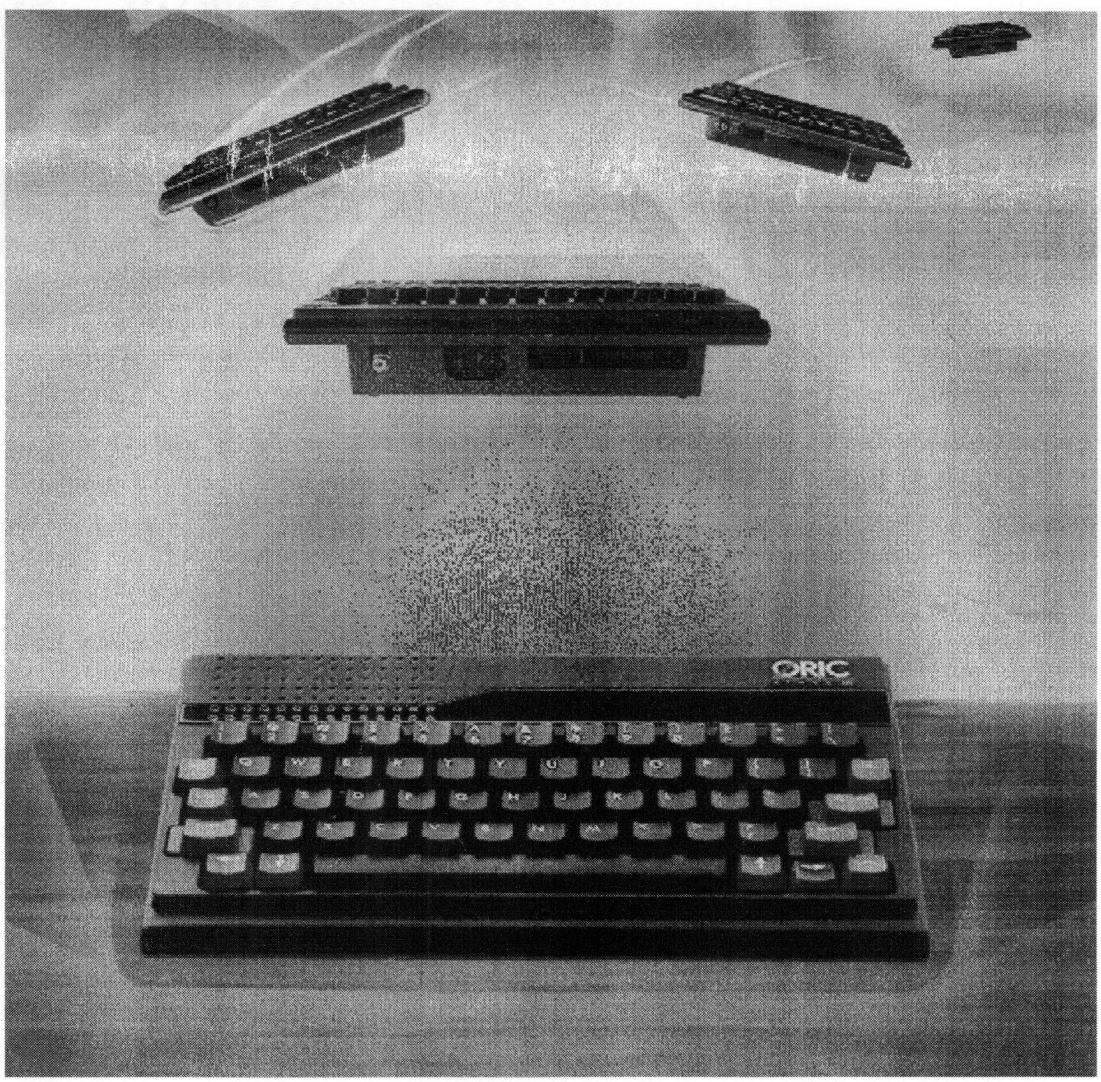
ØRIC USER MONTHLY

with Alternative Micros

Number 113

January 1997

Keeping the Oric alive



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

THE EDITORIAL

HELLO AND WELCOME,

to the first issue of OUM for 1997. Rather late I'm afraid!

There were so many Oric-related things I wanted to do over the festive season, but as *usual, time beat me. I only get 2 days off - not like some of you with 2 weeks.*

Just prior to Xmas I received an enormous postbag. You all wanted cassette software, disk software, and OUM back issues etc. Whilst it is great to see the interest continuing, I am afraid that I was unable to cope with the influx. I did manage to get some part orders *despatched, the majority is still pending. On completion of this issue of OUM, O will get* stuck into your orders. A couple of orders were despatched super fast - copies of MAGNETIX were e-mailed as an attached file to Oricians in Sweden and Greece.

A smaller than usual issue this time around. Bigger next month + your next OUMdisc + a *look at the Oric BBS + more On the Oric web sites +++ and all in English!*

Bon Chance !

THE INDEX

MINER

On page 7, Hakan Karlsson lists his fav. 3. The number one is not Manic Miner, but MINER from the pen of Tina Billett. I will look at the game (it is new to me) and review *it in the next issue. It is nice to see that the Internet has opened up a whole new world for* Gamesters.

WOULD YOU BE MY FRIEND?

Every so often some 'goon' pots a message to a newsgroup on the NET, knowing that it will be relayed to all within that group. They are generally either begging messages or ways *of making millions. The latest 'goon' to log on had the follow message:*

"Hello, I am 14 years old and I think I may be a gay. I'm looking for some support and friendship with a older male age 18-40. Please email if you can help."

ENOUGH SAID!

FEBRUARY OUM

Articles for inclusion in the February issue should reach me by January 26th at the latest please. As I gradually catch up, I hope to include many of the things that I have 'waiting in the wings', including listings.

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

ON THE MOVE

Adrian Matthews has moved yet again. He is now at: 27 Carlton Court, 428 Christchurch *Road, Bournemouth, Dorset. BH1 4AY*

GETTING YOU 3" DISCS TO YOUR PC

Via the comp.sys.oric newsgroup on the Internet, that 'oldtimer' Rob Kimberley asked if it was possible to transfer direct the contents of his Oric 3" discs to the PC and read them. Mr. Euphoric (Fabrice Frances), came up with a positive response, which is great news for those wanting to get their 3" software across without first having to go through the *painstaking job of copying to 3.5" initially. Here in the words of Fabrice, is what you need* to do:

" Connect the 3" drive to drive B's connector (before the twist on the flat cable), not forgetting to first set the switches on the 3" drive in order to declare it as 'B' (so in the first *pack of 5 switches, put switch 3 'ON' and the others 'OFF'). Declare to your Bios set-up* that you have a 5.25" 360K drive in 'B', and voila you can use 'readdsk' and 'writedsk' utilities. (N.B. 'Readdsk' is still my old small assembly program. I have been too lazy to write a more user-friendly and powerful one, so it only reads in drive 'A' for now, and still *produces the old disk image format. Therefore I am putting a patched version, which reads!* drive 'B' on the ensica server, and I promise to update readdsk one day). " - Fabrice

LOKI

I have just received the following E-Mail:

" *Hi there,*

I've just found my first ever machine code game for the Oric-1, which was written back in 1983, when I was 14/15 years old. I thought it was lost long ago.

Anyway, here is a copy of the 3D experience."

-John Sandham

Well, as soon as I read the words - 3D experience, I knew it just had to be LOKI, which for it's time *was super, fast and fun. Not your usual zap 'em. 'JOE THE LION' marketed the game, and must* have pressed far too many copies. I remember a few software outlets offering a free copy of LOKI if your spent so much. The game even works with the PASE joystick interface. I will get in touch with *John and see if he will do an interview for OUM. It is always nice to hear what people are now up to.* Talking of which, I received contact from Paul Kaufman recently. He is back in Cambridge, as is Geoff Philips. They all end up back there!

THE 1997 AYLESBURY ORIC MEET

It is time to think about holidays and the ORIC MEET. I plan to go abroad in May and August. May heralds our 25th wedding anniversary, and you are all invited to the party, with Louise doing the Disco. In August we hope to holiday without the kids - at long last!

This leaves June and July for an Oric Meet. We often have the MEET near the end of *July, and find some of you on holiday. If you want to come to the Meet, then why not write* and tell me when you can't make it, and I will try and find a date to suit the majority.

READERS LETTERS

D E A R D A V E ,

At the beginning of November, I went to the Acorn show, where I noticed that one exhibitor was offering a "Zip Drive" for the Acorn machines. They are also advertised in PC magazines, though with no real info. They appear to be a form of removable hard disk operated from the printer port and holding 100Mb of data. The printer port has to be a full input/output device. Could they be made to work on the ORIC? Does anyone know about these drives, how good they are, and if they have any snags?

- PETER BRAGG (Sutton)

DEAR PETER,

I will leave this to the experts out there. I assume the data is first Zipped/Compressed prior to transporting it to the ZipDrive.

- DAVE

==========

DEAR DAVE,

I got an Escom P75 in January '96, but it was their own make. I haven't had the trouble that you seem to of had, but that's probably because it's a COMMODORE.

I hope you have no more trouble with it, so that you can enjoy the Internet. Of course that is if Matthew hasn't used all your hard disk up with STAR TREK stuff!

- DENNIS REDFORD (Leigh)

DEAR DENNIS,

As far as I knew, all PCS sold by Escom were their own brand i.e. Commodore. They had bought the name. So my machine is the same as yours, but only a P60.

The system is running quite well at the moment, though I must find a Windows '95 driver for the new Star LC-240C, as it does always do as it should. The driver supplied is for Win. 3.1. I often have to pretend to my system that I have a different Star printer!

It is bad enough having Star Trek, Voyager, Deep Space Nine etc. on the television3 times a day, without having it plastered all over my desktop.

On Xmas night we had friends around. One of them turned out to be a Trekkie, and so he and Matthew took over the Internet for the night. Matthew will have a hefty phone bill soon!

- DAVE

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DEAR DAVE,

I did not renew my subscription immediately, because I could not be certain that it was worth it. I must confess that I am out of touch with the intricacies of the Atmos machine code and routines and technological aspects, so those part of the magazines do not now have much meaning for me.

However, my sons still get enjoyment from playing the games on my PC, particularly those that I originally bought for my Atmos - so it is probably worth continuing for the games and general news in the mags. Therefore cheque enclosed for the year.

I have 2 manuals "The Oric-1 and how to....." by Ian Sinclair and Bob Maunder's "Oric-1 Companion". Both in virtually mint condition. Free, except for postage, to good homes.

- JOHN STUBBINS (Maidstone)

DEAR JOHN,

Thanks for your loyalty. If anyone wants the books, then please write to John at: 2 Eastwell Close, Maidstone, Kent. ME14 5NQ.

Machine Code for the Oric Atmos (Part 60)

Peter N. Bragg

The Story so far

The last few articles, have been looking at the subject of Interrupts. An Interrupt operation is triggered by an internal or external signal from computer hardware, which causes it to run a brief set of service routines, in such a way that they are almost invisible to the computer user.

The essential Interrupt routines are located in the Operating System ROM and are accessed via a set vector jumps, located in Page 02 of the Oric's RAM. We can use those vectors in Page 02 to tap into the Interrupt routines and add our own routines to the Interrupt operation.

Using Interrupts

A lot depends on what you intend to use the Interrupt facility for. Interrupts can be triggered by external devices. A printer or a mouse are good examples. Like most computers the Oric already has a printer driver and a mouse really needs an extra piece of hardware such as the VIA 6522 Expansion unit, detailed in the "Advanced User Guide" by L. Whewell. Not everybody has access to this sort of hardware, so for the purpose of this series, we will stick to simple software items, for the present time.

However, I should mention in passing, that the above mentioned Expansion unit is an interesting and not too difficult project. It works by linking into the Oric bus and for example, can be used to read the pulses generated by a typical computer mouse which indicate how far and in which direction the mouse has been moved, so that movement can be used to control a pointer (or cursor) on the Oric screen display.

The main chip in the Expansion unit is the VIA 6522, which is linked to the Oric's Interrupt line. This allows it to activate the Oric's 6502 Interrupt system, to tell the Oric, when the mouse is moved, so that the Oric can get on with it's normal operation, without having to keep on checking up on the mouse. Obviously, it also needs a small set of routines, tacked on to Oric's Interrupt routines, to handle the mouse operation.

Page 02 Vectors

So how do we install our own routine into Oric's Interrupt system. The answer is, to use one of the vector locations in the Page 02 area (#0200-02FF). To keep things simple so far, I have only mentioned the two locations in Page 02, used as vectors to the start of the Interrupt routines. There is in fact a third vector, which provides the exit from those routines.

The first two vectors at #0244-46 and #0247-49 each hold a jump instruction, addressed to the start of the Interrupt routines in the Oric's ROM.

If you change either of these vector start addresses, in order to add your own routines, you will be putting your routines before the system routines. I personally feel that it is better to tack any additional routines on to the end of the Operating System routines instead, in case they upset something, where timing is critical.

This can be done using the third vector. At the end of the Interrupt operation the Operating System jumps back to Page 02 for the final "ReTurn from Interrupt" instruction (RTI code 40) at #024A, which then terminates the system routines. That is a good place for a jump off to your routine.

Although "RTI" is a single byte instruction, that particular instruction is conveniently located in a reserved three byte vector area, #024A-4C, so it is quite possible to relocate the "RTI" and put it at the end of your own routine instead. Then all you need to do is to put a jump instruction to your own routine into the vector at location #024A-4C, in order to link your routine on to the end of the Operating System routines.

Don't forget what was said in the last issue about making your routine transparent. The vectors only contain one instruction and do not preserve the contents of the Accumulator and Registers X and Y. They will have been restored to their original state before arriving at the "RTI" instruction in vector #024A, so any routine you write, will need to preserve them as the very first action and then retrieve them again, just before the "RTI" instruction at the end of your routine.

The Crash Course
---------- As I pointed out, a couple of issues ago, you cannot simply alter a vector address, by writing a new one into the vector location. The Interrupt routines are in constant use and the vector would be accessed by the built in Interrupt system, long before you completed the new address, with the result that the system would jump to the partially re-written address and subsequently crash.

If you want to add your own routine to one of the Interrupt operations, you will need a method that inserts the address of your own routine(s) into the vector location extremely rapidly and of course the way to do that is to get the Oric to do it for you.

Setting a New Vector
---------- Let us assume we are going to use the Interrupt exit vector at #024A-4C. This is labelled "INTSL" and normally provides the return from the Interrupt handling routines. It is a three byte vector, suitable for a jump instruction, but normally it just contains the single byte instruction, "ReTurn from Interrupt" ("RTI"). We need to replace that with a three byte Jump instruction, addressed to our new interrupt extension routine.

There are several ways to do this. The simplest way is to use a short routine to load and write the three bytes of the required Jump instruction, one at a time, into the vector location. This should work, but it is not the best way to do it.

A better method, is to first of all, copy and store the vector ("INTSL") contents, in a parameter block. That same parameter block can also be used to store a Jump instruction to the start address of our new interrupt extension routine. Now we can use a simple copy routine to copy our Jump instruction into the vector ("INTSL").

In effect this swaps the Operating System exit vector for one that extends the Interrupt operation to our new extension routine. The result, our new routine immediately becomes an active part of the Interrupt operation.

A second copy routine can be used to restore the original exit vector contents, from the parameter block copy of those contents. That will disconnect the extension routine, if we wish to do so.

That's the theory. Next time, we can have a go at some crashing for real !!
A very Merry Christmas and a Happy New Year. See you in 1997.....

NEW FROM JON.B

I have received via Matthew Coates a couple of working versions of SCREENED and SPRITED programs that Jonathan Bristow is working on.

There is a demo for a game that J.B is keen to receive ideas for. The demo shows the smooth movement of a character against a background. I thought the movement to be excellent was not impressed with the clash in colours between the character and the background.

Jonathan's other program is another of his screen editor's with animation option. I will have a proper look at this at some time.

TOP TEN TIME!

Matt Coates (It used to be Matthew..... come to think of it Jim Groom always used to be James!)..... Anyway, Matt has sent in his favourite 10 Oric titles in response to my request for your top threes.

They are roughly in chronological order:

Xenon III (the only game he possessed for about a year), Pasta Blasta, Manic Miner, Maze Rally (for the speed & smoothness of the graphics), Psychiatric (for the graphics,sound & humour), Galactosmash (for the chance to blast heaps of aliens), Grendel, Don't Panic (aaargh!), Columns, and Magnetix (for originality, smooth graphics & brain-bending).

The above ten are those that have particularly impressed Matt or had him addicted to over the years.

KRYSTAL WORLDS II

Robert Cook's new text adventure is now available from OUM. Krystal Worlds II is a must for adventure fans, and is available on disk or cassette. Prices:

Disk —— £4

Cassette —— £3.50

Or if you are on the NET, then you can receive it as an attached file to an E-Mail. Price will be £3.50.

Get you order in now!

THREE FROM HAKAN

Hakan Karlsson writes (e-mails) from Sweden with his favourite 3 games. They are:

1. MINER (Ed. - I assume the Manic variety)
2. Warlord
3. Johnny Reb

All three can be downloaded from Hakan's archive page -

http://www.algonet.se/~hakan_k/swed_arch.html

It is not too late to get your top threes in to OUM.

W.E. Cassettes

I recently offered some cassette software that I wanted to get rid of. Quite a few of you asked for the titles from W.E. Software. It went to Colin Cook, who has just written with the bad news that none of it will load. I will check through my vast array of disk software to see if I have copies.

The titles involved were: Prison Camp, Follow The Leader, Croix, and Warship.

On the reverse side of the Prison Camp cassette, Colin found an Assembler, which was distributed in 1983 by Thunderbird Software and written by R.M.Willis. Has anyone got any information on this one?

JANUARY SALE

Yes - a January sale hera at OUM, especially for gamesters.

The following going cheap until Feb28th.:

GALACTOSMASH (super shoot 'em up from Alistair Way), GRENDEL (a great arcade adventure from Alistair), ZEBULON (arcade puzzler from Jonathan Bristow), and DON'T PANIC (another puzzler from Jonathan). Prices: £2.50 each on 3" or 3.5" disc (all 4 for £7)..... for those on the NET, they can be sent by E-Mail at £2 each (all 4 for £6), with instruction sheets by post.

MORE LETTERS

DEAR DAVE,

The December issue of OUM was great. Something to read in between parties and Christmas meals.

I hope to hear from you soon regarding the Microdisc.

- Barry Egerton (Macclesfield)

DEAR BARRY,

Glad you had a good read.

I hope your Microdisc will be on it's way to you soon. The vendor (Bob Terry) is currently taking a winter break in the sunny climes of Gambia - I wonder if there are any Orics there!

- Dave

DEAR DAVE,

My own Oric (and other) activities are continuing to be seriously affected by headaches, so I am trying to correlate food and medicine intake with headache occurrences. I've been developing the mathematics to do the correlation, but the work is long winded, even on a computer, and I doubt if I will have time to create a program to make it easier. But I've contacted the Migraine Trust to ask them if there is any commercial correlation software available for PCS which has ever been used to study migraines. If so, I'll be writing an article on Correlation, because this could be of interest to weather watchers, racing and football fans, and for lots of other studies. I should be able to develop an unsophisticated Basic program for the Oric, too, once I know that the data collection system I've devised for headaches actually works.

- Colin Cook (Pitsea)

DEAR COLIN,

Truly sorry to hear that the migraines are affecting your lifestyle. Although not a sufferer myself, I look forward to publishing any help that you can supply for fellow sufferers.

- Dave

E-mails

I find I am conducting more and more Oric matters by E-Mail, and will be using some of the messages received in the 'Readers Letters' pages of OUM.
We start 1997 with just a few. Other Oric info, picked up on the NET will be shown on a separate page entitled "ORIC ON THE NET"

Hi Dave, Merry Xmas et Happy new year - Alain Weber (France). My new email address is alain_weber@compuserve.com

(Note from the Editor: It is good to see that Compuserve have finally got round to allowing recognisable email addresses in place of a row of figures).

==========

Hi Dave, Is it possible to order back issues of OUM? I am currently translating an interesting article that I will send to you soon.....Hakan Karlsson (Sweden)

Hi Hakan ------ yes, back issues are available. Look forward to article..... ------ Dave

==========

Hi, I have many Oric bits and pieces, which I would like to go to a good home. Can you help? The list is as follows..... (Note from the Editor: in short an Oric-1 with cassette software, books and magazines, which I will list in full when price is known).....I was amazed to find Web-sites and a newsgroup devoted to the Oric. The Oric started me on the path of computers. I am now on my fifth computer, a pentium PC..... - Chris.

Welcome to another year , and issue of OUM and my page/s . At least some things don't change . It was great to hear from a few of you . I hope you enjoyed the ' Clipables ' supplement in last issues magazine , no offence was intended , talking of which , for this months competition , you will need your copy to hand .

Did you all spot the song titles and group from the oh so easy lyrics ? You should all have guessed the title was ' Mary's Boy Child ' , and that the second / adjoining lyrics were titled ' Oh My Lord ' . The group of course were Boney M , and the single has been a hit several times around .

Winner of the competition , which was to give the above mentioned details was NOBODY . So to me went a bottle of bubbly whatever - rather nice it was too !

Time for this issues set of posers ....

1) **Venn or not to Venn - that is the question ?**

In Oricland High School , a survey of 50 random male pupils was held , to obtain some required new Government statistics . From this , it was discovered that : 27 liked rugby : 32 liked football , and 5 liked neither .

Can you work out how many like both rugby and football ?

2) **If it's not the wife it's the kid's**

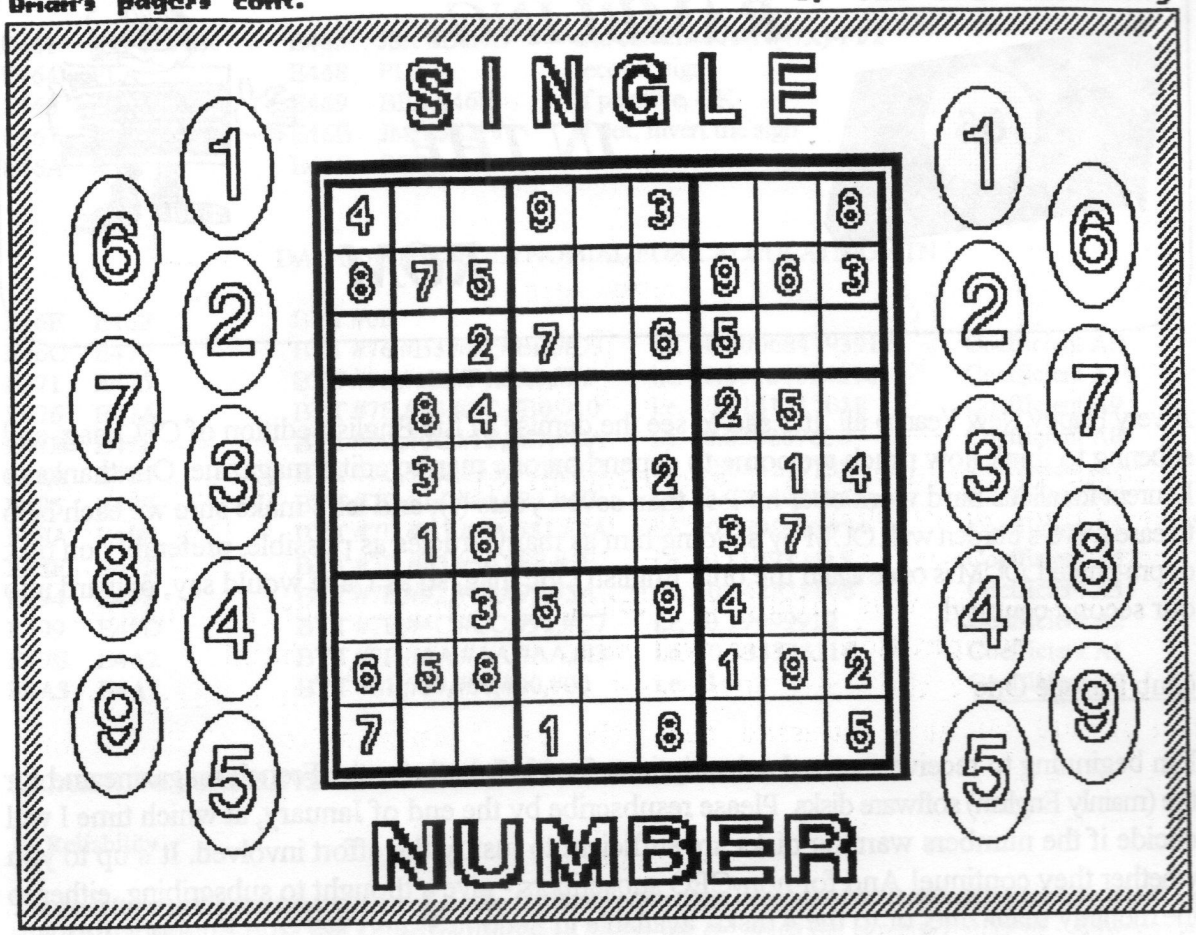
Meanwhile , in the school playground , the children of two families , namely the Miser's & the Kindly's , discussed (MOANED) amongst other things , the amount of Pocket money that they each received .

They discovered , *by coincidence of course* , that the pocket money amounts of the three Kindly children were in the same proportions as those of the three Miser's .

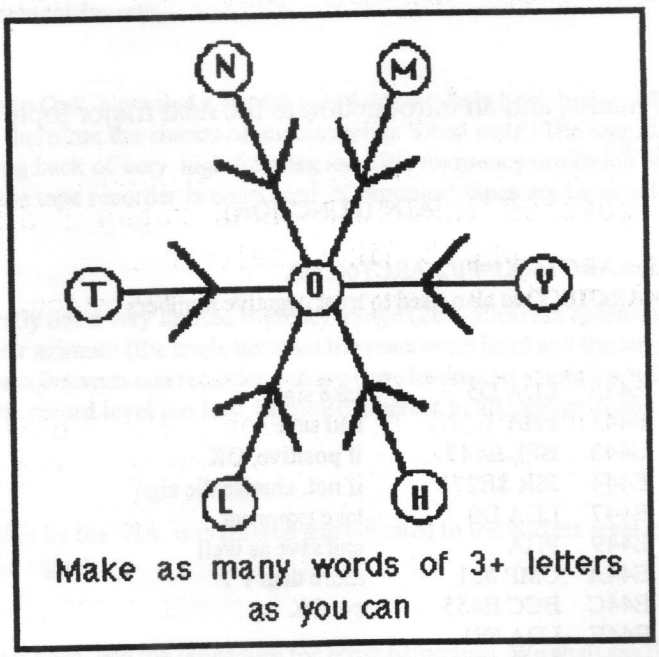
Moreover , Malcolm Miser received the same as Kevin Kindly . Furthermore , Maria Miser received the same as Karen Kindly . However , lucky Kent Kindly , received 800% more than Mark Miser .

Given these facts , what is the lowest amount of pocket money that Mark Miser can receive ?

3) The ever absorbing



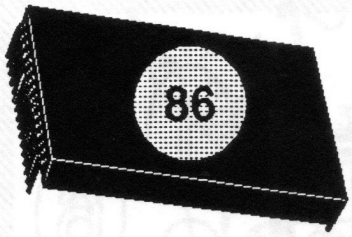
4) Anagrams abound



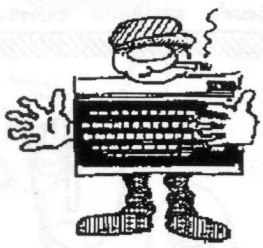
5) Competition Time

Nothing too difficult this time around - just send me a caption for the Jon H. clip on the back page of 'Clipables'

MY SUGGESTION : Jon is saying "... and furthermore I am pushing for a change in the law , to make NOT owning an ORIC punishable by *LIFE* imprisonment '



RAMBLING IN THE ROM



A very Happy New Year to all. It's sad to see the demise of the English edition of CEOmag, and sobering to think how much we come to depend on one man to edit a magazine. Our thanks to Laurent for all his hard work over no less than seven years (!); and let's make sure we each help to ease Dave's burden with OUM by sending him as many articles as possible, preferably on disk or pre-printed. OUM is once again the only English Oric mag, so as Dave would say, onward into our second century!

Club Europe Oric

I'm beginning to receive renewal subscriptions for 1997, both for the French magazine and for the (mainly English) software disks. Please resubscribe by the end of January, at which time I will decide if the numbers wanting disks are sufficient to justify the effort involved. It's up to you whether they continue! And for non-CEO subscribers - give a thought to subscribing, either to the monthly magazine, or to the 4 disks, available in Sedoric 3" and 3½" and Euphoric formats. Cost is £11 for the magazine, £12 for 3" discs, £8 for 3½" disks. No Frank, the different spellings were deliberate.

Rambling on....

At last the final bit of maths, and an introduction to the next major topic in the ROM, that old friend Cassette Routines!

'ATN' (FUNCTION)

Principle:the classic equation ARCT6(X)=PI/2-ARCT6(1/X).
The equation ARCT6(-X)=ARCT6(X) is also used to treat negative numbers

E43B	LDA D5	E43F	LDA D5	take sign
E43D	PHA	E441	PHA	and save
E43E	BPL E443	E442	BPL E447	if positive, OK
E440	JSR $E26D	E444	JSR $E271	if not, change the sign
E443	LDA D0	E447	LDA D0	take exponent
E445	PHA	E449	PHA	and save as well
E446	CMP #81	E44A	CMP #81	more than 1 ?
E448	BCC E451	E44C	BCC E455	no, OK
E44A	LDA #4B	E44E	LDA #81	
E44C	LDY #DC	E450	LDY #DC	yes, index the value 1
E44E	JSR $DDE0	E452	JSR $DDE4	and calculate 1/X
E451	LDA #6B	E455	LDA #6F	
E453	LDY #E4	E457	LDY #E4	take the address of the polynomial
E455	JSR $E2F9	E459	JSR $E2FD	andcalculate it
E458	PLA	E45C	PLA	recover the exponent
E459	CMP #81	E45D	CMP #81	was it greater than 2 ?
E45B	BCC E464	E45F	BCC E468	no, we have the result (absolute value)
E45D	LDA #03	E461	LDA #07	
E45F	LDY #E4	E463	LDY #E4	index PI/2

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E461  JSR $DAB0      E465  JSR $DB0B     and calculate ATN(1/X)-PI/2
E464  PLA            E468  PLA           recover sign
E465  BPL E46A       E469  BPL E46E      if positive, OK
E467  JMP $E26D      E46B  JMP $E271     if not, invert the sign
E46A  RTS            E46E  RTS
```

DATA OF THE POLYNOMIAL FOR CALCULATING ATN

E46E	E46F	BYT #0B		
E46C	E470	BYT #76,#B3,#83,#BD,#D3	i.e. -0.000684793912	Coefficient A11
E471	E475	BYT #79,#1E,#F4,#A6,#F5	i.e. 0.00484094216	Coefficient A10
E476	E47A	BYT #7B,#83,#FC,#B0,#10	i.e. -0.0131117018	Coefficient A9
E47B	E47F	BYT #7C,#0C,#1F,#67,#CA	i.e. 0.034209638	Coefficient A8
E180	E484	BYT #7C,#DE,#53,#CB,#C1	i.e. -0.0542791328	Coefficient A7
E485	E489	BYT #7D,#14,#64,#70,#4C	i.e. 0.0724971965	Coefficient A6
E48A	E48E	BYT #7D,#B7,#EA,#51,#7A	i.e. -0.0898023954	Coefficient A5
E48F	E493	BYT #7D,#63,#30,#88,#7E	i.e. 0.110932413	Coefficient A4
E494	E498	BYT #7E,#92,#44,#99,#3A	i.e. -0.142839808	Coefficient A3
E499	E49D	BYT #7E,#4C,#CC,#91,#C7	i.e. 0.19999912	Coefficient A2
E49E	E4A2	BYT #7F,#AA,#AA,#AA,#l3	i.e. -0.333333316	Coefficient A1
E4A3	E4A7	BYT #81,#00,#00,#00,#00	i.e. 1	Coefficient A0

F) CASSETTE LOAD/SAVE ROUTINES

1 - Reliability

The cassette was the storage medium of choice for home computers because of its low cost. Unhappily it suffered two faults, each more or less important depending on the use to which the computer was put - slowness and reliability. The result is more reliable the slower it is, which is why the Oric offers two save speeds: 300 or 2400 bauds (bits per second). These speeds were hardly the best choice, as we shall see.

Poor reliabilty is due to several causes:

The tape itself:
Magnetic tape can suffer 'Drop Out'. Note that a slower speed doesn't help here, because thereby you simply lengthen the recording timer, and therefore the chance of encountering 'Drop outs'. The tape also has physical limitations, which prevents the reading back of very high frequencies. This frequency limitation does not suit the frequencies used, at least so far as the tape recorder is concrened. 'Computer' tapes are tapes selected for their almost total absence of 'drop out'.

The tape recorder:
Cassette recorders generally use a very limited frquency range (200-5000 Hz approx.), which can seriously affect a save at 2400 baud. Their azimuth (the angle between the read/write head and the tape) frequently varies with the weather, and almost always between one recorder and another, leading to a notable reduction in read quality. If the recorder itself regulates the record level too low, the noise inherent in all magnetic tape can also interefere with the signal.

The Oric:
To render the signal usable by the VIA, it is filtered and adjusted to the correct level (5V). This circuitry does not improve the quality of the signal.

The software:
Finally there is the format used, and the procedure for error correction. We shall see that here ORIC did not make a good choice...

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CB2 4SF

Email: jon@cam.dungeon.com
Oric Mailing List: oric@lyghtforce.com

Vowels and semi-vowels. (Frank Bolton)

We considered in the last article the effect that the air has on vowels left open behind. GO, HI-FI, JU-JU, and ME all have vowels which sound as they do in the alphabet. I call it the "affected" sound. That accounts for E, I, O and U. No Anglo-Saxon words end in a stressed A, and this idea of attacked and protected vowels is an Anglo-Saxon phenomenum. We make the alphabet A sound with a final AY as in DAY, MAY, SAY etc. Words like DATA and PAPA and TA are either with no stress on the final A, or slang, or Latin words, and this theory is for Anglo-Saxon structures. It has, to some extent entered into Latinized English, but often we have fierce arguments about where stress falls in words like ADVERTISEMENT and DIRECTOR. In each of these words, if the I is stressed it is alphabet I, but if unstressed it is like the protected I in SIT. So don't expect Latin English to conform. But for short, one-or two-syllabled A/S (Anglo-Saxon) words, the theory is helpful for both spelling and pronunciation.

If a consonant is placed after these final vowels it gives a kind of protection, and the vowel sound is shortened to the A, E, I, O, and U of CAT, HEN, BID, ON, and UP.

Three letters (L, R, and W) are normally classed as consonants. I prefer to call them false-vowels for many reasons, one of them being that these consonants do not protect when placed after a stressed vowel at the end of a word. They modify the sound of that vowel into a new sound. Compare MAT (protected A) with CAR and CALL and CAW (modified A). And look how the R will change all vowels except A into the same sound: SIR, FUR, HER, and although OR is different, when combined with W in front we get the same sound as SIR in WORK, WORD, WORLD, WORSE, WORM, etc. Whoever heard of four vowels all giving the same sound? These modifiers are bastards. They play havoc with our language, but if you study their effects with care you can find pattern, rule, and thus, order.

But let's put the three bastards on one side for a while and take the next step after understanding the "protected" vowel. Take an attacked vowel, as in DI. Protect it as in DIN. Now put any vowel after the protecting consonant: DINE, MINING, LINO, etc. You find that the second vowel attacks the first through the single consonant and returns the original affected alphabet sound. Often this attacking vowel will be a mute E , an E which is not pronounced, but whose only function is to attack the vowel through the "thin wall" of the single consonant. FIN changes to FINE; DOT to DOTE; MAT to MATE, etc.
Compare: DI, (attacked by air) DIN (protected) and DINE (attacked by the mute E).
The only way to avoid the second vowel from attacking the first is to re-inforce the wall, making it thicker by doubling the consonant.
Compare DINER (where the I is attacked) with DINNER (where the E cannot penetrate the NN to attack). Compare SLOPING with STOPPING; METER with LETTER; STUPID with SUPPER, and TAPING with TAPPING.
That is why we must double the consonant in words like STOP, HIT, GET, TRAP and RUB before adding -ING or -ED.
That also explains why words like HATE, HOPE, SITE, EKE, and DUPE drop the final E before adding -ING (or -ED). There's no sense in paying two men to do a one-man job, and the I of the added -ING will attack just like the "now-redundant" E used to do.
If the vowel under attack is not stressed, the attack will fail. We don't double the N of OPEN when we add -ING because the E of OPEN is not stressed. In OPEN, the O, which is stressed, is attacked by the E, but in OPENING the E does not come under attack from the I because it is unstressed. The stress is on the O. Unstressed vowels do not need protection.

The letter Y at the beginning of a word (YES, YOU, YET) is a consonant. At the end of a word, (PONY, TIDY, FURY), it is classed as a vowel (the Greek letter "I") and so it attacks. Compare PONY with BONNY, TIDY with BIDDY and FURY with CURRY.
Words which have two vowels combined to form a sound like EE, EA, OO, do not need protection. They cannot be attacked by air or through a thin wall by another vowel. If you were a vowel, would you attack two and expect to win?
Words which already have two consonants after the vowel, KICK, ASK, TELL, TUCK etc, do not need more protection when adding -ING etc. No vowel can penetrate the wall of two consonants. But here is the most curious thing about the L, the R . When double, the L and the R protect. (compare MARY (modified A) with MARRY (protected A) and DULY with DULLY. The W can never be doubled. As its name implies, it is already double.
But NOTE THIS: If there are two consonants, which normally would protect against attack, and one of them is either an L, or an R then there is no protection and the other consonant must be doubled to avoid attack. That is to say, the L and the R when doubled, protect, but they will not help another consonant out in the protection racket. Think of BIBLE (the E penetrates BL and attacks the I). Take STABLE. The L is there to be pronounced, not like in CHALK where it is there to modify. And it does not join with the other consonant to protect. That is why APPLE has to have the double PP as well as the L and why TABLE has the E attacking the A as if there were only one consonant between them. That's why for me the L and R (and W) are false vowels, though I prefer to call them bastards for what they do to our language.

I cannot go too deeply here into this very complicated subject, but even the youngest of children can follow the original simple explanation of the vowel with its back-side bare, and the latest idea of one vowel attacking another through a thin wall, and being protected by a thick wall. Children can understand this more easily than the idea that A is for APPLE and E is for ELEPHANT. I ask you, the alphabet letters bear no relation to their sound in the words we give them in their first picture books. They must think we are bonkers, because to them A is for APPLE is as daft as saying B is for CAT!

When these three letters, W, and R and L start modifying from front and rear positions, the water gets more than a little cloudy. The letter A takes on an O sound in WASH, WANT, WAS etc. We know now that it's that bastard W modifying from in front. When we get DOLL (protected) compared with ROLL, we can say that the bastards are at it again, R in front and LL behind. If people express surprise that ROW has two distinct sounds, as in "Stop that ROW!" and "Let's go for a ROW on the Thames" you can now go all knowledgeable and say "Well, of course, with an R in front and a W behind, what else can you expect? They're bastards!"
And I shall leave you to experiment with them, as I have experimented for years before reaching these conclusions. I hope you get as much fun out of it as I have.
I've over extended myself this month, but the theory is difficult to condense into one page. I promise to be good in my next article. Till then, --- keep asking "Why????" and encourage your kids to do the same. I'm 72, and I still want to know the answers to thousands of questions, not the least of which is, "Why, now that I am retired, can't I find time to do half as many things as I used to do after work, when I was doing a full-time job, caring for a disabled parent, and shopping, cooking, and doing the housework."
If you want me to delve more deeply into the theory of the interaction of vowels and consonants, you can write to me privately. It's much too complicated to condense into short articles here. I just wanted to give you all a taste of what I find to be a fascinating aspect of phonetics. I hope it has opened the eyes of some of you as it did when I sat up in bed crying "EUREKA!!". (We only had showers in Spain, so I couldn't cry out from the bath!)
See you.

ORIC ON THE NET

Each month I will report on what Oric-related items are to be found on the Internet. Web sites are being updated all the time - it is an exciting time, especially for Oricians like myself who are new to the Net. It is almost a full time job keeping up with it all.

This month, for the main part, I will look at an Oric web site that I recently logged on to. "La Page Oric de Simon" is in French, though Simon is currently looking for someone to translate in to English. In some instances I have guessed what information is relayed, by my small knowledge of the French language (hopefully my old pal Frank Bolton will translate the full pages in due course, so that I can tell you more).

The site has photos of the Amiens team with their Atari Sts and Orics, and was shot in the late 1980s. In 1988 Simon and friends formed a group for owners of the Atari ST. They later diversified in to: Oric, 800XL,Amiga,PC,Falcon,Mac etc. The site appears to be an on-line fanzine for users of the AT and the ORIC.

The Oric side has software to be downloaded. These are zipped Euphoric cassette files. I now have them on my PC and we will have a quick look at them (all are French titles).

DON JUAN from the software house No Mans Land is something I already have and is basically a strategy game in which you try and chat up a woman. OBJECTIF ELYSEE is another strategy (political). TEKNIS looks similar to Tyrann, in as much as it is a dungeons and dragons type game, where you share out points to your warrior for combat,trechnique etc. You are then transported to the labyrinthe. Le Sceptre D'anubisis by Eric Chahi (didn't he write the super DOGGY?), is a graphical adventure - an archaelogical voyage in Egypt. SCORBUTT by Emma Bovaire (nice to see a lady writer) is a munchman type game with monsters and vitamin pills etc. - looks quite good, but I must sort out the rules. LANCELOT is a French game that most have seen. PAINTER and ZEBBIE are ones that are in most Opricians catalogue. EX-SIP is most interesting. It is written by the sites host - Simon Guyart. You pay your 50 francs to get in to the Societe d'informatique Picarde, where you can then go in to news sections for the Oric, Atari St, pC etc. Jon Haworth gets a mention for his 'Oric - The History So Far' publication. I must brush up on my French so that I can tell you more. Finally was Hyperspace 4 - an arcade adventure. This file was different to the rest, in as much as it had a .TAP extension. In was in fact a tape hardware file. With files for Euphoric you have two basic options. Ones without an extension or sometimes with a .CAS extension are tape files. You lead these in ona cassette based system by the use of CLOAD"filename". You then have the .DSK files which are disk images, and these are loaded into a disk based system. Now there is the option to actually pretend that you have a cassette player linked to your PC, and the .TAP file is Cloaded in , allowing you to listen to the loading and view some of the better loading screens etc. The method for loading these files had me foxed, so thanks to Fabrice for putting me right. As I delve more into Euphoric, then I will pass on what I have learnt - Euphoric for Dummies Pt.3 is in the pipe line!

Simon's web site has a few inter linked pages and short cuts to other Oric sites e.g CEO Home page & magazine page, Alexio's Oric C page, Peter's Oric-1 page, and Frederik's page of Tolkein games for the Oric-1 - I only knew of the Hobbitt, so must check this out for next month.

If you have any tips for Internet/Euphoric users then please let me know. If you want any topic covered then again, please let me know -dave@oum.softnet.co.uk.

The 8-bit A to Z part 17

Hello folks ! Sorry about the delay, but we're now back in action. Isn't it just typical that things crashed when we were working on the Spectrum ? Hopefully I'll be able to carry on as before, but the future is uncertain and there may be the odd period where I won't be able to write for OUM. Everything should continue as normal for the immediate future though. So let's get on.

* **Spectrum 128+** Way back in issue 110 we started looking at this beast. I must admit to owning one. After searching for Oric software and remaining a supporter of the machine I gave in to pressure. There was nothing for the Oric left but the Speccy still had strong support and I wanted a computer I could play the new games on. (I never realised there would be something like OUM.) So in 1987 I bought a friends 128 and a huge pile of software. As a games machine it was great. The old BASIC was still there which I couldn't be bothered with, but the new 128 BASIC could be typed in as normal and so occasionally I dabbled, but the main fun was getting at those games -mainly budget releases, and learning how to operate a joystick which I never bothered with on the trusty old Oric. Thankfully a kept hold of the old Oric-1 using it for 'more serious work', and playing Xenon 1 and Scuba Dive of course.

This is quite a good little machine and the dirty great heat sink on the side means the thing doesn't burn a hole in your table top like the other thing. The spec. is as for the Spectrum+ but with the additions mentioned last time. Still worth picking up because of the huge amount of software - consider the below models though.]

It was round about this time that Sinclair brought out his battery operated coffin - the Sinclair C5. After failing to sell other devices like his badly constructed pocket T.V. Sinclair continued to market his inventions. Admittedly they were inovations, but obviously he never bothered to do any market research and so plowed millions into something that no-one wanted. The C5 spelt the end of Sinclair it was such a disaster. The poor Spectrum which was responsible for building up Sinclairs empire got dragged down by his plastic go-cart.

Sinclair ended up having to sell his company, Sinclair Research, to one of his rivals - Alan Sugar of Amstrad. Amstrad carried manufacturing Spectrums for some time. The first new mode by them was the +2.

* **Sinclair Spectrum 128 +2.** This was essentialy the same machine as the Plus but came with a built in cassette deck. The real difference though was the *grey* plastic case which housed a *real* keyboard. Oric soon saw the sense in introding a proper keyboard to the Atmos, but Sinclair never got the message!

The 8-bit scene carried on for some time with Spectrums at still helm and hardly anybody noticed any change in the market. Amstrad's own machines were doing rather well, as were Commodore 64s but everyone was moving on to disks instead of the dodgy tape systems, Guess what Amstrad did next.

* **Sinclair Spectrum 128 +3** This was the same machine again but this time with Amstrads 3" disk drive built in. The two machine have such similar DOSs that they will read each others disks. There was a socket so you could still connect up the old cassette recorder. The Spectrums software base was pretty much established so this machine didn't sell very well. If someone could afford to buy new software on disk they could probably afford to buy a better machine as well.

This new batch of machines came out around the same time as Amstards Plus range and the newer Commodore 64s and Ataris. By this time they were catching the tail end of the 8-bit era (commercially that is), and the 16-bit machines were becoming well established.

We may all laugh at Sinclair now, but he did much to bring the computer to everyone. Largely responsible for introducing dirt cheap machines he created a market which Tangerine wanted a slice of and set about creating a competitor, the Oric-1. Without SInclair you probably wouldn't be reading this now !!!

M U S O

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