
JUST BEFORE WE GO, FLIP THE PAGE. A LOOK AT THE FAMED FRENCH SOFTWARE HOUSE 'LORICIELS'.

A LOOK AT 'LORICIELS'

In Britain we had IJK, whilst in France there was LORICIELS. The two classic software houses for the ORIC. In quantity,quality and variety, it was LORICIELS who were the winners hands down. A great pity that it was all in French. No thoughts there I assume to translate their catalogue into English as so successfully accomplished by NO MANS LAND. Still, translations have been done on some titles by the faithful few and others only need a small understanding of the French language to help you get by.

With the aid of the LORICIELS software catalogue I now intend to look further at what was released by LORICIELS for the ORIC - 1 and ATMOS. THe catalogue is from about 1984. If I find anymore titles not in the catalogue, then I will list them at the end.

LORICIELS,though a good percentage of their titles in those early days were for the Oric, also released softwate for other machines, namely: - COMMODORE, SINCLAIR,SEGA,THOMSON and ALICE.

The catalogue itself gives a price code. The cheapest cassettes being around the 100 franc (10 pound) mark and the dearest at over 300 francs. (30 pounds +).

UTILITIES

MONITEUR 1.0 - Assembler/Disassembler. ASSEMBLER SYMBOLIQUE - double pass assembler and editor c/w 30 page manual.
GENGRAPH - Character generator. Text or Hires.
J'APPRENDS LA C.A.O - Design aid - 3D.
LORIGRAPH - Create designs,copy them - an absolute classic.
EDITEUR MUSICAL - Create music.

ADVENTURES/ROLE PLAYING GAMES

LE MANOIR DU Dr. GENIUS - Graphic adventure, mystery,monsters,teleportation, 24 scenes.
LE MYSTERE DE KIKEKANKOI - Graphics, 50 different levels.
INTOX ET ZOE - Arcade/adventure/educational. Take the role of someone in a T.V series.
LE RETOUR DU Dr.GENIUS - a follow -up. Save humanity in this graphics adventure.
CITADELLE - all text, 70K of program. Dungeons and Dragons type. Find the 12 secrets.
LE DIAMANT DE L'ILE MAUDITE - retrieve the diamond. A supern graphics adventure.
L'AIGLE D'OR - all graphics,machine code,63 scenes,find the 'treasure of treasures', guide your adventurer around the island. Though in French, this game regularly topped the Adventure charts in Oric magazines. A true classic!

ARCADE/ACTION

CASPAK - defend the ramparts of your fortress.
CROCKY - Pac-man game - the music lets you know when you must run and when you must attack.
HU'BERT - the pyramid game with SLICK,SAM and UGG.
PENGORIC - defend the ice with your penguin.
LA CHENILLE INFERNALLE - snaky game - beware the obstacles.
LE PROTECTOR - 3 different screens,repel the foe,beware the meteors.
ORION - not to be confused with the Assembler from Lothlorien;this is pure arcade with attack after attack.
GASTRONON - odd theme in as much as you go for kitchen equipment.
3D MUNCH - a labyrinth,the enemy,radar and music.
SORVIVOR - inter-galactic battle.
SUPER JEEP - a super game. Each level more difficult than the last. Drive your jeep across the surface. Watch for attacks from the air and the ground, whilst jumping the craters.
DOGGY - a superb obstacle course. With your dog (chien), jump the fences and traps,watch for the foxes and barrels etc. Will you make it home to your kennel? All to music.

NEXT MONTH - another look at the LORICIELS catalogue. We will see what they had to offer in the way of Reflex/board games, Educational software, Businesss aids and what was loosely termed - 'IN A DIFFERENT STYLE'.

- DAVE DICK

MESSAGES AND OTHER THINGS

Hello, Dave again with a few messages and an assortment of the latest advertisements.

MESSAGE TO DENIS BONFIELD

On Sedoric, the V2.0 BIT MAP does handle the same as V1.007. A file stating this is included on the master disc for V2.0 (see side B and run file V20.COM).
Thanks to Allan Whitaker for the information.

MESSAGE TO JONATHAN BRISTOW

Regarding the Graphics tablet that Allan Whitaker was trying to sell at the Oric Meet - I have been in contact with him on what it does etc. and here is his reply:- " The graphic tablets are designed as an alternative input device to the keyboard. They basically send a set of co-ordinates to the computer every time the stylus is pressed onto the pressure sensitive pad which is stretched across the device. The device was brought out for the BBC B, Commodore 64, Dragon 32 and the Spectrum computers and as such had software that allowed the user to produce art work on the computer. The software does not exist for the ORIC and a special interface has to be built in order to use it with the ORIC. An ex-work colleague has managed to achieve a working interface for the device but I don'tt expect to progress the tablet for the ORIC now since demand never materialised and I just do not have the time at present.

MESSAGE TO EVERYONE

Colin Cook bets anyone one blank 3" disc that he has got the fastest Prime Number generator working in Atmos normal BASIC. ANY TAKERS!
Essex man Colin has sent in a single line delete. Here it is:-

```
M=#501:REPEAT:L=DEEK(M+2):M=DEEK(M):UNTIL L= xxxxx (where xxxxx = line no.):DOKEM,0
```

MESSAGE FROM MAPLIN

The 1993 MAPLIN catalogue is now in your local branch of 'W.H. SMITH'. As well as the usual stores,there are new ones opening up in Portsmouth, Manchester and Ilford. Like many other companies,Maplin have a policy of adding a handling charge to orders - currently 1.20. Add to this the carriage charge and bargains are not always what they first appear. At least V.A.T is included,whereas in many other company's literature it is only mentioned in the small print. With nearly 2 dozen branches nationwide there is almost certainly one near you.
Cheapo offers include:- Reels of solder at 6.95, Portable soldering irons at 3.95, Four-pack of AA Ni-cad batteries for 4.25 and a Super Deluxe Universal Ni-cad Battery charger at the give-away price of 6.95.

AMS6

The All Micro Show and Radio Rally for 1992 will be held at the Bingley Hall,Stafford on Saturday 14th November.
The cost of the minimum size stand of 18 feet is 60 pounds + V.A.T plus another 25 pounds for power. The cost is too much for an Oric stand unfortunately. We were there in 1990 - Allan Whitaker,Robert Cook,Jon Haworth,myself et all.
If anyone plans to visit the show and would be willing to distribute Oric literature;then would they please contact me so that I can send them it.

MORE MESSAGES AND MORE OTHER THINGS

MESSAGE TO DENIS BONFIELD

..... I am now going to have another go at TETRIX - somebody has to keep these Londoners in check! - Henry Marke (Portsmouth and Ex- Clapham).
Note from the Editor: Hey Ali, Henry must be the guy you were speaking to at the meet. I think he left London because there were too many Londoners there!

MESSAGE TO ALI (STAIR) WAY

Hey that's quite funny. I've just noticed the 'Stairway' bit. All sorts of puns there. Anyway back to the message. OOPS! I've forgotten what it was now! Never mind. I'll remember it later.

DALLAS

J R EWING here. Now you all know that what I want - I get! Pity about Sue Ellen. Now someone is going to do a favour for me or have a bath in oil - 2 million gallons of it.
My friend Judy Simms has an Oric-1 tape version of that great game DALLAS. What someone is going to do for her is a) Convert it run on the Atmos and b) Transfer it to 3" disc.
Send it direct to Judy and she will send you a disc by return pigeon carrier.

J R EWING (Southfork)

MESSAGE TO ALISTAIR WAY

Yes I've remembered!
Best wishes on you work in Slovenia.
I know that it is not really Oric related,but I am sure that readers would like a report from you on your visit.
By the way I am sending you some Oric mailshots to give out whilst you sre there!

MESSAGE TO ALISTAIR's FANS

Those writing to Alistair during September should sned letters to his Belgium address. From October 4th he will be back at his usual Cambridge address.

WELCOME TO THE WORLD OF ORIC

Welcome to P.A SCHOFIELD of Wibsey, Bradford. I mailshotted him in the Spring. Mr.S had moved from Abingdon to Bradford , but the letter eventually caught up with him. He tells me that he is the owner of Atmos/Oric 1/twin opelco disc system and assorted peripherials.
A very warm welcome to you sir. I hope you enjoy this your first issue of OUM and humbly apologise if it is not to your liking.
That's the creeping over with - so get your cheque in the post for a subscription!

Also to the GILL family of Scatterbrain Farm, Eyton, Leominster - we extend a warm welcome. Only friends of Jonathan bristow could live at such a quaintly named farm!
The GILL's are new to the Atmos and so we hope that they have as much fun as we all did some years ago in sorting out all it's bugs! Only kidding!

S M A L L a n d B I G A D S

THE DAVID HALL SELL-OFF

Regrettably that Oric stalwart and Blackpool user group member David Hall is selling up his entire Oric collection. David is not switching to another machine,but just ceasing to compute.
Here in all it's glory is the list of items for sale,which have been painstakingly added to over the years.

ITEM 1

Cumana disk interface and 3" Cumana drive - 60 pound + postage.

ITEM 2

Cumana 5.25" drive (40/80 track switcable / double sided) plus separate power supply - 35 pound + postage

N.B. The above two systems boot-up SUPERDOS 2. This means that to load in an ORICDOS or SEDORIC formatted disc,that one would have to rename these formatted discs from 'SYSTEMDOS' to 'SUPER2DOS'. A simple enough task.

ITEM 3

Special price if Item 1 and Item 2 bought together is 90 pound + postage.

ITEM 4

Original French cassette software.
ATLANTID (Sprites) - 1.50
WIZARD (Micro 5 Programes), LOTORICIALS (Loriciels), CROCKY (Loriciels), WAYDOR (VTR Software), 3D MUNCH (Loriciels), DEDAL (Infogrames), COLORIC (Free Game Blot) - all at 3 pound each.
EDITEUR MUSICALE (Loriciels),ITOX ET ZOE (Loriciels), GENGRAPH (Loriciels),ARSINE LAPIN (Infogrames) - all at 5 pound each.

NOTE: add 30 pence per tape postage, but free if order over 5 pounds.

ITEM 5

Original British cassette software, all at 1 pound per tape. Add 30 pence per tape or postage free on orders over 5 pounds.:-
STARWIND (FGC), BATTLESTAR (P.Sparks),THE BOSS (Peaksoft),TOOLKIT (IMS),BUCCANEER (Powersoft),50 GAMES FOR THE ATMOS (Cascade),TYRANN (No Mans Land),WAXWORKS (Channel 8),WORDSEARCH (CDS),DON'T PRESS THE LETTER Q (IJK),THE CASTLE (Bug-Byte),THE ULTRA (PSS),ORIC FORTH (Oric Software),WORLD GEOGRAPHY (Superior Software),HERO ZERO (Prosoft),RING OF DARKNESS (Wintersoft),ORIC BASE (Oric Software),3D INVADERS (Quark Data), TYRANT (Your Oric).

ITEM 6

More British cassette software. Postage as per Item 5.
PRICE ON THESE TAPES IS JUST 50 pence EACH.
ORION (Lothlorion),PRISON CAMP/FOLLOW THE LEADER/WARSHIP/CROIX (W.E Software), HOPPER (PSS),TEACH YOURSELF ORIC (Viscount), SUPER ADVANCED BREAKOUT (Tansoft), 3D MAZE/BREAKOUT (IJK),NOWOTNIK PUZZLE (Tansoft), FANTASY QUEST (IJK),ELEKTROSTORM (PSS),BLOWTORCH BLASTER (Touchstone), DEFENCE FORCE (Tansoft),ORIC-MON (PSS),SPOOKY MANSION (Lothlorion),MEMORY GAME (Stour), KILBURN ENCOUNTER (Tansoft), CONCOURS HIPPIQUE - Show jumping (No Mans Land),VELNORS LAIR (Quicksilva), BATTLEFLIGHT (Stour), SPACE MISSION (Computer Rentals),GRAIL (Severn), Mr.WIMPY (Ocean), KILLER CAVERNS (Virgin), ORIC FLIGHT (Oric Software), HARRIER ATTACK (DURELL), ICE GIANT (Softek).

AND THERE IS MORE! I TELL YOU WHAT Mr.HALL - THIS IS SOME TYPING EXERCISE.
I THINK IT MUST BE YOUR ROUND. PLEASE FAX ME DOWN A PINT OF JOHN SMITH's BITTER.
ITEMS 7 ONWARD CAN BE FOUND ON THE NEXT PAGE. ALL I WANT NOW IS A PHONE CALL JUST WE GO TO PRESS, SAYING THAT EVERYTHING'S BEEN SOLD! YOU DARE!

MORE SMALL AND BIG ADS

Here we go with more goodies from the David Hall sell-off:-

ITEM 7

'ORIC OWNER' magazines. Issues 1,2,4,5,6,7,8,9,10 - 50 pence each + postage at cost.

ITEM 8

'O.U.M' back issues - offers.

ITEM 9

Club Europe Oric JEO discs - 3 pounds each + 30 pence per disc postage.

ITEM 10

CEO MAG's - offers.

ITEM 11

3" disks - 3 pound each + 30 pence per disk postage.

ITEM 12

5.25" disks - 1 pound each

ITEM 13

3 off 3" disc boxes and 2 off 5.25" disc boxes - free with bulk sale of discs.

For fuller details ring David Hall on 0253 766576 or write to him at: 38 Colwyn Avenue, Marton, Blackpool. FY4 4EU

THE SEARCH FOR 3" DISCS

3" Drive owners may be experiencing difficulty in obtaining 3" discs. My local branch of DIXONS was selling boxes of 10 Amsoft's at 19.99, but are now out of stock. All they have is their own brand ,which are much more expensive.

Some of the cheapo mail order discs cause problems in as much as they are a very tight fit and are difficult to eject.

I have had a glance at mail order prices. Prices vary somewhat,but the dearer can be cheapest if you live near to the supplier and thus save on postage.

DABS PRESS

address is - FREEPOST (MR8400),Prestwich,Manchester. M25 6LZ - Tel: 061-773 8632.

CF2 3" discs (branded) - 11 pound per box of ten + V.A.T + 3 pound per order carriage.

SOMER DIRECT

address is - Unit 6, Underwood Bus Park, Wookey Hole Road,Wells,Somerset BA5 1AF. Tel: 0749 670590

MAXELL CF2 discs: 1-3 boxes are 16.50 each, 4-9 boxes are 15.90 each etc.

Add V.A.T and 1.50 per order carriage.

==========

NON-BARGAIN OF THE YEAR

'PUTERS of Bromley are avertising what must be the non-bargain of the year.

Buy a STAR LC24-15 Printer for 245 pounds + V.A.T + postage, BUT as a special offer you can deduct one pound from the price if you purchase a PC.

By the way, if you are looking for a printer,printer ribbons,discs, paper etc; then I do reccomend that you check out one off the computer magazines. e.g 'COMPUTER SHOPPER' - over 500 pages for 1.19.

THE ADVENTURER

I remember recieving 'ARROW OF DEATH Pt.2' (Channel 8 Software) for review.
A nice coloured inlay,but no instructions.
Recently I have come accross a booklet on the famous MYSTERIOUS ADVENTURES from Channel 8. This gives general hints on solving adventures as well as an introduction to their 14 titles. Yes 14 !
Eleven I know of,but the other 3 I can only assume were never released or just released for another micro.
The trio new to me are 'MIDWINTER', 'AFTER THE FIRE' and 'BEYOND THE INFINITE'.
MIDWINTER is set in the year 2021 and the world is in the grips of a second ice age. You are in the attic of your Grandfather's house. Your grandfather was the leader of a team of men,who had met with untimely accidents,whilst working on the 'Greenhouse Effect'. You cling to his briefcase. Could there be a clue inside it that will enable you to solve the disastrous mystery of - MIDWINTER.

'AFTER THE FIRE' is about the dreaded mushroom cloud. Around the globe humanity was ceasing to exist. Each explosion terminated the lives of thousands. Are you the last human on earth?

'BEYOND THE INFINITE' sets you aboard the Starship DAEDALUS drifting through deep uncharted space. You are one of the chosen survivors of the final Holocaust of the Planet Earth. After 13 years in Cryo-Hibernation with your ship mates (all 3000 of them); you take your first glance out of the observation window. Your starship has wandered into a region where physical laws as we know them,do not exist ... You are now Beyond the Infinite.

Well that trio sound a bundle of fun.
For those readers not aware, the eleven titles released for the ORIC were:- THE GOLDEN BATON (a land of brave warriors and hard knights), ARROW OF DEATH PT.1 (five years after you regained posession of The Golden Baton), ARROW OF DEATH PT.2 (You got the component parts of an arrow in part one - now use them), ESCAPE FROM PULSAR SEVEN (you are on your space freighter with a creature from the intergalactic zoo), FEASIBILITY EXPERIMENT (set in a remote galaxy lies a world made artificially from the raw material of the universe), THE TIME MACHINE (a local news reporter, an eccentric scientist and some weird noises), CIRCUS (a circus tent,brass bands,children playing,lions roaring - the blade of a gigantic knife and then .....), THE WIZARD OF AKYRZ (an evil sorcerer, a Golden Baton, a Magical Arrow), PERSEUS AND ANDROMEDA (Zeus, Medusa and all your old favourites from the Nether World), TEN LITTLE INDIANS (a train journey, a mansion, treasure hunters and ten figurines), WAXWORKS (A day at the seaside - roller coasters,dodgems,candy floss and hot dogs. A trip to the Waxworks ,which brings.....).

Well I hope you have enjoyed this little insight into the graphic adventures from Channel 8.
As far as I can gather,all the adventures were written and conceived by a BRIAN HOWARTH. Certainly a man with a vivid imagination and a will to work. I wonder how many other writers could put out so many titles in such a short space of time
Elsewhere in this magazine or in the next issue; you will find out how to obtain these titles.

- DAVE DICK

TWO MORE FOR THE TAPPERS

The first program comes from Ken Duddle. It is for all those who do the 'SPOT THE BALL' coupons. To those overseas readers; it is a competition where a picture of a moment from a Soccer match is reproduced minus the ball. The competitor has to put an 'X' where they think the ball should be. In most instances competitors have numerous attempts. Ken is in a syndicate and uses this program to place 540 X's on the coupon.

You adjust the coupon on your printer to the area where you think the ball is most likely to be and then RUN the program. The pattern of the X's is similar to that of the shape of a ball.

To make it easier for me to type and easier for you to read, I will precis the program. e.g. " 5 sp 12 X 5 sp " means : Quotes, 5 spaces, 12 X's, 5 spaces and quotes. Here we go.

```
5 LPRINTCHR$(27);"!";CHR$(29)
10LPRINT:LPRINT:LPRINT
```

LINES 105,115,125,135,145,155,165,175,185,195,205,215 are all the same and are: LPRINT" 11 sp ";

All the following lines begin with - LPRINT

```
110 " 5 sp  10 X  5 sp"
220         as line 110
120 " 4 sp  12 X  4 sp"
210         as line 120
130 " 3 sp  14 X  3 sp"
200         as line 130
140 " 2 sp  16 X  2 sp"
190         as line 140
150 " 1 sp  18 X  1 sp"
180          as line 150
160 "       50 X      "
170 "       50 X      "
```

Finally is line 350, which reads: END
Alternately you could buy a stamp from your pools collector!

Another one for printer owners.
This is a graphics dump for the PANASONIC KX - P1081, which is EPSON compatible. Some printers may need the following line 40 inserted:

```
40 LPRINTCHR$(13)
```

```
10 LPRINT CHR$(27);"3";CHR$(7)
20 FORM=1TO199
30 LPRINT CHR$(27);"K";CHR$(222);CHR$(1);
50 FORN=1TO239
60 A=-POINT(N,M)
70 IFA=1THENA=7ELSEA=0
80 LPRINTCHR$(A);
90 LPRINTCHR$(A);
100 NEXTN
110 LPRINTCHR$(13)
120 NEXTM
```

Z E B U L O N

IT IS HERE NOW! THE NEW BLOCKBUSTER FROM THE PEN OF JONATHAN BRISTOW IS ENTITLED : Z E B U L O N
AND IS ONLY AVAILABLE DIRECT FROM O.U.M. JUST SEND YOUR OWN 3", 3.5", or 5.25" DISC plus a cheque for 2.50. Alternately SEND 4.50 and I will supply the disc.

ZEBULON IS A MULTI-SCREEN STRATEGY/ARCADE THAT WILL HAVE YOU PUZZLED FOR HOURS AND HOURS.
SUPPORT OUR 'ORIC' SOFTWARE WRITERS - GET IT NOW!

CASSETTE VERSION DUE LATE SEPTEMBER.

A N D O N A N D O N

IT IS GETTING NEAR THE DEADLINE DATE TO PUT THIS BABY TO BED. I WILL THEREFORE JUST RAMBLE 'ON AND ON' NOW FOR THE NEXT FEW PAGES SO THAT I CAN TRY AND GET EVERYTHING ELSE INTO PRINT. THERE WILL BE NO SEMBLANCE OF ORDER AS ITEMS WILL BE ADDED AS I FIND THEM! WE WILL FINISH OFF WITH PETER BRAGG's ARTICLE (IF IT ARRIVES) AND THEN THE INDEX.

THEN HOPEFULLY THE AUGUST BANK HOLIDAY MONDAY IS ALL MINE. I SHALL BE THERE IN THE MARKET SQUARE ON THE COBBLESTONES DOING A BOOGIE TO MY FAVOURITE SOUL BAND 'SOME LIKE IT HOT'. KNOWING THE BRITISH WEATHER,IT WILL BE MORE LIKE 'SOME LIKE IT WET!'.

REPAIRS

DAVID WILKIN HAS BEEN BUSY WORKING ON YOUR REPAIRS OVER THE PAST FEW WEEKS. I ALSO HAVE BEEN DOING LIKEWISE. THEY SHOULD BE FINISHED SOON. PLEASE ME PATIENT.

IF YOU CAN'T BE PATIENT,THEN GET 'PATIENCE' FROM THE PUBLIC DOMAIN.

OPERATION GREMLIN

JEAN BOILEAU TOLD ME THAT HE HAD LOST HIS INLAY TO 'OPERATION GREMLIN' AND CAN'T REMEMBER WHICH KEYS ARE WHICH. SO JUST FOR Mr.ATMOS -

E - EAT (ON PAD ON SOYA STORE)
S - STATUS
CURSOR KEYS - MOVE MAN/WOMAN/ROBOT
KEYS 1 to 8 - CHANGE CHARACTER
P - PICK UP WEAPON D - DROP WEAPON R - REPAIR
U - UNLOCK (AT SPACEPORT) T - TRANSPORT (ON PAD AT SHUTTLE)
I - INFORMATION SHIFT+= - QUIT
X - FIRE LEFT / - FIRE RIGHT . - FIRE UP C - FIRE DOWN

FOR THOSE WHO DIDN'T KNOW,THE OBJECT OF THIS GAME IS TO EITHER KILL ALL THE GREMLINS,EGGS,GREEBS;OR TO GET INTO THE SPACEPORT AFTER UNLOCKING AND WAITING FOR THE TIME TO RUN OUT.

O U M D I S C

I HAD HOPED TO GET THE PROPOSED OUM DISC READY FOR DESPATCH WITH THIS ISSUE TO ALL THOSE WHO SHOWED INTEREST. DUE TO TIME RESTRAINTS AND A FEW LOOSE ENDS e.g. TYING UP COPYRIGHT DETAILS; THE OUM DISC WILL NOW BE DESPATCHED WITH THE OCTOBER O.U.M.

THOSE (AND THERE WERE QUIT A FEW),WHO EXPRESSED AN INTERST WILL AUTOMATICALLY BE SENT THEIR COPY ALONG WITH AN INVOICE FOR 3.50, UNLESS THEY TELL ME TO THE CONTRARY.

ANY OTHERS WISHING TO HAVE THE DISC SHOULD SEND THEIR 3.50 (4 POUND OVERSEAS) TO REACH ME BY SEPTEMBER 20th.

OVERSEAS READERS MAY NOT FIND IT WORT THEIR WHILE TO JUST SEND 4 POUNDS. THERFORE AS AN ALTERNATIVE ,THEY CAN INSTRUCT ME TO REDUCE THEIR SUBSCRIPTION BY 3 ISSUES OF O.U.M.

I NOW POSSESS A 3.5" DRIVE AS WELL AS 3" AND 5.25". THERFORE ALL 3 SIZES CAN BE CATERED FOR, HOWEVER THE PRICE IS THE SAME FOR EACH....WHAT WILL BE ON THE DISC?

A SELECTION FROM THESE LISTED: A CHANNEL 8 ADVENTURE, A MIRAGE ARCADE GAME, SOME UTILITIES, SOME PICTURES, FRANK BOLTON'S SPANISH LESSONS FOR ALL ELDORADO FANS (THAT'S ONE DISC SOLD), A DATABASE, FRACTALS PROGRAMS, PRINTER DUMPS, AN ADVENTURE PASSED TO ME SOME YEARS AGO AND PROBABLY NEVER SEEN BY ANY OF YOU BEFORE, PLUS PREVIEWS OF NEW PROGRAMMES, ONE LINERS etc. etc.etc. and AN OLD CLASSIC ARCADE GAME.

SOMETHING FOR EVERYONE!

SCANDINAVIAN SOFTWARE

AS YOU MAY KNOW, OUR VERY OWN SOFTWARE LABEL 'MIRAGE' IS THE SOLE DISTRIBUTOR FOR THE LIKES OF 'NHL ICE HOCKEY MANAGER',' CHESS MADNESS' and 'ROCKRUN'.

I HAVE RECENTLY RECIEVED ANOTHER UPDATE TO ARMT'S ICE HOCKEY MANAGER (V2?8.56).

THE UPDATE INCLUDES A EUROPEAN TOUR PRIOR TO THE START OF THE SEASON AND SOME DIGITIZED MUSIC IN THE FORM OF 'RAMBO'.

MORE DETAILS IN THE NEXT OUM OF HOW TO OBTAIN THE SCANDINAVIAN SOFTWARE.

MORE ON AND ON

PREVIEW

YET ANOTHER NEW TITLE BEING COMPLETED BY JONATHAN BRISTOW IS:

DON'T PANIC

THIS IS APPARENTLY BASED ON THE 'STACK UP' GAME AVAILABLE FOR MODERN MACHINES. TO ME IT IS A SUBTLE VERSION OF 'TETRIS'. SIMILAR SCREEN WITH 10 DIFFERENT BALL-SHAPED OBJECTS DROPPING DOWN. YOU CONTROL THEM FROM LEFT TO RIGHT,AS THEY DROP,BY WAY OF THE 'SHIFT' KEYS. WHEN THEY LAND ON TOP OF THE BALL BELOW,THEY EITHER SIT THERE OR IN SOME INSTANCES ROLL TO THE SIDE. AS YOU LEARN THE PIECES,SO YOU LEARN WHICH DOES WHAT. GET A ROW OF 3 OF THE SAME AND THESE ARE TAKEN OUT OF PLAY. SCORE ON THESE,BUT BE CAREFUL AS 2 OF THE SHAPES GIVE YOU A MINUS SCORE. GRADUALLY,OF COURSE,YOUR SCREEN WILL FILL UP. THOUGH THE GAME IS NOT PARTICULARLY COLORFUL OR THE IDEA NEW; THE GAME IS SMOOTH TO PLAY AND MAY BECOME QUITE ADDICTIVE. OTHER FEATURES ARE YET TO BE ADDED,BUT I FEEL THAT JONATHAN HAS AGAIN DONE US PROUD.

WELCOME TO THE GROUP

WELCOME TO JOHN LUPTON OF: 101 THE UPLANDS,PALACE FIELDS,RUNCORN,CHESHIRE. WA7 2UB. TEL: 0928 718733. JOHN OWNS AN ORIC 1/ATMOS/MCP40 and is CASSETTE BASED. HIS INTERESTS ARE COMPUTERS AND GARDENING.

ALSO WELCOME TO T.A. CARROLL of LIMERICK,EIRE. A BIT OF A PUZZLE WAS THIS LETTER FROM HIM. ALL IT SAID WAS - "I WOULD APPRECIATE INFO. ON THE MENTIONED CLUBS etc."

A BIT OF DETECTIVE WORK REVEALS THAT I IN FACT MAILSHOTTED HIM FROM THE 'OPELCO' LIST IN MAY. FURTHER INVESTIGATIONS REVEAL THAT HIS NAME IS THOMAS AND HE WAS ON THE 'O.J. SOFTWARE' MAILING LIST. WELCOME ABOARD THOMAS. YOU ARE READER 199. WHO WILL BE THE 200th 'ORICIAN' TO TAKE OUM AND THUS WIN A PRIZE?

THIS ISSUE

THIS ISSUE OF O.U.M WILL GO OUT TO AT LEAST 106 READERS.

OCTOBER O.U.M

ARTICLES FOR INCLUSION IN THE OCTOBER ISSUE OF O.U.M SHOULD REACH ME BY SEPTEMBER 24th. THE NEXT ISSUE WILL INCLUDE (AS WELL AS REGULAR FEATURES): AN ADVENTURE MAP,HIGH SCORES AND YOUR XMAS ORDER FORM FOR ALL THE SOFTWARE TO KEEP YOU BUSY OVER THE WINTER MONTHS.

CLUB EUROPE ORIC

The Summer disc from the C.E.O has duly arrived and contains a nice variety of software. For those who do not take it;here is what you are missing:-

VIEW TO A KILL (Pt.3) - what appears to be an impossible maze. Not in the class of parts 1 and 2.

FRENCH DRAUGHTS - I thought it had loaded wrong as you have to insert the date and time. Anyway a good rendition with Save game option.

MUSIC - Prelude number 1 from BACH.

LODE RUNNER - very fast ladder game with your own design features - you'll need to understand a bit of French. I think this Oric Int. release was originally for the Telestrat.

HIRES SCREEN - a picture of Queen Elizabeth. Next disc will contain Diana on the telephone!

L'HERITER - splendid graphical introduction to this Daniel (WILLY) Duffau adaption. Unfortunately I haven't figured out how to get started.

ORIC TOOLS - disc utility with 20 options including 'Disc to Cassette', which doesn't seem to work for me. Other features include: Backup,Rename,Verify a disc,Sort Directory.

HELP - another disc utility and very nice too.

IMAGO - a 'Centipede' type of game . Good fun.

Well,plenty of variety and another suoer addition to your collection.

Machine Code for the Oric Atmos (Part 18)

Peter N. Bragg

It ain't what you do, it's the way that you do it !

and this time we are going to do something different. So far these articles have concentrated on the programming instructions, what they do and how they work. This is essential at first, because obviously it is neccesary to have something which can be used for programming, before we start looking at programming techniques, particularly as I know that many of us are baffled by machine code (or assembly)programming. However, this months article may well be of more general interest. As this is to be an extended issue, I decided to use the opportunity to look at one of the programming techniques that I have found very useful over the years.

First of all, the usual brief recap. We have looked at the basic requirements for machine code programming on the Oric. In Part 16 of the series, what has been covered so far was summarised and put together, to provide a small programming kit. It consisted of an Instruction Subset, in this case, a list of five essential instruction types, plus two Operating System calls to read the keyboard and write to the display screen. In Part 17, we had a brief look at the use of sub-routines, using a short display routine as an example.

So How Do You Write Software ?

Like many things in life, programming isn't just a case of reading the instructions. If you are familiar with Basic or any other language you will know by now, that a lot depends on the technique that you use, when programming. Just like Basic, machine code programming can be made a lot easier, if you go about it in the right way.

Of course everyone has their own ideas about the "right way" to do things. If you are a beginner you may find this a little confusing at first, but if you are prepared to have a go and keep to fairly small projects at the start, you will soon find that it is not half as difficult as you thought. Have a good look at other peoples programs. One thing, that particularly applies to programming is that there are often several different ways of doing the same thing. If they get the right results, they are all correct, so use the method that you find most suits you.

I made the point in previous articles that it is better to break up any program that you intend to write into a series of small operations or routines, because it is much easier to write and test several small routines individually, than one large one. Obviously, the longer the routine, the more mistakes there are likely to be in it. The more errors you have, the more difficult it is to find them. You can safely say that two errors are four times as difficult to correct as one error and it gets far worse if you add even more errors.

Small routines are much easier to write and test and once they are working it is easy to link them up, using JSR instructions so that they can all be called up as one large routine. That routine itself, can then be called up by other routines and so on. It is like the the old saying "Big fleas have little fleas and so on ad infinitum".

We have covered this point before, but it appears to have a snag. What about very large programs ? If we want to write a super game or database, how do we keep track of dozens of small routines, some of which, may call others ? In fact, there is an easy solution and that is what we are going to look at.

Organising Memory

With a memory like mine, chance would be a fine thing !! However, this is not personal memory, it is the silicon variety installed in the Oric. For most of us, it consists of some forty eight thousand bytes worth. Some of this has been organised for us already by the Oric's manafacturers and by the original 6502 chip designers, but this still leaves plenty of room for our own programs and devices.

You will find that computer designers and manafacturers have a tendency to organize memory in blocks of 256 bytes. However odd the value 256 may seem in decimal, it soon becomes a nice round figure of 100 bytes in hexadecimal. Most human beings prefer to use round numbers, rather than odd values like 256 or 128 and this helps to make the hex numbering system easier to use. We have already met hexadecimal in our machine code instructions and have also used it for the instruction address/locations.

Main reason given for using hex, up to now, has been that it makes the program instructions easier to write. In fact it also makes a lot of other things easier too. A block of 100 hex bytes is quarter of a "K", so four blocks are exactly 1K of memory. These blocks of 100 bytes each are usually referred to as "Pages" and they always start from the first address in the memory, which of course is address 0000 and go on upwards from there. This system of dividing the memory up into "Pages" is quite common particularly in machines using the 6502 chip.

It works like this -

"Page 00" runs from address 0000 to address 00FF,
"Page 01" runs from address 0100 to address 01FF,
"Page 02" runs from address 0200 to address 02FF and so on .....
all the way through the available memory.

Because the memory is divided up in this way, it is easy to dedicate certain "Pages" to specific purposes. The 6502 microprocessor designers themselves earmarked "Page 00" and "Page 01" for use with certain instructions and this applies to all computers that use the 6502 chip, whatever the machine.

Oric's manafacturers have also reserved certain "Pages" for specific purposes. For example, "Page 02" and "Page 04" are mainly used for Operating System and Basic purposes and "Page 03" is dedicated to the Input/Output facilities. The "user memory" starts on "Page 05" and this, of course, is where the Basic programs normally start from.

Now the "user memory area" is quite large and uncommitted and is normally free for you to use in any way you wish. The usual way this is used is to start from one end and carry on writing until the software is finished. This puts a large slab of miscellaneous code into memory which can be a bit incomprehensible in that form. OK, so you may have a listing, but surely we can do something to make things a bit easier than that.

I personally, am not keen on the idea of lots of rigid organisation for everything, particularly with respect to programming. However, a small amount of organisation can be a great help, but it must be flexible enough to cope with a lot of different types of program and even more important, it must be easy to use or you will find that you cant be bothered to use it.

The system of dividing the computer memory up into "Pages" fits the bill in both these respects for my own programming so I have borrowed the idea for my own use.

One from the "Beeb"
---------- A simple trick that I picked up from the BBC Micro, is to start by clearing the whole "user memory", by setting every location's contents to ØØ. Every "Page" start location is then marked by setting the contents of that address to FF. The original BBC "B" also did this every time it was switched on and to give credit where it is due, the manufacturers, Acorn, really had the "Page" system down to a fine art. I found this such a useful idea that it was one of the first things to be installed in the Oric, when I got that. This is now done automatically by a small routine in the Oric's boot file. It is not absolutely neccesary, but I found that it is very useful, particularly if you use a toolkit utility which shows the memory contents in ASCII character form.

Write from the start
---------- I never set out to write the whole program from start to finish, so it isn't really neccesary to do a lot of detailed planning at the start. Instead, I sketch out the idea in brief and then work out what essential operations I need to get started. Operations such as - clear the screen, set up the display, read the keyboard, etc, are obviously going to be needed for any program, but some of these only consist of a few simple instructions and in my case some may have been written already for earlier software projects.

Inevitably, some essential operations will need something new and these are usually tackled first. The idea is to get the smallest and most vital part of the software working first and then build up around that. This is much easier than trying to tackle the whole project in one go.

As the project progresses, quite a collection of small routines builds up, but this is no problem, because this is where the "Page" system becomes useful. I aim to put as many routines on a "Page" as possible, although I try to leave at least three bytes between each routine when writing them. I also try to put related routines together. For example, one "Page" might hold display routines and another would be for control routines. This makes it easy to give the "Page" a meaningful label in addition to its Page Number.

The idea behind all this is to break up the program and it's listing, into small packages, which are then much easier label and handle. Once all the routines in a "Page" have been written and and tested to make sure that they are operating correctly, they can be used as "fit and forget" packages, for the program being written. Not only that, but they are also readily available for other software projects too, which can save a lot of time in the future.

If you ever thought that all machine code/assembly programming has to be done bit by bit and byte by byte, forget it. Just like any other language, if you go about it in the right way, you can build up a library of routines which can be used again and again, in future software projects. The great advantage of such a library of machine code routines is that you can design them to suit yourself, knowing that they are likely to be far better in that respect than software designed by someone else.

Fitting it all in
---------- Obviously, some routines will require storage for data (variables). I usually make the first 16 bytes (ØØ - ØF) of a "Page" into a parameter block for data and start the first routine at address 1Ø of that "Page".

For example, if you look at most of the programs that have been used so far, in this series, you will see that they start on "Page 10" at address 1010 and any data required is put into a block in the area 1000 - 100F. Another thing, I usually reserve first location after the "Page Marker", that is the address ..01 for immediate input, for example an item from the keyboard, although I do try to avoid making too many hard and fast rules.

A "Page" of 100 bytes (256 decimal) is usually sufficent to hold several routines and all the data (variables) required, but of course there will always be the exception to the rule. This is why any system used for programming must be flexible. For example, some routines may turn out to be very much larger than a "Page". The answer is simple, just combine two or more "Pages" to provide as much room as you require. The same applies to data, if you have a large amount, use the whole "Page" or even combine several "Pages" if you need the space.

There is one example of a routine which might require more than one "Page". In Part 13 of the series, we looked at a routine called "Control Select" which sorted out commands, from the key board. We only used four keys in that demo routine, but as I pointed out at the time the number of keys that could be used is only limited by the keyboard and your imagination. One piece of software that I have written, used this routine to sort nearly thirty key commands. Two "Pages" were combined to provide the room. This might appear to go against the advice to "keep it small", but in fact if you look at the routine in Part 13, you will find that it essentially consists of successive repeats of the same set of four instructions. Only the key code and instruction addresses change.

Getting it down on Paper
---------- Much of the above will be a waste of time if you dont have a good way of making and storing hardcopy (paper) listings, because if you are going to make use of your "library" of useful routines, you will find it much easier to check out the listings on paper, than on the screen, when you need to refer to them.

I dont list the whole program in one go, instead I use a seperate listing for each "Page". Each "Page" has a single sheet which lists all the main routines in it. Any program is therefore just a collection of its "Pages", so those lists of routines, when put together, are in fact the program listing. This makes it a lot easier to follow than say a Basic listing. The real trick is to provide a good label for each routine, using no more than three or four words.

The complete "Page" listing pack is simply made up from seperate sheets of 5" x 7" notepaper (203mm x 127mm), held together with a paper clip. As several of these can fit into a small notecase, I dont end up awash in a sea of fanfold paper, when programming away from home.

Using seperate sheets makes it easy to remove or modify parts of listing and I should emphasise that all listings are made on one side of the paper only, so that the listings can also be spread out for easier reading. All this is done in order to build up a collection of useful software instead of having to start from scratch each time.

The individual listing sheets are often written in pencil, some are dis-assembled onto the Oric printer with pencilled in descriptions and some are written and printed out using the smaller "Elite" characters on the dot matrix printer.

Every sheet in the listing pack is headed by three items of information. These are the "Page" label, the date the software was started and the computer it was written for. That last item is required because a lot of my BBC Micro software was written on the Oric (and vice versa), likewise some for the Apple 2e. This prevents mix-ups and the instruction addresses also indicate in which order the sheets are clipped together.

So thats it, how to keep that mass of code readable and save having to write the same old routines again and again. Now for something very different.....

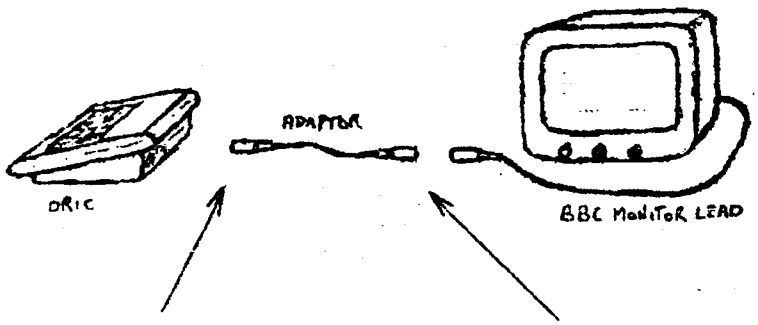
RGB Monitor Adaptor

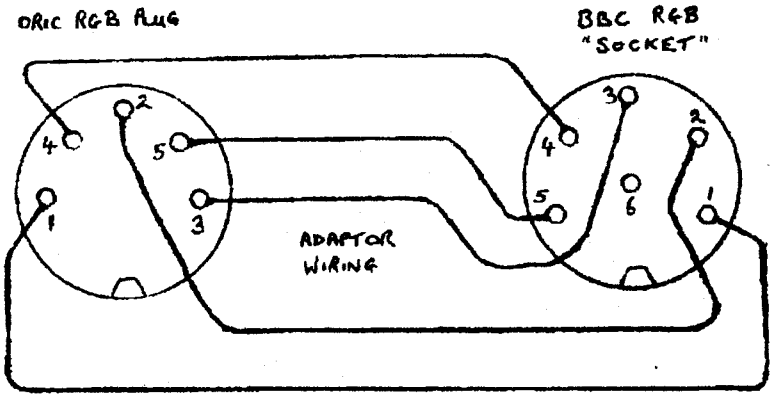
As mentioned above, I use more than one type of computer and it is not unusual for me to swap from the Oric to another machine and back again, several times in a few hours. In order to save a lot of messing about at the back of the RGB monitor, I have made up a small inline adaptor which changes the Oric's RGB socket into a BBC Micro socket. This means that I can use a standard BBC Micro RGB lead (either type, DIN or Scart) into a BBC compatable RGB monitor.

Accessories for the BBC Micro are easier to obtain than those for the Oric, so the adaptor may well be of interest to other Oric users. A wiring diagram for it is shown below and the illustration shows the soldered side of the Oric plug and BBC socket. An "inline" socket is the best for the BBC end, but if you cant get one, you could use the board mounted type.

Pin Numbers
---

(1) Red
(2) Green
(3) Blue
(4) Sync
(5) Øv (Ground)
(6) Not used.





The monitors I use are the Philips 8533 and the Philips 8833. There are many versions of these also with badges for Commodore, Atari and Acorn computers to name just a few. There are also at least three case styles.
In general the 8833 tends to be a bit cheaper and has two speakers. The 8533 has one speaker, but it also has composite video input, useful if you have a camcorder.

With regard to other monitors, I am told that the BBC Micro can be plugged straight into the Amstrad CPC 464 colour monitor, which suggests that it too could be used with the Oric, but I have no experience of that one.

Next time.....we shake a few more bytes out onto the carpet !!

THE BACK PAGE

Well we have almost finished for another month. I think we have quite a good mix this issue. Many thanks to all those who contributed articles. A slight problem at the photocopiers has meant that some letters have had to be written in by hand. Wihout further ado,the INDEX plus a few little items. See you next month.

THE INDEX

PAGE 1 - A SUMMER SCENE FROM JON H
PAGE 2 - THE EDITORIAL
PAGE 3 - THE BEAST
PAGES 4/5/6 - RAMROM from JON H
PAGE 7 - PREVIEW PAGE PAGE 8 - BITS and BOBS
PAGES 9/10 - PICTURES FROM THE 'ORIC MEET' - JON AND NICK (We've sold the banana one to the Daily Mirror!)
PAGE 11 - READER's LETTERS
PAGE 12 - ORIC ROMS and the TELESTRAT
PAGE 13 - More on the TELESTRAT plus news from FRANCE.
PAGE 14 - GRAND DRAW etc. PAGE 15/16 - THE JULY MEET.
PAGES 17/18 - A PAIR FROM FRANK
PAGES 19/20/21 - ORIC ENTHUSIASTS with ALLAN WHITAKER.
PAGE 22 - A GLANCE AT SCANDINAVIAN SOFTWARE with ARNT ERIK ISAKSEN
PAGES 23/24/25 - THE ORIC SERIAL PORT (Pt. 4) - TREVOR 'POPCORN' SHAW
PAGE 26 - SOFTWARE HOUSE UPDATE - JON HAWORTH
PAGE 27 - A to Z of SOFTWARE HOUSES - BRIAN KIDD
PAGE 28 - A LOOK AT 'LORICIELS' PAGES 29/30 - MESSAGES and OTHER THINGS
PAGES 31/32 - small and BIG ADS. PAGE 33 - THE ADVENTURER
PAGE 34 - TWO MORE FOR THE TAPPERS
PAGE 35 - ON AND ON PAGE 36 AND MORE ON AND ON
PAGES 37-41 - MACHINE CODE FOR THE ATMOS (Pt. 18) - PETER BRAGG
PAGE 42 - THE BACK PAGE

LATE NEWS

CHANNEL 8 SOFTWARE HAVE JUST BEEN ON THE TELEPHONE. I AM TRYING TO NEGOTIATE A REASONABLE PRICE FOR THEIR 'MYSTERIOUS ADVENTURES'.
BY THE WAY,THE MYSTERY OF THE EXTRA 3 TITLES (see earlier article). THE COMPANY RELEASED TITLES FOR ALL 8-BIT MACHINES

VERY LATE NEWS

JONATHAN BRISTOW HAS ALSO JUST RANG. HE HAS FINISHED YET ANOTHER GAME. HE THANKS ALISTAIR WAY FOR THE MACHINE CODE ROUTINES. THE GAME WILL,AT JONATHAN's REQUEST, ONLY BE RELEASED ON THE OCTOBER O.U.M DISC. GET YOUR ORDER IT NOW!!!!

VERY VERY LATE NEWS

THANKS TO TREVOR SHAW FOR DE-BUGGING THE 'HPLANS' PROGRAM THAT ROB KIMBERLEY HAD TRANSFERRED FROM THE PC. ROB WILL MAKE SOME COMPARISON TESTS AND THEN WILL PASS IT ON.
THANKS ALSO TO TREVOR FOR 2 PROGRAMS THAT I HAVEN'T HAD TIME TO LOOK AT YET. NAMELY :- 'BIORYTHM' (CONVERTED FOR THE ORIC AND MCP40 BY JOHN RUSHTON AND DESTINED FOR PUBLIC DOMAIN) and 'ELIZA 3' (THE ARTIFICIAL INTELLIGENCE PROGRAM FROM THE 'ORIC OWNER' MAGAZINE WITH MODS. BY TREVOR).
BEST WISHES TO TREVOR ON HIS DEGREE COURSE.

AND FINALLY! ..... AND FINALLY,NOTHING!...THAT IS YOUR LOT.

KEEP ON TAPPING

KEEP ON TAPPING

KEEP ON TAPPING

O.U.M and C.E.O watch this space and see them grow.

LONG LIVE THE ORIC