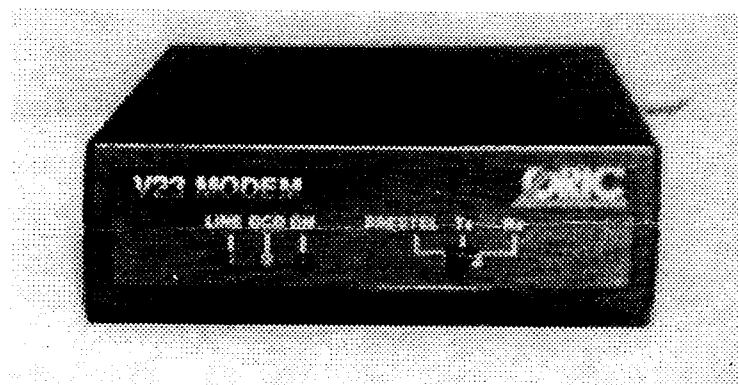# ØRIC

USER MONTHLY

with Oric Enthusiasts

Europe's longest running Oric Magazine

Number 69

May 1993

NEW!!

ORICALL
Bulletin Board

See inside for full details

THE EDITORIAL

HELLO AND WELCOME,
                    TO ISSUE SOIXANTE NEUF.
 AFTER 10 YEARS OF THE ORIC IT IS TRULY AMAZING AT ALL THAT IS PRESENTLY
HAPPENING WITH OUR MACHINE.
 OVER EASTER I TOOK A WEEK'S HOLIDAY AND MET UP WITH A FEW FELLOW ORICIANS.
 THE BANK HOLIDAY WEEKEND SAW THE ARRIVAL OF JONATHAN BRISTOW AND HIS NEXT
RELEASE - "SONIX". CHRIS HEARN ALSO POPPED OVER.
 A FEW DAYS LATER I WAS ON MY WAY TO THE CAMBRIDGE AREA TO MEET UP WITH JON
AND NICK HAWORTH. WHILE THE WIFE WENT SHOPPING AND YOUNG MATTHEW PLAYED ON
A MEGADRIVE; I WAS TREATED TO A TEST RUN ON 'ORICALL' - THE BULLETIN BOARD
RUN BY NICK.
 A REVIEW FOLLOWS ELSEWHERE.
 I MUST SAY HOW IMPRESSED I WAS WITH NICK'S PROGRESS IN THE WORLD OF
PROGRAMMING. THE NEW BULLETIN BOARD SOFTWARE SEEMS TO BE EXCELLENT AND
YOUNG NICK IS FULL OF IDEAS TO KEEP OUR MACHINE ALIVE. IF YOU HAVE A MODEM
THEN I DO IMPLORE YOU TO GIVE 'ORICALL' A TRY. IF YOU DON'T HAVE ONE THEN I
THINK I CAN PUT A COUPLE OF SYSTEMS TOGETHER.

                                              - DAVE DICK

==

THE INDEX TO THIS ISSUE IS ON THE BACK PAGE.

==

ORIC MEET

   THE NEXT ORIC MEET IN AYLESBURY IS ON SAT. JULY 17th. TICKETS ARE 2
pound EACH. FOOD AND BAR AVAILABLE DURING THE DAY. COME ALONG TO TALK TO
PETER BRAGG ABOUT MACHINE CODE OR TRANSFER LINKING. DISCUSS THE BULLETIN
BOARD WITH NICK. SEE ALL THE LATEST CEO AND PD SOFTWARE FROM JON. SEE
WILKIE IN ACTION WITH HIS SOLDERING IRON. CHECK OUT 'SONIX' WITH JB.
CHALLENGE MATTHEW TO SOME ARCADE GAMES. DO WHAT YOU WANT - IT'S YOUR DAY
OUT!
 SEND OFF FOR THOSE TICKETS NOW. TICKETS AND MAPS WILL BE SENT OUT NEXT
MONTH.
 DON'T FORGET THE BAR-B-Q IN THE EVENING (BRING YOUR OWN SLEEPING BAG).
==

GRAND RAFFLE

   PRIZES PROMISED FOR THE GRAND RAFFLE AT THE NEXT ORIC MEET ARE STARTING
TO ACCUMULATE.
 IF YOU WANT TICKETS FOR THE RAFFLE AND ARE NOT ATTENDING THE MEET THEN GET
YOUR MONEY IN NOW. TICKETS ARE 1 POUND EACH. ALL PROCEEDS TO O.U.M FUNDS.
 OUR FRENCH READERS CAN PARTICIPATE BY SENDING 10 french francs PER TICKET.
 READERS FROM OTHER COUNTRIES CAN ALSO TAKE PART. TELL US HOW MANY TICKETS
YOU WANT AND WE WILL ADD THE COST TO YOUR NEXT SUBSCRIPTION.
 DON'T FORGET IF YOU HAVE A PRIZE TO DONATE THEN PLEASE LET US KNOW.
==

MORE HI-SCORES

 The followin hi-scores were too late for THE GAMESTER page,but well worth
noting:-
    LIGHT CYCLE - 4,521 - PETER THORNBURN
    TETRIX - 2418 - DENIS BONFIELD

Denis just beat Henry Marke's score by 7 points. Denis tells me that
level 9 is the killer.
==

ZEBBIE

   Peter Thornburn has recentlu been trying the Oricdos disc version of
ZEBBIE. Unfortunately the same bug with the bonus screen appears. I am
going to try downloading it from cassette to disc with one of the newer
utilities around. I'll keep you posted.
==

NEWS FROM Dr.RAY
---- ---- -- ---

   Ray McLaughlin has sent copies of his ASSEMBLER and COMPILER packages to Rob Kimberley for assessment. We hope to have a report from Rob in this or the next issue of O.U.M.
   As an indication of the performance of the COMPILER, Ray has re-written Colin Cook's prime number sieve program. (See elsewhere for the listing).
   In Basic the program takes about 329 seconds on the Atmos,whereas the Compiled version only takes about 147 seconds. Without any of the prime number printout the times are 200 and 74 seconds respectively. This shows that the COMPILER speeds up operations such as FOR/NEXT loops, REPEAT/UNTIL loops, PEEK and POKE by a factor of about 3.
   The graphics routines and expression evaluations (numerical calculations and string concentation/slicing) are also speeded up by a factor of about 3 but printing to screen is hardly speeded up at all,especially if screen scrolling is involved.
   The ASSEMBLER package includes demonstration source code (a HIRES screen printing routine,a machine code monitor and a RAM editor),fully labelled and annotated source code for the Atmos V1.1 ROM,source code for Fig-FORTH (like TANSOFT'S FORTH for the Atmos but translated for SEDORIC,with the FORTH source screens supplied with the cassette version and FORTH source for COMPOSER - again updated for SEDORIC). The ASSEMBLER comes with a full 20+ page manual and there is a manual extension for the FORTH also.
   Well I think those packages will keep many of our readers happy. I'm sure we all appreciate the work that Ray is putting in to help the Oric survive. NO! - not just survive , but if I can use a pun - TO GO FORTH!

   AS AN ASIDE - Ray prepared his letter to me with WORD-SPEED. He asked how I liked it's style with it's neat justification,the indents and page number at bottom of each page. WORD-SPEED is available through Allan Whitaker's Shareware scheme and comes complete with an excellent manual. Well Ray - I promise to use it for at least one page in the next O.U.M as long as I don't get absolutely re-hooked on VORTEX again!
==

OLD MICROS

   If enough are interested I intend to give attendees to the July Oric Meet a slight deviation from the ORIC. I know that many of you have many old micros and I propose to take you on a little trip to a local shop that deals mainly in second-hand micros,software and add-ons.
   Recently our Mr.Bristow came away laden with a machine. I promised not to tell what it was. I'll just give you it's initials - QL!
   Also on display at the time were Spectrums, a WANG, an ACORN ATOM, an ELECTRON with 3.5" drive,Modems,a Commodore, a BEEB and a whole lot more. Bring your money;but not too much,because it's all relatively cheap and it's a good place to barter.
==

JVC DRIVES

   Readers may recall that I bought a new JVC 3.5" disc drive from BULL ELECT. Originally priced at 19 pound they dropped the price to 15 pound.
   David Wilkin sorted out how to power it,but unfortunately it ran at 600 revs. (Twice the norm.).
   I have recently had a news-sheet from BULL ELECT. They are now advertising these drives as BBC DISC DRIVES. Apparently one of their customers has sent them modification details to enable the JVC drive to work with a BBC. They say that the well explained mod.comes complete with a strobe to set up the disc speed. Price for the drive and data is now just 9 pound + V.A.T + post.
   As for me - well I've sent mine back for a refund. (and I've just got the cheque).
==

SONIX

   Planned release date for Jonathan Bristow's new musical editor is June 1st.
   A compilation audio tape containing some of the demos that Jonathan has written and transferred to SONIX is now available. Just send 6 x 24 pence stamps to hear and listen to it on your Stereo.
   The manual to go with SONIX is about 20 pages (though I may shrink this).
   The program itself is virtually finished . (see elsewhere for mini-review).
   Good news for cassette users is that a version will be available for them, but probably not on June 1st.
   Price has not yet been finalised,but it will not be a giveaway! A lot of work has gone into the program,demos and manual by Jonathan and I have a lot of work to do to get it into a saleable package.
   I hope it will be worth the effort.

ORICALL ARRIVES
Nick Haworth

I would just like to start my article with congratulations to Trevor Shaw for his excellent article on the Serial Port. Previously the Oric Serial port had been an object of complete mystery to me.

In the past, I had always associated bulletin boards with hacking, viruses and extremely large phone bills! I still had visions of the old days on Prestel, with drab pages with reams of boring figures from the stock market. What I had wanted was a lively Oric Section on Prestel, with users exchanging information, views and files.

Back in 1985, Oric supposedly attempted to do this and released a statement that *'Oric are to take a substantial number of pages on Prestel to create an Oric database.'* In reality, a trial section called 'Oricall' was only ever prepared. That was the last we ever heard of the Oric database. This quote, and many other quotes from the archives are available in the book *'Oric –The story so far'* written by my Dad and obtainable for the measly sum of £4.50.

Right, free plug over back to the story. I obtained a modem which I borrowed from my Dad's work and attempted to log onto some bulletin board systems with my Dad's laptop computer. After playing around for a while on some BBS's, I was pleasantly surprised at the quality of them. Sections for different computer formats, software to download, help areas, multi user games, electronic mail and much, much more.

Well how does this tie in with the Oric I hear you ask. Recently, I was flicking through our closely guarded OUM collection, and I found a short note from Dave about a viewdata BBS run by a Chris Dalby in Bradford. I dialed up this viewdata system, a number of times but to no avail. From Dave's note, I became interested in running my own bulletin board specifically for the Oric. By chance, I came across a piece of software which let you set up your own bulletin board on your P.C.

I have decided that I am going to set up an Oric specific bulletin board. I have managed to obtain a copy of this software and for the past three months I have been busy setting it up for the Oric. Because of the systems incredible flexibility, it has made it relatively easy for me to convert the system for use with the Oric. The main difference between the Oric's and the P.C's display is the screen width. While the P.C. has 80 columns the Oric only has 40. Because of this, I have had to convert all of the menus and text files to forty columns. Unfortunately some parts of the BBS cannot be changed and so there will be a few

discrepancies on the system.

In the bulletin board, I have included News, Oric software files, Message areas, News from OUM and CEO, etc. The BBS even supports letters direct to Dave! Just think all you Dave Dick lovers out there, you could send all your fan mail in a few seconds electronically to him!!!

I think the most exciting feature of the Bulletin Board is the inclusion of a file section. I have just finished writing a complete comms package for the Oric in machine code and Basic. I am still testing and debugging it, but it will definitely be ready for the launch of the bulletin board. To actually access the bulletin board you will have to use my software. I ran extensive tests using Oricomms and found that it was too slow. Sorry Trevor! At the end of this article is a note about the price and availability of the BBS software. (I do not intend to make a profit out of the software).

Included in the comms software are two file-transfer modules. One for receiving files, and the other for transmitting files. With the receive program you have the ability to download any file that exists on the BBS, straight into your Oric. For instance all the P.D. will be placed into the BBS system for downloading.

Just think, the files that you want will be within your fingertips in a matter of seconds... No more waiting for PD software, etc to come through the post it would be instantly available for your use on your Oric. As an example, it takes just 48 seconds to download CPD-4 (Superwin) from the BBS!

As you take files from the bulletin board, I would like to ask you to give files in return. This is why I have included the transmit routine. For every 5-10 files you take off the bulletin board, all I ask for is one in return. I am not asking for you to upload whopping great files at the expense of your phone bill. Small files would be perfectly adequate and would help maintain interest in the BBS's file sections. Other uses for the transmit routine include sending files for direct to Dave, to me, or to my Dad. You could even upload your next article for OUM in Dave's word processor format and it would save him a lot of time, as he could edit the article at ease.

This would of course be a lot quicker, and safer, especially with files after the Post office's recent use of X-rays on all forms of post.

I have forgotten to mention the name of my BBS. It is going to be aptly named 'Oricall'. The running of the BBS will be of course a lot of work, but I am willing to run and maintain an Oric Bulletin Board.

That is of course if there is enough support for the BBS. I do not think it is worth my while, to run a BBS with only 1 user using it regularly. On the otherhand, I would be quite happy to run the section with 10 users or more using it regularly.

It is an impossible task to do all on my own, and that is why I would like as many things as possible sent to me for inclusion in the BBS. This includes files, articles, reviews, etc.

ORICALL goes on-line at 10 p.m. on Monday, 3rd May, 1993

Initially the Board will be open from 10 p.m. to midnight each Monday, Thursday and Friday. The number to ring is 0223 835171. Because it is only one line, you may well find it engaged. Time on the board is limited to 15 minutes per caller per night, so wait a few minutes and try again. Please note that this is **not** a voice line.

One thing I would ask of you – **please** respect these hours and days. This is my parents' private phone line, and calls outside the set times will not only cause aggravation, but may result in the line being suddenly chopped off!

For the time being the software is available on DISC ONLY, self-booting under Sedoric. It is boot-compatible with all DOS types except Cumana V1.0. To obtain your copy, send £2.50 to:

Mr. J. Haworth, 3 Madingley Road, Cambridge CB3 0EE.

So its up to all you modem users out there. Do you want to let your modem gather dust in the corner, or do you want it to be used for what it was originally intended for?....

A REVIEW FROM DAVE DICK

I have now had the opportunity to try out Nick Haworth's Bulletin Board on two occassions.

Initially at the Haworth household armed with an Atmos,drive and Oric V23 Modem. A few feet away were Nick and Jon with a SHARP PC and HAYES Modem. The SHARP is the storage facility for files that you may wish to upload from the Bulletin Board and is also used for storing files that you download. The HAYES modem is far superior to the Oric one and is quicker and therefore cheaper in transmitting files. Your Oric Modem is relatively fast in recieving,but slow for sending.

One's first log-on is going to be longer than subsequent ones as you have to register your details i.e. Name,Telephone no. and your Password (known only to you). Not even the SYSOP (Nick) will know it. If you happen to forget it then you can log-on as GUEST.

If Nick is not listening in it may take 24 hours for registration to be accepted,otherwise you will be approved there and then.

And so to the demo ......

Teletext graphics greeted me and led me into the Main Menu,which was to lead to sub-menus. For example the Message Menu accessed by pressing 'M' (all user friendly this and not a waste of time or money by having to type in 'Messages'),

lead to such items as Private Mail, Letters to Dave Dick,and Letters to Jon Haworth. Letters to Jon or Myself can be private or public at the senders discretion. I tried my mailbox and was told that there was one message. I was pleasantly surprised to see that Trevor Shaw had successfully logged on from Northumberland.

After an afternoon of trying the system out I went away very impressed with what Nick had achieved.

THE SECOND STAGE -

Now armed with the software on disc and a well-written manual I was ready to try the system out from home. This was the crunch.

I spent 50 enjoyable minutes at cheap rate (6 pence per minute) testing the options. Any bugs were generally created by me in as much as I had not read the manual. I tend to try things as I go along,which isn't always a bad thing as sometimes it throws up the unexpected. Any difficulties I got into were quickly resolved by either a) typing 'RUN' and pressing 'RETURN' a few times - only needed if I came out of the system or B) as often as not the SYSOP broke in to put me right.

I was tempted to send a text file of about 12K,but as this would of took 48 minutes,then decided against it. There has now been an update so that you can prepare messages etc. on the PD word processor SCRIVENER. I have yet to try this facility,but as you can prepare your messages before hand then it must be a plus.

Normally it would take just 8 seconds to download 1k (very fast) and 2 minutes to upload 1k. For this reason it is very economical to recieve,but it is advisable to send any large files to Nick on disc.

While you are recieving a file you can keep track of what is going on. You are told how long the file is and estimated time to download. There is also an error register. I encountered no errors whatsoever. If there had of been then they would of been corrected before they got to me.

The file I recieved (FISHER SAM) was saved to disc in it's raw state. Then by using the SUPERLINKER utility was able to convert the file to SEDORIC.

A real boon is the 'save screen to disc utility'. By pressing CTRL S, one can save any screen for later reading. Up to 255 screens can be saved. By using a file called 'READER.COM' you can then read the scored screens in numerical order by just pressing the SPACE bar to page over.

As well as messages there are many other interesting items on the board. Time and space do not permit fuller detail and so a precis:- Problem area,Adventure helpline, Games World (all the pokes for infinit lives are stored on a database) ,Public Domain software, News from OUM and CEO etc., games sent in by users and a database containing the names of all the users we know with their interests (addresses will not be shown as we do not want non-Oric users to give you hassle. Adresses.Phone nos. can be gleaned from the OUM Contact List or by leaving a message with the SYSOP).

There are many more things planned for the Bulletin Board. In fact Nick is making additions all the time and would of course be pleased to hear your ideas as it is for your benefit.

There will be things that I've missed in this review . I have gone into the technical details and haven't listed all the uses that you can put the system to. It is all in the manual. As the manual and the disc software with utilities are only going to cost you 2 pounds and 50 pence it is worth spending that much even if you have no intention of using it. You can always re-format the disc, but I bet you will find something of interest,even if it is only to nick one of the utilities for an idea that you may have of your own.

Leads to suit the OPELCO/MICRODISC/CUMANA systems are available from Jon. Thes include the male adaptor where you fit your RS232. The price is 8.50. Please state which system you have as the MICRODISC lead is a lot longer.

AS we go to press, Nick is already working on a database of ORIC books.

Nick - I salute you. You have taken the bull by the horns and set up what i believe to be a very interesting and reliable board. It has certainly generated some ideas inside my head.

Go on readers - GIVE IT A TRY.

B I T S 'N' B O B S

MESSAGE TO ANYONE!

DOES ANYONE KNOW OF AN 'ENTERPRISE' USER GROUP? PLEASE LET US KNOW SO THAT
WE CAN LET DENNIS BONFIELD KNOW.

MESSAGE TO BRIAN KIDD FROM EVERYONE

CONGRATULATIONS ON THE BIRTH OF ZACHARY WHO WEIGHED IN AT 5 lbs. & 13 ozs.
WELL DONE TO THE WIFE AS WELL!

MESSAGE TO JONATHAN BRISTOW FROM GRAEME BURTON

   I'VE FOUND A SMALL BUG IN 'DONT PANIC'. YOU CAN MAKE THE ROCKS "HOVER" IN
THE AIR BY QUICKLY MOVING IT FROM SIDE TO SIDE.
      NOTE FROM THE ED. - I THINK THIS IS WHAT "SWISHING" IS ALL ABOUT!

==

VORTEX

   Many of you out there may of been able to get hold of VORTEX from LORICIELS.
 Like me you probably had difficulty in using it to it's full extent ,due to
it's French manual. Well - your problems are over thanks to our Norma
 Wrangham.
   Norma has done a marvellous job in translating the manual for the cassette
version (disc users will have no problem with this).
 Anyone wanting a copy of this 16 page manual should send me a cheque/postal
order or stamps to the value of 1.50 to cover costs of photocopying/postage.
==

MESSAGE TO NIGEL ALEFOUNDER

The non-working MCP 40 you sent to O.U.M has been put to good use already.
One of the small cogs in now resident in Jon Haworth's machine.   Sincere
thanks from Jon. Look out for a surprise in the post.
==

TRON

 In the March issue of O.U.M there was a query relating to the TRON command
from John Hurley. Well I have had a letter from Neville Clark,who tells me
that he still writes to Owe Fransson,and has in fact met Owe twice in Sweden
and once in England. Neville has kindly passed the query onto Owe. As Owe and
his family are holidaying in the U.K in June he will again meet up agian with
Neville.
==

MODULATOR

 The latest MAPLIN catalogue shows a Modulator ref: UM 1286. Jonathan Bristow
thinks this may be of use to send the Telestrat sound via a T.V.
==

SPELL - CHECKER

 A Spell-checker is the latest in the line of utilities being planned for a
word-processor for the Oric. It is also hoped that the program would allow
one to load in files from other W.P's
==

ORICDOS to MS-DOS

 Nick Haworth plans to shortly offer a service to transfer your ORIC disc
files to PC format.
==

SOFTWARE FOR SALE:

EACH 1.50 (INCL P+P)- CONTACT:G.LECKIE,16 WILLOW LANE,COCKERMOUTH,CUMBRIA
CA13 9PD (TEL 0900 822514)
  XENON1,SPOOKY MANSION,ORIC FORTH,SNOWBALL,ZORGS REVENGE,ISLAND OF DEATH,
LIGHT CYCLE,MARC,ORIC BASE,WELCOME TAPE (OR-1),ELEKTRO STORM,CASSETTE 50,
ZODIAC,LOCH NESS MONSTER,HOPPER,HARRIER ATTACK,INVADERS
(VENDOR NO LONGER HAS ORIC)

NOTE FROM EDITOR: Check current prices of new cassettes prior to forking out
1.50 for 2nd. hand software!

WON'T GET FOOLED AGAIN!

I RECENTLY HAD 2 LETTERS ON THE SAME SUBJECT,NAMELY AN ORIC EMULATOR FOR THE ATARI ST. BOTH PAUL HUTTON AND DENNIS REDFORD HAD TROUBLE GETTING MUCH HAPPENING ON THE OLD ATARI. DENNIS IN FACT SENT ME A PRINTOUT OF THE INSTRUCTIONS OF THE PROGRAM. AS THEY WERE IN FRENCH I SENT THEM ONTO NORMA WRANGHAM,WHO KINDLY TRANSLATED THEM. I'M SENDING A COPY TO PAUL AND DENNIS, BUT FOR OTHER READERS A BRIEF RESUME.
THE INTRO. TO THE PROGRAM STATES: " HERE ARE THE HIGHLY COMPLEX INSTRUCTIONS FOR A NON-EMULATING EMULATOR. THE ONLY USE YOU CAN MAKE OF THIS IS TO FOOL YOUR MATES WITH IT,BY RUNNING A SEQUENCE OF MANIPULATIONS TO MAKE IT LOOK AS IF IT REALLY WORKS"
THERE THEN FOLLOWS A FEW FUNCTIONS e.g.: LIST,RUN,CLS,CTRL-T etc.
THE DIRECTIONS END WITH THE FOLLOWING: "BY COMBINING THESE FUNCTIONS SKILFULLY YOU CAN MAKE IT LOOK AS IF THE PROGRAM WORKS CORRECTLY FOR AT LEAST 3 MINUTES."

YES FOLKS - ANOTHER JOKE EMULATOR!
BY THE WAY; WHAT APPEARS ON SCREEN IS THE FOLLOWING:

ORIC EMULATOR BASIC V1.0

ROBTEK INTERNATIONAL   CAPS

 967631 BYTES FREE

   READY

===

DRIVES AND PSU's

Gavin Williams has kindly sent me a price list from CAMBRIDGE COMPUTER SCIENCE LTD. of 374 Milton Rd., Cambridge. CB4 1SU (tel: 0223 424602 or 0831 430496 or 0831 430552).
Amongst items on the list are:
 3.5" 80 track,DSDD 720k drives to suit most micros - 25 pound each.
 Apricot switched mode disk drive PSU - 5V at 2.5A, 12V at 2A with switch and fuse - 10 pound each.
 They also deal in IC's, RAM chips, DRAMs, PC cards etc.
  Postage is free on orders over 5 pound, but don't forget to add V.A.T at 17.5%.
===

THE CHALLENGE

The latest and fastest prime number sieve program (See page 3 - News from Dr.Ray): -

```
100 GRAB
110 INPUT"Top number to search for primes";H:CLS
120 L=0:K=0:R=0:P=0:I=0
130 Z=0:N=1
140 DOKE630,65535:L=DEEK(#9E):K=L+H:R=INT(SQR(H)):P=3:PRINT1;2;
150 FORI=LTOK:POKEI,Z:NEXT
160 REPEAT:FORI=L+P*PTOKSTEPP*2
170 POKEI,N
180 NEXT:PRINTP;
190 REPEAT:P=P+2:UNTILPEEK(L+P)=Z:UNTIL P>R
200 FORI=L+PTOKSTEP2
210 IFPEEK(I)=ZTHENPRINTI-L;
220 NEXT
230 PRINT:PRINT
240 PRINT"FINISHED IN";(65535-DEEK(630))/100;"SECONDS
```
===

OUM DISC NUMBER 3

THE THIRD OUM DISC WILL DEFINITELT BE SENT OUT WITH THE JUNE ISSUE OF O.U.M.
IT WILL BE SENT TO ALL THOSE WHO BOUGHT THE LAST DISC UNLESS I HEAR FROM YOU BY APRIL 28th.
===

SCART

We've heard quite a lot recently about SCART sockets, not least in connection with the Telestrat. The things are now standard equipment on most new televisions over 14", and even some of those have one (e.g. the Sony). Their big advantage is that they provide one connection for a whole range of signals, including sound, composite video, and our beloved R.G.B. output. They mean that, correctly connected to the Oric Atmos or Oric-1, we can easily have monitor quality pictures and, with a little more trouble, adjustable sound through the T.V. Here, then, is a description of the Scart plug and its connections, and to start with a simple project to construct your own RGB (picture only) lead.

A SCART plug (or socket) has 20 pins and an earth. The pins are always wired for the same functions in all equipment. Here is the layout expressed as if from each piece of equipment:

SOUND

1	Audio output B (Stereo right or mono)
3	Audio output A (Stereo left or mono)
2	Audio input B (Stereo right or mono)
6	Audio input A (Stereo left or mono)
4	AUDIO ground

Thus sound output from the Oric would be routed TO pins 2 and 6 of the plug that goes into the television.

R.G.B.

5	BLUE ground
7	BLUE
9	GREEN ground
11	GREEN
13	RED ground
15	RED

There are no individual RGB ground signals from the Oric; the one ground output is linked to pin 17, video ground.
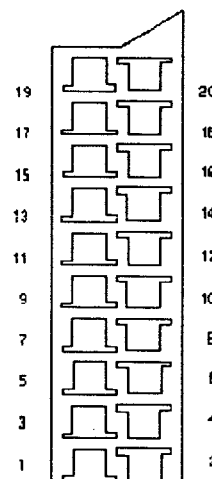
VIDEO

19	VIDEO composite/SYNC output
20	VIDEO composite/SYNC input
17	VIDEO ground

FUNCTION SWITCHING (BLANKING)

8	Function switching (slow switching) – active for 9.5–12v
16	Blanking (fast switching) – active for 1–3v
18	Blanking ground

The role of these signals is to disconnect the aerial signal and activate the SCART socket. R.G.B. input is enabled by applying the appropriate voltage to either pin 16 alone, or pins 16 and 8 at the same time. Pin 8 alone enables composite video input. If neither pin is activated the SCART is 'off-air'. We do not use the blanking ground pin.

<u>OPTIONAL</u>

12   Communication data line 1
10   Communication data line 2
14   Communication data ground

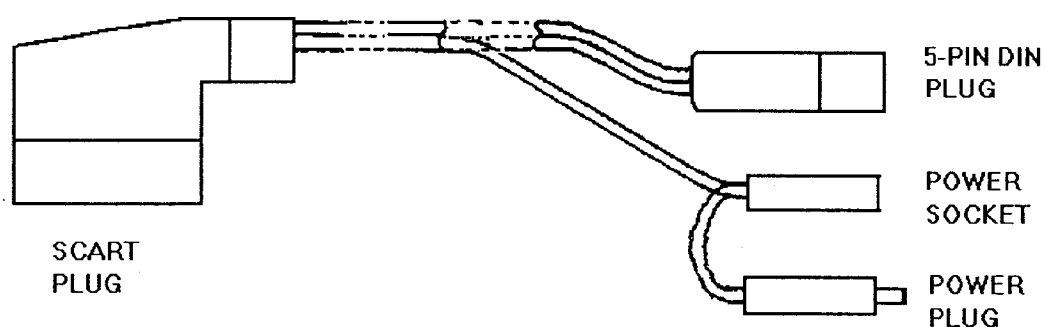These are not usually connected on televisions.

All the ground pins are linked inside the television. The metal shield of the SCART plug is a common ground or shield, and is sometimes referred to as pin 21.

To construct a simple RGB only lead for the Oric, you will need the following materials (Maplin number, page and price), plus of course a soldering iron and solder:

1 SCART plug (male)	FJ41U	229	1.28
1 5-pin DIN-A plug (male)	HH27E	202	.29
1 2.1mm power plug (long)	HH61R	225	.28
1 2.1mm line socket	JK11N	225	.56
1 560Ω resistor	M560R	398	.03
7-way screened cable (1 metre)	XS41U	132	.86
			3.30

Maplin are on 0702 554161, there is a handling charge of £1.20 per order.
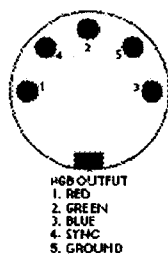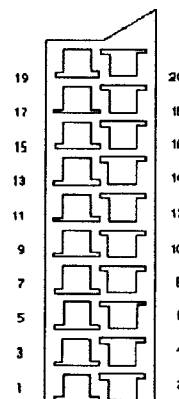
Now for the look of the finished lead:

The cable I have chosen is one specially produced for SCART leads. It has 2 single screened wires, one 4-way screened wire and 1 single wire. We use the 4-way screened wire for RGB and SYNC and the single for Ground (the 5-pin DIN plug) and one of the screened wires for blanking (the +9v line of the power plug). The DIN plug goes into the RGB socket on the computer; the 9v plug from the computer power supply goes into the power socket, and the power plug into the back of the computer.

And finally the wiring connections. Pin numbers are as follows over the page, <u>looking at the soldered pin side of the plugs</u>:

5-pin DIN
RGB plug

RGB OUTPUT
1. RED
2. GREEN
3. BLUE
4. SYNC
5. GROUND

SCART
plug

And the connections:

5-pin RGB DIN plug	SCART plug	Power socket	Power plug
1 ←-------	----→ 15		
4 ←-------	----→ 20		
2 ←-------	----→ 11		
5 ←-------	----→ 17		
3 ←-------	----→ 7		
	8 ←--- ↓	--- +9v ---	---→ +9v
	560Ω ↑ 16 ←--		
		Neg ←--	---→ Neg

Finally, if you can't face the construction, I will make up a lead for you for the all-in price of £9.50 including postage. Please note that this lead is not suitable for the Telestrat, which comes with its own SCART lead anyway.

DO NOT use your Telestrat SCART lead on the Atmos or Oric-1, nor this lead on the Telestrat – it will cause terminal damage! If you have both machines, it's best to mark your SCART leads clearly.

Just to emphasise the point, the Telestrat has a 6-pin DIN socket for the RGB output. Although pins 1 to 4 are as for the Atmos, pin 5 is the sound output, and not ground – hence the problem – and pin6 is 12v for the SCART plug. It is of course possible to make up a 5-pin DIN lead from the Telestrat for the pure DIN RGB input that a good many monitors here use, utilising pins 1 to 4 and the screening as ground. The moral is, when you get your Telestrat, ask for the right lead! Incidentally, the CEOMAG for March included details on fitting UHF output to the Telestrat, so all things are now possible.

EVALUATE A NUMERIC EXPRESSION

Entry: TXTPTR

Exit: The number is in ACC1.
        A, N and Z are set according to the exponent.

| CE77 | JSR $CE8B | CF03 | JSR $CF17 | Evaluate the expression |

VERIFY NUMERIC VARIABLE

| CE7A | CLC | CF06 | CLC | Indicate numeric type required |
| CE7B | BYT #24 | CF07 | BYT #24 | jump the next instruction |

VERIFY ALPHANUMERIC VARIABLE

CE7C	SEC	CF08	SEC	Indicate string type required
CE7D	BIT 28	CF09	BIT 28	test numeric/string flag
CE7F	BMI CE84	CF0B	BMI CF10	if string, jump
CE81	BCS CE86	CF0D	BCS CF12	if numeric and string requested, error
CE83	RTS	CF0F	RTS	
CE84	BCS CE83	CF10	BCS CF0F	if string and string requested, OK
CE86	LDX #A8	CF12	LDX #A8	index the message 'TYPE MISMATCH'
CE88	JMP $C485	CF14	JMP $C47E	and display the error

EVALUATE AN EXPRESSION

Entry: TXTPTR correctly set.

Exit: the value is in ACC1 (numeric). For a string also (address of the pointer in #D3–#D4)
        #28 = #00 (numeric) or #FF (string)
        A, N and Z are set according to the exponent (numeric result) or the length of the string.

Principle:

The routine evaluates in turn all the operands, then the operators. According to their priority these are executed, or the operand placed on the stack together with its priority and its address (–1).

The execution of an operand begins by taking a value from the stack and putting it in ACC2 (left–hand operand), correctly setting A and Z, and ending with an RTS since the address has been placed on the stack. The priority value stacked at the beginning is #00, which serves as a stop for the stack of operators. Another stop is needed to define the end of the expression (no more operators); this does not necessarily correspond to the end of the evaluation given that there can still remain some operators to execute on the stack. The variable #BA, which contains #FF (end) or the relational value of the operator (which is always positive) plays this role of the 'physical end'.

When the routine is called it picks up a number or a string (#CF74/#D000), then starts by jumping a character, usually the operator. That is why TXTPTR must be adjusted both at the start and the end of the evaluation of an expression.

To fully understand this routine, which is by far the most complicated in the ROM, you will be able to study a flowchart in Figure 3 next month. Its difficulty arises from its recursive nature, where the stack is playing a deciding role. To better understand this problem, an example will be provided, Figure 4 (the addresses given are for V1.1) – see you then!

Jon Haworth

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

DEAR DAVE,
          I look forward to the release of MIND MADNEZ,especially if it is
compatible with my DK'TRONICS joystick interface.
 The second O.U.M disc is even better value than I thought as I have been
putting the 'Tape to Disc' utility to good effect. I now have an Atmos
version of ZORGONS REVENGE together with SPACE QUEST,STARFIGHTER (Oric 1) and
THEM.
                                             - PAUL HUTTON (Worcester)
DEAR PAUL,
             the last time I heard from Arnt he said that unfortunately MIND
MADNEZ would probably not be joystick compatible.
 Glad to see that you are putting the utility to good use. I have been
testing out SUPERCOP from Harry Peters with success. I have used it to
download DONT PANIC from disc to cassette. I was impressed with the speed
that it saved the loading screen. I had first done it manually and forgot to
use QUIT,thus it took for evermore. Obviously Harry has built this command
into his program and thus it saves one having to remember to do it. (NOTE TO
NEW SEDORIC USERS - when saving from disc to cassette on SEDORIC,by first
doing a QUIT the saving time will be dramatically faster).
                                                        - Dave Dick
===

DEAR DAVE,
             my main interest is Amateur Radio and I would like contacts for
 RTTY and Packet Radio.
 Also I would like details of ports on the TELESTRAT.
                                       - Dave Dempster (Oldham)
DEAR DAVE,
             welcome to O.U.M.
 According to my records the following members have a similar interest to
you: Dave Austen - amateur radio & slow scan TV, Jack Goldthorpe - amateur
radio, I.J.PARKINSON - Amateur radio, GEORGE POPLE - RTTY & amateur radio,and
Dennis Redford. I was speaking to Georgr Pople recently and he tells me that
he has an Oric program for RTTY. George is also into Packet Radio.   I   am
sending you their addresses. Perhaps they may even write to you first. If
anyone else wants to make contact with Dave they can write to   him at : 12
ERIC STREET, CLARKSFIELD,OLDHAM OL14 1LZ.
 Regarding the port of the TELESTRAT I will send a copy of my TELESTRAT
brochure and anything else that I have and I believe I asked JON HAWORTH to
send on all the info. that he has. (I DID - DIDN'T I JON!!)
                                                        - Dave Dick
===
DEAR DAVE,
              after blowing up my ATMOS/DRIVE system I am finally up and
running again. Steve Hopps supplied me with the all important FDC chips and
boot-up eprom. Through O.U.M I would like to say - THANK YOU VERY MUCH TO
STEVE HOPPS.

 I have now had a chance to thoroughly inspect OUM DISC Nr.1 . My opinion -
very good value overall and I particularly liked SQWEEK II.   I have also had
a chance to check out SEDORIC V2.0. As I suspected my MORSE TUTOR misbehaves
on V2.0 discs - if the first bit-map has been used up (i.e full) as I wrote
my own GET-SECTOR routine (did not use SEDORIC's).
 I've also seen no warnings about using TETRIX on V2.0 discs. This uses   the
2nd. bit-map sector on which to save the high score table.
                                             - Denis Bonfield (London)
DEAR DENIS,
             perhaps you could clarify if MORSE TUTOR will perform correctly
if transferred to V1 SEDORIC.
 Regarding TETRIX - I believe I have always used V1 for duplicating these.
Perhaps readers could check their copy.
                                                        - Dave Dick

===

DEAR DAVE,
          I notice that Robert Crisp is offering a Sharp PC 1211 pocket
computer as a raffle prize at the Oric meet.
 I have a similar machine, a PC 1245,which I use every week to generate a
shopping list for my wife to take with her to the shops. I wrote the program
myself,and think it should be largely compatible with the 1211,so I can offer
a copy to the lucky winner.
 There are actualy two programs;the first creates 4 files of 30 items each,
entered from the keyboard. each item is a regularly purchased goods,and the
main program allows it to be prefixed or suffixed with quantities or comments.
 There is a means of viewing the item in the machine's tiny display,going
back to previous items,and inserting new items. An accepted item is simply
printed on the cassette interface's printer.

I've used the program fo years,it saves all that thinking about what to buy. It's a nice portable machine too,so you can use it in the kitchen,whereas if the Oric was used,it would mean running backwards and forwards from the 'den' to the cupboards and fridge' to see what was needed!
Perhaps you could forward this info. on to Robert,then if he wants to,he can get in touch with me. I ought to warn you,though,when he finds out how useful the machine can be ,he may decide to hang on to it!

- Colin Cook (Pitsea).

DEAR COLIN,
well if the SHARP gets 'LOST IN THE POST' between Leeds and Aylesbury then we will know that you have convinced Robert.
The other evening Jonathan Bristow and I were looking through my collection of 'THE HOME COMPUTER COURSE' - an old weekly encyclopedia thingy from Orbis. We came accross the Sharp. Can't remember which model. As i'm now in the middle of redecorating i'm afraid I haven't a clue where I've stored them. It was fascinating looking at the specifications of old machines such as the Aquarius and QL.
Perhaps I ought to do a series on old machines!

- DAVE

===

DEAR DAVE,
I am interested in trying to obtain copies of the following books, possibly using an "out of print" book service. To cut it short I got the titles from a Jon Haworth column from an old OUM. Do you as editor have any old copies lying around?

"Oric Machine Code Handbook" - Paul Kaufman - Granada
" Oric Atmos & Oric 1 Graphics and Machine Code Techniques" - Geoff Phillips - McGraw Hill
"30 Hour Basic - Oric" - Clive Prigmore
"Oric and Atmos Machine Code" - Ian Sinclair - Granada
"Getting the most from your Oric" - Bryan Skinner - Penguin
"Machine Code for the Atmos and Oric 1" - Bruce Smith - Shiva.

- Gavin Williams
36 Heol - y -Deri, Rhiwbina, Cardiff. CF4 6HH

DEAR GAVIN,
firstly I would like to welcome you back to the Oric fold. I know it has been a couple of years since you last took OUM.
Regarding the books: I believe David Hall has a copy of "30 Hour Basic" for sale and I seem to remember that Brian Kidd had spare copies of the Bruce Smith book. When I get a minute I will look through my collection. Meanwhile perhaps some of our readers can help,though I doubt if anyone wants to part with the Geoff Phillips book as it is very hard to come by.

- DAVE DICK

==

SOFT/HARD WARE FOR SALE

VENDOR : P.D. KERSEY-SMITH,16 PEN-Y-LLYN,GWERSYLLT,WREXHAM,CLWYD.LL11 4EP

PRICES IN BRACKETS-EXCLUDING P+P - CONTACT DIRECT,GIVING REF - B.KIDD/OUM

ORIC MUNCH,ASTEROIDS,THEM,STARFIGHTER,ORIC-1 WELC.TAPE,ATMOS WELC.TAPE (ALL 50P)
RATSPLAT,F.F.Y.LIFE,DINKEY KONG (O),HELLS TEMPLE,CASS STOP,ULTIMA ZONE,SPOOKY MANSION,JOGGER (O),DRACS.
REVENGE,KILLER CAVERNS (O),DIGGER,SYNTHESISER,GOLD MINE,CHAR GEN (O) (ALL 100P)
WORDWORTH (A-NO MAN),DAM BUSTER,ORION ASS (NO MAN),WINTER GAMES (A),CASSETTE 50 (A),SNAKE VENOM,CHUCKFORD,
PASTA BLASTA,Q.A.JACK,CATEGORIC,GRAVITOR (ALL 150P)
XENON 1,ZORS REVENGE,D.P.T.L.Q.,ZEBBIE,GUBBIE,VIEW TO KILL,TYRANN,MAZE RALLY,DAMSEL IN D.,FIRE FLASH,LAND OF
ILL.,DEFENCE F.,TROUBLE IN STORE,MANIC MINER,LONE RAIDER,ULTRA,KRILLYS,HELLION (ALL 200P)
FORTH,HOBBIT,COLOSSOL ADV,EXTENDED BASIC (A),5 MYSTERIOUS ADVENS, (ALL 250P)

BOOKS:

ORIC-1 PROG.INTRODUCTION (50P) , ORIC-1 MANUAL (2 100P EACH) , FORTH FOR MICROS (150P),SIXTY PROGS FOR ORIC-1
(200P),HOW TO GET MOST OF ORIC-1 (150P),ORIC ASSEMBLY LANG.COURSE (150P),METEORIC PROGRAMMING (150P),MACH.CODE
FOR ORIC-1/ATMOS (150P),ORIC-1 PROGRAM BOOK (150P),THE ORIC PROGRAMMER (200P),ORIC ADVANCED USER GUIDE - ATMOS
(250P)

HARDWARE: ORIC J.STICK I.FACE (500P),MCP40 (ORIC-1 COLS (1500P)),3 INCH DISC CLEANING KIT (250P)
MICK POATS FABLED DRUM MACHINE (1500P)

SAE IF MAKING OFFERS ON ABOVE

(A)=ATMOS ONLY , (O)=ORIC-1 ONLY , ALL OTHERS ORIC-1/ATMOS COMPATIBLE

(VENDOR NO LONGER HAS ORIC HARDWARE)

DON'T PANIC

Joanthan Bristow's DON'T PANIC is still making headlines for one reason or another. The April issue of the CEO-MAG has a full page on the game. Plenty of points raised (you will have to buy the CEO-MAG to read the full write-up).

Bruno Dossier has found a bug. The circled 'B' shape is supposed to to award 60 points. You get 5 or Zero points dependant on the game status.
Well we had to do something to stop the French from getting all the hi-scores! Even so Bruno attained an incredible 12,110 points and finds the game more thrilling than even TETRIS and TETRIX.
Recently Jon and Nick Haworth and myself delved into JB's program to check out the mathematics. From what I remember; PREMO 0 gave 5 pts, PREMO 1 gave 20 pts, PREMO 2 gave 40 pts. etc.
By changing line 3020 we have come up with what we think to be a fair scoring system. 'B' now gives PREMO + 1 * 20.
i.e. PREMO 0 gives 20, PREMO 1 gives 40, PREMO 2 gives 60 etc. In other words - the harder the level you start at the bigger BONUS. As the number of 'B' shapes falling makes it hard to get many of these lines I have decided that all hi-scores stand,unless of course you change the program so that you get a massive bonus.
All new versions will have this amendment and the screen has been changed to show 'B' = ??
For those who had trouble in telling the difference between some of the shapes (e.g. Henry Marke) there is an amemded version. Jon B and myself have altered this with the aid of his 'OBED' (still available from our Mail order section).
Hopefully no more amendments.
Don't forget that DON'T PANIC is available on SEDORIC format with a 'save hi-score' facility and now available on ORICDOS and cassette without this facility.
===

HI-SCORE UPDATE

My recent visit to Portsmouth allowed me to meet up again with Super Gamesters - Henry and Rene Marke. Here are their latest hi-scores:-
   CROCKY - 49,970 - IRENE
   DELTA 4 - 9,320 - IRENE

As stated elsewhere Bruno Dossier now has 12,110 on DONT PANIC. Best British score to date is 5,122 (premo 1) from the lad himself - Graeme Burton.
Graeme says he has in fact topped 6,000 but can't find the bit of paper with it on.

Paul Hutton meanwhile has been attacking WILLY. His score to beat is 18.
===

ATARI 2600 CONSOLES

BULL ELECT. ARE NOW SELLING THESE FUN MACHINES FOR JUST 15 pound + V.A.T + POSTAGE. Pacage includes game,joystick and PSU.

Our Henry has one of this machines and has lent it to Matthew (my youngest lad). The machine is a good bit of fun. There is an outlet in Aylesbury where you can pick up games for 3 pounds. Recently Chris Hearn picked up one of these consoles for a friend (so he says!).
Still with BULL ELECT. - AMSTRAD GX4000 consoles with PSU,but no game are now just 9 pound + V.A.T + postage. (postage is 3 POUND for each order - no matter how many items ordered). Games for the GX can be bought direct from AMSTRAD for 19.99
===

NEW BOARD GAME

I recently played Nick Haworth's new war strategy war game for the Oric.
There are just a couple of minor adjustments to be made before release. In my opinion it will prove to be very popular. I won't 'risk' naming the title yet.
===

THEM

Looking through the code of THEM from Virgin Games the intrepid Paul Hutton has found an interesting message from the game's author - Andy 'Grun' Green and also his telephone number. I will check out the message for the next issue.
I know that Andy once lived in Leighton Buzzard,which is about 13 miles from where I live. If he is still there then I will try and arrange an interview

ZEBULON

Richard Farrell has figured out the password to get cheat mode on ZEBULON. I'll give you a clue. It is the name of an obscure island and begins with the letter 'K'.
==

A VIEW TO A KILL - DOMARK/SEVERN

NOW FLOATING AROUND VIA CEO IS THE 'THIRD' PART TO THIS GAME - A MAZE

HOWEVER DID YOU KNOW THAT IN REALITY THIS SHOULD BE THE BEGINNING TO THE GAME. I CAN ONLY SUMMARISE THAT GOOD OLD MR.SHEPPARD DID NOT FINISH THIS SECTION BEFORE THE DEADLINE FOR PUBLICATION.

THE ACTUAL TITLE FOR THIS PART SHOULD READ AS 'THE PARIS CHASE'.

THE FOLLOWING DESCRIPTION IS TAKEN FROM CBM64 VERSION INSTRUCTIONS..

'The scene is set:

Bond has been briefed by 'M' and has been instructed to find out what Max Zorin's plot is about.He has lunch in the Eiffel Tower with a friendly Agent, who is killed by May Day.Bond chases her up the Tower,but she hurls herself off the top and parachutes to a drop point on the outskirts of Paris.He leaps onto the top of the Tower lift and commandeers a taxi at the bottom.FROM THEN ON,YOU TAKE OVER. You can follow her movements with the aid of a tracker, which indicates her proximity and her altitude and her shadow will pass over your ariel view.You can see the building in front of you through your windscreen,and your speed,the time and your damage is indicated on the dash-board (???).Your objective is to reach the correct drop-point exactly at the same time as she does,but be careful.The wind changes constantly,and her direction may alter at aby time,landing her on any one of a number of possible drop-points.
Along the route you will encounter various hazards.The street's one way system is indicated by little yellow arrows (?),and going against the system may cause the police cars to chase you.Watch out,they may take a pot shot at you!The drivers around Paris are fairly reckless (THEY AINT KIDDING!),and the odd porche (should,'t that be CV6 ?) may career into you.There are barriers to avoid,and brushing into buildings will definately take it out of your blue Renault.Because Bond never travels without a pistol,you can use one here to knock out unwelcome vehicles which may get into your path.Also being an expert driver,handbrake turns sre easy for you,and you may get out of tricky situations!

CONTROLS - for details of joystick or keyboard see the title screen.

In the event that you fail to catch May Day the game will automatically start again.Maybe you'll have learn't something! If you do well your code will be important for use in later games.It relates your success to the other programmes,in a way that you'll subsequently discover.

NOTE-SARCASTIC COMMENTS BY ME

OH BY THE WAY THOSE LUCKY (!) C64 OWNERS HAD A CHOICE OF MUSIC DURING THE GAME..
.A) THE JAMES BOND THEME
B) A VIEW TO A KILL - BY DURAN DURAN (yippee doo-dah!!)

OTHER GAMES ARE AS ORIC CODED.

FINALLY ABORT DOESN'T WORK IN 'THE PARIS CHASE' - AND THE REASON FOR THIS - OR SO IT SAYS - 'YOU'RE ON HOLIDAY ALREADY'

Hoping this may be of use to someone out there -
        Brian Kidd

                ==

   GET YOUR HINTS AND TIPS INTO O.U.M.
   WHERE ARE THOSE ADVENTURE MAPS THAT SOME OF YOU PROMISED?
==

Machine Code for the Oric Atmos (Part 25)   Peter N. Bragg

The Story so far
----------------- We started out by looking at the very basic requirements
for writing machine code programs on the Oric and we have now built up a
modest collection of useful instructions in form of a small 6502 Instruction
Subset which appeared in Part 22 of the series. In addition to looking at
the Instruction Set, I have also tried to give an idea of some of the
programming techniques that I have found make life easier for me, when
writing software.

One technique, was that of breaking up a large operation into several
smaller operations. These smaller operations are then easier to match up to
the instructions available in the 6502 Instruction Set and can be assembled
in to a small routine, to do the required larger operation.

Last time, we looked at one of the two most important system calls on the
Oric. While these are not strictly part of the 6502 Instruction Set, they
are an essential part of any microcomputer operating system, so you can
expect to find similar calls to do the same operation on other machines too
I have found that there is a lot to be gained from using other computers,
with the Oric, particularly if they also use the same 6502 Instruction Set.

Foriegn Devils
--------------- In the last article, we looked at the call "GOTORKB" which
reads the keyboard and puts the result into the Accumulator. Before we go on
to other things, lets have a brief look at that call on other 6502 machines.

Why bother ? Well, for a start other machines are a good source of software
and a number of Oric users appear to have a second machine, some of which
are 6502 based or have 6502 emulators.

All the 6502 based machines I used so far, use a similar system call to read
the keyboard and put the result into the Accumulator. Oric's system call for
this, is in fact very similar to that used on the Microtan, Apple and BBC
computers. The only real difference is, that Oric's keyboard reading call
does need a Branch instruction added to it, to check for a keypress. However,
the two instruction set up, shown for "GOTORKB" in our small Instruction
Subset, will indeed make it work in the same way as other machines, such as
the Apple or BBC. Useful if you are writing software to run on more than one
machine.

Vectors
------- The Oric's Operating System calling addresses are different from
those used by other computers of course. However, the two instructions to
read the keyboard can be made into a tiny stand alone routine by adding an
RTS instruction. This can then be put anywhere in "user memory" to provide a
"call address" of your own choosing, instead of that required by the
Operating System. This brings us to another interesting and useful point.
If you are using another 6502 based machine, you can do the same thing with
that machine and put a routine to make the same call, from the same address.

For example, as I have mentioned before, I went from the Tangerine Microtan
to the BBC computer and the Oric followed on about a year later. Now, the
BBC has it's own idiocyncrasies. I wont go into details here. Sufficent to
say that I needed to write a small series of short routines to adapt the
Microtan software for use on the BBC computer. These routines were written
in a block and put into Page 20 (ie. 2000 - 20FF area), in the BBC machine.

A very short "stand alone" routine called up the BBC equivalent of Oric's
GTORKB and also preserved a copy of the keypress result in memory. Just
three instructions were needed for that short routine, a JSR for the call,
an STA to preserve a copy of the result and an RTS to complete the routine.
The routine was then included in the bootup software both on tape and later
on disk and all my own software read the keyboard through the routine which
was called by JSR 202C. I should mention that there is nothing significant
about that address, it was just a convenient place to fit the routine in
among others.

Now, when the Oric arrived on the scene, I found that it needed an extra
instruction to read the keyboard in the same way as the BBC version. This
time, the routine had to be a JSR plus a BPL Branch instruction, which was
then followed by the STA and RTS. The routine was put into the Oric, to
start at 202C again, exactly the same place as the BBC version. So once
again the keyboard reading was called up by JSR 202C, only this time it was
the Oric. This meant that all my own BBC software was completely compatable
with the Oric as far as reading the keyboard was concerned.

The Apple computer was slightly different again. It did not require the BPL
Branch, but it did need an extra instruction to modify the keyboard input so
that it matched the input obtained from the Oric and the BBC computers. Once
again, a short routine of four instructions, was put into the bootup
software in the same place as the BBC and Oric, so that the keyboard would
always be read by calling JSR 202C. Making it a common call for all three
machines did a lot to simplify the job of writing software, for them all.

Now, it takes a lot more than this to make the three machines completely
compatable, even for own design software. However, some operating system
calls get heavy use when writing software. Obviously reading the keyboard is
one of those. Displaying items on the screen at the cursor position is
another. You dont have to have a BBC or Apple computer to make use of this
technique, any 6502 based machine can benefit from the same technique.
Likewise, you dont have to use the above example address. Better to use one
that suits you and your own software.

This type of "call" routine is known as a vector and there are many people
who claim to have invented it !! The main advantage becomes apparent, when
a computers Operating System is changed. An alteration to the "vector"
routine, is all that is needed to update old software and get it working
again.

Using a few common vector calls like this has made writing software very
much easier for me to run several different machines with just one basic lot
of software. As a result, some of my BBC software was written on the Oric
and some of the Oric's was written on the BBC.

Of course, the same techniques are widely used in comercial software and
firmware to produce clones of popular computers. However, this is not an
emulation and you should bear in mind the "law of diminishing returns" if
you intend to head in that direction. A few well chosen vectors, like the
above keyboard example, are fairly easy to produce and are immensely useful,
when you are writing your own software. However, as you come to the more
obscure functions, they get harder to write and are much less useful.
Of course the real limiting factor in the end, is the hardware. Have a look
at books for other eight bit machines, particularly those for the BBC and
Apple machines. it is surprising what can be achieved with a little
imagination and inspiration. Next time................A stack of Oric's !!

ØRIC Enthuslasts

IBM PC Emulator

I hope you enjoyed the last issue of OUM. The add-on article of mine was intended as a little spoof for April but the product does exist and I may be pursuaded to market it.

WORD-SPEED

Unfortunately, I have not found the time to look at the update for WORD-SPEED which Ray passed onto me. If it looks as though I cannot evaluate it soon, I shall consider passing the distribution onto someone else.

DISC BASIC & GEOFF PHILLIP'S BOOK

Apologies to all those looking forward to the continuation of these articles. As soon as I can I will carry on from where I left off.

CORRESPONDENCE & ORDERS

Just to let the following people know that I have received their letters and working on the replies, etc.

Colin Cook, William Falconer, John Hughes, Brian Kidd and Gavin Williams.

ODDMENTS

I have moved all my ORIC stocks into my loft now and I am sorting out surplus items.

You may recall that in edition OUM 67 I had found some tapes; these being Bar Blaster by Byteland, Cascade 50 by Cascade Games, Leopard Lord by Kayde Software Ltd., Memory Map by Byteland and Word Processor by Juniper Computing. These are available for 50p including P&P.

I have now decided to sell my original Eureka Informatique 3" Drive System which includes the Power Supply, 3" Microdisc and Disc Controller in the ORIC plastic drive casing. The PSU is the re-designed ORIC one and I have had to repair it. In my opinion it is not reliable enough as it tends to dissipate a lot of heat. Unfortunately, when the PSU failed on me it took out the Disc Controller, so the only working part is the 3" disc drive. Therefore I am asking just £25 for the disc drive and plastic Microdisc casing, including P&P. If anyone fancies having the controller board and PSU to see if they can get the complete system working, they are welcome to if they pay for the postage for those items. If you are interested then ring or write to me, Allan Whitaker, at 8 Staley Hall Road, Stalybridge, Cheshire, SK15 3DT - telephone 061 303 7369.

Bye for now .... Allan Whitaker

C O M P E T I T I O N   P A G E

THERE WERE 2 CORRECT SOLUTIONS TO PRIZE PUZZLE NO.2.
   GAVIN WILLIAMS's PROGRAM WAS BASICALLY THAT OF BRIAN'S.   GAVIN WINS THE
CALCULATOR. BILL BRIGGS WINS THE SOFTWARE.
   WE START OFF WITH BRIAN KIDD'S SOLUTION AND THEN PRINT BILL'S.

PUZZLE #2 (MAR '93) SOLUTION

```
100 REM
110 FOR H=102 TO 329
120 Q=H*2 : R=H*3
130 H$=STR$(H):Z$=MID$(H$,2,LEN(H$)-1):H$=Z$
140 Q$=STR$(Q):Z$=MID$(H$,2,LEN(Q$)-1):Q$=Z$
150 R$=STR$(R):Z$=MID$(H$,2,LEN(R$)-1):R$=Z$
160 H1$=MID$(H$,1,1):H2$=MID$(H$,2,1):H3$=MID$(H$,3,1)
170 Q1$=MID$(Q$,1,1):Q2$=MID$(Q$,2,1):Q3$=MID$(Q$,3,1)
180 R1$=MID$(R$,1,1):R2$=MID$(R$,2,1):R3$=MID$(R$,3,1)
190 REM CHECK FOR REPEAT DIGITS
200 IF H1$=H2$ OR H1$=H3$ OR H2$=H3$ THEN 330
210 IF Q1$=Q2$ OR Q1$=Q3$ OR Q2$=Q3$ THEN 330
220 IF R1$=R2$ OR R1$=R3$ OR R2$=R3$ THEN 330
230 IF Q1$=H1$ OR Q1$=H2$ OR Q1$=H3$ THEN 330
240 IF R1$=H1$ OR R1$=H2$ OR R1$=H3$ THEN 330
250 IF Q2$=H1$ OR Q2$=H2$ OR Q2$=H3$ THEN 330
260 IF R2$=H1$ OR R2$=H2$ OR R2$=H3$ THEN 330
270 IF Q3$=H1$ OR Q3$=H2$ OR Q3$=H3$ THEN 330
280 IF R3$=H1$ OR R3$=H2$ OR R3$=H3$ THEN 330
290 IF R1$=Q1$ OR R1$=Q2$ OR R1$=Q3$ THEN 330
295 IF R2$=Q1$ OR R2$=Q2$ OR R2$=Q3$ THEN 330
300 IF R3$=Q1$ OR R3$=Q2$ OR R3$=Q3$ THEN 330
310 PRINT H,Q,R:PRINT
330 NEXT H
```
===

AND FROM BILL
--- ---- ----

```
5 REM ALL NUMBERS OF 1N,2N,3N TYPE WITH NON-REPEATING DIGITS.
6 REM MIDDLE NO. CANNOT EXCEED 3 DIGITS SO N MAX. < 500
10 FOR N= 1 TO 499
20 A$=STR$(N):A=LEN(A$)-1
30 B$=STR$(2*N):B=LEN(B$)-1
40 C$=STR$(3*N):C=LEN(C$)-1
50 D$=RIGHT$(A$,A)+RIGHT$(B$,B)+RIGHT$(C$,C)
60 FORZ=1TOLEN(D$)-1
65 FORY=Z+1TOLEN(D$)
70 IFMID$(D$,Z,1)=MID$(D$,Y,1)THEN100
80 NEXTY
85 NEXTZ
90 PRINTA$,B$,C$:LPRINTA$,B$,C$
100 NEXTN
```

USING ALL 9 DIGITS THIS WILL GIVE 5 SETS. NAMELY,   192   384   576
                219   438   657
                267   534   801
                273   546   819
                327   654   981

INCIDENTAL TRIVIA FROM BILL FOR LARGISH HYMN BOOKS:-
IF NUMBERS OF 1N,3N,5N TYPE THEN 269,807,1345 USES ALL DIGITS ONCE!
SO DOES 453,906,2718 FOR THE 1N,2N,6N SERIES.

   PRIZES WILL BE SENT BY BRIAN. ANOTHER PRIZE PUZZLE IN THE JUNE ISSUE OF O.
U.M, AND THANK YOU FOR TAKING TIME TO HAVE A GO.
===

N E W S   F R O M   P A R I S

   THE DATE FOR THE PARIS ORIC MEET SHOULD BE SATURDAY JUNE 12th AND NOT THE
DATE PREVIOUSLY SHOWN.

```
6     *INITIALISATION ET MELANGE
7 DIM X(16),Y(16),P(16),C$(16),F(3)
8 POKE 618,2:REM***EFFACE CURSEUR
9 FOR I=#BBA4 TO #BBA7:POKE I,32:NEXT I:REM***SUPPRIME MOT [CAPS]
10 GOSUB 2500:REM***IMPRIME TITRE
15 FOR I=1 TO 16:P(I)=I:NEXT I
16 F(0)=-1:F(1)=1:F(2)=-4:F(3)=4
20 H=100+INT(50*RND(1))*2
25 A=16
26 REM***DEBUT MELANGE
30 FOR I=1 TO H
45 B=INT(4*RND(1))
46 IF (A<5 AND B=2) OR (A>12 AND B=3) THEN GOTO 45
47 IF (A=1 OR A=5 OR A=7 OR A=9) AND B=0 THEN GOTO 45
48 IF (A=4 OR A=8 OR A=12 OR A=16) AND B=1 THEN GOTO 45
50 C=A+F(B)
55 P(A)=P(C):P(C)=16
60 A=C
70 NEXT I
79 REM***CREATION DES CARACTERES
80 FOR I=1 TO 25
90 POKE 46080+((96+I)*8),63
100 POKE 46087+((96+I)*8),63
110 FOR J=1 TO 6
120 READ L:IF I<=11 THEN L=L+32
130 POKE 46080+((96+I)*8)+J,L
140 NEXT J
150 NEXT I
160 FOR I=1 TO 16
170 READ C$(I)
180 NEXT I
190 DATA 0,1,0,0,0,0,1,2,0,1,2,3,3,0,1,0,0,3
200 DATA 0,1,2,4,7,0,3,2,3,0,0,3,1,2,3,2,2,1
210 DATA 3,0,0,1,1,1,1,2,1,2,2,1,1,2,2,1,0,3
220 DATA 4,12,4,4,4,4,4,4,12,4,5,5,4
230 DATA 33,33,33,33,33,33,33,17,17,33,1,49
240 DATA 49,33,33,17,17,33,33,33,33,33,49,33
250 DATA 49,1,33,17,17,33,49,17,33,1,1,1
260 DATA 33,17,33,17,17,33,33,17,17,49,17,33
270 DATA 25,37,37,37,37,25,9,25,9,9,9,9
280 DATA 25,37,5,25,33,61,61,5,25,5,37,25
290 DATA 9,25,41,9,61,9,61,33,57,5,5,57
300 DATA "al","bm","cn","do","ep","fp","gq","hr","is","jt","ju"
305 DATA "jv","jw","kx","jy","  "
310 FOR I=1 TO 16
320 IF P(I)=16 THEN PL=I:GOTO 400
330 NEXT I
400 FOR I=1 TO 16
410 IF I<=4 THEN Y(I)=7:GOTO 450
420 IF I<=8 THEN Y(I)=9:GOTO 450
430 IF I<=12 THEN Y(I)=11:GOTO 450
440 Y(I)=13
450 X=(I/4-INT(I/4))*4:IF X=0 THEN X=4
460 X(I)=12+2*X
470 NEXT I
474 CLS:PRINT:PRINT:PRINT
475 PRINT"WOULD YOU LIKE THE RULES (Y/N) ";:GET R$
476 IF R$="Y" OR R$="y" THEN GOSUB 3000
478 REM***TRACE DU TABLEAU DE JEU
480 A$=CHR$(4)+CHR$(27)+"Q"+CHR$(27)+"J"+CHR$(4)
489 CLS:ZAP
490 FOR I=1 TO 21:PRINT A$:NEXT I
492 FORI= 1TO 16
493 PLOT X(I),Y(I),C$(P(I)):PLOT X(I),Y(I)+1,C$(P(I))
494 NEXT I
495 PLOT 15,17,"TEASER":PLOT 15,18,"TEASER"
500 PLOT 5,22,"USE ALL THE 4 ARROW KEYS TO"
510 PLOT 2,23,"MOVE THE PIECES, OR ESC TO STOP."
520 PLOT10,24,"NUMBER OF MOVES"
530 NM=0
600 PLOT 16,25,STR$(NM)
610 PRINT CHR$(30)
618 REM***ENTREE DU MOUVEMENT
619 REM***OU DE L'ABANDON
620 GET M$:IF M$=CHR$(27) THEN 2000
630 IF M$<CHR$(8) AND M$>CHR$(11) THEN GOTO 600
640 ON (ASC(M$)-7) GOTO 700,800,900,1000
698 REM***MOUVEMENT VERS GAUCHE
700 IF X(PL)=20 THEN 600
710 PM=PL+1
720 GOTO 1500
798 REM***MOUVEMENT VERS DROITE
800 IF X(PL)=14 THEN 600
810 PM=PL-1
820 GOTO 1500
```

L I S T I N G   P A G E S

T E A S E R

```
898 REM***MOUVEMENT VERS BAS
900 IF Y(PL)=7 THEN 600
910 PM=PL-4
920 GOTO 1500
998 REM***MOUVEMENT VERS HAUT
1000 IF Y(PL)=13 THEN 600
1010 PM=PL+4
1498 REM***TRACE DES PIONS DEPLACES
1500 P(PL)=P(PM):P(PM)=16
1505 PLOT X(PM),Y(PM),C$(P(PM)):PLOT X(PM),Y(PM)+1,C$(P(PM))
1510 PLOT X(PL),Y(PL),C$(P(PL)):PLOT X(PL),Y(PL)+1,C$(P(PL))
1520 PL=PM
1530 NM=NM+1
1538 REM***PIONS TOUS A LEUR PLACE ?
1540 FOR I=1 TO 16:IF P(I)<>I THEN 600
1550 NEXT I
1558 REM***SI OUI ALORS VICTOIRE
1560 PLOT 5,22,"CONGRATULATIONS !!! "
1570 PLOT 2,23," WOULD YOU NOW LIKE ANOTHER GO (Y/N) ";
1571 PLOT 16,25,STR$(NM)
1575 GOSUB 4000
1576 A$="":WAIT 100
1578 REM***UN NOUVEAU JEU ?
1580 GET A$:IF A$="Y" OR A$="y" THEN RUN
1999 REM***FIN
2000 CLS:PAPER 7
2005 IFPEEK(#D000)=166THENCALL#F89B:GOTO2010
2006 CALL#F8D0
2010 POKE 618,3:REM***REND CURSEUR
2014 REM***REND LE MOT [CAPS]
2015 PRINT CHR$(20):PRINTCHR$(20):POKE 524,255
2020 END
2498 REM***TITRE
2500 CLS:PAPER 4
2510 FOR I=1 TO 11:PRINT:NEXT I
2520 PRINT CHR$(4);CHR$(27);"T";CHR$(27);"N          TEASER"
2530 PRINTCHR$(4)
2531 PRINT:PRINT
2532 PRINT"          BRUNO TRINQUIER"
2538 PLOT13,24,"ONE MOMENT"
2540 RETURN
2999 REM***REGLES
3000 CLS:PAPER 6:PRINT
3010 PRINT "          THE TEASER GAME"
3020 PRINT "          ==============="
3030 PRINT:PRINT
3040 PRINT "PUT THE 15 NUMBERED PIECES IN THE":PRINT" CORRECT ORDER "
3050 PRINT"TO START WITH THEY ARE ALL MIXED UP":PRINT"ON A 4 BY 4 SQUARE."
3060 PRINT"AS NUMBER 16 IS EMPTY, YOU CAN SLIDE"
3070 PRINT"THE PIECES ONE BY ONE TO COPLETE THE":PRINT" SOLUTION."
3080 FOR I=1 TO 4:A$(1)=A$(1)+C$(I)
3090 A$(2)=A$(2)+C$(I+4):A$(3)=A$(3)+C$(I+8):A$(4)=A$(4)+C$(I+12)
3100 NEXT I
3110 FOR I=1 TO 4
3120 PLOT 29,10+I,A$(I)
3130 NEXT I
3140 PRINT:PRINT:PRINT:PRINT:PRINT
3150 PRINT"MOVE THE PIECES WITH THE ARROW KEYS."
3160 PRINT"EXAMPLE, ON PRESSING THE RIGHT KEY,":PRINT" NUMBER 15 WILL SLIDE LIK
E THIS"
3180 PRINT:PRINT"(WATCH THE BOARD AND PRESS RIGHT KEY)"
3190 GET R$:IF R$<>CHR$(9) THEN 3190
3200 A$=C$(13)+C$(14)+C$(16)+C$(15)
3210 PLOT29,14,A$
3220 PRINT:PRINT"THE OTHER KEYS WILL ACT SIMILARY"
3230 WAIT 400
3240 CLS:PRINT:PRINT
3250 PRINT"TO END ANY GAME SIMPLY PRESS (ESC)"
3270 PRINT:PRINT:PRINT
3280 PRINT"BUT BE PATIENT !!!"
3290 WAIT 500
3295 PAPER 4
3300 RETURN
4000 FOR I=1 TO 4
4010 PLAY 7,0,0,1
4020 READ K
4030 MUSIC 1,3,K,15
4040 IF I<4 THEN WAIT 20:GOTO 4050
4045 WAIT 100
4050 PLAY 0,0,0,0
4060 WAIT 5
4070 NEXT I
4080 DATA 8,8,8,4
4090 RETURN
```

T H E   B A C K   P A G E

AND SO TO THE END OF ANOTHER ISSUE. AS USUAL I COULDN'T FIT EVERYTHING IN.
THE OTHER TWENTY OR SO LETTERS I HAVE REPLIED TO PERSONALLY. MY BACKLOG IS
ALMOST CLEARED ON OLD ORDERS/QUERIES,BUT IS STARTING TO MOUNT UP ELSEWHERE.
  ARTICLES HELD OVER FOR THE NEXT ISSUE INCLUDE Dr.RAY's ON SEDORIC V2.0,
ROBERT CRISP's ON EMULATORS, ONE ON COMPILERS etc.etc.
  BRIAN KIDD's A to Z OF SOFTWARE HOUSES WILL BE SENT OUT AS A BOOKLET AS
WILL BE A COPY OF THE ORIC CONTACT LIST. THE JUNE ISSUE WILL BE ENORMOUS.
IN RETURN I ASK YOU TO HELP OUT WITH A MAILSHOT. YOU WILL BE SENT A LETTER
AND AN ADDRESS. ALL YOU NEED IS 18 pence FOR A STAMP.
  ALSO NEXT MONTH WILL BE OUMDISC Nr. 3.
  YOU WILL BE INVOICED ON DESPATCH,BUT IF YOU HAVE YOUR CHEQUE BOOK HANDY
THEN YOU MAY LIKE TO PAY IN ADVANCE AS I HAVE TO BUY NEARLY 40 DISCS.
  ALSO IN THE NEXT ISSUE WILL BE A FULL REVIEW OF 'SONIX',MORE LISTINGS AND
WHATEVER ELSE TRANSPIRES.
  AND SO TO THIS ISSUE:-

THE INDEX

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WIN A TELESTRAT

  CLUB EUROPE ORIC WILL BE HOLDING A GRAND RAFFLE AT THEIR ORIC MEET IN
PARIS ON JUNE 12th.
  TICKETS AVAILABLE TO OUM OR CEO READERS ONLY. ONE TICKET WILL COST YOU 2
pound OR GET 5 FOR 6 pound. YOU COULD WIN A FREE SUBSCRIPTION TO THE CEO
OR A HOST OF OTHER GOODIES.
  NOW FOR THE BIG PRIZE. IF YOU BUY 10 TICKETS FOR 12 pound THEN YOU WILL
GET ONE EXTRA TICKET. THIS TICKET WILL GO INTO A SEPARATE DRAW TO WIN A
'TELESTRAT'.
  IT HAS JUST GOT TO BE WORTH A GAMBLE.
  SEND YOUR MONIES TO JON BY MAY 30th AND THE BEST OF LUCK.
===

M A Y   M A D N E S S

  IN ORDER TO CLEAR SOME STOCKS AND GET SOME MONEY IN THE FOLLOWING CASSETTE
SOFTWARE IS DRAMATICALLY REDUCED ,BUT JUST FOR ORDERS RECEIVED IN MAY:-

SPANISH LINKWORD - WAS 6.00 ... NOW 4.00
ITALIAN LINKWORD - WAS 6.00 .... NOW 4.00
ORICADE - NOT ON PREVIOUS LIST .... JUST 1.00 FOR THIS UTILITY
PANIC - WAS 2.00 - NOW 1.25
CW MORSE - WAS 3.50 .... NOW 1.75
KILBURN ENCOUNTER - WAS 2.00 .... NOW 1.25
DEFENCE FORCE - WAS 2.25 .... NOW 1.50
ELEKTROSTORM - NOT ON PREVIOUS LIST - JUST 1.25 FOR THIS ARCADE
THE QUILL - WAS 3.25 .... NOW 2.25
INSECT INSANITY - WAS 3.00 - NOW 2.50
ZEBULON - WAS 3.00 - NOW 2.50

  COME ON FOLKS - AT THESE PRICES IT IS CHEAPER THAN BUYING SECOND-HAND!
===