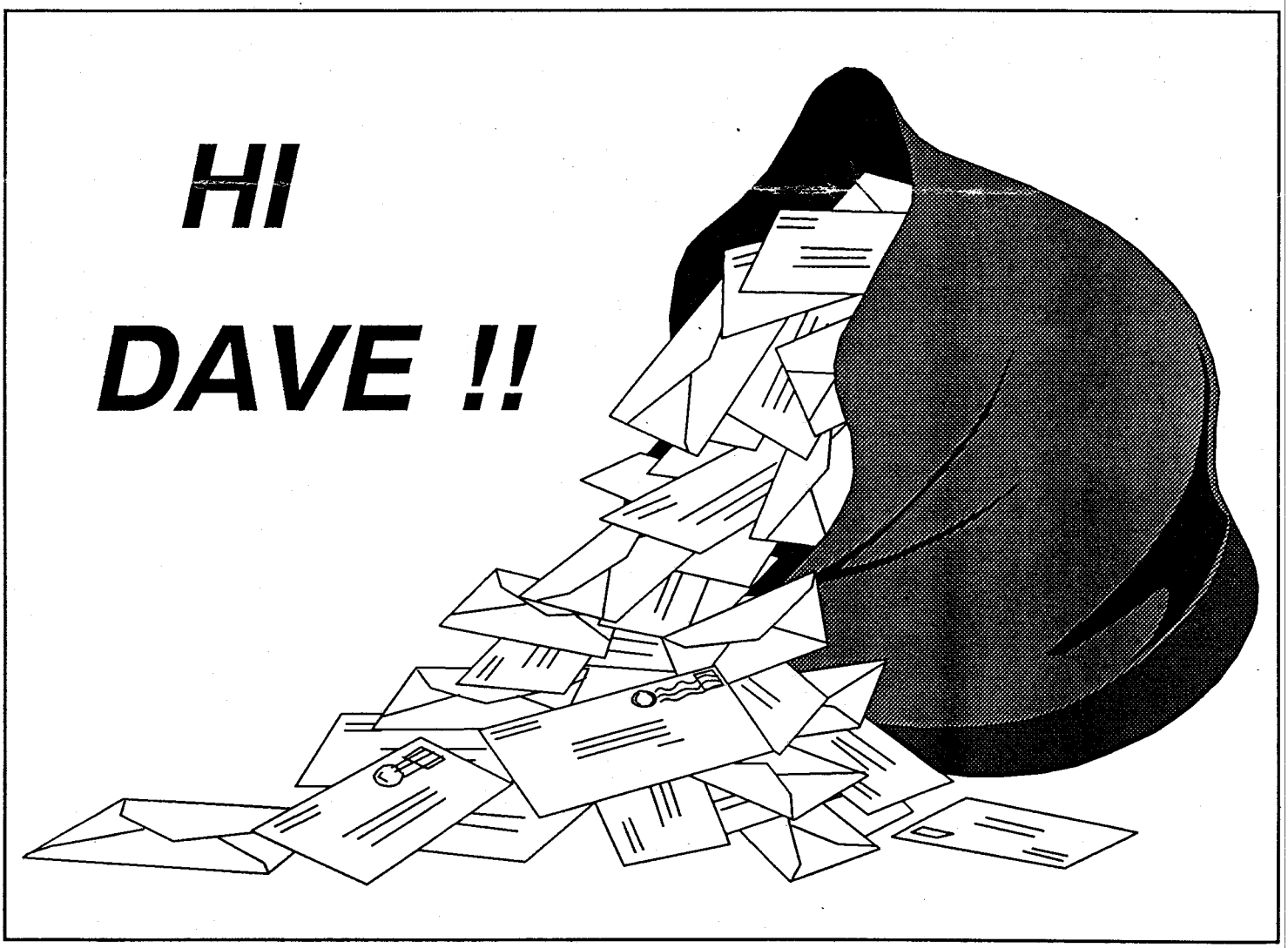
ORIC USER MONTHLY

with Oric Enthusiasts

Europe's longest running Oric Magazine

Number 51

November 1991



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

E D I T O R I A L

BONJOUR,
and welcome to numero 51.
A little late is this issue. Hope you find it worth the wait.

A special thanks to our contributors,who include Jon Haworth,Allan Whitaker,Peter Bragg,Brian Kidd,Bob Bazley,Trevor Shaw ,David Goodrum , Peter Thornburn and the Milkman. It is nice to see - a lot more readers getting involved. Please keep sending in those articles etc.
Also don't forget to send your Oric tips to Frank Bolton (as per previous issue). Frank is at: 35 Market Place, Mountsorrel,Loughborough,Leics. LE12 7BA

Recently we have had quite a few upgrading to disc,namely Peter T, Henry M,Allan M,Arnt the Nord,Paul B etc. This has meant that I have been heavily involved in transferring files over to disc for people and as such have fallen behind somewhat with other items. Apologies and normal service will be resumed as soon as possible.

ARTICLES FOR INCLUSION IN THE DECEMBER ISSUE SHOULD REACH ME BY NOVEMBER 23RD.

I N D E X

Also enclosed you will find the latest Pd order form.

I have recently sent out to those that I thought would be interested, a list of second hand software for sale. If anyone else is interested, please send me an S.A.E

Our thanks to Peter Woolley,who has donated his collection of cassette software.I will catologue it shortly. All proceeds will go to OUM. There are some obscure titles amongst it,including 'ATMOS - SHOWING OFF AGAIN' - from OUG.
Also There was LORDS OF TIME. Which reminds me that young Graeme Burton is on the look out for some of the LEVEL NINE tapes. Anyone got any that they no longer need?

SOFTWARE CORNER

ARENA 3000 (MICRODEAL) - ORIC 1/ATMOS

It is the year 3000;can you destroy each wave of Kiler Robots as they attack , and rescue the Humanoid Survivor? Wave after wave of different robots try to corner you in the Galactic Arena. Will you win? High speed arcade action game. Full colour graphics with sound. MACHINE LANGUAGE.

Machine Code for the Oric Atmos (Part 9)

Peter N. Bragg

The Story so far

We have looked at the basic requirements for machine code programming using the Oric. In Part 5 of the series, we looked at a small set of fourteen instructions consisting of just four different types. We then used two short routines, "Screen Fill" (in Part 6) and "Copy Routine" last month, to illustrate the operation of most of those instructions. The description of the "Copy Routine", was somewhat abreviated, so lets fill in some of the gaps.

The Copy Routine

This was initially set up to copy the contents of the Text display screen into memory. The screen contents were dumped into the area of RAM starting at location 3000 hex. To re-display that screen dump copy was easy We simply swapped the addresses over in the Parameter Block and then copied the screen dump back on to the screen by using the same routine again.

However, I should point out that the Copy Routine is not restricted to the screen area, that was only used for demonstration purposes. You can use the Copy Routine to copy from any area in memory (ROM or RAM), to any area in RAM.

Do-it-Yourself Hyperspace

Of course this all versatility can produce a few "interesting" effects, although nothing permanent or disasterous. If you copy into the area below address 0500, for example, you will overwrite Oric's workspace, which will annoy our little wedge shaped friend immensely. Likewise if you copy program code (ie the ROM) straight on to the screen display, you will find that the result is not a pretty sight, particularly on the morning after the night before. In these cases RESET, or if that fails, pull the plug on it all, to restore "normal service".

The reason for the weird display effects is simple. Program code is made up of individual bytes of values in the range 00 to FF (0 to 256 dec). Of these, the values in the range 20 to 7F produce display characters and cause no problems, but many of the remainder are also used to produce the special display effects for text and graphics, hence the psychedelic display.

Copying any normal screen display into and out of memory is quite easy, as everything is already set up for display anyway. Obviously doing this enables you to examine various screen displays and try out your own modifications and experiments in a more controlled way, using Hexloader or similar code writing utility.

The Copy Routine itself can be quite useful. For example, you could produce simple animation by putting several copy dumps of different screen displays into different areas and then copying them back to the screen display in the required sequence. This could be done by using a simple Basic routine to POKE the necessary addresses into Parameter Block 1002 followed by CALL#1010 for each display. Of course all this can be applied to the HIRES screen display too which is located in the area A000 to BF3F.

How it works

The Routine started by using Absolute LDA instructions to set up a "Fetch & Copy" operation using addresses from a simple Parameter Block. These operations were covered sufficently last time.

The "Fetch and Copy" operation is a one shot affair and the two instruction addresses need updating after each byte copied. Lets have a look at that here.

Updating "Fetch" (& Copy) Instruction Address

The addresses are updated by two separate operations, but as both operations are the same, we will concentrate on the "Fetch" update in 103F to 104D. This uses two ADC# instructions to add the value 01 to the address held in 1029 and 102A. Last months listing is repeated here in minature, in case you do not have it handy.

NOTE - A correction to last months routine. Owing to a slight hiccup in printing, the ADC appeared with a pound sign, it should have printed as ADC#. My fault really, but how do I get boot marks off the printer ??

```
Oric                     Demonstration Copy Routine          15 Sept 1991
----                     --------------------------          ------------

Addr...Code.......Data...........Description....          "VARIABLES"
                              PARAMETER BLOCK 1002         -----------
1002:    A0         BBA0    :Lo: Start Address       :     "Fetch Addresses"
1003:    BB                 :Hi:                     : The start and end of the
                                                     :   area from which items
1004:    E0         BFE0    :Lo: End Address         :       are fetched.
1005:    BF                 :Hi:                     :
                                                          "Copy Address"
1006:    00         3000    :Lo: Start Address       : The start of the storage
1007:    30                 :Hi:                     :   area for copied items.

Addr...Code.....Assembly.........Description..............   COPY ROUTINE
                           SET UP FETCH & COPY INSTRUCTIONS    ------------
1010:AD 02 10   LDA  1002: Lo : Addr for
1013:8D 29 10   STA  1029:    : "Fetch"          : Set the address of
1016:AD 03 10   LDA  1003: Hi : instruct         : instruction 1028 from
1019:8D 2A 10   STA  102A:    :...........       : Params 1002 and 1003
                                                 :        and
101C:AD 06 10   LDA  1006: Lo : Addr for         : set the address of
101F:8D 2C 10   STA  102C:    :  "Copy"          : instruction 102B from
1022:AD 07 10   LDA  1007: Hi : instruct         : Params 1006 and 1007.
1025:8D 2D 10   STA  102D:    :...........

                           FETCH & COPY ITEMS TO STORAGE AREA
1028:AD 00 00   LDA  0000: Fetch an item into Accumulator : Instruct addrs are
102B:8D 00 00   STA  0000:     Copy it into new area.      : preset by routine.

                           UPDATE COPY INSTRUCT ADDRESS
102E:18         CLC     :  Clear Carry Flag to "0"       : Sets next address
102F:AD 2C 10   LDA  102C: Fetch 102C contents and       : in new area, for
1032:69 01      ADC# 01  :    add 01 to them, then       : next item to be
1034:8D 2C 10   STA  102C:      put them back.           :      copied.
1037:AD 2D 10   LDA  102D: Fetch 102D contents and       : This is done by
103A:69 00      ADC# 00  : add Carry (if any) then       : adding 01 to the
103C:8D 2D 10   STA  102D:      put them back.           : instruct 102B addr.

                           UPDATE FETCH INSTRUCT ADDRESS
103F:18         CLC     :  Clear Carry Flag to "0"       : Sets next address
1040:AD 29 10   LDA  1029: Fetch 1029 contents and       : in old area, for
1043:69 01      ADC# 01  :    add 01 to them, then       : next item to be
1045:8D 29 10   STA  1029:      put them back.           :     fetched.
1048:AD 2A 10   LDA  102A: Fetch 102A contents and       : Again, done by
104B:69 00      ADC# 00  : add Carry (if any) then       : adding 01 to the
104D:8D 2A 10   STA  102A:      put them back.           : instruct 1028 addr.

                           LAST ITEM COPIED YET ?
1050:CD 05 10   CMP  1005: Are 102A contents same as 1005,   : Test the address
1053:D0 D3      BNE  1028:     back to Fetch & Copy if not.  : of instruct 1028.
1055:AD 29 10   LDA  1029: Fetch 1029 contents and test,     : If it is Fetch
1058:CD 04 10   CMP  1004:   are 1029 contents same as 1004,: End Addr(Params)
105B:D0 CB      BNE  1028:     back to Fetch & Copy if not.  : then finish/exit.

                           FINISH
105D:60         RTS     :  Exit, back to Basic.
```

Addition operations must start with a CLC instruction to CLear the Carry (to 0), before the first ADC instruction, because the ADC instruction always includes the Carry Flag and adds 01 to any addition result, if the Flag starts at "1".

The address to be updated is a two byte operand, so the addition is done in two parts. First, the low part of the address is fetched into the Accumulator from location 1029 and the value 01 is added to it. The result is saved back into location 1029. Any result that is larger than one byte will also set the Carry Flag to "1" as well.

Next, the high part of the address is fetched into the Accumulator from location 102A and the value 00 is added to it. As the Carry Flag is included in the addition process any surplus from the previous addition, will be added to the high part of the address, which is now saved back into location 102A. In fact the sole reason for adding 00 to the high part of the address in this particular operation, is to allow the Carry Flag to carry over any surplus from the addition to the low part of the address, into the high part of the address.

Updating the "Copy" instruction address is carried out in exactly the same way as the above "Fetch" update. The earlier "Screen Fill" routine also used this method of updating. All we are doing here is simply incrementing the two addresses each time after using them and so there was little point in changing to Absolute operation for this operation.

Last Item Copied Yet ?

This operation makes use of the Fetch "End" address in the Parameter Block to terminate the routine when all the required memory area has been copied. For this particular routine, the Fetch "End" address is the first location after the area to be copied. The routine is stopped when the address used by instruction 1028 matches Fetch "End" in the Parameter Block.

The main reason for the Copy routine was to show how the controlling data could be accessed from a simple Parameter (data) block by using Absolute instructions instead of being scattered around the routine.

This is where the CMP operation used here differs from that in the Screen Fill routine. Unlike the CMP# instruction previously encountered, these Absolute CMP instructions do not include the data item for testing, instead they use the contents of an address in memory as data and compare that with the Accumulator contents. Here in the Copy Routine, the required data (Fetch "End" address) is located in the Parameter Block at 1004 and 1005.

The Absolute CMP operand is the address (in reverse order) of the location where the test data can be found. The two Absolute CMP instructions here, are used to test for the "End" address which is needed to terminate the copy operation.

For example, the instruction CMP 1005, located at 1050, will compare the contents of the Accumulator with those of location 1005 in Parameter Block. At this point the Accumulator already contains the high part of the "Fetch" address as the end result of updating "Fetch" instruction 1028. This means that the CMP instruction at 1050 will be comparing it with the high part of the Fetch "End" address in 1005, which is just what we want.

The two byte address is tested one byte at a time. The low part of the "Fetch" address is copied into the the Accumulator by instruction 1055 and is then compared with the contents of 1004 in the Parameter Block by instruction 1058.

The two CMP instructions set the Zero Flag according to the result of their comparison tests. A match will set the Zero Flag to "1". If the data does not match, the Zero Flag will be cleared to "0".

The two CMP instructions are also paired up with two BNE Branch instructions. BNE Branches are active when the Zero Flag is cleared to "0". The instruction label "BNE" means "Branch when result is Not Equal", or in other words, when data tested, does not match, causing CMP to clear the Zero Flag to "0".

The copy routine will always Branch (loop) back to "Fetch & Copy", providing at least one of the BNE Branches remain active. The only condition that will stop this happening, is when both CMP instructions result in the Zero Flag being set to "1". That will only happen when the address in instruction 1028, matches that in the Parameter Block at locations 1004 and 1005. At that point both BNE instructions are disabled and the copy operation will then Finish and Exit.

The Score so far
---------- The routine was intended to illustrate two points. First, the program layout can be arranged to make programming and operation easier. The Copy routine would have worked just as well with the address/data scattered throughout the routine, but gathering the address/data up into a Parameter Block makes changing those addresses far easier, which in turn makes the routine more adaptable and useful. This will become even more obvious when you write larger programs. Second point illustrated, is that useful routines can be produced, using just a few simple instructions. You do not have to have a vast expertise covering the whole 6502 Instruction Set. So far all of the instructions used, have come from the small subset given in Part 5 of the series. There are better versions of this Copy Routine, but the first objective here, is to show how the instructions actually work.

Thats it for this month's "SYNTAX ERRORS".....Next month's may make you jump !!

RAMBLING IN THE ROM - 32

P.D. Library
Eight new programs this month, so straight in:

CPD-79 MAGIC MATRIX 3k 15p
Magic number squares for fun from Brian Kidd

CPD-80 DRUMULATOR 6k 30p
A bass and snare drum machine

CPD-81 POOLS 91 8k 40p
From John Hurley. Enter the League tables (won, drwn, lost, goals for and against) and predict next weks's results!

CPD-82 REDEF 3k 15p
Redefine up to a 5 x 3 text character grid

CPD-83 PLANETS 8k 40p
A map and physical details of the solar system from the pen of Paul Baker

CPD-84 CITY GAME 27k 50p
A wheeler-dealer strategy board game from Dave Goodrum, for SEDORIC disc only

CPD-85 SERPENTS 14k 50p
To give it its full title, 'Cells and Serpents', a role-playing text adventure also from Dave Goodrum

CPD-86 BRAINSTORM 19k 50p
A challenging general knowledge quiz written by Ken Duddle

Orders as usual to - 3, Madingley Road, Cambridge, CB3 0EE. Remember to include 50p for a cassette, £2.50 for a disc, or supply your own. Postage and packing is 50p. A full list is sent out with each order. We're getting very near the ton now - a big thankyou to all who submit programs.

The Charts
Something new now. I've been keeping charts of monthly sales of PD software, so a selection follows.

June 1990			January 1991			June 1991		
(1)	1	MONOPOLI	(1)	1	SCRIVENER	(1)	1	SCRIVENER
(2)	2	SCRABBLE	(2)	2	PATIENCE	(NE)	2	EVE
(4)	3	WSL	(3)	3	HYPERBALL	(7)	3	CLIPPER
(3)	4	SUPERWIN	(4)	4	HIND	(NE)	4	CAD
(7)	5	CRUSHER	(5)	5	BUSINESS	(5)	5	UNERASE
(4)	6	PRBUFFER	(RE)		STD	(NE)	6	BARGRAPH
(9)		DESIGN	(RE)	7	SCRABBLE	(2)	7	JET ATTACK
(10)		SUPERTRON	(6)	8	JET ATTACK	(NE)		NET80
(6)	9	PINBALL	(RE)		SUPERWIN	(NE)		DISK SPY
(8)	10	DATAPLUS	(RE)		SUPERLIST	(NE)		MAXIT

That's all for this month - now on with the Saga...

Jon Haworth

```
C5CB   BEQ C5D8     C5BB   BEQ C5CB     yes, abort and restart
C5CD   CMP #20      C5BD   CMP #20      is it a control charac?
C5CF   BCC C5A4     C5BF   BCC C594     yes, continue
C5D1   STA 35,X     C5C1   STA 35,X     no, put in buffer
C5D3   INX          C5C3   INX          + increment pointer
C5D4   CPX #4F      C5C4   CPX #4F      is it 79th character?
C5D6   BCC C5DF     C5C6   BCC C5CF     no, continue

C5D8   LDA #' '     C5C8   LDA #' '     Ctrl X: display a ' '
C5DA   JSR $CC12    C5CA   JSR $CCD9
C5DD   BNE C59F     C5CD   BNE C58F     and go to line and restart

C5DF   CPX #4C      C5CF   CPX #4C      was it 76th+ character?
C5E1   BCC C5A4     C5D1   BCC C594     no, continue
C5E3   TXA          C5D3   TXA          Save buffer pointer
C5E4   PHA          C5D4   PHA          on the stack
C5E5   TYA          C5D5   TYA          and in Y (useless!)
C5E6   PHA          C5D6   PHA
C5E7   JSR $F412    C5D7   JSR $FA9F    and send a PING
C5EA   PLA          C5DA   PLA
C5EB   TAY          C5DB   TAY          recover Y
C5EC   PLA          C5DC   PLA
C5ED   TAX          C5DD   TAX          and X
C5EE   JMP $C5A4    C5DE   JMP $C594    and continue

C5F1   INC 17       C5E1   INC 17       Ctrl C: move pointer for
C5F3   LDX #00      C5E3   LDX #00                        input
C5F5   JMP $CB99    C5E5   JMP $CBEA    RETURN: place #00 + exit
```

TAKE A CHARACTER AT THE KEYBOARD

Entry: nothing special

Exit: A contains the character keyed, X and Y are preserved

Remark: a vector has been added in V1.1, which is very handy for using the FUNCT key, for example.
This is the only routine that treats CTRL O.

```
C5F8   JSR $E905    C5E8   JSR $023B    Take the key buffer
C5FB   BPL C5F8     C5EB   BPL C5E8     if empty, start again
C5FD   CMP #0F      C5ED   CMP #0F      Is it Ctrl O?
C5FF   BNE C609     C5EF   BNE C5F9     no, exit
C601   PHA          C5F1   PHA          yes, save it
C602   LDA 2E       C5F2   LDA 2E       and invert its flag
C604   EOR #FF      C5F4   EOR #FF
C606   STA 2E       C5F6   STA 2E       then resave it
C608   PLA          C5F8   PLA          and recover Ctrl O code
C609   RTS          C5F9   RTS
```

ENCODING OF KEYWORDS

Entry: #E9 points to the first character to analyse. The encoding is done in the keyboard buffer, and the text to be encoded must terminate with a 0.

Exit: Y points to the last character of the encoded command. The encoded text is also to be found in the keyboard buffer, terminated by a 0.
A #00 is also placed two characters further on to simulate the end of a program (high byte of line link nul), so that when executing a direct command it can be treated in the same way as for program mode.

Principal: X indexes the uncoded command, Y the coded command. Thus X is always >= Y because the encoding can only reduce the length of the data.

Precautions are taken to avoid encoding strings between double quotes, DATA statements and REMs.
Strings and REMs are recopied in their entirety; with DATA statements variable #2A determines whether they are to be encoded or not (b6=0 if they are to be coded).
To gain time (?) the routine makes no attempt to encode numbers.
As for the rest, the routine works by successive attempts, trying each keyword until a match is found. As a last resort, the character is recopied as it stands.
This method explains the fact that the routine takes a long time to execute, although this is not that important since it is only called once, and never by the command execution routines.

```
C60A   LDX E9        C5FA   LDX E9        Initialise 'old' pointer
C60C   LDY #04       C5FC   LDY #04       and 'new' pointer
C60E   STY 2A        C5FE   STY 2A        and the flag (b6=0)
C610   LDA 00,X      C600   LDA 00,X      Take a character
C612   CMP #20       C602   CMP #20       is it a space?
C614   BEQ C657      C604   BEQ C647      yes, just recopy
C616   STA 25        C606   STA 25        no, save terminator code
C618   CMP #'"'      C608   CMP #'"'      is it start/end of string?
C61A   BEQ C67B      C60A   BEQ C66B      yes, copy and treat
C61C   BIT 2A        C60C   BIT 2A        can it be encoded?
C61E   BVS C657      C60E   BVS C647      no, just recopy
C620   CMP #'?'      C610   CMP #'?'      is it a short PRINT?
C622   BNE C628      C612   BNE C618      no, jump
C624   LDA #BA       C614   LDA #BA       yes, so token for PRINT
C626   BNE C657      C616   BNE C647      Unconditional: place it
C628   CMP #'0'      C618   CMP #'0'      If it's a number
C62A   BCC C630      C61A   BCC C620
C62C   CMP #3C       C61C   CMP #3C       or ':' or ';' - don't code
C62E   BCC C657      C61E   BCC C647      and just recopy
C630   STY E0        C620   STY E0        save Y
C632   LDY #00       C622   LDY #00
C634   STY 26        C624   STY 26        Set keyword counter to 0
C636   LDA #E9       C626   LDA #E9
C638   STA 18        C628   STA 18        and initialise pointer
C63A   LDA #C0       C62A   LDA #C0       to start of keyword table
C63C   STA 19        C62C   STA 19       (-1 as start by increasing)
C63E   STX E9        C62E   STX E9        Save start of word to code
C640   DEX           C630   DEX          (-1 as start by increasing)
C641   INX           C631   INX           next character
C642   INC 18        C632   INC 18        and the same for
C644   BNE C648      C634   BNE C638
```

F U N P A G E

WHAT IF? - RACHAEL & S E GREGATION

When ORIC went bankrupt a company from Pakistan put in a bid to buy it. What if a company from a far flung outpost had been successful. ? Would we have been reading the following headlines?

'CURRYSOFT' announce a new release - 'RUSHDIE MUNCH' - a new pakiman game with 50 satanic levels.

Due soon are 'POSTMAN PATEL' and 'POPPADOM BLASTA'.

PROTEK PATEL announce a new 24 way joystick cartridge,so that all the family can play.
Following the success of PRESTEL and MINITEL in Europe; MINIPATEL is to be launched.
Head of 'OPELCOPATEL', Mr. Steve Patel has announced plans for a new drive . It will take 36" discs so that you can store all your relatives names and addresses.

==========

D E L T A F O U R

Every so often I get out a piece of software (at my age I no longer possess hardware!) and give it a good thrashing. Recently it has been DELTA FOUR,a 4 part arcade game on 'Emerald' from Andy 'GRUN' Green, author of THEM and ULTIMA ZONE. This has the same 'swishing' sound effects that were his trademark. I acquired it as free software on one of those CEO or was it CDO discs? The main problem was that there were no instructions with it. Now that I've figured them out, I might as well pass them on. The 4 games include an excellent 'Invaders' interpretation.
The first 3 screens utilise the same keys: Z = left, Left cursor = right, RETURN = fire.
Playing it in the Atmos is a bit 'cack-hande' as the 'Z' key is to the right of the left cursor key. I used to turn the Atmos on it's side. Then recently I played it on my lad's ORIC 1 and hey presto it's dead easy with that original keyboard lay-out.
For the 4th screen,the gun sights are set the I,J,K & M keys, whilst the missiles are fired using: LEFT SHIFT, 'A' < and 'X'.
To start the game from screen 1,press SPACE.
If you die whilst on screen 2,3 or 4 and wish to re-start on that screen, then press 'CTRL'.
If you want to start straight away on a particular screen, wait for the game demo, and when the screen you want to play is being demo-ed,just press CTRL.
HAVE FUN!!!

==========

D I S C E D I T O R

One of the many handy utilities on BDDISK,that utility available from Jon Haworth is option 4, namely a disc editor.
I have used it for editing programs e.g translating French to English. You can have lots of fun with it. Change the hi-score table and whatever. After you have found what you wish to modify, just type 'M' and the cursor moves to start of the first line of the program. You can page over until you find your start point. Editing can be a little tricky as there are 16 characters per line , but you alter 14. The cursor starts directly over a character,but gradually falls behind the characters. If you are not careful,then you will edit the wrong character. It is also best to of taken a backup of the file that you are editing. When you have re-written that particular page ,press RETURN. If it doesn't look correct ,then re-modify it. You can come out of 'Modify' at any timr by pressing 'E(sc)'. When you are happy with your work,just write 'W' and that particular sector/track is over-written on your disc.

ORIC ATMOS and ORIC-1 GRAPHICS & MACHINE CODE TECHNIQUES

Chapter 1 - LOOKING INSIDE THE ORIC (continued)

2.10 **Using RND** (continued). It follows that in order to make RND truly random, you must supply it with an initial negative random seed. One of the software timers, incremented 100 times per second, can be employed here. Unless you do a WAIT command and providing there has been some sort of user input (to delay the machine by an unknown time), you can use the third timer at #276/7. For example :

```
5 GET Z$
10 A=RND(-DEEK(#276))
```

Note that A itself is not a very random number - it will usually be a number smaller than 0.01 - but any RND afterwards should be correctly balanced between 0 and 1.

2.11 **Using a printer.** (**Note:** this section deals with using location #2F1 to control printing to the screen or printer. It is claimed that POKE#2F1,255 directs output to the printer when using PRINT. I have found that this does not work on the ATMOS and that a ROM routine needs to be called to do this. SEDORIC DOS provides a command to achieve this, namely PR SET.)

2.12 **The Oric's status bytes.** There are two locations in page 2 which are concerned with the status of the keyboard and the screen. The first of these is at #20C and controls the CAPS lock function. This location contains 127 when CAPS is off and 255 when on. If you put any other value into #20C, then the ORIC will no longer respond correctly. The most important status location is at #26A (**Note:** This is sometimes referred to as the MODE byte and is adequately covered in the ATMOS manual).

2.13 **INVERSE and NORMAL.** (**Note:** These commands were never fully implemented on the ORIC-1 and disappeared altogether in the V1.1 ROM, so I do not propose to cover them here.)

2.14 **Creating windows of text.** The normal way of presenting 27 lines of scrolling text is by no means fixed. It is possible with just a handful of DOKE commands to make just part of the screen scroll up - leaving the rest of the screen untouched. This has many uses where part of the screen is being plotted. Here are the DOKEs needed for V1.1 machines.

1. DOKE#27A with the start address of the screen.
2. DOKE#278, DEEK(#27A)+40
3. POKE#27E with the number of lines to scroll.
4. DOKE#27C, (PEEK(#27E)-1)*40 - this is the number of characters to be scrolled up and must agree with location #27E.

The CLS command should be issued after setting up a different format for the screen.

And here are the DOKEs for V1.0 machines.

1. DOKE#26D with the start address where scrolling is to begin, minus 40.
2. POKE#26F with the number of lines to scroll.
3. You must clear the screen after doing these commands.

(**Note:** Readers of that erstwhile rag IOUG may recall a sub-routine of mine that provided a means of setting up such windows for the ORIC. It is worthwhile incorporating the commands into a routine that you can use in your programs.)

2.15 **Controlling PRINT.** On V1.1 machines the PRINT @ facility allows you to print at any place on the screen. This is also provided on the V1.0 machines by way of an add-on machine code routine in the manual, but no explanation is given on how it works. If you wish to use the general PRINT subroutine in a machine code program, you will need to know a little about how print works in this respect. There are two locations which control where the next PRINT goes to: #268 - the number of lines down - and #269 - the number of characters across. These are relative to the start of the screen as defined by #27A (V1.1) or #26D

(V1.0). On V1.1 machines you also have to write the address of the start of the line to #12/13. An example of moving to D lines down and A characters across is given below :

```
(V1.1)  100 POKE#268,D:POKE#269,A:DOKE#12,DEEK(#27A)+(D-1)*40
(V1.0)  100 POKE#268,D-1:PRINT:POKE#269,A
```

To avoid large numbers of solid blocks appearing everywhere, it is recommended that you turn off the cursor before moving around the screen.

2.16 **Bugs in BASIC.** Most people will be aware of one or two problems with V1.0 BASIC, the most notable example being the TAB function, which is quite useless (although the previous section should help with the problem). In this section, we look at all the bugs and, where relevant, how they can be overcome. First of all, here are the quirks found in V1.0 machines.

1 TAB and COMMA do not work correctly. It is best to use either SPC or, alternatively, POKE#269 with the TAB position.

2 STR$, when packing a positive number, puts the attribute '2' at the front instead of space. (**N.B.** this is because the ASCII code for space, in hex, is 20 and only the first character is picked up) This often results in green numbers! The cure is to use MID$ to take off the unwanted character or to define a new STR$ function using the & facility.

3 ELSE does not work under several conditions, for different reasons, so it is best to simply avoid the command altogether.

4 HIMEM is not set correctly on power-up. The solution is to always put in a HIMEM command at the start of the program, e.g. HIMEM#97FF.

5 When in high-resolution mode, the message 'SAVING' is still output to address #BB80 - putting one line of junk onto the screen. There is no easy cure for this problem, apart from writing your own save-to-tape routine. If you are saving a high-resolution screen, then first copy it to a free area of memory and save that part of memory.

6 When the printer is in the middle of either an LLIST or a series of LPRINTs, characters are often corrupted into 'squiggles'. This is because the interrupt routines which read the keyboard frequently conflict with the use of the printer. The solution is to stop the clock (CALL#ED01) before printing and to start it again after printing is complete (CALL#ECC7). If you are using LLIST, then you can type CALL#ED01:LLIST and then use the Reset button underneath.

7 When you use CLOAD from within a program, BASIC unkindly ends the program once the load is complete. To get around this, you could do a series of CALL instructions instead of CLOAD. Chapter 4 contains the necessary information. (**N.B.** This is really applicable to the loading of the machine programs or binary data from within a BASIC program. An alternative to the CALLs mentioned by Geoff is to prefix any binary code or data section with the hex value #60 (RTS) which will force entry back into BASIC if the machine code file is made to AUTO load. For example, if you were loading a TEXT screen in from a BASIC program you would have previously save the TEXT screen (locations #B800 to #BFDF) along with #60 at location #B7FF with the command CSAVE"SCREEN",A#B7FF,E#BFDF,AUTO.

8 The function HEX$ has an unfortunate tendency to print just the hash sign for zero. This condition should be specially tested for in your program.

9 The GET command refuses to believe that you have pressed the single quote key and instead returns an empty string (""). It is important that you test for this condition before using one of the functions such as ASC.

10 If a print line starts with control characters - e.g. ESC N etc. - then the protected columns 0 and 1 are used, overwriting any PAPER and INK attributes. Always start the line with a non-attribute character such as space.

11 If the single quote character is found at the start of a DATA item, then because of confusion with the REM facility, the rest of the DATA line is ignored. Use double quotes around any DATA items containing single quotes.

12 When loading a file, the filename is only printed (on the STATUS line) when it is actually supplied within the CLOAD"" command.

Next month -- Completion of ORIC bugs and Chapter 2.

Last time we learned how to OPEN and CLOSE a sequential file so now we are ready to create some data, write it into a file and then read it back into the computer.
First we will simply cycle a variable from 1 to 20 saving its value to the file at each iteration. The associated BASIC program is as follows. To save on space, as quite a number of lines of BASIC are identical for each DOS then I will use the format below for the rest of the series. Just choose the appropriate lines for your DOS. Remember to use ! with RANDOS.

```
                10 REM   *** WRITE 20 NUMBERS ***
MICROSOFT       20 OPEN "O",#1,"TWENTY.DAT"
RANDOS          20 !OPEN 1,"TWENTY.DAT",W
SEDORIC         20 OPEN S,"TWENTY.DAT",1
                30 FOR I=-9 TO 10
MICROSOFT       40 :   PRINT #1,I
RANDOS          40 :    I$=STR$(I):!PUT 1,I$   Note:   All sequential variables
                                                in a record have to be alphanumeric type.
SEDORIC         40 :   PUT 1,I
                50 NEXT I
                60 CLOSE 1
                70 END
```

Having typed in your program, save it to disc using the generic command SAVE"TWENTY.BAS", see the last article for the precise syntax.

Now you need to be able to check that the data has been saved correctly therefore we need a small program to read the data from the file on disc.

```
                10 REM   *** READ 20 NUMBERS ***
MICROSOFT       20 OPEN "I",#1,"TWENTY.DAT"
RANDOS          20 !OPEN 1,"TWENTY.DAT",R
SEDORIC         20 OPEN S,"TWENTY.DAT",1  Note that there is no difference from
                                          the OPEN command when writing.
                30 PRINT "Contents of file TWENTY.DAT"
                40 FOR I=1 TO 20
MICROSOFT       50 :   INPUT#1,N
RANDOS          50 :   !GET 1,N$:N=VAL(N$)
SEDORIC         50 :   TAKE 1,N
                60 :   PRINT N
                70 NEXT I
                80 CLOSE 1
                90 END              Save this program to disc as "READ20.BAS".
```

So, what have we done with these programs? First of all, if you display a directory of your disc you will see that there are two files with TWENTY in their title. Firstly, the actual program file "TWENTY.BAS" and then the data file that the DOS has created, "TWENTY.DAT" which contains our 20 numbers arranged one after another in sequential form. Also there is the file "READ20.BAS". To get any particular value, without using any special commands we have to start from the beginning of the file and read each value until we find the one that we want. There are commands that help speed this process up but we will deal with those a little later. For now we will just use the simple commands for accessing data from sequential files.

If you want to check the contents of a sequential file without having to read each value, you can display it by using the TYPE command which is provided with all 3 DOSs. So to look at the contents of "TWENTY.DAT" you can use the following commands :

```
MICROSOFT (from BASIC)   SHELL {Return} TYPE TWENTY.DAT {Return} EXIT
RANDOS                   !TYPE "TWENTY.DAT"
SEDORIC                  OPEN S,"TWENTY.DAT",1:TYPE 1:CLOSE 1
```

Having demonstrated the technique using numbers lets extend the use of sequential files to alphanumeric characters, using a telephone list for all your friends. (This won't be too long for you, Dave, if you are covering France!). The first demonstration of this will match forenames with telephone numbers and will be limited to ten numbers. Later, this will be developed further.

The structure of the program is very simple. First, the file "FRIENDS.DAT" is opened for writing. Ten names and phone numbers are entered in a FOR-loop and written to the file. After the names and phone numbers have been entered, the file "FRIENDS.DAT" is closed and then reopened for reading (lines 90 to 100). Then the list appears on the screen.

```
               10 REM   *** YOUR FRIENDS' PHONE NUMBERS ***
MICROSOFT      20 OPEN "O",#1,"FRIENDS.DAT"
RANDOS         20 !OPEN 1,"FRIEND.DAT",W     Note : with RANDOS the filename
                                             is 1;imited to 6 characters.
SEDORIC        20 OPEN S,"FRIENDS.DAT",1
               30 PRINT "Enter 10 names and phone numbers"
               40 FOR I=1 TO 10
               50 :   INPUT "Your friend's name";N$
               60 :   INPUT "Phone number";P
MICROSOFT      70 :   PRINT #1,N$:PRINT #1,P
RANDOS         70 :   P$=STR$(P):!PUT 1,N$,P$
SEDORIC        70 :   PUT 1,N$,P
               80 NEXT I
               90 CLOSE 1
MICROSOFT     100 OPEN "I",#1,"FRIENDS.DAT"
RANDOS        100 !OPEN "FRIEND.DAT",1,R
SEDORIC       100 OPEN S,"FRIENDS.DAT",1
              110 PRINT "List of phone numbers"
              120 PRINT "---------------------"
              130 FOR I=1 TO 10
MICROSOFT     140 :   INPUT #1,N$,P
RANDOS        140 :   !GET 1,N$,P$:P=VAL(P$)
SEDORIC       140 :   TAKE 1,N$,P
              150 :   PRINT N$,P
              160 NEXT I
              170 CLOSE 1
              180 END
```

Please note that for MICROSOFT BASIC, the name and number has been written to the file using individual PRINT commands (line 70). This is required to create the appropriate separator between the variables.

The file thus consists of data records of varying length, each terminated with a separator.

Don't forget to save this program as "FRIENDS.BAS" before running it or switching the computer off. When you run it you should end up with a neat list displayed on your screen. Do a DIRectory of the disc and see that "FRIENDS.DAT" exists.

N E W S

WORDSPEED

WORDSPEED, THE SUPER WORD PROCESSOR FROM THE PEN OF Dr. RAY McLAUGHLIN IS NOW AVAILABLE DIRECT FROM ALLAN WHITAKER AT 'ORIC ENTHUSIASTS', 8 STALEY HALL ROAD,STALYBRIDGE,CHESHIRE. SK15 3DT.
THIS 'SEDORIC' DISC PROGRAM WILL CONTAIN ALLAN'S UTILITY TO ALLOW 'AUTHOR' AND 'WORDWORTH' USERS TO LOAD THEIR TEXT FILES. IT ALL COMES WITH A PROFESSIONALLY PRESENTED MANUAL.
THE COST IS 8 POUND FOR SEDORIC REGISTERED USERS. NON-REGISTERED USERS SHOULD ADD 50 PENCE. EITHER SEND YOUR OWN DISC OR ADD TO THE ABOVE PRICES: 2.10 FOR 3", 1.00 FOR 5.25", or 80 pence FOR 3.5".

==========

SEDORIC V1.007

Allan Whitaker is currently sending out updated Sedoric v1.007.

SEDORIC V2.0

RAY McLAUGHLIN's UPDATE TO SEDORIC TO ALLOW A FULL 80 TRACK DOUBLE SIDED ON 3.5" AND 5.25" IS NOW WITH ALLAN. SLIGHT ADJUSTMENTS HAVE TO BE MADE TO THE ORIGINAL SEDORIC,WHICH MEANS THAT CERTAIN AMENDED SHEETS WILL BE SENT OUT WITH THIS VERSION. AS THIS WAS SUCH AN IMPORTANT AMENDMENT TO THE ORIGINAL DOS,IT WAS FELT THAT IT MERITED BEING CALLED V2.0 AS OPPOSED TO V1.008.
COST TO REGISTERED USERS WILL BE 3.50 + A DISC.
NEW USERS WISHING TO REGISTER SHOULD SEND 8 pounds + DISC.

****PLEASE NOTE****
SEDORIC V2.0 WILL NOT BE AVAILABLE UNTIL DECEMBER 1st.

==========

ORIC COMPILER

I HAVE RECENTLY RECIEVED FROM HANS KRAUS IN VIENNA, A 5.25" DISC FORMATTED TO IBM MS-DOS.
USING 'BDDISK' TO FIND THE SECTOR/TRACKS WHERE THE FILE 'LETTER.TXT' WAS STORED; I THEN TURNED TO 'NIBBLE' TO READ THE LETTER FROM HANS. I WILL NOT GO INTO DETAIL AT THIS POINT AS IT APPEARS THAT A MANUAL SENT WITH THE DISC , HAS BEEN LOST. THE PACKAGE ARRIVED DAMAGED AND RE-SEALED BY OUR POST OFFICE FRIENDS AT MOUNT PLEASANT SORTING OFFICE.
** WATCH THIS SPACE **

LIBRARY

BRIAN KIDD (our Publicity Officer), has offered to loan out on a medium term basis, 4 machine - code books for the ORIC. Lending rate will be just the price of post/packing.
Brian is at : 7 HAWTHORN FOSSE, NEWPORT, GWENT. NP9 9AB

S O F T C O R N E R

CLASSIC RACING

This is from SALAMANDER and for the ORIC 1 /ATMOS.
Up to 6 people can play this exciting and challenging simulation of horse racing. Each person owns a string ,and must plan,bet and experiment in the early races so to discover the strengths and weaknesses of their horses. If there is not 6 people,the computer will put up some tough opposition by managing the other stables. Great graphics and sound make it so real,you'll be sweeping up th eticket stubs afterwards.

NEWS AND OTHER THINGS

CYCLONE

The Oric area on the CYCLONE BBs has now closed as David Goodrum no longer has time to keep it updated etc. CYCLONE itself is to undergo a major change later this year;with a change from a 'viewdata' to a 'terminal/scrolling system''.

ACCOUNT BOOK (Softbacks)

Edmund Wisniewski is a user of the accounts package on his Byte Drive system. He wants to find an easy way to allow him to print just a particular month to screen printer,rather than a whole year's data.
If anyone has amended their program to do this,would they kindly write to Edmund at : 6 STUTELY GROVE, BRADLEY,HUDDERSFIELD,WEST YORKSHIRE. HD2 1SA or ring him on 0484 546850

WHERE ARE THEY NOW????

Dr. PAUL JOHNSON,designer of the ORIC, is now with a firm of consultants in Surrey.
JOHN MARSHALL,of RATSPLAT and INSECT INSANITY fame is with a software design company in Middlesex.

THE 40-80 TRACK THEORY

A floppy disc is a circular,thin piece of magnetic media contained within a flexible or rigid plastic jacjet and when inserted in a disc drive rotates at 300 rpm. The utility 'DISCREVS' can be ordered via Public Domain and is catalogue number CPD-6. This way you can test the speed of your drives. Mine are usually between 301 and 302 rpm.
The read/write head in the drive is moved in and out radially over the diskette to get to the correct track. This is known as stepping. The tracks are numbered 0 to 39 on a 40 track disc and 0 to 79 on an 80 track.
Since the total distance covered by the head is the same for both 40 and 80 track systems,the head inside the 80 track drive must step twice as many times to go the same distance as the head in the 40 track drive. This distance is measured in TPI (Tracks per inch). A 40 track 3" drive has a pitch of 100TPI and an 80track a pitch of 200 TPI. 3.5 inch drives have a pitch of 67.5 and 135 respectively,whilst 5.25" drives have 48 and 96.
NEXT MONTH - The Index Hole,Data Window and The Hub Ring.

==========

S O F T C O R N E R

LAND OF ILLUSION (TANSOFT) - oric 1/atmos

Your adventure takes place in the 13th. century,when the land was run by sherrifs,whose problems were local bandits and collecting of taxes. You find yourself under an evil curse. You must release your village from the curse but beware of creatures that attack and other enemies. It has high resolution graphics coupled with amazing sound effects throughout.

CLUB EUROPE ORIC

BECAUSE I DARED TO CRITICISE THE C.E.O IN A COUPLE OF ISSUES OF O.U.M., I HAVE BEEN VICIOUSLY ATTACKED IN THE EDITORIAL OF THEIR LATEST MAGAZINE. I THANK THE MANY CEO SUBSCRIBERS WHO HAVE WRITTEN AND TELEPHONED ME WITH THEIR SUPPORT. IF ALLOWED TO I WILL REPLY VIA THE CEO, AS I HAVE NO INTENTION ON WASTING A WHOLE PAGE IN O.U.M.
MEANWHILE I AM STILL VERY ANGRY AND ONLY HAVE ONE MESSAGE IN REPLY TO THEIR EDITORIAL. IT IS TAKEN FROM 'THE SIMPSONS' CARTOON PROGRAMME AND OFTEN UTTERED BY BART SIMPSON - "KISS MY BUTT !"
FOR READERS OF THE MORE INNOCENT NATURE,PLEASE NOTE THAT I AM NOT REFERRING TO THE END OF A SNOOKER CUE - IT IS A DIFFERENT END ENTIRELY.

Being relatively new to the Oric scene,I thought I'd look into the long lasting appeal of this little computer. First,a little background. I first came accross the Oric in 1983 when I bought it for Xmas. It won against the Spectrum,due to the fact taht it had a better keyboard,sound ,graphics,expansion and and (the list goes on). To be honest,I had nothing but trouble with it,mainly loading tapes. At first it worked fine & I had a great time showing off to my mate who had a Spectrum. Then games wouldn't load and after trying several tape recorders,I took the Oric back to Dixons and got myself a Dragon 32 (BOO! HISS! - but it was the only other computer around in my price range). As years went by, I upgraded to nearly all the main home computers,including the QL,which if it had come with an internal 3.5" drive and not those crazy microdrives,would have still been aroud today. Today I use an Amiga 500 with hard drive and an IBM card so that I can take work home. The Amiga is the best 16 bit computer this side of a ZX80 in case you are wondering.

So on to the reason that I am writing this. What of the Oric? is there a future for it in the world of IBM's and 16 bits with Megabytes of memory & fancy graphics? Well - yes & no! The Oric has a fair amount of support when it comes to software & disc drives i.e these items are relatively cheap & easy to get hold of. What we have to do is look at where we could expand Oric usage and get people to get old Orics out of their cupboards. One way is to offer new users a tape full of useful Public Domain software (they provide the tape of course),as people tend to want anything that is free! This would at least get them playing with the Oric again. SEcondly advertise with free ads. in the computer mags, hence letting people know that there is still support and PD for the cost of a tape. Of course the PD programs need the consent of the programmer,but if it keeps the Oric going strong;I can see no problem with that.

Dave Dick (God bless his cotton socks) is doing a great job with OUM & every month there seems to be new members (me included) & this is a plus point,if new people have a monthly contact with any problems they have (which I always do). So what am i going to use my Atmos for? Well,it is going to Krefeld,so I can use it at week-ends when I go home (I work in Hamburg during the week).But first I need to get the disc drive,as I still haven't got any tapes loaded - SOME THINGS NEVER CHANGE!

Regards - BOB

NOTE FROM THE EDITOR

BOB also suggests that we start a discussion page in OUM so that other readers may air their views on the future of the ORIC. I await your comments.

I'd like to put in my 'two pennyworth'. I think that the Public Domain software is so competively priced that you can't just give it away. There must be a charge for duplication of programs. Some money is needed to fund the purchase of datacorders - they don't last for ever. Jon puts an enormous amount of time and effort with PD and we all owe him a great debt. The library consists of 86 titles,many of which are of high professional standard. As for advertising;that is happening. Brian Kidd and myself have been undertaking an enormous mailshot to Oric users. Funds only allow us to contact so many per month,but we are having some success. The membership did not rise to 100 by sitting back and waiting for people to phone. Also we did fairly frequently get mentions in the computer magazines. The problem with expanding too much too soon is that at some stage there will not be the time to answer everyone's queries,as well as marketing software and getting the magazine out. It is a horrendous job having to collate up to 2000 sheets of paper each month. The trouble with growing too big is that a club loses it's 'family' atmosphere. We now are in a strong position. We have programmers, technical boffins and all that is needed to make up a group. I feel we must build on what we have got. Personally I would like to see: a) All members using the Atmos,but if they particularly love their Oric 1 keyboard,then at least have an Atmos ROM in it, b) All users on disc drive - that of course depends on the individual users finances, c) those already on disc to go onto SEDORIC, and d) more help to the youngsters out there who have just started and need a brain to pick.
I feel that the way forward is with the enthusiastic youngsters with guidance from their elders. WHAT DO YOU HAVE TO SAY?

M A I L O R D E R

ALONG WITH THIS ISSUE,YOU WILL RECIEVE A 2 PAGE CATALAGOUE,LISTING ALL THE SOFTWARE AVAILABLE FOR YOUR ORIC.
ALL TITLES ARE ORIC1/ATMOS UNLESS SPECIFIED;BUT PLEASE SPECIFY YOUR MACHINE AS THERE ARE SOMETIMES DIFFERENT VERSIONS OF THE SAME SOFTWARE.
WE HAVE NOW MANAGED TO GET THE FULL CATALOGUE OF 'IJK' TITLES,ALTHOUGH SOME OF THESE ARE NO LONGER AVAILABLE ON CASSETTE.
DISC SOFTWARE IS ALSO AVAILABLE ON 5.25". FOR THE PRICE OF THIS,DEDUCT 1 POUND FROM THE 3" DISC PRICE.
WE ALSO HAVE A FEW COPIES OF 'ZOOLYMPICS' (NO MANS LAND) ON DISC ONLY.
IF THERE IS A PARTICULAR PIECE OF SOFTWARE THAT YOU REQUIRE,WHICH IS NOT ON THE LIST;PLEASE LET US KNOW AS NEW ITEMS ARE OFTEN COMING IN;AND OF COURSE WE ALSO HAVE SECOND-HAND SOFTWARE.
IF YOU HAVE ANY CASSETTE BASED SOFTWARE THAT YOU REQUIRE TO GO ON DISC, PLEASE SEND DETAILS FOR A QUOTE.

WHEN ORDERING 5.25" DISCS,PLEASE SPECIFY 40 or 80 TRACK, SINGLE or DOUBLE SIDED.
IF YOU SPECIFICALLY REQUIRE 3.5" DISCS,PLEASE WRITE.
ALL ORDERS OVER SOFTWARE ARE POST FREE,EXCEPT: a) ORDERS UNDER 4 POUND - PLEASE ADD 50 pence. and b) OVERSEAS ORDERS - PLEASE ADD 50 PENCE PER ITEM - MAXIMUM SURCHARGE 2 POUNDS.

I J K

'IJK' DISC COMPILATIONS ARE NOW AVAILABLE. THEY ARE SENT ON SHORT SEDORIC DOS AND ARE COMPATIBLE WITH ALL SYSTEMS EXCEPT CUMANA V1.0. EACH COMPILATION COMES COMPLETE WITH A SET OF INLAYS.
PRICES ARE 14 POUNDS ON 3" DISC or 13 POUNDS ON 5.25"

BEST OF 'IJK' - VOL.1
ATTACK OF THE CYBERMEN,CHESS,DAMSEL IN DISTRESS,DPTLQ,DRAUGHTS,FANTASY QUEST,GREEN X TOAD,SUPERFRUIT, CANDYFLOSS, and HANGMAN.

BEST OF 'IJK' - VOL.2
BACKGAMMON,FRIGATE COMMANDER,GHOST GOBBLER,PROBE 3,TRICK SHOT,XENON I,3D NOUGHTS & CROSSES,BRAKOUT,PLAYGROUND 21, & 3D MAZE.

BEST OF 'IJK' - VOL.3
CRIBBAGE,DAMBUSTERS,INVADERS,REVERSE,ZEBBIE,ZORGON,XENON III,and GUBBIE
*** PLUS ANY OTHER TITLE IN THE CATALOGUE ***

MCP 40 PENS

ORIC MCP40 INK CARTRIDGES (TANDY) NOW AVAILABLE - STOCK UP NOW AS 'TANDY' ARE TO DISCONTINUE.
PACK A - 1 RED,1 GREEN,1BLUE - 2.20
PACK B - 3 BLACK - 2.20
***** 2 PACKS FOR 4 POUND ****

ALTAI

THE 'ALTAI' TWIN PROGRAMMABLE PASE JOYSTICK INTERFACE - WORKS WITH PAINTER,XENONIII,A.O.T.C,ROLAND GARROS,TWO GUN TURTLE,SPACE SHUTTLE,PASTA BLASTA etc>etc>
- ONLY 4 POUND OR FOR 6 POUND YOU GET AN AMSTRAD JOYSTICK WITH IT!!!

COMING SOON - 'GULP' AND 'MUSED'

*** COME ON - ORDER NOW XMAS ***

M O D E M M A T T E R S

INTRODUCTION

DAVID GOODRUM ALONG WITH OTHERS HAS HAD DIFFICULTY WHEN USING THE ORIC MODEM.
AFTER CONSULTATION WITH TREVOR SHAW I NOW HAVE PERMISSION TO REPRODUCE THE LETTER THAT HE SENT DAVID WITH REGARD TO THESE PROBLEMS. TREVOR , WHO IS THE AUTHOR OF 'ORICOMMS' HOPES TO CONTRIBUTE FURTHER TO 'O.U.M' IN THE FUTURE.

THE LETTER

I have not used the ORIC for communications for some time,mainly because few people seem to be interested and thus there seems little point.
(NOTE FROM THE EDITOR:- we would be interested to hear how many of you out there are actually interested. I can think of least a dozen).
It was always my intention to expand the facilities offered by ORICOMMS, but insufficient interest was shown in the software to merit the effort.
I still get the urge to do something with it regarding file transfer from time to time,but there would be little point unless people can persuade me otherwise.
Many have expressed difficulty with using the ORIC MODEM. Myself,I do not use the ORIC modem and therefore have experienced no problems.
Initially I used a borrowed MINOR MIRACLES WS2000 when testing ORICOMMS. Then I bought a second-hand PRISM 2000 (1200/75 baud) and an old BT(300/300 baud) modem,which I still have.
I did have a little difficulty with the PRISM 2000 when the TUG II bulletin board in Birmingham upgraded it's modem. They changed to a multi-baud rate modem and I sometimes had difficulties logging on for a while after. It was neccessary to press the RETURN key a couple of times to get the host modem to recognise what carrier I was transmitting. However,even then It did not always recognise 'me' and I was unable to log on. I informed the SYSOPS,who made some adjustment to their modem/system;after which I had no further problems,nor did I experience the problem on other BB's.
I seem to remember being told that some of the earlier PRISM 1000 modems (and hence also perhaps the 2000's) didn't do things quite as they should. I think it was something to do with the carrier tone it transmitted,but can't be sure as it was 5 years ago.
The point is that the ORIC modem was a slightly modified and badged PRISM 1000. However , since it was a later version,then I would not of thought that the above problem would have still existed.
I am quite certain however that the problem is to do with the modem rather than the interface,computer or software. The interface has only 3 controls that link to the modem: DCD,RTS and $\overline{\text{DTR}}$.
In the ORIC modem, $\overline{\text{DTR}}$ is used to turn the modem on-line (so we can ignore it). DCD is used by the modem to tell the interface that it can detect a carrier (I believe the PRESTEL software checks for this and drops the line - using $\overline{\text{DTR}}$ if the carrier drops. ORICOMMS doesn't check for DCD but the modem may drop the line anyway;I can't remember without trying it). RTS is used by the interface to tell the modem that the computer is ready to communicate.
So when you intend to go on-line you dial the number and listen for the host computer's carrier tone pressing a key to go on-line. From the ORIC's modem point of view,as long as it can detect a carrier taht is all that matters (you can whistle down the phone and it will be happy!).
It tells the interface that it can detect a carrier (DCD flag set). When you press a key the software switches the modem on-line using DTR and tells it that it's ready to recieve data using RTS. It is that simple.

(SEE OVER).

MODEM MATTERS - CONTINUED.
----- -------

All that happens from the ORIC modem's point of view if the carrier is of the incorrect frequency,or the baud rate is incorrect etc,is that it cannot unscramble the data to send to the ORIC via the interface.

FOOTNOTE

HEY !!! - I have just found a note regarding a modification for the ORIC modem supplied by Pete Franchi (SYSOP on TUG II). Apparently the problem is/was that the Oric modem does not start to send it's carrier quickly enough,which caused logging onto some BB's difficult.

THE SOLUTION
--- --------

The modification requires inserting a 2.2k resistor between the link near VR1 and the end of D15 that is nearest to the PCB. Also link pins 6 & 7 of the 74LS121.

WARNING

The modification may invalidate your British Telecomm approval.

NOTE FROM THE EDITOR
---- ---- --- ------

Thank you to Trevor for the information and if anyone out there tries the mod. then perhaps they would let us know how they got on.

Trevor is prepared to answer any queries regarding communications and the ORIC modem/Interface.

However,due to time constraints , he is NOT available for general Oric chat.

TREVOR SHAW can be contacted at :

8 ROBINSON TERRACE
LOFTUS
SALTBURN-BY-THE-SEA
CLEVELAND TS13 4HY

TEL: 0287 641827

++

S T O P P R E S S

The BACC informs me that PRESTEL ceases to run MICRONET from October 31st. Hence CLUBSPOT (run by the EPUB committee) will be closing on the same date.

The BACC/EPUB committee are considering the alternative host systems to ensure that CLUBSPOT continues to provide a comprehensive service to the hobby computer user and a publicity medium for affiliates. When discussions are concluded, OUM will let you know.

==========

BBC with ATMOS ROM
--- ---- ----- ---

MR. I.PARKINSON of Leigh in Lancashire has a BBC ,which has an ATMOS Eprom (self blown) within it.

Give him a call. His radio call is G3YRQ and his Packet Radio Mailbox is GB7 NWP

EXTRA SPECIAL LATE NEWS THAT MADE MY DAY
----- ------- ---- ----- ---- --- -- ---

CANAL PLUS, a FRENCH cable TV station is proud to announce the result of the RUGBY WORLD CUP QUARTER FINALS:-

c'est impossible !

F R A N C E 1 0

E N G L A N D - N N N N I N E T E E N

B I T S A N D B O B S

WANTED

Orician ARNT ERIK ISAKSEN wishes to purchase for a reasonable price an MCP 40.
Anyone with one to sell should write to ARNT at SIGURDS GT.23, 2000 LILLESTROM,NORWAY.

HI-SCORE

Henry Marke from Portsmouth says he has managed 1356 points on TETRIX, that number one from MIRAGE.
CAN YOU BEAT IT ? Also let us know your hi-scores on other games.

GRENDEL

Alistair Way has a message for Judy Simms, but I won't print it !!! Only joking Judy. Judy like many others is having difficulty in completing the GRENDEL screen where you have to slide off the side of the plinth. During his Xmas vacation, Ali will work on a simple poke to help you all out.
Alistair also says that if readers have any programming queries,then he would also be willing to work on them.
All queries should be addressed to :
Mr. A.WAY at PEMBROKE COLLEGE, TRUMPINGTON STREET, CAMBRIDGE. CB2 1RF.
They should reach him by the first week in December so that he can take them back to Belgium with him,where his ORIC is presently situated. You will recieve your replies sometime in January.

V 1 . 5 R O M

New reader ,H A PETERS from the Netherlands has made a V1.5 ROM for his ORIC. It's a V1.1 with some extras i.e. Basic keywords in small caps,inverse video toggle with CTRL-V, CLOAD without "" and with option STOP,ERROR GOTO n,RESTORE n,OLD and TRACE toggle for TRON/TROFF.
Six of the keys work as function keys with definable meaning (RUN,TEXT, HIRES etc).
I await further details.

P A R I S I N 1 9 9 2

In the last issue of OUM,we muted the chance of a trip to a French Oric meeting in June 1992 for 1 or 2 lucky readers.
Don't forget to write in by November 28th. See issue 50 for full details.

G R E N D E L

To open the door , fire one of each key in the O U M order.

SOFTWARE CORNER

TRICKSHOT - from IJK - ORIC1/ATMOS - based on the highly successful arcade game,this version enables you to practise your potting power to great effect! Smooth movement,excellent sound and superb machine code programming add to the higjly realistic display.

FROM THE POSTBAG

DAVE,

I have been given a SINCLAIR QL and 3.5 inch disc drive and would like to connect the drive to the ORIC. Of course I would need.some form of interface. Could I build one from scratch?

I also have some views on the future of the ORIC in today's computer user world,which i would like to submit to the.magazine at a later date.

- BOB BAZLEY
An Der Alster 10/76
2000 HAMBURG 1
GERMANY

BOB,

as far as I know , the only limitations on using a 3.5" drive are that it must be 720k.

As far as the interface, there are 2 options open to you:

a) Buy an uncased one from Steve Hopps (OPELCO) - he is currently doing special deals for Xmas.

b) I have just had a letter from a new contact overseas. He says that on his PC,he has drawn a printed circuit board of an ORIC disk controller. He has been using successfully with his ORIC for over a year now.

We hope to have a copy shortly.

Regarding your views on the Oric's future,I look forward to receiving your article.

- THE ED.

DAVE,

I have been trying unsuccessfully to use PR SET on SEDORIC. After typing in the command everything should go to the printer. All that happens is that I get the 'Ready' prompt.

Any Ideas - Ian Hutchins.

IAN,

Well I tried it on mine and got the same response. Perhaps someone out there could give us the answer.

- THE ED.

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3D FUNCTION PLOT

THIS SHORT PROGRAM CAME FROM THE WELSH WIZARD AND TAKES APPROX. 10 MINUTES TO RUN.

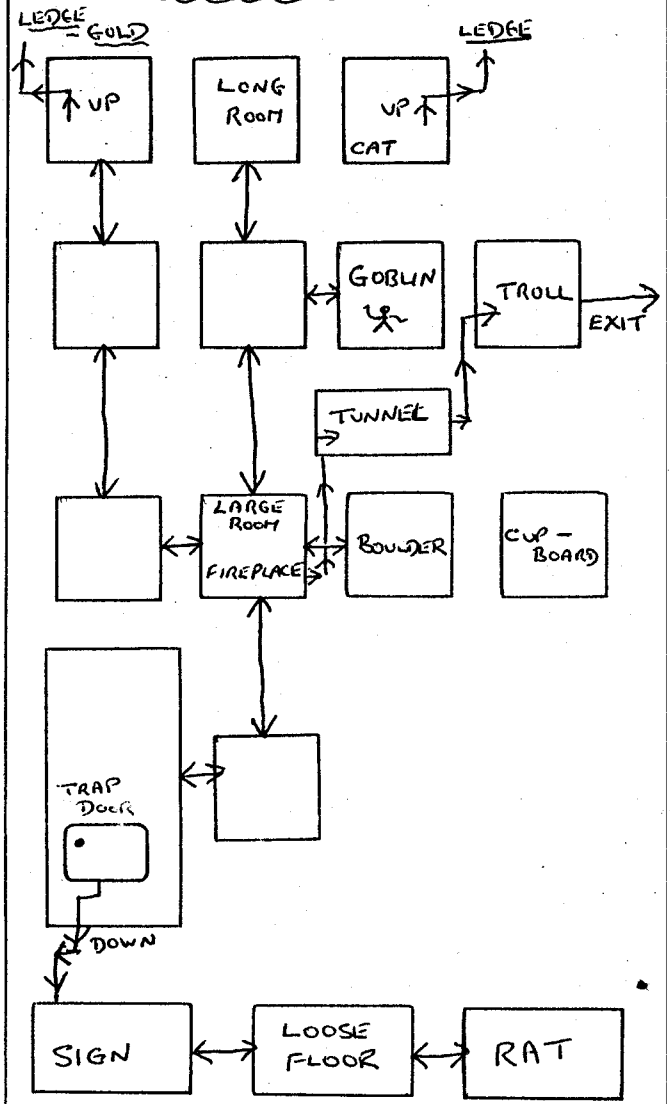
YOU CAN EXPERIMENT BY ALTERING THE VALUES IN LINE 20 e.g. COS,SIN, but not TAN.

IT IS LISTED FOR THE ATMOS. ORIC 1 OWNERS SHOULD ALTER: CALL #E76A to #E6CA

AND CALL #E93D to #E804

```
10 PAPER 0:HIRES:INK1:POKE#26A,10
15CALL#E76A
20DEFNA(Z)=90*EXP(-Z*Z/100)
30Z=1:X=0:FORQ=-30TO30STEP.4:L=0
40Y1=5*INT(SQR(1000-Q*Q)/5)
50FORR=Y1TO-Y1STEP-2
60S=INT(25+FNA(SQR(Q*Q+R*R))-.7*R)
70IFS<=LTHEN80ELSEL=S:Y=S:GOSUB90
80NEXTR:X=X+1:NEXTQ:CALL#E93D:END
90IFX>239ORX<0THENRETURN
100IFY> 199ORY<0THENRETURN
110CURSETX+50,199-(Y+50),1:RETURN
```

KRYSTAL WORLDS



KRYSTAL 1.

READ CODE - FOR A TO Z USE:
H TO G
i.e. A = H, B = I, C = J etc.
e.g. HELLO = OLSSV

GO THROUGH FIREPLACE
KEEP BRICK!

CODE WORD: ORON GALO
TO KRY2.

MAP + TIPS FROM PETE THORNBURN.
KRYSTAL WORLDS ONLY
AVAILABLE FROM O.U.M.