

# ORIC

## ***USER MONTHLY***

with Alternative Micros

Number **120/1**

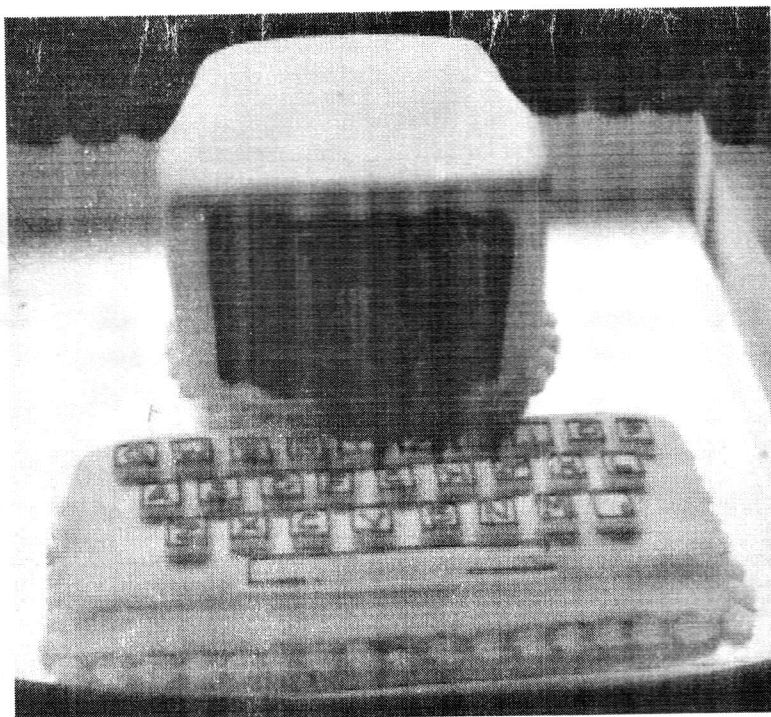
August/September 1997

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*Keeping the  
Oric alive*

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## ***10<sup>th</sup> ANNIVERSARY***



The cake...

## The Editorial

Hello and welcome,

To this mega issue of OUM -our 100th!!!!!!!

I would like to thank all those who have contributed over the years, and of course to our faithful readers. Long may we continue to thrive. In years to come, there may not be many running stand-alone Orics, but I'm sure the Oric will still have a place on the desktops of our PCS.

There is still a lot happening on the Oric scene, and we will continue to report it as soon as it happens. Enjoy the rest of the Summer. We will be back in October.

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 And finally THE BACK COVER - designed by Brian Kidd, and funded by Brian and yours truly.

### OUM SUBSCRIBERS

The July issue went out to 97 readers and therefore we are still near the target of sending 100 issues of the 100th issue.

### Unpronounceable one on the move

Our Greek friend is now to be found at:  
 Alexios Chouchoulas

3 High Street, Edinburgh EH1 1SR, SCOTLAND

### WELCOME To GEIR

A warm welcome to our latest reader from Norway. Geir Pisani became our 300th reader some time ago, and has now decided to subscribe. Geir is one of the few that I know of who have a Byte Drive 500 system. By the way, a grand total of 319 Oricians have now tried OUM.

### PAUL KAUFMAN - the interview.

Paul assures me that he will do an interview for us, but I know for a fact that he has been very busy globetrotting recently.

### On The Move

Keeping the estate agents happy is Scott Davies. He is now moved to:  
 10 Gardiner Avenue, Haydock, St.Helens, Merseyside. WA11 0WD

### NEXT OUMDISC

You are probably fed up with hearing about delays to the next OUMDISC. I can only apologise once more - only 24 hours in a day. I will try to resolve the situation after my holidays.



## NEWS

### O.U.M ON THE NET

During the last week of July, OUM uploaded it's first web page to the Internet. As we go to press the site is growing. By the time that you read this it will include a report of the ORIC MEET (with pictures), the ULTIMATE HI-SCORE TABLE, THE ORIC GAMES GUIDE, parts of THE OUM INDEX, and some games from the OUM/MIRAGE back catalogue.

VISIT US AT: <http://www.soft.net.uk/oum>

If there is anything that you particularly want to see on our site, then please let me know, and I'll do my best to accommodate you.

Sincere thanks to Steve Kennard & Fabrice Frances for their help and advice. Also a big thank you to my son Matthew, who after seeing my amateurish attempts at a couple of pages, took over the design reins and has took our site into something very presentable. And finally thanks to non-Orician Alan Bosworth for scanning some documents for me.

### BOOKS

Greenweld are selling off in their Summer Supplement number 3:

"An introduction to Programming the Oric-1" RA&JW Penfold 1983 at the price of £1.95. Amongst lots of other assorted and dated computer books (late 80's - 90's.)

Thanks to Alan Bowers for the e-mailed info.

### O.U.M - back in October

Due to staff holidays, there will now not be an OUM until October. Keep sending in those lovely cheques and articles, as Matthew and Louise will still be here to hold the fort. No telephone calls please between August 16th and September 2nd. You can still e-mail me, but don't expect replies during that period.

Articles for inclusion in the October issue should reach me by September 24th at the latest please. Have a great Summer (what's left of it!), and get ready for the Autumn!

### EINSTEIN A GO-GO!

I did type up 2 pages in reply to **that** letter from the EINSTEIN group, but decided it wasn't worth wasting so much space. Those at the MEET were able to view the letter. If you want to see the content and my reply, then please write, phone or e-mail me.

### WHAT DO I OWE YOU?

As reported a few months back, I lost a lot of information from my PC. If you are owed anything on an order, then please let me know - if possible with a copy of any invoice, where part-orders were concerned.

### NEW BUSINESS VENTURE

The founder of OUM (Robert Cook) has set up a new business venture. **COOK's CLAIMS CONSULTANTS** promise to take the hassle out of settling claims to Insurance companies.

As well as home telephone, there is a separate business number for Robert should you wish to find out more about the services offered: 0121 247 3249

## ALTERNATE MICROS

### Empty Space on the BBC

Carried over from the last issue is this piece from Robert Crisp:- "On the BBC, when is empty space not empty? When it is in an empty ROM socket.

At present I am writing a utility program for the BBC sideways Rom sockets, in machine code. Apart from giving details (e.g. Name, Size etc.) Of each Rom., it will allow me to examine, print and copy the contents of any Rom in the machine. It should be possible to put an Oric Rom in the BBC and examine its contents. I expect it will take several weeks to complete.

One question that I needed to answer was, if you examine the contents of an empty socket what should you see? I expected to see 00 with FF at the start of each block or a 'Shadow' image of the currently selected Rom. The answer was more surprising. A sideways Rom occupies locations 8000 to BFFF. If it is empty, locations 8000 to 80FF would contain 80. Locations 8100 to 81FF would contain 81, and locations 8200 to 82FF would contain 82 etc. I have never seen this information published anywhere before, so it might be useful to any BBC programmers out there."

### BBC Eprom Blower

Local computer buff Alan Bosworth has a **BBC Eprom blower** c/w Cassette software to offload. The price of this **Radiospares** utility including postage is £8. You can order through me or direct from Alan at: 'Arosfa', Watts Green, Chearsley, Aylesbury. HP18 0DD  
Tel: 01844 208380

### EMULATORS Bulletin Board.

Unfortunately the Emulator BBS sysop (Steve Kennard) couldn't make it to the MEET, but he did pay me a visit a few days later.

We tried out some Emulators for various machines, and I am pleased to report that the following worked with my Pentium P60 computer:

APPLE II, SPECTRUM, ARCADE, MASTER SYSTEM, AMSTRAD, NINTENDO, GAMEBOY, ATARI 2600, & MSX.

There are various other emulators on his board. We had an enjoyable day. Steve went off loaded down with Commodore systems that Ron Evans had brought up prior to the MEET. He also was now the proud owner of an ORIC Modem and a PASE joystick interface.

Many thanks to Steve for his help on uploading my web site to my server.

A most enjoyable day - we must do it again some time.

### 8-BIT NEWS GROUPS

We have previously mentioned the Spanish web site containing ORIC and other 8-bit computers. This includes links to various news groups. Here they are - in Spanish!-----

Newsgroups que tratan sobre Emuladores y Ordenadores 8 bit

- alt.c64 Commodore 64
- alt.comp.dragon Dragon 32/64/200 y Tandy CoCo
- alt.comp.emulators.executor Executor, emulador Mac sobre PC
- alt.comp.msx MSX, MSX2, MSX2+ y Turbo-R
- alt.emulators.ibmpc.apple2 Emuladores de Apple // sobre PC
- comp.sys.amiga.emulations Emuladores Soft y Hard para Amiga.
- comp.emulators.misc Diferentes tipos de emuladores de ordenador.
- comp.emulators.cbm Emuladores de C-64, C-128, PET, y VIC-20.
- comp.emulators.apple2 Emuladores de Apple II.
- comp.emulators.announce Este grupo con moderador es para discusiones de nuevos emuladores, FAQs, anuncios.
- comp.emulators.ms-windows.wine Emulador gratuito de MS-Windows bajo X.
- comp.emulators.game-consoles Emuladores de Consolas
- comp.emulators.mac.executor Executor, emulador de Mac para DOS
- comp.sys.amstrad.8bit Amstrad CPC, CPC+ y PCW
- comp.sys.apple2.programmer Programadores del Apple II
- comp.sys.atari.8bit Atari 400/800 XL y XE
- comp.sys.cbm Ordenadores Commodore 64, 128, Vic 20
- comp.sys.msx Ordenadores MSX, MSX2 MSX2+ y Turbo-R

## E-MAILS to the EDITOR

It's quite amazing that with the likes of the 32bit stuff from Acorn and the sheer power of ARM chips, that people still have an interest in Orics, Speccies, D32s etc. Ah well, I suppose it's like music. Everyone remembers with cheerful rejoice those days of trying to get the most out of MS Extended Basic v1.0 (Oric-1), trying to get \*anything\* out of Sinclunk Basic or just wishing for BBC Basic!

TTFN - Paul F. Johnson (Haydock)

Your following message has been delivered to the 144 members of the list [oric@lyghtforce.com](mailto:oric@lyghtforce.com) at 16:58:08 on 23 Jul 1997.

Hi,

the ORIC USER MONTHLY Home Page is now up and running and includes a report of the 1997 Aylesbury Oric MEET.

Visit us at: <http://www.soft.net.uk/oum>

Dave Dick (Oric User Monthly).....[dave@oum.softnet.co.uk](mailto:dave@oum.softnet.co.uk)

### Message for Ron Evans from Jon via Dave

At 17:52 15/06/97 GMT, you wrote:

> have Ron Evans with me. He sent you back the last CEO disk, because you had sent him 3.5". He is on 3" and is still waiting for it.

3" comes twice a year with 2 sides full of 2 CEO discs. So it goes out with the next disc. Thanks for returning the useless one, Ron!

> Ron Evans also asks if it is possible to transfer the data he has on cassette using NO Mans Land's ADDRESS BOOK to the disk version as supplied on some of the CEO disks?

**I doubt it - the disk save is in a completely different format to the tape one. I suppose it might be possible with some fairly sophisticated use of Euphoric, but I wouldn't know how to start!**

**A case of tap-tapping it in?**

Regards, Jon Haworth, Cambridge, UK : [jon@cam.dungeon.com](mailto:jon@cam.dungeon.com)

Dave,

I was wondering whether you could help me in my quest in trying to obtain an Oric 1 or an Atmos. Whilst not specifically devoted to the Oric cause, I do collect 8-bit micro computers from the early eighties for my own private collection. I was a twelve year old in the hey-day of the micro in 1983 and I spent many months trying to decide whether I should get my parents to buy me an Oric or a Spectrum for the Christmas of that year (I plumped for the latter), and out of pure nostalgia for those days, for the past two years I have tried to collect at least one example of the early home computers - from the famous (ZX Spectrum, CBM 64, Dragon 32, Acorn Electron etc) to the obscure (Jupiter Ace, Spectravideo, Aquarius, Lynx, TI-99/4a etc). It seems that many people think nothing about throwing mint condition micro computers into a tip, and consequently their availability is becoming scarcer and scarcer, so I have taken it upon myself to rescue as many examples of early/mid eighties computers as I can, so that they can once again be cherished and well looked after. Whilst you can't help but trip over the amount of Spectrums and Commodore 64s that are out there (in lofts and at car boot sales), I have never come across what will be the jewel in my collection - an Oric 1. Therefore, if you know of someone who has a 'spare' in working condition and is willing to sell it to me (14 years after I first wanted one), then please let me now. I also note that you can also buy a brand new Atmos - I don't suppose you could tell me how much they cost?

I am very grateful for your time and feel free to e-mail me if possible.

Many Thanks, Martin Wheatley.



More E-mails

Hello Dave,

I have an Oric 1 available: keyboard unit only, without PSU, peripherals or packaging. Price open to offers. Do you know of anyone who might be interested?

All the best, Charlie Moran cmoran@compuserve.com

**Don't forget readers - even if you are not on the Net, we can sort out deals on your behalf.**

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Sorry, Dave - didn't make it to the MEET. I had some trouble with an expired passport, so I decided to leave Edinburgh (and the UK in general) a bit earlier than expected... So I obviously missed another meet. \*However\*, next year I'll probably be around for most of the summer. :-)

I moved at the beginning of July, but I've only had the chance to send email now (I'm in Greece for the Summer; Demon is in the UK, you get the point).

-----,o88,o888o,,o888o.-----  
 Alexios Chouchoulas '88 ,88' ,88' alexios@vennea.demon.co.uk  
 The Unpronounceable One ,o88ooooo88ooooo88oo, axc@dcs.ed.ac.uk

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Hi Dave, excellent page indeed, and nice animations on the OUM web site..

No problem with your mailto: links of course, and sorry for the delay, I'm just coming back from one week vacation and going to leave for 3 other weeks (this time with a notebook, so I will try to send you an article on the origins of Oric Basic for the 100th issue, with materials taken from mails exchanged with Apple2 users, plus Peter Halford testimony, and my own reading of the rom.

Cheers,

Fabrice Frances

**Note from the Editor: Unfortunately Fabrice is too late for the 100th. Issue - we will publish it in October.**

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Laurent Chiacchierini wrote:

>>Sure again, that's not the method Jose-Maria is using for his pinforic (Infocom interpreter, it is already able to run Zork

and Hitchhiker's Guide to the Galaxy 8-)

Is it an Oric work in progress you are talking about? Is it described somewhere?

A general request: If you are currently working on an Oric project, please provide a brief description/status (or specify the URL of any Web page where such information can be found), so that other Oric fans know what's going on!

> Someone might even be working on a similar project and/or help you...

#### **AND NOW FROM FABRICE:**

For those who missed the start of this project, please request file AR970520.TXT from the automatic list maintainer

(i.e send a mail to oric-request@lyghtforce.com with get oric AR970520.TXT in the body)

I first asked if someone was interested in the project, then discovered Chema was already in, and then requested people to jump

in the bandwagon...

So, Chema would tell you better than me, but current state is that his pinfocom port to the oric ("pinforic") is now running Deadline, Infidel, Enchanter, Sorcerer, Spellbreaker too (after Hitchhiker and Zork series)

With emulators, I should be used to this kind of program, but I'm still amazed to see those big 16-bit programs (programs are 100KB and more, and the text is compressed...) running on the oric with virtual memory

A great work from Chema, which should be soon available in the best stores ;-)

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## Readers Letters

DEAR DAVE,

As I don't have enough knowledge of the Oric to impart anything to fellow Oricians, but wanted to contribute to the tenth Birthday issue, I am writing with the following idea. It is something I took part in with a group at a friends house. The idea is that someone starts off a story and then others add (in turn) bits to it.

There now follows the first instalment of a short story/novella/novel. I've no idea what's going to happen next, so perhaps you out there could attempt parts 2,3,4 etc., then we may get a best seller between us. (Well, maybe a bit of fun at least). As a guide - length of this piece is about 140 words. Which direction it goes and what genre is used will be up to the individual. It can be as wacky or as serious (or both) as you want. It may need some dialogue soon though to move the pace along.

I'll leave the title to you, Dave.

"Dave Rico caressed the computer's keyboard nervously. He fingered a hard disk and stared at the VDU in front of him. For days he had been putting this moment off, but when he woke up that morning he promised himself that this would be the day. For months he had been working on the ultimate program. Dave knew that it would change the world for good - or destroy it. He inserted the disk into the hard drive and switched on the VDU. He pressed a key and sat back in his chair. The screen came to life as a blinding flash enveloped the room. Dave brought an arm up to cover his eyes. A misty red vapour oozed from the screen. Through the haze, Dave gasped at what he saw before him".

TO BE CONTINUED?

- Ken Duddle (Leicester)

DEAR KEN,

Basically a sound idea as a party game, but difficult to utilise via a magazine. Everyone would be sending in part 2. The only way around it is to specify who does what. We will therefore ask all those with the surname commencing A,B, & C to send in their versions. This covers 25 of you, including some Frenchies and Alexios the unpronounceable Greek one.

If we get replies then we will go for part 3. If not then we will bury it - can't be fairer than that.

Looking at the story line, I think that the reason that stuff oozed out was because Mr. Rico had damaged it - fingering a hard disk, and sticking a disk into the hard drive! Come on Mr.Duddle - you haven't done your homework.

We will change the hard disk to a floppy disk© and the hard drive to a floppy drive.

- Dave

DEAR DAVE,

After obtaining photocopies of Peter Bragg's Machine Code articles from Allan Moore at the MEET (thanks again Allan), I have a couple of points.

Please let Peter know that I found his articles very informative and easy to understand. I have read many programming books in the past, but his articles are by far the easiest to understand.

I have made up my own cheat cards and I have a project in mind, but I am stuck at the first hurdle.

I wish to use the '!' symbol (with parameters), and make my own commands. Could you ask Peter if he could give me an example on how to make them, as I want to try to make Sprites move about the screen with my own commands i.e. SPRITE n1,n2,n3,n4,n5 and SHAPE n1,n2,n3,n4,n5,n6 etc.

- Paul Hill (Stevenage)

DEAR PAUL,

We await Peter's reply.

- Dave

## MORE LETTERS

**DEAR DAVE,**

Some people have expressed a wish to have all the ORIC software available on the INTERNET. I think this would kill interest. Keeping some software available only from OUM or CEO would keep interest in those groups and help to keep them going. Perhaps it may sound ideal to have everything for free. It may sound ideal for everyone to be rich - but then in reality no-one would be rich, because everyone would be the same. The best thing for the INTERNET is to provide an Emulator and SOME software, and then let anyone interested have the addresses of OUM and CEO. If every ORIC owner had been given all the information and software on the machine for free, it would have vanished years ago.

Some of the old type-ins from THE'ORIC clash with SEDORIC. Some of these have large chunks of machine code. Is there a program that could shift a block of MC like this up the memory away from the DOS so it doesn't clash? Perhaps something for Peter Bragg to sort? I feel it should be possible to look at the information on disk (of the program), and shift certain pointers or just write over the address's (?)

Also a similar clash can occur when '!' has been used to extend BASIC. Any ideas??

I still haven't got round to getting SEDORIC V3. I find V2.1 to be excellent and like the function key lay-out. With the V2.\* layout it is possible to RUN,LIST,DIR with one hand, which makes the thing quicker. Other keywords are in sensible positions. V3 may have various advantages, but it certainly doesn't appeal to me. How are those using it finding it? - Any fan mail?

- Steve Marshall (Edinburgh)

**DEAR STEVE,**

The subject of a free for all catalogue of Oric software on the Internet is a touchy one. The various Oric archive sites offer free software on the condition that you already own it - do you really think that anyone who was unable to get hold of MANIC MINER in the early days would not be tempted to get it for free now? And who can blame them! Here at OUM I intend to put onto our website only the software in our catalogue that has reached it's sell by date. I can't envisage selling any more copies of GRENDAL, but I do still occasionally get orders for the likes of MAGNETIX. Basically the sales of Oric games is now pretty fable. The last reasonable seller was COLUMNS. The new influx of Oricians caused by the INTERNET has not brought with it any marked increase in the sales of software, only in the machine itself. I use the archive sites myself - if a program has been put there for use with the Emulator that I have not yet transferred from 3" disc to 3.5" disc to PC, then it would be silly of me not to use the facility given the amount of time it can save me.

Club Europe Oric (CEO) does not give away software on it's site, but you do get the option of receiving their quarterly discs as SEDORIC or EUPHORIC.

I'll leave the machine code queries to the experts. I assume that you have used the !QUIT command prior to running these programs, or putting them on a Slave disc. I did find that certain games would only run on a disc formatted to GAMEINIT standards. Then, of course, there is always the option to use good old ORICDOS!

The little fan mail that we get on SEDORIC V3 is favourable - to each his own! Function key layout should not be a problem as you have the option to use your own set-up.

- DAVE



TAUTOLOGY (FRANK BOLTON)

The subject I have chosen for my re-appearance in these pages is REDUNDANCY, which is a little ironic considering that I have just passed my 73rd birthday. Tautology is the Latin name for redundancy of words, repeating an idea when there is no effect to be gained by doing so. If I say, "Water, water everywhere", the repetition of the word "water" is there for effect. It builds up the enormity of the situation. But when I say, "Personally, I, myself feel that the situation needs changing", I am just spluttering repetitions to hear the sound of my own voice. The "personally" and the "myself" are redundant. They serve no purpose. We are using three words to do a job that one word does perfectly. In terms of war, it is overkill. In layman's terms it is using a sledge-hammer to crack a nut.

English is one of the most economical of languages. If I say it has fewer declensions than most common languages I'll probably mystify half my readers who have forgotten what declension means, if ever they were taught it, so let me put it this way. If I want the plural of "The young boy seemed tired" I only have to add 'S' to the word 'boy' and write "The young boyS seemed tired."

But to make that sentence plural in French or Spanish, to name but two of the most common languages apart from English, I would have to make every word plural. Talk about overkill! Imagine having to say, as they do in French and Spanish, "TheS youngS boyS seemedS tiredS". That, roughly, is what declension means. They have to tell people FIVE times that they are talking in the plural when once is quite enough. It is to our credit that we have, over the centuries, simplified our language by getting rid of useless repetition. Any foreigner will tell you that our grammar is the simplest in the world to learn (though our spelling/pronunciation is extremely difficult)

It is all the more surprising therefore that we consider there is something clever in using a phrase like "at this moment in time" when we mean "now". (And where are moments, please, if not in time?) To carry it to its logical conclusion, if we blithely tread that path we shall end by saying. "Personally, I myself want the thing in question at this point in space and at this moment in time." when we mean "I want it here and now".

'The reason why the match was cancelled was because of the bad weather', is a ridiculous but common structure. REASON = (BE)CAUSE = WHY. To use all three is double tautology. The match was cancelled because of the bad weather. The bad weather was why the match was cancelled. The reason for cancelling the match was the bad weather. Use ANY of the three, but not ALL of them in one sentence.

What does TO RETURN mean? It means TO GO BACK. Then why in Heaven's name do we say things like "He returned back home." which means we are saying "he went back back home"?

Listen to radio, TV and the world around you carefully for a week. You will be amazed at the number of times people "return back". Even worse is the phrase "to retreat back to a former position". To retreat means to go back, so to retreat back is redundancy, or tautology (to use the correct word). And worse still, if we go 'back' we go 'to a former position' so we have a double repetition of an idea. The words "back to a former position" are all included in the idea of "retreat". We are just babbling out words and trying to be long-winded and clever. By doing so we demonstrate our ignorance of the beauty of language. Brevity is the art of clear communication.

The trouble is we cannot expect our children to speak or write well unless they read more, as distinct from watching TV. And watching TV would not be so bad if it did not subject us to a stream of pap from people who should know better. When I was a boy in the days when radio was all, we could depend on news-readers and interviewers to use correct English. Now we have men like Adam Boulton (no relation thank, God) on Sky news talking about "No sooner had the election bell rang, when .....". Two faults in half a sentence! The verb TO RING has RANG for the past tense, but RUNG for the participle. I RING. I RANG. I HAVE RUNG. The second mistake was to use 'WHEN' instead of 'THAN' in a comparative situation. We do not say, "I came sooner when you" If you use SOONER, it must be followed by THAN. He should have said, "No sooner had the election bell RUNG, THAN ....."

Boulton is not alone. Our language has been accepted by the whole world as the standard. People who claim to be erudite enough to earn their living by speaking or writing English ought to use it correctly or lose their office. Each month, from now on, I shall use this space to lampoon writers and speakers on TV who continue to be paid for inefficiency when they should be made, like the subject of this article, redundant.

N.B. Contributors to OUM are excluded from judgement. They are not paid for their "good speaking". They are not paid at all! We value their contributions for the content, and applaud their enthusiasm. A diamond is no less a jewel for not being perfectly polished. And after all, (if you'll pardon my mixed metaphor), we wouldn't want a treasure like Dave to throw in the towel, would we?(!)

# **BITS 'n' BOBS**

## **ON THE MOVE**

**Alan Bowers** has left the Isle Of Wight for the mainland, though still near the seaside. He is now at: 24 Ebor Road, Poole, Dorset. BH12 2JS. His works e-mail remains unaltered, but he now has a home one: teufel@compuserve.com

**Tim Colgate** is new to the Net, and can be e-mailed at: TimColgate@compuserve.com

## **BASIC Amusement**

In the June issue of **OUM** (Page 24) we asked you to have a go at a friendly competition. I have had no entries, and therefore can only assume that you all e-mailed Dominique direct!!!!!!

## **ORIC-1 WANTED**

**Don Brown** wants to buy an Oric-1, 48k, with or without a PSU. He can be contacted at: 2 Glentworth Avenue, Whitmore Park, Coventry. CV6 2HW

## **LABEL DATES**

*Normally the expiry date of your subscription is shown on the label on the envelope that your OUM comes in. Due to a crash by Jon Haworth's laptop, the date shown may not be correct. This will be corrected when that great repairer in the sky does his thing.*

## **CRCFIX**

*The CRCFIX utility for Euphoric has been mentioned in the past. Here is what to do: Let us assume that xxx.dsk is the disk image name.*

*To upgrade an old dik image - CRCFIX xxx.dsk*

*If you get the message:- "can't correct oric2mfm xxx.dsk", then use CRCFIX*

*When doing a new READDSK, you should use both oric2mfm and CRCFIX.*

## **LE VIRUS - a translation.**

*On the visit of Jean Boileau in July, I gently persuaded him to translate some items for us. Here is an article from the first issue of Le Virus Informatique.*

*"Since the beginning of computing, generations of computers always faster and always bigger are produced. This search for powerfulness is justified in professional domain for big machines (research DAO etc). But what are we doing with our "little" computers that now have the powerfulness the servers had 3 years ago, and the 'mini' had 10 years ago? The gain had ben absorbed for our pleasure: graphic environments consumed the gains, demanded a raise of memory and exploded any limit. Nothing is too beautiful for WINDOWS: screens as huge as T.V sets, display in 16 millions of colours that human eye cannot distinguish, sound cards to tell you that the printing is over. All that to see 'X' rated films you did not dare to look at with T.V or video recorder.*

*I am always surprised to see people amazed by a video on computer: aren't we re-inventing the wheel?*

*T.V + recorder = 24 pictures per second, great display, stereo sound, millions of colours for £300. Movie rental for less than £10. Two buttons only to look at a fellation.*

*According to you, what was the computing powerfulness of the NASA when a man put a foot on the moon? The same as your domestic computer today? The only difference is the person in front of the keyboard. We are simple users limited by our own brain. Work with your intelligence, learn to know & optimise your system, you'll discover that the powerfulness of computing is you.*

As for **MAGNETIX** - the demo version on the Oric Internet web sites has received excellent reports, but the only orders I have received from that source are from Fabrice when he has purchased them as gifts for other users. The game has always been raved about among the readers of OUM. I don't get a lot of post regarding games, but that doesn't mean to say that people have stopped playing them. Scores of people have joined the Oric news group on the Internet, and have very often cited their favourite games and asked if they can get them off a site (for free of course!). In the words of Bob Dylan: - **"The Times they are a changin'"**



## The Grand Raffle

Thanks to your generosity a grand total of £143 was raised by the Grand Raffle at the Oric Meet. If you have not received your prize, then please contact OUM. Here is the list of who won what, and what a lot there was!

<u>Prize</u>	<u>Donated by</u>	<u>Winner</u>
Atari 520	Chris Hearn	Paul Hill
Mystery Prize	Brian Kidd	D.J.Smith
Oric - The story so far	Jon Haworth	Arthur Crawford
OUM Index	" "	Ron Evans
5.25" Disks	Jean Boileau	John Peach
Camera	Chris Hearn	Allan Moore
Screen saver	Rob Kimberley	Stephen Friend
Screen saver	" "	Ron Evans
Screen saver	" "	David Wilkin
Torch	" "	W.Falconer
Torch	" "	Arthur Crawford
Torch	" "	Chris Hearn
Modem	David Goodrum	Peter Bragg
Sound Box	" "	W.Falconer
5.25" drive	Ray McLaughlin	Jonathan Bristow
3.5" drive	Jean Boileau	John Peach
T-Shirt	MRCA Club	Dave Dick
Bottle Chardonay	Rob Kimberley	Jon Haworth
Bottle Bordeaux	" "	Dave Dick
Bottle Pina Colada	Dave Dick	Stephen Friend
Bottle Sweet White Wine	" "	Tina
Cans of XXXX	J.Bristow/M.Coates	Tim Colgate
12 months subs to OUM	O.U.M	Tim Colgate
Box of Listing Paper	Allan Moore	Chris Hearn
Box of Listing Paper	" "	Stephen Friend
Circuit Designer	Peter Bragg	W.Falconer
Power Supply	" "	John Peach
Oric book of games	Jon Haworth	Ken Duddle
Oric handbook	" "	Paul Hill
Oric-1 book	" "	Chris Hearn
3" disks	" "	D.J.Smith

## 1997 Aylesbury Oric Meet

The week-end started on the Friday as I packed up my PC and Oric set-ups ready for the Meet to be held on Saturday July 12th. First to arrive was the guy we know as 'Monsieur Atmos' - Jean Boileau, President of Club Europe Oric, had made the long trek via Eurostar from Paris, arriving at my house just before 1 a.m. on the Saturday. We chatted for a short while prior to settling down for a few hours sleep. Local Orician Bob Terry was knocking on my door just before 9 a.m., and we then set about loading up my car and his van with computers & software etc. The meeting place is just 200 metres from my home, and we were soon setting up. First to arrive was Jon Haworth from Cambridge with his display of Oric goodies - Atmos, Telestrat, MCP40 etc. Jon also brought along his new laptop with EUPHORIC installed. Being the U.K. agent for Club Europe Oric, Jon also had plenty of their goodies on show. The faithful then started to arrive. There were Allan Moore and Dr. Ray McLaughlin sharing a car from Sheffield. Ray, best known for his Bytè Drive disk system, his programs such as WORDSPEED, ASSEMBLER & COMPILER, and his work on SEDORIC was on hand to show the documentation for his Oric Hard Drive project. Peter Bragg who writes an excellent Machine Code series for ORIC USER MONTHLY was on hand to tell of his Atmos mouse project. Jonathan Bristow was ably assisted by Matthew Coates to demo his SOUNDTRACKER software. This 3 channel sample music environment consists of a sample Editor, Music Editor (akin to his SONIX program), utilities for using samples in your own programs, and ST Linker to link samples to Soundtracker. Clarity is lost on speech, but not on percussion/orchestral etc. The new software has more features than SONIX, and can fit up to 64k (x2) of samples. We will let you know when the completed version is available. It was nice to meet up with Tim Colgate from Oldham again, and we had some interesting conversation. Arthur Crawford was our Essex man - nice to see his health improving. Stephen Friend and Chris Hearn both had short journeys, whilst David Goodrum (author of ENCHANTED) was Essex man number two. Michael Gynane from Liverpool had been attending an Air Show in the area, and popped in to see what was going on. Paul Hill from Stevenage gave me details of how he had upgraded his '486' to a Pentium 133 with an extra 16Mb and new twin 3.5" drives, and all for £333. Steve Hopps from Wokingham was on hand to answer any queries regarding the Atmos and disk interface systems that he supplies. Rob Kimberley of Leamington Spa used his gentle persuasion to sell tickets for The Grand Raffle. Thirty one prizes were donated, and £143 was added to the OUM funds. Prizes included an ATARI 520, a Camera, an Oric Modem, Bottles of wine, and a general assortment of Oric and non-Oric related items. Stephen Meachen from London demoed his samples from the film THE MASK. Excellent reproduction on the Atmos, but sadly lacking when put through EUPHORIC - something for Fabrice to delve into. David Wilkin came from Sunbury armed with his soldering iron, and an array of unwanted working/non-working Oric bits and pieces. Also in attendance were my son Matthew, and local lad Stephen Baker, who by the end of the MEET was asking all about the availability of the ORIC. The Bar opened at 12 Noon to great cheers, food from the local fish & chip shop was delivered at about 2 p.m. The saga of the raffle then commenced - prizes swapped, put back, and the usual jollity. For those not yet on the INTERNET, Jon Haworth gave a teach-in, and on view were some of the many Oric Web Sites that I had previously saved to my Hard Drive. All during the day queries were resolved and new friendships struck up. As we are about to celebrate the 10th year of ORIC USER MONTHLY, I had arranged to have a special cake made in the shape of an Atmos. This was well received, and the obligatory cutting of the cake was carried out by Jean Boileau. We announced that we were to make Jean an honorary life member of OUM for his services to the Oric community, and as a thank you for making the journey from France year after year. All the cake was then eaten. Resident photographer Chris Hearn had captured on film the magnificent cake, and of course snapped up many attendees during the day, finishing with the usual group photo. It was after 6 p.m. that we finally packed everything up. Half a dozen of us then retired to my garden to eat and chat Orically. By 8 p.m. there was just Jean and myself left of the ORIC fraternity. For the remainder of the evening Matthew kept Jean company whilst he logged onto the many Oric Web Sites. Meanwhile myself and Ann (my wife) returned to the club to be entertained by a local sexy female vocalist. I was in the 'dog-house' at the club, as I had not cleared up the mess of the icing from the cake! Next morning after a hearty traditional English breakfast, I drove Jean to the local railway station for his journey back to Paris. Another successful MEET over, and already talk of the one for 1998.

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# Machine Code for the Oric Atmos (Part 67) Peter N. Bragg

## The Story so far

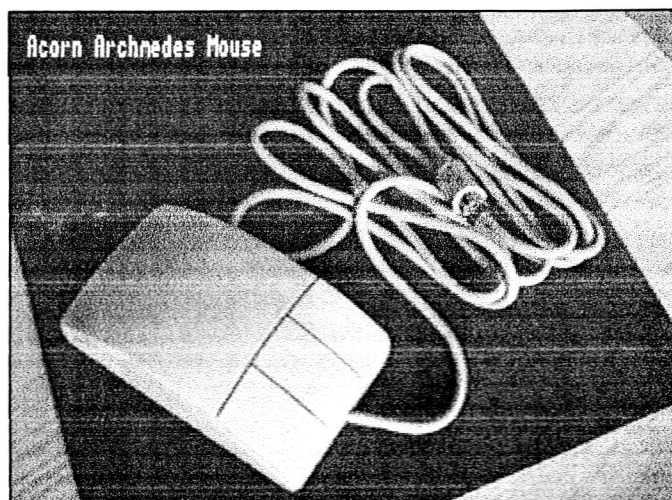
----- Having come to the end of quite a long series of articles on the subject of interrupts, the last article went on to something a little bit different, the subject of using a mouse on the Oric. The Telestrat could be fitted with a mouse, but apart from that there has only been the odd experimental system such as that fitted to my Atmos.

There are two obstacles to using a mouse on the Oric computer. The first, in respect to the Atmos and Oric-1, is the lack of a suitable interface. The second, is the lack of software for it. If an interface became available I cannot see lack of software as a serious problem for long, providing, of course that the interest is there. At least I can start the ball rolling by providing details of my own interface, so let's have a look at that.

## Mouse Interface - Overview

----- First of all let's look at the mouse itself. I use the Acorn Archimedes three button type. A second hand mouse from the old BBC Micro as shown last month, would be ideal, but as I understand it, most computer mice work on similar principles, so obtaining a mouse for the Oric shouldn't be a problem. As for the buttons, a three button mouse should be able to emulate a single, or two button mouse, but the number of buttons on the mouse probably doesn't matter at this stage in development.

The interface itself consists of hardware and software. For the hardware side, there is not much hope of a manufactured interface being offered, so it comes down to D.I.Y. as the only solution for most of us. Fortunately, if you can use a small soldering iron, the hardware is simple to make. It also has a very low component count, so it doesn't cost much, to make up.



Finally there is the software that reads the mouse data from the interface and uses it to update the mouse position on the display screen. My own software does that using the Text display and it also reads the buttons. That's as far as it goes at this point in time, but at least it's a start !

## Mouse Operation

----- This is the first consideration, as it is useful to have rough idea of how a computer mouse works, in order to understand the requirements for the hardware and software.

The mouse is centred around a ball, held in a cage in contact with a couple of rollers. One roller monitors the horizontal ("X") movement and the other roller monitors the vertical ("Y") movement of the mouse ball, as the mouse is moved around the mat. These rollers are set at right angles to each other and each drive a small disk. The disks act as movement detectors. The slightest movement of the mouse will cause the mouse ball to rotate one or both of the small disks, depending on which direction and how far you move the mouse.



One of the roller driven disks detects left and right ("X") movement of the mouse, the other disk detects forward and back ("Y") movement.

That is the mechanical side of the mouse operation. The two disks accurately monitor mouse movement in the horizontal and vertical planes on the mouse mat. The next thing is to convert those disk rotations into data for the computer. That could be done electrically, using a wiper and a set of contacts on the disk, but that system is subject to mechanical wear and tear. A better way is to use light and a light sensor to read the disks rotation.

Each of the two disks is slotted and is read by shining a light (usually infra-red) through an evenly spaced set of slots that go completely around the edge of both disks. So when the mouse is moved, one or both disks will spin and chop their respective light beams, which are then each read by a light sensor on the other side of the disk. Each sensor converts the light seen through the slots into a chopped (or pulsed) electrical signal.

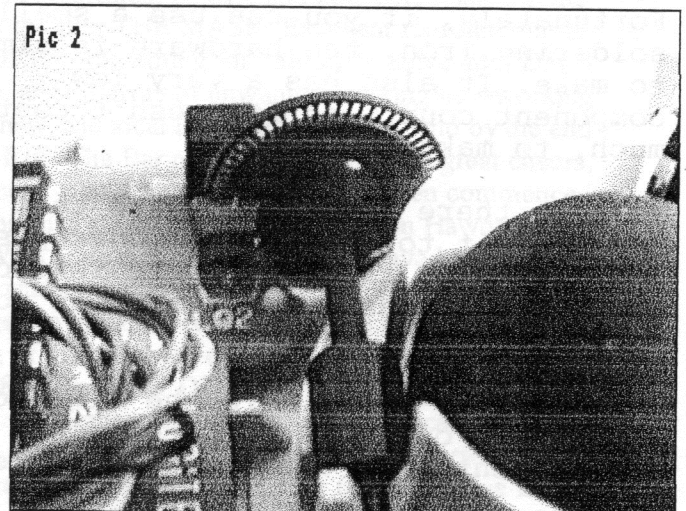
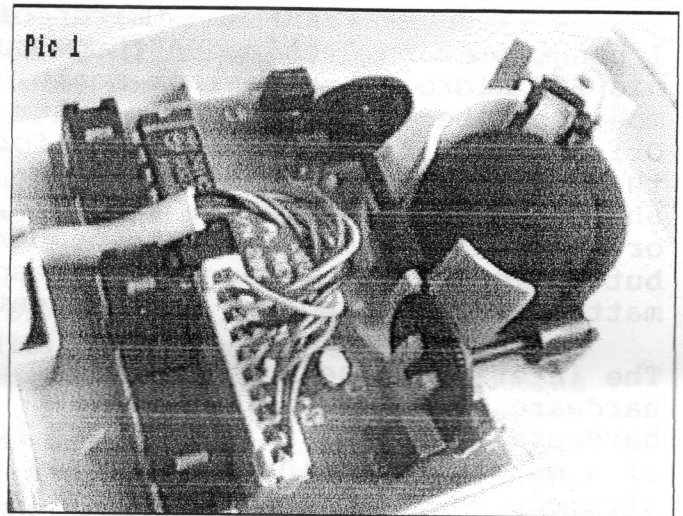
Pic 1 shows the general layout, with the mouse ball in it's enclosure and the two roller driven disks set at right angles to each other.

Both pictures show the internal parts of the Acorn Archimedes mouse. Most computer mice are very similar in operation and construction to this. Hopefully, the pictures are clear enough to give an idea of how it all works.

Pic 2 is a closer view, which shows the slots in one of the disks. The roller is in contact with the mouse ball and spins the disk when the mouse moves. The light emitter LQ2 on the left of the disk, is mounted so that it's light shines through the slots in the disk. The disk movement detector, which reads the light coming through the slots can be seen just behind the disk. That movement detector actually has two light sensors in it and so does it's counterpart, which is used to read other disk, for reason which we will see shortly. For the moment, however we will deal with only one of those light sensors for each slotted disk.

The resulting two sets of electrical pulses, one produced from each of the two roller driven slotted disks are fed from the light sensors via the interface, into the computer. The computer accepts those pulses as data input and uses them to calculate exactly how far the mouse has been moved on the mat in both the horizontal ("X") and vertical ("Y") directions.

OK, so now we can use the movement detectors to produce a set of electrical pulses, which monitor every movement, whenever the mouse is moved.



This gives us an accurate measurement of mouse movement on the mouse mat, but it still leaves us short of some vital information. The computer can now tell precisely how far the mouse moved horizontally ("X"), but it still cannot tell whether the mouse moved left or right? Likewise for the vertical ("Y") direction, it cannot tell whether the mouse was moved towards or away from the computer user?

The answer to that problem is quite easy. Instead of one sensor on each of the two slotted disks, the mouse now uses two sensors on each of the slotted disks. That is two light sensors for the "X" movement disk and two for the "Y" movement disk.

The trick is to position the two light sensors on each disk so that one reads a slot open while the other sensor is still partially blocked off from the slot it is reading. The result is that whenever the slotted movement detector disk rotates it sends two sets of identical electrical pulses that are slightly out of phase, through the interface, to the computer.

The computer can read the two sets of pulses from the disk and can use the slight time lag between each set of pulses, to work out which way the disk is rotating. The same applies to the two sets of pulses produced by the other slotted movement detector disk.

The two sensors on each disk, can be set quite close to each other, they can even read the same slot, providing they produce the required time lag that identifies the direction of disk rotation. As a result, it isn't surprising to see both of the sensors for one disk in a single chip, as shown above.

Now the computer can work out which way each of the two movement detector disks are rotating and as a result, which direction the mouse travelled and in addition, it can calculate from the number of pulses read from each disk, precisely how far the mouse was moved. Using that information, it can now duplicate that mouse movement on the display screen, using the cursor or a pointer.

As for the buttons, they are easy. The mouse interface has a set of data input lines. Each button is connected to it's own data input line. The state of each line can be read from a specific location in the computer's data memory. Push any button and it will instantly change the contents of that memory location to indicate which button was pressed.

That more or less covers the mouse operation. If you are looking for a mouse for the Oric, I would be inclined to go for a very basic simple type, such as those used on the early machines like the BBC Microcomputer.

I have found that the Acorn computer mice and my Marconi "MEDL" Trackerball all seem to operate perfectly well with all of the BBC Micro, Oric Atmos and Acorn Archimedes 310 and A5000, so it follows that the computer mice for Acorn machines are probably all suitable for operation with the Oric. It is also quite likely that many of the other computer manufacturers equip their machines with mice that would also be suitable for the Oric. The only problem would appear to be the plugs. The BBC Micro uses a 20 pin IDC type and the Archimedes uses the more common small 9 pin Din type. If you are going to build an interface, you can simply clip the plug off the mouse lead and use plugs and sockets of your own choice. As for where to obtain a mouse, it might be best to look in second hand sales, computer fairs and boot sales, at first. However, before you do any of that, you will need an interface and that's what we will have a look at next time.....



Instead of sitting here waiting for supplies to arrive - twiddling my thumbs and such like, I thought I'd put the time to some use and try and get another article slapped together. Nothing's changed much - I still have to back-peddle because I've missed one out again!

\* **Sord M5** In the eighties Britain was capable of being a leader in the electronics field. The likes of Sir Clive were pushing at the boundries of electronics possibilities. The Americans were making the big breakthroughs with companies like Apple and Commodore, but our own computer industry was doing fine. For some reason, Japanese computers were never looked on very favourably. When the Japanese companies grouped together and tried to give the world descent compatible machines, in the form of MSX, no-one seemed to care. We stuck to our Orics, Speccics, Amstrads and so on. It's sad to see it all disappearing with Amstrad finally being shut down. Acorn have somehow survived along with Apple who are now struggling to keep a share in an market they helped create.

Back to the Japs and the Sord M5. It seems that Japan didn't import much software. Partly because it was foreign (!), and partly because of the language barrier. Sord was one of the first Japanese companies to produce software in Japanese developing PIPS in 1981. This was a combined spreadsheet/database/ wordprocessor in a simple to use form and was hugely successful.

Sord, (who incidentally got their name from Software & haRDware), went on to produce a range of Z80 machines - the M200 series. Later came the M23 and the M23P portable which was notable for it's built-in disk drives and 80 column display. Their attempt to get into the home computer market came in the form of the M5.

There were several companies that produced machines that were very close to MSX specifications, ie they were Z80 machines with 16 colours and sprites and a cartridge slot. The Sord M5 is one such machine which seemed to be trying to appeal to the British market and certain features make me think of it as a cross between a Speccie and an Oric -1. Reading Fabrice's article on arcade machines makes me think now that this is quite a good machine. It has hardware sprites and uses most of its memory on controlling graphics, so should be able to produce some good games. However, only 4K is left to the user and I think this is what put most people off.

*SPEC. Z80 CPU. 8K ROM. 20K RAM (16K used for graphics) 16 colours with upto 32 sprites. 4 screen modes - 2 graphic, 1 text & 1 'multicolour' mode (192 x 256 resolution stated but don't ask me which mode this is !!) 55 oddly shaped keys with graphics characters, BASIC statements etc a la Speccie. PORTS: (cassette), Cenronics, Joypads (supplied), ROM cartridge, audio. Duff plastic case in two grey colours*

The BASIC supplied is 'BASIC - I' - integer BASIC, which is on cartridge. Also available were 'BASIC - G' (graphics) and 'BASIC - F' (floating point BASIC). Mainly Texas Instruments chips were used. It might have been OK but no one actually saw one so no one found out. No one really cared anyway! Some time later the SORD M7 came out. I believe it had a proper Keyboard and a decent amount of memory.

We've done Spectrum under 'Sinclair' so I think we can now move on to 'Tandy'.... EEK! For some reason Tandy, (Radio Shack in the US of A), decided to call all of their machines TRS - 80. I thought the '80' might signify the year of release - but they machines cover a period from 1978 - 1983. The 'TRS' might be the initials of 'Tandy' and 'Radio Shack' though. Anyway, on with the show!

\* **TRS-80 Pocket Computers 1 & 2** (1979) You know those calculators with built-in BASIC like the Casio and Sharp models? Well these were Tandy's version. You could buy special mini printers and devices to connect to a cassette deck and memory expansion cards. They are just calculators with delusions of grandeur, but quite fun to play about with none the less. The PC1 is 4-bit and the PC2 8-bit have a one line LCD display and so are not much good for playing 'Space Invaders'

\* **TRS-80 Computer Model 1** This is more like it... Almost! Released in 1978 this was one of the first home computers and as such is a little primitive. It came with a reasonable amount of memory but had a funny screen and two levels of BASIC so is a bit wierd. It was around long enough for there to be a good range of software for it. Any good computer museum should have one.

*SPEC. Z80 CPU 16K RAM SCREENS: 64 x 16 text, 128 x 48 graphics. PORTS: RS232, expansion. Level 1 or level 2 BASIC (?) No sound. No colour*

That's about all for this time. Whenever the next article appears we will have a look at the TRS-80 and the TRS - 80, (not to be confused with the above!)



# BRIAN'S PAGES

ORIC USER MONTHLY

Issue # 120

AUG 1997

## WELCOME

NO ISSUE NEXT MONTH, SO MAKE THE MOST OF THIS ISSUE.

I WONDER JUST HOW YOU DID WITH THOSE POSERS I SET IN THE LAST ISSUE.

DID YOU GET STUCK ON ANY - IF SO CHECK OUT THE ANSWERS - SOME WERE REALLY VERY SIMPLE, AND JUST NEEDED A LITTLE LATERAL THINKING POWER.

WINNERS TO THE COMPETITION ARE :

THOSE GREAT NOBODY'S YEP  
NO ONE ENTERED !

*OOPS*  
APOLOGIES GO OUT TO KEN DUDDLE, WHO ~~WILL~~ RECEIVE HIS JUNE ISSUE PRIZE, ALONG WITH THIS ISSUE OF OUM

MY ADDRESS IS :

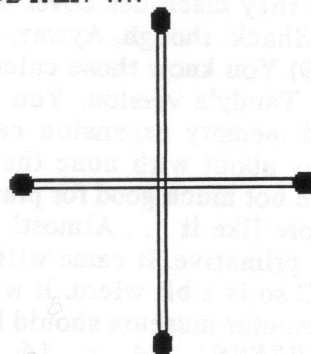
32 KIER HARDIE CRES.  
TREBERTH FARM  
NEWPORT  
S. WALES  
NP9 9DQ



## ANSWERS

### 1) MATCHSTICKS....

JUST MOVE THE TOP MATCH SLIGHTLY, TO OBTAIN ....

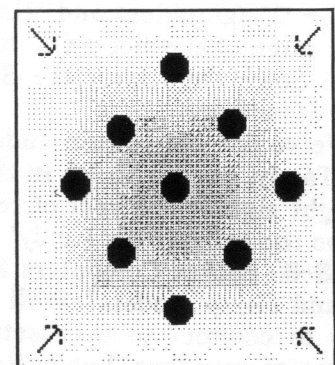


THE PERFECT SQUARE IS FOUND BETWEEN ALL FOUR MATCHES !

### 2) A SQUARE DEAL

SIMPLE REALLY, JUST

MOVE THE 4 CORNER COUNTERS INWARDS TO GET .....



### 3) 6 INTO 8 or 9

NOW THIS ONE WAS A LITTLE MORE DIFFICULT, BUT WITH A LITTLE THINKING YOU SHOULD HAVE CAME TO THESE SOLUTIONS .....

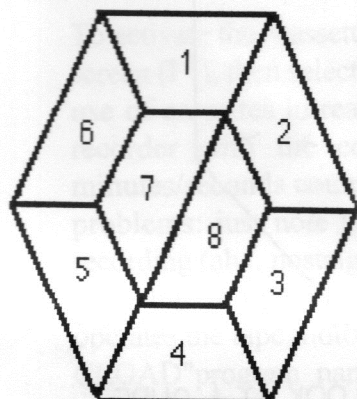
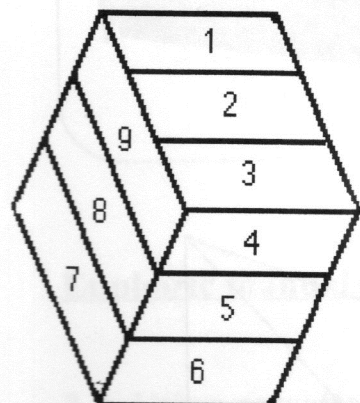
P.T.O.

# IT'S PAGE 2 TIME !

## 6) A QUESTION OF MEASURES

YOU CAN DO IT IN JUST FOUR MOVES -

- 1) COMPLETELY FILL 11 pt CYLINDER AND EMPTY IT IN CONTAINER
- 2) REPEAT STEP 1 FOR 7pt CYLINDER
- 3) FILL 11 pt CYLINDER , THEN TILT AND EMPTY WATER UNTIL A LEVEL IS OBTAINED , WHERE WATER TOUCHES TOP OF CYLINDER BOTTOM , AND BOTTOM AT CYLINDER TOP - YOU THEN HAVE HALF VOLUME , WHICH IS EMPTIED INTO CONTAINER
- 4) REPEAT STEP 3 USING 7 pt CYLINDER



### 4) IT'S A JIGSAW ALRIGHT

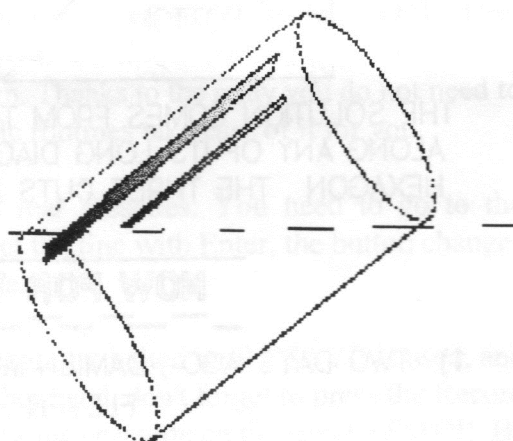
BY TRIAL AND ERROR ALONE , YOU SHOULD HAVE DEDUCED THAT **ANY** SUB-SQUARE CAN BE EMPTY - IT'S JUST A CASE OF HOW YOU FIT THE PIECES .

### 5) CHANGE LETTERS ....

Four , Pour , Pout , Port ,  
Pore , Fore , Fine , Five

One , Ode , Odd , Add , Aid ,  
Lid , Lip , Lop , Top , Too , Two

Seven , Sever , Saver ,  
Raver , River , Rivet , Revet ,  
Reset , Beset , Beget , Begot ,  
Bigit , Bight , Eight



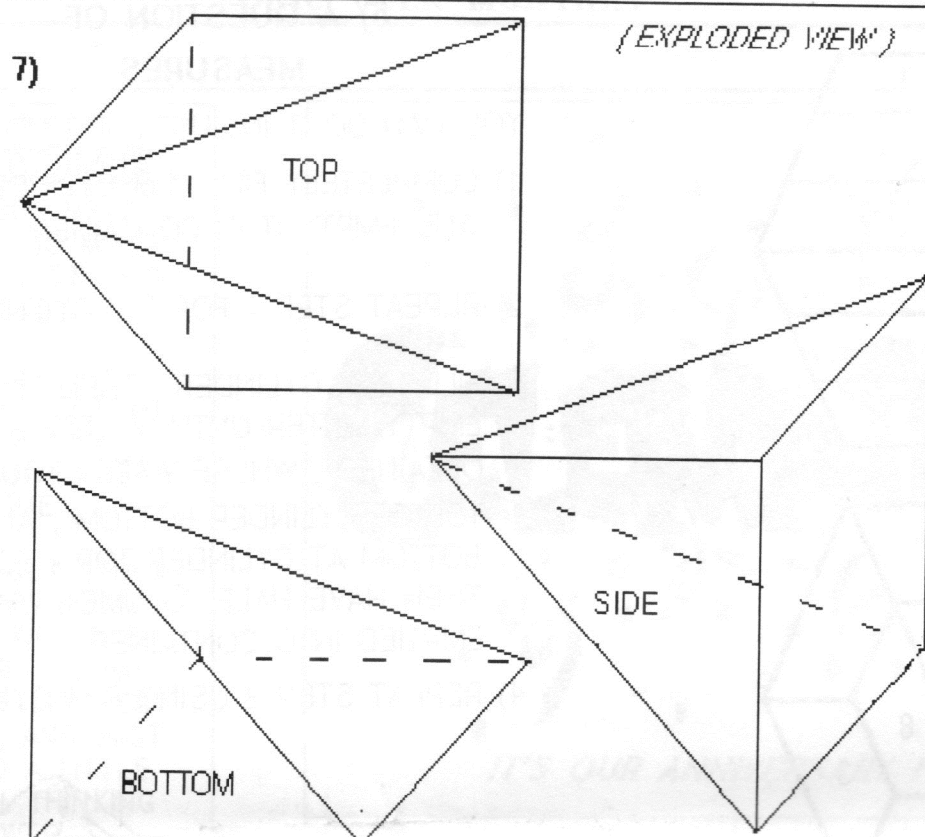
### 7) CUBE INTO THREE

FOR ANSWER P.T.O.

### 8) WORD SQUARE ..

B	A	R	D
A	R	E	A
R	E	A	R
D	A	R	T

# ANOTHER PAGE 3 !

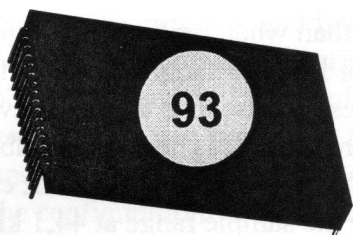


THE SOLUTION COMES FROM THE FACT THAT WHEN YOU LOOK AT A CUBE ALONG ANY OF ITS LONG DIAGONALS , ITS OUTLINE IS THE SHAPE OF A HEXAGON . THE THREE CUTS ARE ACROSS THE OPPOSITE SIDES OF THE HEXAGON .

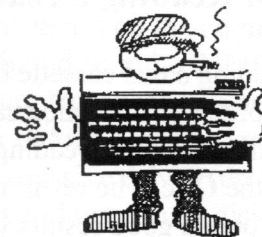
## NOW FOR THIS ISSUES POSERS ! ! !

- 1) TWO DAYS AGO , DAMIEN WAS EIGHT , YET NEXT YEAR , HE WILL BE ELEVEN . EXPLAIN HOW AND WHY ?
- 2) COMPLETE THE GIVEN SENTENCE , WITH ONE OF THE NAMED VEGETABLES .....  
'I DO NOT LIKE THOSE PEOPLE LEAVING ..... SCATTERED EVERYWHERE.'
- A) SPROUTS , B) BEANS , C) POTATOES , D) SWEDES , E) CARROTS
- 3) THIS PARAGRAPH CONTAINS A SPECIAL WORD . IF YOU TURN THE PARAGRAPH UPSIDE DOWN , AND LOOK AT IT IN A MIRROR , THE SPECIAL WORD WILL MIRACULOUSLY BECOME DECODED , WHILE EVERY SINGLE OTHER WORD WILL HAVE BEEN SLIGHTLY MESSED UP. CAN YOU FIND THIS WORD WITHOUT USING A MIRROR ?





# RAMBLING IN THE ROM



## Euphoric manual (continued)

### 3.2. Using cassettes with the hardware emulation

To activate the "cassette hardware" option, select the "Hardware tape" line on the configuration screen (F1), then select a cassette image name. The hardware system is very (too?) faithful to the use of cassettes in reality: the interface of the configuration screen (F1) provides you with a recorder with the commands: fast forward, play, fast rewind and save, and even a minutes/seconds counter to find programs on a tape. Loading a cassette presents no particular problems: just note that the Play button of the recorder used alone enables you to hear the recording (ah... nostalgia...) but not to load a program in to the Oric. The Oric is able to use the relay line to operate the tape recorder. The play button is therefore always on, and the Oric operates the tape motor relay. So a CLOAD"" will load the first program on the cassette, and a CLOAD"program\_name" will load a particular program. Thanks to the relay you do not need to stop the tape recorder after loading a program, the Oric routines take care of it for you.

Writing to a cassette demands more care, as with real cassettes. You need to go to the configuration screen and press the Record button (select the line with Enter, the button changes to inverse video) and then key in your CSAVE command.

As for saving, the relay controls the cassette motor, keeping it halted until CSAVE is used, and halting recording when the save is complete. On the other hand, don't forget to press the Record button again to release it after your save, or you risk erasing a cassette on the next CLOAD!! Be careful also if you save a program on a cassette you have already used. Position the tape in an empty section, such as the end of the tape, or you will overwrite a program. You are advised to put only one program (or set of part-programs) on one tape, unless you want to prepare a tape for use on a real Oric. Also do not forget to write-protect your precious cassettes, by setting the access attributes of the file with your host system commands (chmod under Linux, attrib under Dos).

### 3.3. Writing a real cassette with Euphoric

I have taken particular care in making the Play button available to 'pre-listen' to cassettes. Unfortunately the Windows drivers lose sampling range: you don't notice it with your favourite music, but the Oric does. Even reading sound files under DOS doesn't produce a faultless result, at least when I've tried to do it. To record a real cassette, therefore, connect your tape recorder to the Line Out socket of your sound card, and make a copy of the (virtual) recorder to the (real) recorder using the Play button.

### 3.4. Reading a real cassette

Reading a real cassette by way of the sound card is more delicate than when writing. The signal recorded on an analog cassette is far from perfect, and even at 44.1 kHz the sample range of the sound card gives readings at the start and end of fronts which are less precise than those achieved by the Oric. The result is that reading a cassette via the sound card of a PC is not very reliable. To obtain good results you need cassettes in good condition, with correct recording levels, etc. A short program (readtape) is provided with Euphoric to decode the sample range at 44,1 kHz and convert them into cassette images usable with emulator, but I strongly advise transferring cassettes from the Oric to a PC by using the transfer cable (see [annexe](#)).

## 4. Disk images

Disk images are files on the host system reproducing bit by bit the contents of MFM disks (DD) (in fact the format does not memorise clock transitions, only the contents after decoding: everything the disk controller can provide to the CPU is memorised). Disk images with an older format might still be found on some archive servers, and certain utilities for Oric to PC transfers still generate an obsolete format no longer supported by Euphoric: you must convert such older disk images with the oric2mfm utility. Images are conventionally named with a ".dsk" suffix, but this is not obligatory; Euphoric controls the signature of a disk image in the first 256 bytes. There are several ways to obtain a disk image: download it from a server, create it by an Oric to PC transfer, or format a new virtual disk within Euphoric (for which, of course, you must already have a system disk image).

### 4.1. Creating disks with the configuration screen

If you start Euphoric configured with disc drives (Microdisc, Jasmin or Telestrat), you will see on the configuration screen (F1) 4 lines (or less) corresponding to the disk drives which you activated in the initialisation (INI) file: Disk A, Disk B, etc (if you are sure that you started Euphoric with a disk controller and yet you see no Disk line, check in the INI file that you have connected at least one drive in a line such as DriveA=Yes). For any action on a disk drive you must place the cursor (the blue line) on the line of the drive. After the drive name is the name of the disk image inserted in that drive (if it is blank, the drive is empty), and right on the left is a small symbol indicating whether the disk is write protected or not (the symbol represents the small protection hole on a 3.5" disk). You can change the write protection with the left and right arrow keys. To eject a disk press the DEL or BackSpace keys.

Pressing Enter enables you to select a disk to insert in the drive: the contents of the current PC directory are then displayed. The Up, Down, Page Up, Page Down, Home and End keys are used to move around the list. Select a disk image or a directory with Enter or abandon the selection with Escape. If you need a new blank disk, press Space with the cursor on the disk line. You get a new disk named \_\_\_\_\_.dsk (or \_\_\_\_\_1.dsk, \_\_\_\_\_2.dsk, etc if the files exist already in the current PC directory).

Note that the new disk is not formatted, you must format it using the Oric DOS system disk of your choice (OricDos, FT-DOS, Sedoric, Stratsed, etc). When you quit Euphoric, rather than put a label on your new disk, I suggest you rename it to something more descriptive.

## 5. Using a Microdisc

To use the Microdisc controller, either specify one or more disk image names on the command line, or use the command line option -d, or specify DiskController=Microdisc in the INI file (in both cases, the MicrodiscEprom=... line must point to a ROM image. Note that you are not obliged to use an EPROM of only 8k, you can program one of 16k, or indeed a smaller one). If you specify disk images on the command line, they are inserted in successive drives (up to 4), and the Oric boots the first. While running the emulator you can eject and insert new disks via the configuration screen (but don't do it during a disk write: you will damage the disk just as if you were using a real one!)

## 6. Using Jasmin

To use a Jasmin controller, start Euphoric with the command line option -j and then one or more disk image names, or specify DiskController=Jasmin in the initialisation file (in both cases the line JasminEprom=... must point to a ROM image). Remember that the electronics of the Jasmin controller does not interfere with the normal booting of the Oric. You must wait for the usual "Ready" message, then press on the boot button of the interface unit (F6 on the emulator). A disk with the Tran DOS system must of course be present in the first drive.

## 7. Telestrat

To boot a Telestrat instead of an Oric 1/Atmos simply add the -t option to the command line (together with one or more disk image names) or specify the line Computer=Telestrat in the INI file. The contents of the cartridges to be inserted in the Telestrat must be specified bank by bank in the INI file (see paragraph below).

For those who do not know the machine, the Telestrat was the last Oric machine produced by Oric France, although Oric UK set the wheels in motion. The project was started in England under the codename IQ64 and the machine was called the Stratos. This superb machine is backwards compatible with the Atmos+Microdisc, and includes among other things cartridges (all system software is in cartridges), an integrated disk controller, RS232 and Minitel interfaces, and joystick and mouse ports. The cartridges can contain the Rom, additional RAM, or a peripheral (although no peripheral was developed in cartridge form). Cartridges that were produced included one with 64K of RAM, and a number with ROMs for different purposes. These ROMs and RAMs are always accessed in the top 16K of memory, using overlay. There are 8 banks 16K accessible, bank 0 consisting of the upper part of the 64K of internal RAM in the Telestrat. The Telestrat needs at least one ROM cartridge in bank 7 to boot, usually containing the Telemon software (the Telestrat monitor software).

A range of other ROMs can be used in the other banks, generally associated with a fixed Bank number, such as Hyper basic in bank 6, TeleAss (an assembler) in bank 5 or Telematic in bank 3 (this last only using 8K). Euphoric allows you to specify directly the contents of each memory Bank in the INI file using lines such as Bank7=... which fixes the Bank as ROM. Each Bank not initialised is automatically considered to be a RAM bank. So, if you boot with a Telemon cartridge image in Bank 7 and a Hyper basic image in Bank 6, you have a Telestrat with  $48 + 6 * 16 = 144\text{K}$  of RAM ! (however, Bank 0 is RAM overlay and will usually be used by Stratsed).

On booting, Telemon tests the contents of the other Banks, displays the copyright messages of the different ROMs, and tries to load the Stratsed system from the first drive into Bank 0. If the disk in the drive contains a file named BONJOUR.COM, it is executed; if not control is passed to the first Bank with a ROM inserted reading numerically downwards, usually 6 containing Hyper basic. The latest versions of this Bank display a menu giving a choice between the Telematic bank (if present) or a language bank, then in the latter case one between Hyper-Basic or TeleAss (if present).



## 8. Printer output

To connect a printer to your virtual Oric, ensure that the line `Printer=Yes` is present in the INI file and set the destination for the output in the line `PrinterOutput=...` You can specify an output file, which allows later editing of the file, or a printer (or a MCP40 emulator, for example). Again, you can opt for direct output to a real printer by specifying the special corresponding filename, for example: `PrinterOutput=lpt1`. Finally, ensure that you have activated the printer in the configuration screen, it is off by default for the reason that certain games written to work with the IJK joystick via the printer port do not detect that a printer is connected and pour binary data into it.. The PASE joystick does not interfere with printing (but can interfere with sound...) All these quirks have an explanation, and of course are identical to the real Oric...

## 9. Joysticks

Euphoric can emulate a joystick using the numeric keypad on the PC (2,4,6,8 for direction and 0 for shoot). Select a type of joystick interface with the line `Joystick=...` Indicate IJK or PASE for the corresponding interfaces, or No if you don't want a joystick emulated. If you want to emulate a joystick on the integrated left port of the Telestrat, remove the emulation of an IJK or PASE joystick and set the line `JoystickPort=Yes` in the INI file.

## 10. RS232

The Oric-1 and Atmos have no standard serial port, but it is very easy to equip them with such an extension (with just 4 chips on a board the size of a matchbox). Euphoric provides you with such an extension based on an ACIA 6551 at address #031C. To activate it, set the line `AsynchronousController=Yes` in the INI file, and specify the name of the serial port of the PC which serves as an ACIA simulator in the line `SerialPort=...`

The Telestrat comes with such a serial controller as standard, its communication port can be either the V24 connection (EIA standard level), or the Minitel connector (TTL level). The PC has no Minitel connector, but a commercial PC/Minitel cable can be used to connect a Minitel terminal and use it, for example, with the Telematic cartridge (however, you will also need a small extra piece of kit if you want your PC to detect telephone rings). While simulating an Oric-1/Atmos or a Telestrat, you can of course connect what you like to the serial port, for example a modem or serial printer. Finally, note that you can also use part of the ACIA simulator if you don't have a free serial port on your, or if you don't possess the necessary peripheral for the proper functioning of a piece of software (for example, the system software of the Telestrat hangs if its serial output buffer is full and a data path is not signalled to it): in that case set the line `SerialPort=No`.

## 11. Light pen

To use the light pen, simply specify the line `LightPen=Yes` in the INI file. The light pen is simulated by the PC mouse, and a small grey marker appears at the position of the light pen on the screen. But do not forget that the pen must touch the screen to point to a zone: this action is replaced by pressing the mouse button. Also don't forget that the pen can only work on light areas of the screen, so don't try to select a black zone...

You must have a mouse driver working before you start Euphoric, otherwise the grey marker won't move.

## 12. Mouse

To use the Telestrat mouse, just specify the line Mouse=Yes in the INI file. You need a mouse driver in place before running Euphoric, otherwise it will move the cursor in one direction only.

## 13. Keyboard

The Euphoric keyboard precisely emulates that of the real Oric. Thus you can, for example, press the QD5VBL' keys together to succeed at Damsel in Distress... but there are complaints (not least in France) that the keyboard is American (as on the Oric) and not French. So there are two small variations for the Euphoric keyboard: a lightly 'extended' Oric keyboard and a 'pure' Oric keyboard. The Euphoric extended keyboard adds a small number of keystrokes to that of the Oric, using the free space in the Oric matrix of 64 positions. One or the other variation is selected in the INI file, using OricKeyboard=Extended or OricKeyboard=True.

### 13.1. The "extended" keyboard

Several keys are not in the same position on the PC and Oric. They include the Backspace key, the key to the right of '=' ('+' with Shift), the CTRL key of the Oric which is lower down on the PC and the FUNCT key of the Atmos which becomes ALT on the PC. In addition the ESC key of the Oric is high up on the edge of the PC keyboard, the arrow keys of the Oric become the grey arrows of the PC. There are several additional keys added by Euphoric into the emulation of the Oric matrix: the AltGr key and the second Ctrl key to the right of the space bar, and the CAPS key. Finally, on international PC keyboards there is one key more than on American PC keyboards, found beside the left Shift, and connected to the FUNCT key too...). The two last differences between the Oric and PC keyboards relate to the TAB key and the one above, both of which are unused by Euphoric.

### 13.2. The "pure" keyboard

The keyboard for purists allows us to get one step nearer to the true Oric keyboard: this time, the ESC and CTRL keys of the Oric and the arrow keys around the space bar stay in place, using respectively the TAB and CAPS keys of the PC and the Ctrl and Alt either side of the space bar.

### 13.3. Using a non-US keyboard

Euphoric is not intended to provide you with all the possibilities of your PC keyboard; the program is meant to be completely compatible with the Oric, not the PC: I made some errors in the keyboard emulation that led me to write some over-sophisticated programmable keyboards, but that's all over - it was a false road. If you must have an international keyboard, that is a matter of software, not hardware: if you put some AZERTY keytops on your real Oric, but don't alter the keyboard read routine, you will not have what you want... The solution if you have a French keyboard on your PC is a French ROM. I have prepared one for the Atmos, and one for the Telestrat, both of which include the additional keys (AltGr to access the third key symbols, and the additional key on the international keyboard beside the left Shift). They are named Basic1.1fr and Telemon2.4fr. It is undoubtedly the better solution for French users: every character read by the ROM routine uses the French keyboard characters, while all games which access the keyboard directly work perfectly when the corresponding ly placed key is pressed.

Users in the UK should use Basic1.1b in the INI file.

## 14. Save and resume

By pressing the F9 key when running the emulator, you can save the state and memory of the

Oric in a file (you can specify its name in the INI file with the line DumpFile=...). You can then start Euphoric later on with the command line option -r to recommence at the precise point of the save. You must restart with exactly the same configuration, please don't try to restart an Atmos save on a Telestrat!. If you have a disk configuration, restart Euphoric with the same disks in the drives. For example, if you start Euphoric like this : euphoric -t hypercat.dsk, you must restart it with euphoric -t hypercat.dsk -r to restart in the saved state.

## 15. Screen dump

Done simply with the PrtSc key... A file in BMP format is generated in the current directory, and each press of the PrtSc key creates a new file: Screen01.bmp, Screen02.bmp, etc. Users of Windows: ensure that PrtSc is not intercepted by Windows (it is by default).

Email: [jon@cam.dungeon.com](mailto:jon@cam.dungeon.com)

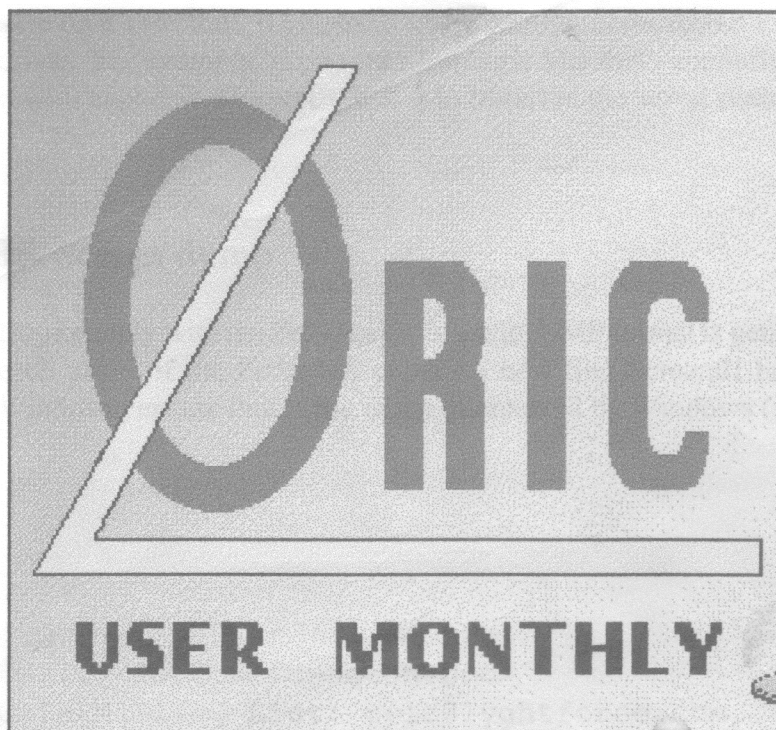
Oric Mailing List: [oric@lyghtforce.com](mailto:oric@lyghtforce.com)

Jon Haworth  
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Cambridge  
CB2 4SF



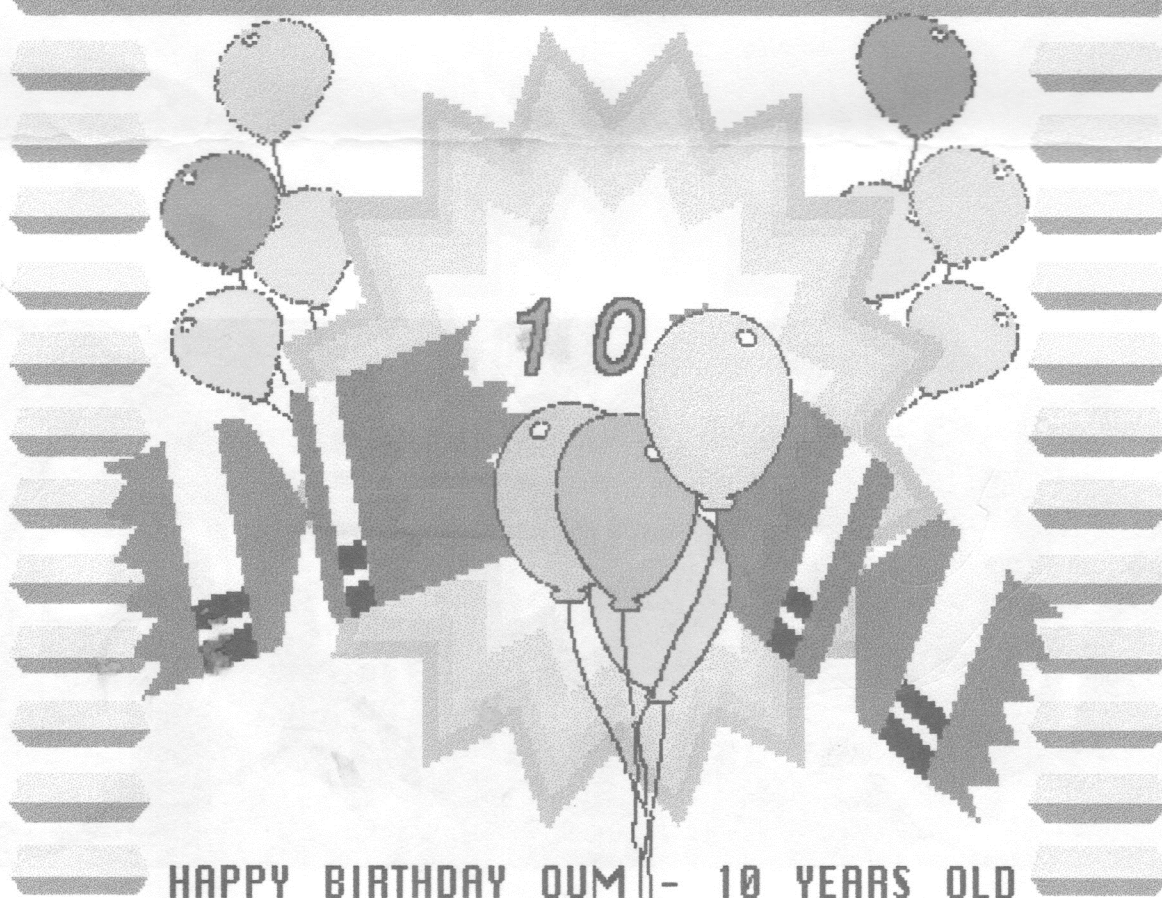
*... and those who scoffed it !!*





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