ORIC USER MONTHLY

with Alternative Micros

Number 141

May 1999

Keeping the Oric alive

Just 15 years on (part 6).....

The Editorial

Hi all,

and welcome to the May issue of OUM, which probably won't get to you until June. I am absolutelu inundated with work.
Plenty of news this month for both Net and non-Net Oricians.

THE INDEX

What a clever fellow!

Didier Mequignon has recently posted a message about his Oric system, which Simon Guyart has translated for us:-
"A graphic card on the parallel port (slow) that displayed pictures in 256 colors, in 256*256 resolution IIRC, and that could display TV pics, too (with a card in the TV to supply RGB, pecause peritel can't do this). I used it again later with my ST (Atari). I don't know if it still works because there were backuped RAM for some decoding tables (now one use PAL). I had made new Basic drawing instructions.
A 256Kb memory card, with indirect access, only suitable big files (no programs). I always had a problem a byte erase from time to time. 3 bytes werre used for the address, and 1 for writing/reading the data. I used it to edit a 4 levels game but I never made the 4th one; it was
a time-travel story, with cow-boys, dinosaurs, and I can't recall the 3rd. I've also made a few pathetic games, and some utilities.
There was also a memory card where I stores the games I bought, it was better than tapes; but in the end I got the 3" drive.
I also made some serial transfers via the parallel port, to use some basic programs on my Atari ST.
That's all I can recall for now. From time to time, I still use my Oric as an oscilloscope via an Elector kit (I have re-made the program and the parallel port adapter)
Memories... How far it is !"

JB's new e-mail address.

Jonathan Bristow has now changed back to DEMON (Server), having been dissatisfied with the FREESERVE server, also means more web-space, higher access speads and more ORIC space....
Sending mail to
arc@twilighte.freeserve.co.uk will never reach him!!!
Send mail to
arc@twilighte.demon.co.uk instead.
The WEBSITE URL will also change, the old one will keep running for about a month...
The new one will be the same but uploaded this weekend to this address.... www.twilighte.demon.co.uk

Now what about the server that JB recomends on page 12????

JUNE OUM

Articles for inclusion in June OUM by June 6th at latest please.

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

Euphoric hits the streets!

Logiciels PC n° 7 (a French publication dated March April 99) publishes Euphoric 0.991 (they name it 0.991 !) and different Oric utilities amongst many emulators (ZX, Spectrum, C64, CPC, ST, SNES, NES, NEOGEO and PlayStation of course).

Paris Meet

The next Oric Meet will take place | Prochaine visu Oric :
on Saturday 5th June 1999 | Samedi 5 juin
from 2 p.m. to 6 p.m. | de 14 h a 18 h
17 rue des petits hotels, 75010 PARIS (Gare de l'Est/Gare du Nord)
(within walking distance of London via Eurostar ;-)

Laurent plans to take along his PowerBook G3, which can run Richard Bannister's Oric/MacOs emulator, and also the 'standard' Euphoric via Connectix' Virtual PC emulator (yes: an emulator within another emulator!)

AYLESBURY ORIC MEET

As reported in previous issues of OUM, tickets are now on sale for the final Aylesbury Oric Meet - no one has bothered to buy one yet. I would appreciate it if you bought in advance, rather than leave it to the last minute as most of you do. As well as paying the hall hire 'up front', I now have to pay a £50 bail as surety against damages.

Tickets to the Meet aree just £2. Information on accomadation for the area was given in the last two OUMs.

Already certain to appear are: Jon Haworth, David Wilkin, Ken Duddle, Peter Bragg, Peter Thornburn, Jean Boileau, Rob Kimberley, and Jonathan Bristow.

A Sad Loss

It is with regret that I have to inform you of the death of Jack Lupton from Runcorn. Although I never got to meet him, I felt I knew him after the many telephone conversations we had. Poor sight and ill health did not stop Jack from enjoying a joke, or from tinkering with the Oric.

I remember that Jack was a great fan of the radio program 'Hold Your Plums', and often sent me tapes of it - it was good old scouse humour. His daughter Jeanette (a devoted Amstrad user) has decided to send me Jacks Oric system, consisting of Atmos and Microdisc, which I will sell on her behalf at the Meet. Jack also posessed a colour monitor for the Atmos. If anyone is interested in it , then let me know and I'll put you in touch with Jeanette.

e-mails to the editor

Dear Dave-
I am hoping you or one of your readers may be able to help me...
I am starting to get back into Oric programming, and have dug up my old copy of ORIC MON (The Tansoft one), but I've lost the instructions! If anyone can help with this I'd be very grateful.
Also, Im in the very early stages of developing my website. No Oric stuff yet, but keep your eye on:
http://www.angelfire.com/ma2/chaosmongers
Take Care, Simon Ullyatt
Chaosmongers@yahoo.com

Hi, I would like to receive a free copy of the 100th issue of OUM.

Pascal LECLERC - Massy, France.

hello,
I am looking for the game THEM from VIRGIN GAMES. Those I can find on archives are all bugged on stage 3 .Some one can help ?
Bye
Dominique Pessan.

Hi,
Now, i have my web page:

http://www.ifrance.com/oric-jede
It's only in french, but the next updatewill contain a english translation
thanks - JEDE

Dave,
Just a quickie to let you know that I've put the date in my diary of the Aylesbury Oric Meet, and plan to be there to sell raffle tickets and drink beer again with all my olde Oricians!.
See ya
Rob (Kimbo)

Hi Dave,
I've return yesterday from Dallas (job, job and still job!) , and found the OUM in my postbox, great! Thank you! - Cristiano Bei (Roma, Italy).

Hallo,
My name is George Dramcheff, and I am from Bulgaria.
I am sorry about my bad english, but I hope you can help me.
In the middle of 80's in my country there was a computer, called Pravetz 8D. It was Oric Atmos compatible, and I fell in love with him. Nowadays I have 3 of them.
We were many young boys, who made all possible to make their home computer better.
There was a man, named Borislav Zahariev, who made floppy disk controller, compatible with Apple Dos 3.3 format of disks.
Even more. The Dos for this controller worked in high 16 Kbytes, and all RAM (every byte) was free for programs. Other things that were made in Bulgaria was to add 16 Kbytes ROM extra. It was possible, because the ROM of the computer was EPROM 27128, and there was free space for second chip. We made only little changes of the original ROM and the motherboard. With small changes in the ROM, Borislav Zahariev made real RESET for Pravetz 8D.
May be anyone will be interested to own natural Bulgarian Pravetz 8D with floppy controller and these changes. I want to change one of them for real Atmos with Microdisc floppy drive.
Please help!
Even if you can't help me, I think that we will be interested to contact each other. I have the scheme of our floppy disk controller, and the documentation of the changes I told you. I will be glad to give them to Oric world. I am sure that their authors will be glad.
My e-mail is:
jorodr@yahoo.com

04 May 1999 12:18

Hi Dave,

I see that the Hi scores page does not show hi scores for the game 'Defender' (Thats what I 'think' it was called any way. I could be mixing it up with 'Defence Force'. It was a game similar to the 'Defender' game in the Arcades.). Anyway I havnt played it for years - but it was brillient -
Regards ,
Liam Daly

Letters to the Editor

Dear Dave,

Ive just received the latest OUM. Thanks for getting the address mix-up sorted.
Its nice to see that RHETORIC is going ahead. Im going to contact J Bristow in due course regarding this.
I'm now permanently on the net, and my email address is CHAOSMONGERS@YAHOO.COM
Ive got rid of my old 486 now and upgraded to a Cyrix 300, so at least Im nearly up to date now.
I'm also starting to get back into Oric programming, especially with the use of Euphoric. I'd like to try and do a conversion of HUDSONSOFTS PC-Engine/Turbo GFX (and subsequently Nintendo & Amiga) classic BOMBERMAN. Its a very addictive and playable maze game that is well suited to the capabilities of the Oric. Im scouring the net for development tools. Jonathan Bristow has lots of juicy looking tools for download, but I'm having problems downloading some. I hope to port the original PC engine graphics across (albeit minus a few colors!). Im also now heavily into serious arcade and Neo Geo emulation. If anyone wants to contact me about this, please feel free.
Anyway must go-Take care - Simon Ullyatt

32 PETER PAINE CLOSE, BUTTERWICK,BOSTON,LINCS.PE22 0HA
TEL 01205 761558 & TEL 0411 395622

Dear Simon,

Glad to hear that you are back into Oric programming. Am looking forward to seeing your version of BOMBERMAN. I will check out your web site, as mentioned in your e-mail on page 4.

- Dave

++

Dear Dave,

I've recently acquired a Cambridge Computers Z88 which to be honest with you is quite an impressive little machine, especially if you want an easy to use word processor that's portable and links easily to a printer. Some of the additional documentation that I got with the machine mentions the possibility of linking the Z88 to a disk drive. Was one ever produced or does anyone know of an interface to link the Z88 to a drive?

It also mentions eproms and the computer has three slots for extra memory, the third being designed for eproms. Apparently other utilities were available on these as well as being able to use them to store important programs or data. Does anyone know any more about this or do they know where I could acquire eprom memory cards and the eprom eraser?

Finally, the manual mentions connecting the Z88 to another computer such as a PC1512 or a BBC. This would be pretty useful as I have a BBC Master computer, which is currently set up so that young Jeremy can use the educational disk software I have at school. Obviously I would prefer to link it to the Oric, but again, require information on how to go about it. If anyone has information then I would be grateful if they could contact me.

It's going to seem strange without O.U.M and I would hope that there are plans to secure the future of the user group into the milleniumand beyond. I realise that a lot of Oricians are now on the internet and that would ensure contact between them. However, there must be somelike myself who are not, or certainly unlikely to be on the net in future. Therefore perhaps the following could be considered, assuming there is going to be a future.

If information is going to be available on the internet in the form of a newsletter, perhaps a bi-monthly (or quarterly) magazine could be produced and sent to those who wish to subscribe.

I for one have enjoyed reading O.U.M and would like to say thank you for producing what has been an excellent, informative magazine. Perhaps future plans could be discussed at the MEET?

Talking of the MEET, I will of course be in attendance with my Oric and an ambition to beat the odd top score before the beer factor kicks in. It will be good to see old friends again, howver I'm trying to talk 'her indoors' into driving on the day, as I tend to over do it as far as beer consumption goes...........

Just make sure that if there are any large blac and white monitors going, that you keep her occupied whilst I hide them in the boot!

I'm still collecting old computer bits etc, and have now fully boarded the loft so they're kept well out of sight. If anybody is contemplating getting rid of their stuff or even thinking of having a throw out, don't. I can offer it a good home, just give me a call.

Oh, I almost forgot, I'm after a printer lead for a Beeb, so if anyone has got one it will save me making one up.

See you in July - drink long and fall over,

- Peter Thornburn, 5 Greenacres Drive, South Normanton, Derbyshire. DE55 2LA
Tel: 01773 511365

Dear Peter,

I'll leave it to our readers to offer info on the Z88.
Perhaps Steve Marshall and Jonathan Bristow could come up with a paper version of Rhetoric. If so it will need to be sorted out before the deaath of OUM.

- Dave

Games Programming in on the ORIC in BASIC

It's deadline time again and I've hardly thought about this article since last time. There has been no time for anyone to respond to the last article so we're just going to crack on with it. You'll just have to put up with my poor BASIC for now and hope someone will sort me out for next time.

Anyone that bothered to tap in the last listing may have found a few obvious problems. One of the not so obvious was the size of the animated base. The shooting gun with the twin engines strapped behind it is OK, but once there are other animations slowing things down it doesn't help having a double height base flopping about. One of the first changes is to cut the base down to a single height. It just makes for neater animation. A lesson can be learned here about planning. If you think through a project before doing the programming you should be able to avoid problems like this and save yourself a lot of time!

The next problem is a more obvious one; you can drive the base through the barriers! (Those of you that tried the program may have noticed that I have allowed up/down movement of the base as well as up/down. This could be taken out at a later stage, if required. One reason for having it in there now is for testing. The base can be driven past the barriers to get a better shot at the alien(s). The second reason is originality.

Why is it that so many games are essentially copies of a single idea? A bit of thought can bring about a classic rather than a clone. Take 'Space Invaders', give it a twist and you get 'Galaxians' - a new game. This isn't just a rehash of the Invaders theme. It is more than that because of the new elements; the aliens that swoop down at you etc. There are other examples like 'Tetris' and 'Don't Panic'. Two different games - one based on the other, but not a copy of it.

Back to our collision detection problem. There is one simple method to see what is on the screen and that is to use the SCRN command. You can either look, (at the X,Y co-ordinates), to see if something IS there, or to see if something ISN'T there. It depends upon what you're trying to achieve as to which way round you do it. If may want to see if you *have* hit an alien, or if you are in a maze you may want to check that there is nothing but a space in front of you, so that you can proceed.

In our program we want to check that we are not about to bump into the barriers. (The bigger the base is the more checking is required - another reason for reducing the size of the base!) In last months program there were only checks for left and right (CHR$(8) and CHR$(9)).

To stop us from moving into the barriers we need to look ahead. To the left this is X-1. (Our base position being X,Y). To the right we check X+2 because X+1 is where the right hand side of the base is. I hope this is making sense.

The next of our troubles is that we have no alien to blast away at. I had considered working through a typical Space Invader routine with a straight line of characters moving back and forth. (Use a string to do this). I think there are enough books with these sort of game for you to have a look at. What I have always wondered is how to program an alien to move around like on Xenon 1. That first set of aliens move around in circles, spirals, squares & rectangles. It really is a great bit of programming. You need to be pretty good at your maths to know how to get things moving around like this. One conceivable way of achieving this result is to have a little program for each pattern and jump to each routine randomly. You need to remember to keep checks for the aliens going off the screen, (which would crash the program).

We must aim our sights a bit lower, but just how can we get a decent animation in BASIC? I have been pondering this for some time and have only come up with one hal-decent answer. Those of you that are into maths or graphics HELP ME OUT please. Write in with your fancy methods.

The approach I took was to find a program that drew a line in an interesting way on the HIRES screen. Lisajous figures are curious patterns that react differently when different conditions are applied. A simple pattern can be like a sinewave that goes round in a hoop. This can develop into a lotus blossom shape. Much more complex patterns can be achieved. Plotting these forms takes a while on the HIRES screen. Converting the program to TEXT screen means less points have to be plotted do things can be speeded up considerably. We can use this to move an alien around the screen by unplotting the last position and plotting the new one, (as with the usual method of animation). Unfortunately the programs I developed to show how this was done have been corrupted, but next time I'll give you an updated listing to tap in. In the meantime switch your ORIC on !! Do PLEASE send in any bits of program you create !

MUSO

More letters to the Editor

Hi Dave,
I am very pleased with the COMPILER program. Using it for thinking programs against the computer speeds them up by up to three times during the computers move.
Many thanks to S.Marshall for the instructions of Frigate Commander. I can now fire my Seawolf missiles and progress further into the challenge.
Thanks also the R.Kimberly for replying to my attempts at trying to be just too clever in forcasting the Solar eclipse. I know when it will be, but perhaps the program only responds to a TOTAL eclipse and I at VEOVIL must be on the fringe. Again thanks to R.McLaughlin for his reply. I think we may have lost the plot a little though. I was hopeing there might have been a POKE XXX to somewhere similar to POKE#256,80 used to extend the LINE LENGTH to a printer. Obviously not!'
A big thank you to F.Bolton for his articles on English and how it should be spoken. I have been passing them on to my daughter who lives in Germany, as she teaches English to young German students one night a week at the local Tech: college. One little point though from his last article. My wife (bless her) thinks that perhaps Frank may have slipped up by starting a sentence with the word ' AND' She tells me that a sentence cannot start with a joining word, and certainly never use 'and' with a capital 'A'.
The listing you published in the last O.U.M I have been playing with. It is pretty pathetic as you noticed and probable not worth continueing with, but if it is what someone really wants? then I will complete it for them.

- John Hurley (Yeovil)

Dear John,

Nice to hear that you are still getting some satisfaction from the Oric and OUM.
Regarding the 'AND' debate - I was taught that a sentence could start with 'AND' in certain circumstances e.g.
" That's all I have to say on the subject of fish. And now for something completeley different."
I'm sure Frank will go further.

- Dave

==========

Dear Dave,

Despite what I said in a previous letter, I have now signed up for the Internet. My decision was influenced by putting together a decent PC with a fast modem and by being able to get a free Internet account. I can be contacted at:
Rcrisp@junecrisp.freeserve.co.uk
I promised my wife that I would get her involved with computers if it was the last thing I ever did!
Have you seen the April issue of 'Personal Computer World'? It contains a whole page on the Oric-1. Page 289 is the Retro page and this months piece of old hardware is the Oric -1. The article mentions a link between Tandata and Tangerine. It made me wonder if there were any similarities between the Oric computers and the Tandata terminals. I'm thinking mainly in terms of hardware design. Does any other reader know anything about this? I used to have a Tandata terminal, but never got around to using it. I got rid of it a long time ago, but may still have the manual.
I was sorry to read that Steve Marshall would not be going ahead with his plans for RHETORIC magazine, due to lack of support. I was one of the few people who wrote to Steve expressing an interest in the idea. I intend to write to Steve after finishing this letter.
I noticed in OUM that you are having a raffle at the Meet. I have some computer items which I no longer use and thought they might be useful for the raffle. If you think they are suitable, then please let me know.
I intend to come to the Meet this year, and daughter Wendy hopes to come if she can get time off work. She works in hair dressing and usually works on Saturdays. After Wendy came to the 1995 Meet, and other daughter Sue came in 1996; my wife said she would have liked to of come for the ride, and see what the shops were like in Aylesbury. I've invited her to come with me if Wendy comes with her for company. Will there be a disco or anything afterwards?

- Robert Crisp (Meanwood, Leeds)

Dear Robert,

Have virtually stopped buying computer mags. Would be interested in seeing the PCN article.
Thanks for your offer of items for the raffle. I'll publish the list elsewhere in this issue.
There are quite a variety of shops in Aylesbury now, and the usual Saturday market. I can generally arrange for my wife to take the ladies to the shops.
In previous years I have done a Disco in the evening, but have decided to give it a miss this year, as I'm currently doing two a week, and thought it would be nice to relax and generally enjoy the company of fellow Oricians. I may well arrange for some entertainment to be put on at the club - perhaps a singing duo.

- Dave

Bits'n'Bobs

On the Move

Ian Hutchins has a new address, a new telephone number, but the same e-mail , and incidentally the same wife!

Ian Hutchins is at: 1 Vaughan Road, Cleobury Mortimer, Kidderminster, Worcs. DY14 8DB
Tel: 01299 271967 E-mail: hutch@lineone.net

For Sale

With regard to the Oric system of the late Jack Lupton; I have now received a letter from his daughter saying that she has found someone who wants the monitor, but still has the following for sale:
Oric Atmos, 3" Microdisc system, Citizen 120D printer, Oric-1, MCP 40 plotter/printer, Tansoft Linkword French & German cassette/disc.
Best offers to me please.

CEOMag

It is not only OUM that is having problems meeting deadlines. Our sister publication CEOMag is running even later behind schedule.

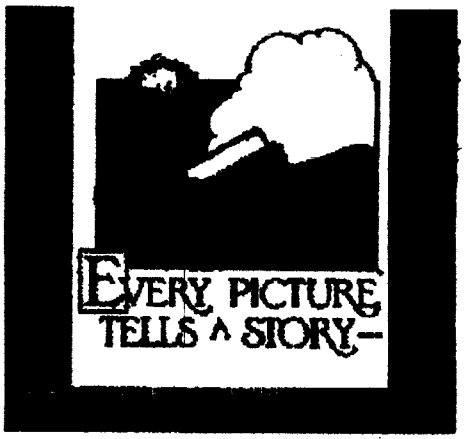
On April 2 nd, Jean DavidOlekhnovitch posted a message to oric@lyghtforce to say that he had just updated the Ceomag page on the web with the March edition summary !
It included an interview from Remy Gosselin, co-author of 'Tyrann' and 'Le Fer d'Amnukor', two of the 'ultima-like' greatest games for the Oric. Jean David then went on to state that due to technical problems of his own, CEO suscribers would receive February and March edition at the same time, in a few days. Jean David went on to apologize for this.

Meanwhile John Foggin has recently rung me and seems to think that December was the last one he had.
I checked with Jon Haworth, who informs me that he has now received Feb and March - he will check for Jan.

Ah! - Bristow

Young Jonathan Bristow has been busy of late. Here is an insight form JB of what he has been up to :

"Have Completed HIDE, a new Graphics Editor for the ORIC ATMOS with full Manual in HTML format.
This is just like my old EDITOR2 and EDITOR except that now one can edit the whole HIRES screen. Don't get too excited though, the Editor is nothing like Lorigraph and has no Line, Circle or Box forming commands. What is does allow for is BIT and BYTE editing, copying, pasting etc. The number one editor if you want to add colour to a PC converted b&w image.
I have attached some example screens to this mail for Dave to peruse...>>>>>
Also, have been working on dynamic scrolling. This is a technique to manipulate TEXT characters on the TEXT screen to simulate full screen Smooth scrolling. After a weekend of coding, a bit of a dissapointment, although it has opened a few new uses, such as full screen scrollers but too limiting for a game, i feel.
I have also attached a demo of Dynamic scrolling to this mail...
It is a tap file called dyna.tap surprisingly!. Also, it takes a few minutes to set up, but once done will scroll along until CTRL C'd."".....Respect, Twilighte



Where are they now?

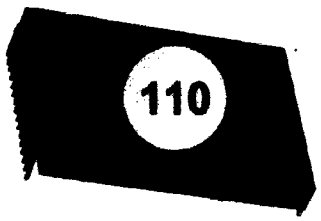
With his head in the clouds look, Eric Chahi, 30 years old, is the portrait of your typical video games designer. From behind his dried marrow collection, he has cultivated the boldest ideas for the most eagerly awaited game of the decade: Heart of Darkness.

Since his childhood, Eric has been a fan of video games and often used to visit video arcades. Very early on when he decided to make video games for a living, he oriented himself towards electronics, convinced of finding therein the magic key for video games. As a member of the computer club of his maths teacher, he began to make little programs. As soon as the Oric appeared on the market, he bought it and embarked on a great adventure! In 1983, he sold his first games, "Carnival" and "Frog" to the French importer of Oric in exchanged for computer material. Then, after other little games, including "The Sceptre of Anubis", he created "Doggy", his first game coded in assembler and published by Loriciel where a dog has to avoid hurdles on a rolling road. A short time after, he acquired an Amstrad and programmed a free adaption of the Commodore 64 game: "Infernal Runner". Then, while he was developing "The Pact", with graphics directly inspired from Amityville, he left school.
And here came a turning point: little by little, by polishing up his programming skills, he discovered a new interest: drawing. Thus, in 1988, he was hired as a graphic artist by Chip; it enabled him to get his hand on computer drawings and also to meet other video game addicts. A year after, he was still following the same path and worked freelance for Delphine Software to create original graphics for "Future Wars". Drawing, that new passion, took him away from programming, but in fact this turned out to be a blessing in disguise. A different way of using polygons was growing in his mind. An idea which was going to considerably improve the fluidity of animation and which would lead to a real movie atmosphere. Then, he immersed himself again in programming and after two years of development, when he was 24 years old, he carried out his project. It was the birth of "Out of this world/Another world" available worldwide on Amiga, Atari, and PC.

Stronger after this success, he decided in 1992, in collaboration with other authors, to throw himself into a bigger project: the "Heart of Darkness" adventure began.

Note from the Editor: A big thank you to Steve Marshall for pointing me to the web site that carries this story. This and others are at:
http://webzine.heartofdarkness.com/hod/eric.htm
'DOGGY' was/is one of my all-time favourites for the Oric.
Steve came across this page about Eric Chahi when he tried searching for 'Loriciel'.

He tried a search for '8-bit user group' and got nothing but Commodore stuff (64 and Amiga !). Steve aks if anyone else knows how to be spotted by search engines?
Perhaps others of you on the Net with a little time on their hands would like to use search engines in conjunction with Oric software authors, and see what they can come up with.
I know that these kind of articles are of particular interest to readers, and we only have a few more months to fit them in.



RAMBLING IN THE ROM

Rambling on....

With some of the more familiar graphics commands written in-house at Tangerine.....

'CURSET' (COMMAND)

Entry: #2E1-#2E2 contains the horizontal position
#2E3-#2E4 contains the vertical position
#2E5-#2E6 contains the FB code

Exit: #2E0 incremented if parameter error

Remark: quite slow because a division is necessary

```
F02D  LDA #04       F0CB  LDA #04
F02F  LDX #E5       F0CA  LDX #E5       index #2E5
F031  JSR $F264     F0CC  JSR $F2F8     FB code smaller than 4 ?
F034  BCS F060      F0CF  BCS F0F9      no, error
F036  LDA 02E5      F0D1  LDA 02E5
F039  STA 0212      F0D4  STA 0212      yes, save FB code
F03C  LDA #F0       F0D7  LDA #F0       240
F03E  LDX #E1       F0D9  LDX #E1       index #2E1
F040  JSR $F264     F0DB  JSR $F2F8     horizontal coordinate smaller than 240 ?
F043  BCS F060      F0DE  BCS F0F9      no, error
F045  LDA #C8       F0E0  LDA #C8       200
F047  LDX #E3       F0E2  LDX #E3       index #2E3
F049  JSR $F264     F0E4  JSR $F2F8     vertical coordinate smaller than 200 ?
F04C  BCS F060      F0E7  BCS F0F9      no, error
F04E  LDX 02E1      F0E9  LDX 02E1
F051  STX 0219      F0EC  STX 0219      place new horizontal coordinate
F054  LDY 02E3      F0EF  LDY 02E3
F057  STY 021A      F0F2  STY 021A      and vertical
F05A  JSR $EDF6     F0F5  JSR $EEE8     calculate address and shape of cursor
F05D  JMP $F063     F0F8  RTS
F060  INC 02E0      F0F9  INC 02E0      it error, increment #2E0 (normally 1)
F063  RTS           f0fc  RTS
```

'CURMOV' (COMMAND)

Entry: #2E1-#2E2 contains the horizontal position (signed)
#2E3-#2E4 contains the vertical position (signed)
#2E5-#2E6 contains the FB code

Exit: #2E0 incremented if parameter error

```
F064  JSR $F276     F0FD  JSR $F30A     verify the relative parameters
F067  BCS F075      F100  BCS F10C      and exit if error
F069  LDX 0219      F102  LDX 0219
```

```
F06F  JSR $EDF6     F108  JSR $EEE8     and calculate address and shape
F072  JMP $F078     F10B  RTS
F075  INC 02E0      F10C  INC 02E0
F078  RTS           F10F  RTS
```

'DRAW' (COMMAND)

Entry: #2E1-#2E2 contains the horizontal position (signed)
#2E3-#2E4 contains the vertical position (signed)
#2E5-#2E6 contains the FB code

Exit: #2E0 incremented if parameter error

```
F079  JSR $F276     F110  JSR $F30A     verify the relative parameters
F07C  BCS F08F      F113  BCS F119      and exit if error
F07E  LDX #04       ....  ....
F080  LDA 02E0, Y   ....  ....
F083  STA 0201, X   ....  ....
F086  DEX           ....  ....          transfer parameters into work zone
F097  BNE F080      ....  ....
F089  JSR $EE06     F115  JSR $EEF8     calculate and tracefrom the right
F08C  JMP $F092     F118  RTS
F08F  INC 02E0      F119  INC 02E0
F092  RTS           F11C  RTS
```

'PATTERN' (COMMAND)

Entry: #2E1-#2E2 contains the pattern
Exit: #2E0 is incremented if parameter too large

```
F093  LDX 02E2      F11D  LDX 02E2     parameter negative or too large ?
F096  BNE F0A1      F120  BNE F129     yes, error
F098  LDX 02E1      F122  LDX 02E1     take required code
F09B  STX 0213      F125  STX 0213     as pattern register
F09E  JMP $F0A4     F128  RTS
F0A1  INC 02E0      F129  INC 02E0
F0A4  RTS           F12C  RTS
```

The more observant will have spotted that we have completed Volume 3 of the disassembly, #E000-#EFFF. If anyone wants Vol 3 to complement Vols 1 and 2, just order from me. The price of any one Volume is £6.00 inclusive.

I am not sure how the demise of OUM will affect completion of Volume 4 and the whole project. The monthly deadline is quite an incentive to keep plugging away, and without it I fear progress may be slow. Perhaps I can impose on the editor of CEO to add a couple of pages to the English mailing of the CEOmag..... more info for RAMROM junkies as September nears...

Jon Haworth
3 Petersfield Road
Duxford
Cambridge
CB2 4SF

Email: jon@cambr.force9.co.uk
Oric Mailing List: oric@lyghtforce.com

More Bits'n'Bobs

The French Convention.

The "byte99" will be held from the 27 to the 29 August in Calais, France.
It's a 8 bits convention. Mr. DBUG (Mickael Pointier) hopes to be there with his 16 colors extension board. He would like to see fellow Oricians there, so don't hesitate to contact him.

The Italian Connection.

Our Italian subscriber, Cristiano Bei is building his Oric site at
http://skyscraper.fortunecity.com/daisywheel/46
(This is only a temporany address, as he wants to call it
www.OricinItaly.com)

The French Connection

The French monthly " les Puces Informatiques " (£1 and no commercial ads).

The front page shows (amongst other ones) the Oric logo.
Page 8, some words about Fabrice's projects (Oric2000 and Stratos 2000)
Page 9, a short paper about the Stratos2000 project...Page 10, a laudatory paper about Zipn'Zap.
(excellent, brilliant, fast, digitalised music and sounds, competent, inventive and overstuffed with ideas programmer)
Bravo Mr Bristow.

" les Puces Informatiques "is published by an independant and , let's say, alternative group of programmers called ACBM. They publish Les Puces Informatiques, Le Virus Informatique, Pirates Mag and Pocket Magazine and have a web site at
www.acbm.com (unfortunately, entirely written in French).
They are very enthusiastic with old eight-bit computers (called in " French " " sasfépu " which is the sentence you hear when you want any device to be serviced and the assistant is willing to sell you a new one) and don't miss an opportunity to write about Oric.
From Jean Boileau is a rough translation of the magazine's title (N.B. This mag can be bought off French news stands):
Hem !
As it is a pun, it is difficult to translate into any language !
" les puces " (plural) are flea market as in " les puces de Montreuil " or " les puces de Clignancourt ", two cities near Paris where the best known flea market are located.
" une puce " (singular) is also a computer chip.
So, " les puces informatiques " both means a computer flea market and the computer chips as this paper is specialised in second hand computer ads.
Same thing for " le virus informatique " (do you need a translation ?) as " to be mad of " can be said " I got the virus "
(j'ai attrapé/choppé le virus informatique)

Free Internet phone calls!!!!!

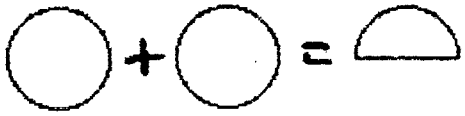
Late news from Jonathan Bristow about not only free subscription to the Internet, but also FREE telephone calls, "so whats the catch" you may ask, well apparently none, other than you must get four further people to sign up and mention your name in the application form. Now do not worry, the application form merely asks for your E-mail address and Snail mail address,which will not cause any worries to most people. So whats meant by Free Internet Access?

Well, it means that instead of dialling a number at the local rate, you dial an 0800 number (Free number).
In addition you get the same benefits from a server much like FREESERVE.. Thats is it!
No catches, no limits (Other than I suppose trying to connect!)
Want to save money accessing the Oric net, then follow these instructions
Limited to first 25000, get your free access NOW.
No call charges ever again, no overpriced isp!!
goto
http://www.freecall-uk.com
fill in the registration and when they ask for your referee give the name...'Jonathan Bristow'...' nothing simpler.
DO IT NOW, there is no catch.

Brian's Page

Answers firstly to the posers set two issues ago .....

(1) Simply add the value of each figures edges , for some simple additions : Each circle has one edge , therefore :



(2) To get this answer we use the equation (36/40)*15 = 13.5 minutes

(3) Transfer only the common elements from the symbols directly below to get get your answer of :

(4) The answer to this lays in the days of the week , eg from Monday we get Amy . Working from this , only Saturday has no name taken from it , and from this we would get RUTH

Prize Pool

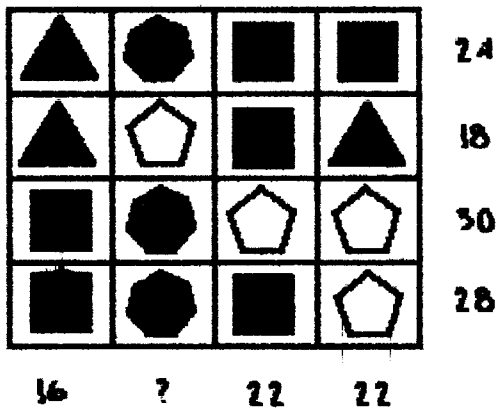
Yes it's re-started , to offer you all the chance of claiming a prize or two , before OUM finally bows out : On offer at present are :

1) Mousemat c/w solar calculator
2) Desk top Tidy & Calculator keyring
3) Game - 'Balanx'
4) Book - '10 Dimensional Maze' RRP £9.99

Usual rules to win !

(1) POSERS :

Work out the symbol values and also the value of the question mark.

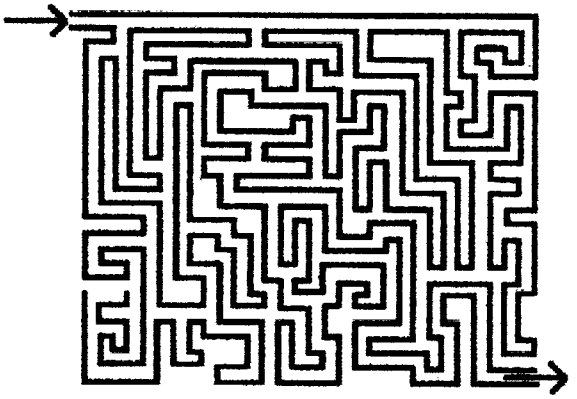


Brian Kidd , 49 Harlequin Drive , Newport , S. Wales . NP20 5GJ

② 

Write down the letters you can find , then rearrange to give a name

③ Can you find your way through the maze ?



Basically Yours

LISTING CONTINUED.....

```
75 REM START GAME
80 GOSUB 8300

8300 REM GAME IN PLAY
8305 REM LET'S PLAY A TUNE 1st
8310 TU$="030403040304030404050405040504050404040404040
40405050404"
8315 TV$="080310031203080301051005050501050310051007100310
00808031208"
8320 FOR Q=1 TO (LEN(TU$)-1) STEP 2
8325 :  TU=VAL(MID$(TU$,Q,2))
8330 :  TV=VAL(MID$(TV$,Q,2))
8335 :  MUSIC 1,TU,TV,9 : PLAY 1,0,0,0
8340 :  WAIT 15
8345 NEXT Q
8350 PLAY 0,0,0,0
```

How about a little response from you out there !!!
I decided to add a few sounds into the programme . This tune is a modified version of one found in a french listing , whose name eludes me . Strings have been used with a for/Next loop , in place of the usual Data / Read method.

Brian Kidd , 49 Harlequin Drive , Newport , S. Wales . NP20 5GJ

Machine Code for the Oric Atmos
(Part 84)

Peter N. Bragg

The Story so Far

We have looked at how to install a computer mouse and interface on the Oric and have reached the software stage. A complete listing was published in part 77 of the series (OUM August 98). We are now looking at that listing in more detail to see how it works. The last article looked at how data, generated by pressing the mouse buttons, was used. In the process, we had an initial look at the first part of the JSR 8210 "Operation Control" routine, which is used to control and update the computer mouse display operation. JSR 8210 is in fact, the longest routine in this piece of software for the Oric computer mouse system.

At first sight, the original listing for JSR 8210 appeared to be just a list of assembler instructions, with little apparent meaning. However, as with other routine listings we have looked at, this routine too, can be broken down into smaller parts, which then become much easier to understand and deal with.

The expanded listing, as shown here, includes brief notes to describe the operation of the routine. If you look at the listing as a whole, you should be able to see that essentially, it can be split into three main parts. The first part, (instructions 8210 to 8220) deals with the Button input. The second part (instructions 8223 to 824C) deals with the Horizontal Cursor position and the third part (instructions 824F to 8278) deals with the Vertical Cursor position.

The secret of computer programming, is to break software down into smaller operations in this way, so that they can then be made much simpler to write and understand. We looked at the first part of JSR 8210, which deals with the Button input last time. If you look at the remaining two parts of JSR 8210, you may be able to see that they are in fact, identical in operation to each other, which means that once you understand how one works, the other then becomes easy to understand too.

It is often the case that long and apparently complex routines are little more than large collections of simple operations, some of which may be repeated over and over again.

"JSR 8210 "Operation Control" (continued)

Having looked at the first part (instructions 8210 to 8220), which deals with the Button input last time, we can now go on to the second part (instructions 8223 to 824C) which deals with the Horizontal Cursor position.

As the routine updates the horizontal cursor position on the display screen, the first thing that needs to be tested is whether the mouse moved to the left, or to the right. Moving the mouse left will reduce the value stored in Params 8008/09 by one (-01), moving it right will increase the value by one (+01). We looked at how this was done earlier.

Params 8008/09 start off, after each screen update, reset to a combined value of zero ("0000"). Each time "01" is subtracted by the mouse movement, the combined value in Params 8008/09 will go down to "FFFF", "FFFE", "FFFD" and so on and these are referred to as negative values. Obviously going the other way and adding "01" will make the combined value go up, from "0000" to "0001", "0002, "0003" and so on and these are considered to be a positive values.

If you look at the contents of Params 8008/09 you will see that while the lower part of the value, which is held in Param 8008 can vary over a large number of different values, the contents of Param 8009, which holds the higher part of the value, is only likely to contain one of two values. These will be "FF" if the mouse moves left, or "00" if the mouse moves right. The Oric display is updated so frequently, that the mouse is unlikely to take the value in Param 8009 beyond those two values in the short time between screen display updates. So to test if the mouse has gone left or right, we only need to test the contents of Param 8009 for one of those values, "FF" or "00".

So the first instructions at 8223/26, test the value in Param 8009 to see if it has been reduced below zero (to FF hex), caused by the mouse moving to the left. If Param 8009 does not contain "FF", the mouse has not moved left and instruction 8228 becomes active and the operation skips to instruction 823C to test for mouse movement to the right. If however, Param 8009 is found to contain "FF", the mouse has moved left and as a result, instruction 8228 is disabled and operation continues on to test whether the mouse movement was sufficent to justify moving the cursor.

The mouse produces a lot of data for a very small movement and if we used it all to move the cursor, that cursor would disappear off the screen and into the next county in no time flat. Like the Buttons, we need to have some form of control to slow things down a bit. This is done by having a minimum value which is stored in Parameter Block 8100, specifically for the horizontal cursor, in Param 810C. This control value in Param 810C is used to ensure that the mouse movement data in Params 8008/09 is a sufficently high value, to justify moving the cursor from its current position to a new one.

```
                                  Operation Control | JSR8210
------- Buttons -------           DELAY OPERATION
8210  EE 0E 81  INC 810E          Add 01 to Operation Counter in Param 810E.
8213  AD 0E 81  LDA 810E          Fetch Counter contents into Accumulator.
8216  CD 0F 81  CMP 810F          Test - Is it at count end yet ?
8219  D0 08     BNE "8223"        <-- No - so skip Button operation this time.
                                    Yes - so now
821B  A9 00     LDA# 00           reset the Counter to zero (00).
821D  8D 0E 81  STA 810E
                                  BUTTON OPERATION
8220  20 61 81  JSR 8161         Test for specific Button pressed.
------- Move"X" -------           UPDATE CURSOR POSITION - HORIZONTAL
8223  AD 09 80  LDA 8009          Fetch Horizontal Move Hi from Param 8009.
8226  C9 FF     CMP#"left"        Test - Has it DECremented ?
8228  D0 12     BNE "823C"        <-- No - so skip to test for Cursor Right .
                                    Yes - so...
                                  Is Cursor Left required ?
822A  A9 00     LDA# 00           Get Cursor Movement Control
822C  38        SEC               negative value which is
822D  ED 0C 81  SBC 810C          00 minus the contents of Params 810C.
8230  18        CLC
8231  CD 08 80  CMP 8008          Test - Is negative value greater than Params 8008 ?
8234  D0 19     BNE "824F"        <-- No - so skip to test for Vertical Movement.
                                    Yes - so...
                                  Move Cursor Left
8236  20 10 81  JSR 8110          Go to Move Cursor Left routine,
8239  4C 47 82  JMP 8247          Go on to reset Params 8008/09 to zero (00),
                                  Is Cursor Right required ?
823C  AD 0C 81  LDA 810C          Get Cursor Movement Control positive value.
823F  CD 08 80  CMP 8008          Test - Is positive value greater than Params 8008 ?
8242  D0 0B     BNE "824F"        <-- No - so skip to test for Vertical Movement.
                                    Yes - so...
                                  Move Cursor Right
8244  20 1B 81  JSR 811B          Go to Move Cursor Right routine,
                                  Reset Params 8008/09 to zero (00),
8247  A9 00     LDA# 00           Set Accumulator to zero
8249  8D 08 80  STA 8008          and use it to reset
824C  8D 09 80  STA 8009          the Counter to zero (00).
------- Move"Y" -------           UPDATE CURSOR POSITION - VERTICAL
824F  AD 0B 80  LDA 800B          Fetch Vertical Move Hi from Param 800B.
8252  C9 FF     CMP#"up"          Test - Has it DECremented ?
8254  D0 12     BNE "8268"        <-- No - so skip to test for Cursor down operation.
                                    Yes - so...
                                  Is Cursor Up required ?
8256  A9 00     LDA# 00           Get Cursor Movement Control
8258  38        SEC               negative value which is
8259  ED 0D 81  SBC 810D          00 minus the contents of Params 810D.
825C  18        CLC
825D  CD 0A 80  CMP 800A          Test - Is negative value greater than Params 800A ?
8260  D0 19     BNE "827B"        <-- No - so skip to Finish.
                                    Yes - so...
                                  Move Cursor Up
8262  20 31 81  JSR 8131          Go to Move Cursor Up routine,
8265  4C 73 82  JMP 8273          Go on to reset Params 800A/0B to zero (00).
                                  Is Cursor Down required ?
8268  AD 0D 81  LDA 810D          Get Cursor Movement Control positive value.
826B  CD 0A 80  CMP 800A          Test - Is positive value greater than Params 800A ?
826E  D0 0B     BNE "827B"        <-- No - so skip to Finish.
                                    Yes - so...
                                  Move Cursor Down
8270  20 26 81  JSR 8126          Go to Move Cursor Down routine,
                                  Reset Params 800A/0B to zero (00),
8273  A9 00     LDA# 00           Set Accumulator to zero
8275  8D 0A 80  STA 800A          and use it to reset
8278  8D 0B 80  STA 800B          the Counter to zero (00).
-------- end --------            FINISH
827B  60        RTS               Exit.
```

```
                                  Button Operation ? | JSR8161
8161  AD 01 80  LDA 8001          Fetch Button input from Param 8001 for test.
                                  Button pressed ?
8164  C9 80     CMP# "None"       Test - for any Button pressed.
8166  F0 17     BEQ "817F"        <-- No Button pressed - so skip to Finish.
                                    Yes a Button was pressed - so...
                                  Which Button ?
8168  C9 C0     CMP# "E"          Test - Was it Button "E" ?
816A  D0 04     BNE "8170"        <-- No - so skip to try Button "M".
                                    Yes - so...
816C  20 3C 81  JSR 813C          Use "Button E" routine and then...
816F  60        RTS               Exit.

8170  C9 A0     CMP# "M"          Test - Was it Button "M" ?
8172  D0 04     BNE "8178"        <-- No - so skip to try Button "C".
                                    Yes - so...
8174  20 47 81  JSR 8147          Use "Button M" routine and then...
8177  60        RTS               Exit.

8178  C9 60     CMP# "C"          Test - Was it Button "C" ?
817A  D0 03     BNE "817F"        <-- No - so skip to Finish anyway.
                                    Yes - so...
817C  20 52 81  JSR 8152          Use "Button C" routine and then...
                                  FINISH
817F  60        RTS               Exit.
```

Oric 12 Jan 91

"Mouse6"

Param Block 8000

```
8000 FF " " Page Marker
8001 00 Button Input
8002 00 lsb  } Prog Counter Addr
8003 00 msb  }
8004 4E lsb  } Offset
8005 00 msb  }
8006 00 lsb  } New Vector Addr
8007 00 msb  }
8008 00 Lo   } Horizontal ("X")  } Mouse movement
8009 00 Hi   }
800A 00 Lo   } Vertical ("Y")    }
800B 00 Hi   }
800C 4C JMP instruct
800D 00      }
800E 00      } Oric INTSL/IRQ copy
800F 00      }
```

Param Block 8100

```
8100 FF " " Page Marker
8101 00
8102 08 Left  } Vertical Movement
8103 09 Right }
8104 0B Up    } Horizontal
8105 0A Down  }
8106 45 "E"   }
8107 4D "M"   } Button effects
8108 41 "C"   }
8109 00
810A 00 Bit7 set   } Mouse input code
810B 00 Bit7 unset }
810C 10 Horizontal } Cursor movement control
810D 10 Vertical   }
810E 00 Count  } Button rate control
810F 04 Exec   }
```

Note - The full listing was published in Part 77 of the series (OUN August 90).

The three instructions 822A/30 are used to convert a copy of the control value from Param 810C into a suitable negative value, so that it can then be used by instruction 8231 to test and compare the negative value in Param 8008 to see if the mouse has moved far enough to justify moving the cursor. Param 8008 is the lower part of Params 8008/09 and contains the actual number of mouse movements. Param 810C is set to "10 hex" (16 decimal). If you halved that control value to "08", the mouse would travel half the distance and appear twice as fast. Double the value to "20" instead and the mouse would need to travel twice as far and as a result, it would appear to slow the cursor action down to half the speed.

Instruction 8231 tests that "control" value against the contents of Param 8008 and if the mouse hasn't travelled far enough to produce a high enough value, instruction 8234 becomes active and causes the operation to skip without moving the cursor at all and go straight on to test for vertical mouse movement.

If on the other hand, the mouse has moved far enough, instruction 8234 will be disabled and the cursor will then be moved left by instruction 8236, which uses JSR 8110 to do that. The following instruction at 8239, then takes the operation on to instruction 8247, which obviously skips the whole operation to move the cursor to the right and goes on instead to reset Params 8008/09 to zero again for next time.

This brings us to the alternative operation to move the cursor right, which is similar to the one that is used to move it left. Once again the control value in Param 810C is used to test the value in Param 8008 to see if the mouse has moved far enough to justify moving the cursor on display. This time there is no need to convert the control value in Param 810C into a negative value for the test because the value in Param 8008/09 has been found by instructions 8223/28 to be a positive value (ie "0000" or above) like the control value.

Once again the test by instructions 823C/3F affect instruction 8242, so that it is disabled if the mouse has travelled far enough to the right to justify moving the cursor position on the screen display. If this is so, the cursor is moved to the right by instruction 8244, which calls JSR 811B to do that and it is followed by the operation at instruction 8247/4C which resets Params 8008/09 to zero again for next time.

However, if the mouse hasn't travelled sufficently far enough to the right, instruction 8242 becomes active and operation skips straight on without moving the cursor at all, to the third part of the JSR 8210 routine, This starts at instruction 824F and deals with testing the mouse vertical movement and updating the cursor vertical display position if required.

That completes the operation to move the cursor left or right if required, in order to reflect the horizontal ("X" axis) movement made by the computer mouse. Now we need to look at movement in the vertical direction ("Y" axis), where the mouse moves forward or back (or depending on how you look at it, up or down). This is dealt with by the third part of the JSR 8210 routine (instructions 824F to 8278).

Look at this part of the routine and you will see that it works in exactly the same way as the second part, which dealt with the horizontal mouse movement. The only difference is that the data for vertical mouse movement comes from different set of parameters, specifically Params 800A/0B for the mouse movement and Param 810D for the movement control.

Once again, the high value in Param 800B is tested for the value "FF", which in this case indicates mouse movement back away from the mouse user. Again the movement control value in Param 810D is converted to a negative value and used to test the contents of Param 800A to see if sufficent mouse movement has been made to justify moving the cursor up the display screen.

If, on the other hand Param 800B was found not to contain the value "FF", it indicates that the mouse has been moved forwards towards the mouse user and and as a result the operation will skip to the part of the routine that moves the cursor down the display screen instead. As before, if the cursor is moved to a new position, Params 800A/0B are then reset to zero again, ready for the next call to JSR 8210.

Hopefully, you can now see, that the operation is a simple repeat of the previous horizontal cursor operation, with a different set of three parameters and that together with final instruction 827B, this completes the JSR 8210 "Operation Control" routine.

We have now looked in detail at the operation of JSR 8210 "Operation Control" and its subroutine JSR 8161 "Button Operation", which is shown again in the listing here, in a sightly condensed version, in order to complete the JSR 8210 routine setup. The JSR 8210/8161 pair of routines are called into action every time the Oric operating system updates the screen display and you may have noticed in the listing description, that the two routines include seven instructions that call up seven routines, four of which move the cursor when required and three that produce the button display effects. The seven calls provide an easy way to link up any operation of your own design that you may wish to add to the mouse routines and the routines they call, are quite small and simple. We will have a look at them next time.....see you then.