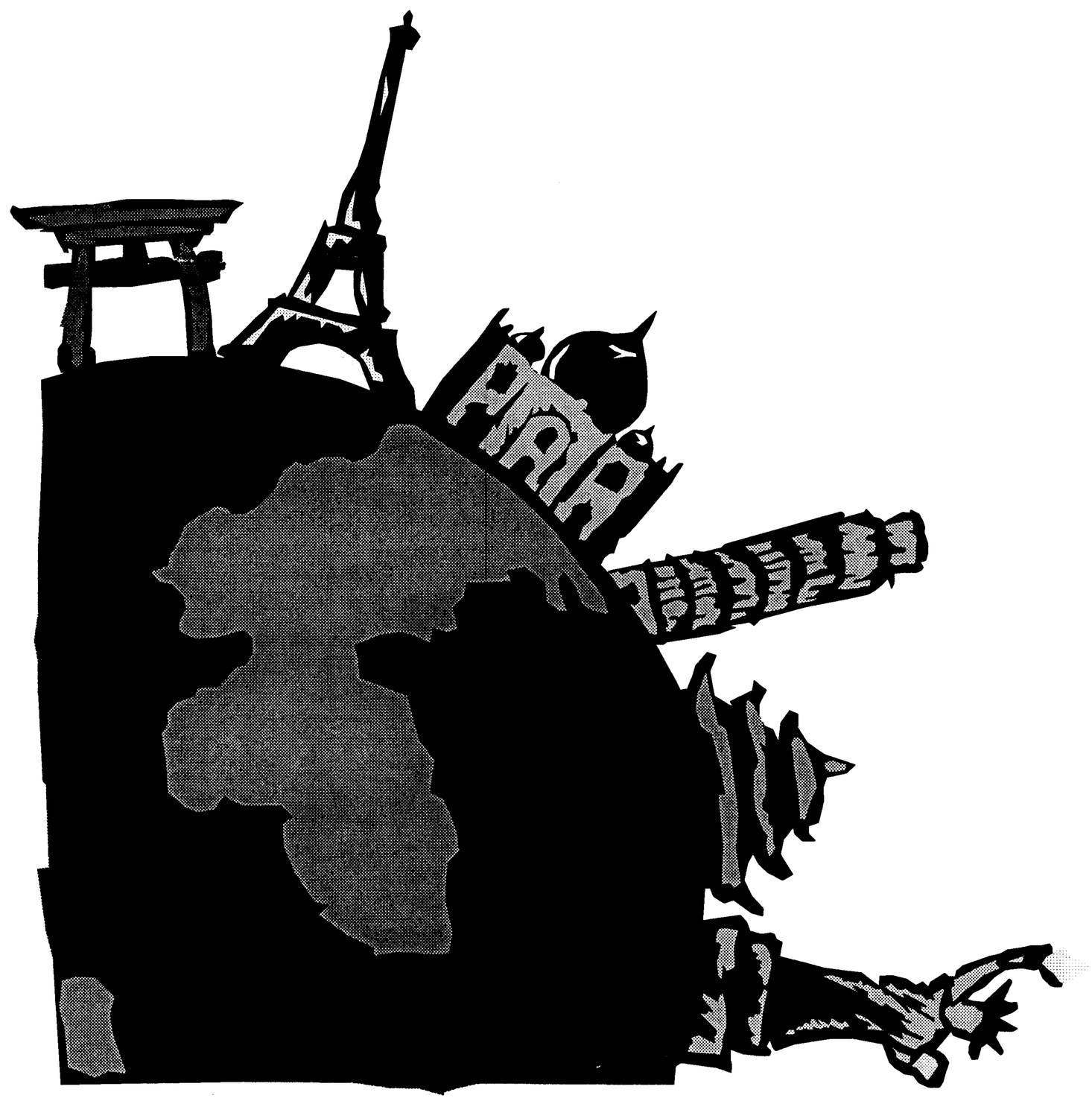
ØRIC USER MONTHLY

with Alternative Micros

Number 102

February 1996

Keeping the Oric alive



THE ORIC MAILING LIST SPANS THE WORLD

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

HELLO AND WELCOME,

TO THE FEBRUARY ISSUE OF 'ORIC USER MONTHLY'.
AS WE GO TO PRESS THE WINTER WEATHER PERSISTS,WITH SNOW COVERING THE LAND . IT IS THE TIME OF YEAR TO TURN TO THE TRUSTY ORIC. IT IS ALSO TIME TO PLAN THE SUMMER VACATIONS. JULY WILL SEE OUR FAMILY IN CORNWALL, BUT FOR NOW IT ALL SEEMS A LONG WAY OFF.
THE ORIC FRATERNITY IS STILL AN IMMENSE HIVE OF ACTIVITY. PLENTY FOR ALL. SEDORIC V.3 IS UNVEILED. THE ORIC SECTION OF THE INTERNET GOES FROM STRENGTH TO STRENGTH. AS ALWAYS, YOU THE INDIVIDUAL ARE BEAVERING AWAY ON YOUR OWN PROGRAMS.
NOW TO THE INDEX FOR THIS OUR 102nd ISSUE.

INDEX

PAGE 1..... THE COVER - supplied by Jon Haworth.
PAGE 2..... THE EDITORIAL
PAGE 3..... NEWS...NEWS...NEWS
PAGES 4/5..... READERS LETTERS - more from you the reader.
PAGE 6..... THE 8-bit A to Z --- in part 10, Steve 'Muso' Marshall looks at the JUPITER ACE and MEMOTECH.
PAGE 7..... ALTERNATE MICROS - what's happening with other machines.
PAGE 8/9..... MACHINE CODE FOR THE ORIC ATMOS - Peter Bragg reaches part 52.
PAGES 10-14..... RAMBLING IN THE ROM (Pt.77) with J.H.
PAGE 15..... AMORIC V1.3 - Simon Ullyatt reviews the ORIC Emulator for the AMIGA.
PAGE 16..... BITS'n'BOBS - if you want to buy something,then this is the palce to look.
PAGE 17 ..... BRIAN's PAGE - The Welsh Wizzard with more to set you thinking.

==========

MARCH O.U.M
--- - - -

The last couple of issues have been rather late. We need to get back to the situation where the magazine is sent out in the first week of a month. Please ensure that articles for inclusion in the March issue of O.U.M are with me by Tuesday February 27th at the very latest.

FRANKs ARTICLE
--- ---

Frank Bolton has sent me an article regarding the use of KEYUSE etc. As SEDORIC V.3 has made some modifications on this Keyword, I intend to look carefully at it before I decide whether to publish Franks article.
We will return next month with more from Frank on English useage, and also a use for the FUNCTION key.

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

ORIC MEET

It is the time of year to start planning the next Aylesbury ORIC MEET. I have pencilled in the 20th July. The Meet to be held at the MRCA (same as 1995). This year I will NOT be able to provide a sleeping place for visitors, as I shall be off to Cornwall in the wee small hours of the Sunday morning. Last year a couple of you used a Bed & Breakfast place, which was very suitable (cheap and O.K.). Those wishing the address/phone number, should contact me NOW.

OUMDISK No. 7

I intend to soon finish off work on the seventh OUM DISK. It will be sent to all who have previously bought the disks. Price will again be 3.50. If you do not wish to recieve it,then please contact me before the end of February.

ON THE MOVE

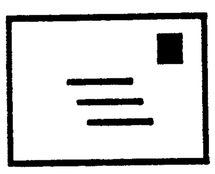
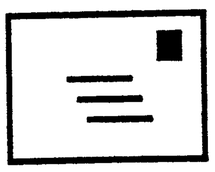
A couple of our French friends have recently moved.
Fabrice Frances (Monsieur EMULATOR) is now at: 63bis, chemin de Pahin, 31170 Tournefeuille, FRANCE.
Laurent Chiacchierini (and the CEO-MAG) are now at: 151, boulevard de Magenta, 75010 Paris, FRANCE.

At home, ex-OUM Editor Robert Cook is now to be found at: 115 Ardath Road, Kings Norton, Birmingham. BE8 9PG (Tel: 0121 624 9556).
Dennis Hughes is at: "Dormers", 275 Washway Road, Sale, Cheshire. (Tel: 0161 9735167)
MEMO FROM THE EDITOR TO THE EDITOR: IT IS ABOUT TIME WE PUBLISHED A NEW CONTACT LIST FOR THE READERS.

==========

NEW CONTACTS

Currently in contact are Michael O'Brien of Peterlee,Co.Durham, and Scott Belmonte of Warrington. We sincerely hope that they join our group.

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

DEAR DAVE,

hello and a good New Year, rather late it must be admitted. Congratulations on the century; with all others I am sure OUM will continue long after me. I have long blessed the chance that led me to O.U.M. Even though my ORICing has been curtailed by harsh weather effects; I can enjoy the monthly read. I well understand Frank's longing for warmer climes in Winter, foul weather is very undesirable when the personal pneumatic system malfunctions.

When loading WORDSPEED from my working disc, selecting '1' at the main menu loads 'WRUN' to enable WORDSPEED. Many times I have found that instead of loading 'WRUN', the screen displays an error message. My attempts to cure the effect (which did not always occur) by going to Basic and typing WRUN or LOAD"WRUN" were not successful, so in the end I wondered if by some strange chance the system was somehow seeing RUN at an inappropriate time, so I renamed the file to WRUM now 100% good. The original file still misbehaves sometimes if I try it. I wonder what comment Dr.Ray might make.

Using Dr.Ray's COMPILER, the manual suggests that when a file has been Compiled, then some housekeeping is desirable, namely delete all the transient files that were generated by the process. I have adopted a method to do this with the minimum of labour. On my working disc the fundemental files are protected; when the process is complete ,copy the Compiled files to a safe place then TYPE DESTROY [RETURN]. This deletes all the unprotected files and leaves the working disc ready for next time.

- ARTHUR CRAWFORD (Billericay)

DEAR ARTHUR,

so nice to hear from you again. Certainly don't agree that OUM will continue long after you.

Regarding WORDSPEED; I await Ray's comments, but I think it just may be a case of the update I sent you being slightly corrupted, either when I ran it off or subsequently in the post. It is not a problem that I've encountered. I have had more problems with the W.P that I am currently trying out for this page; namely, WORDPERFECT on my old PC-XT. A few things have happened that should not have. It's the first time I have used it, so I'll see how I cope!

Ta for the tip on the COMPILER program. All tips are gratefully recieved for myself and others to use.

- DAVE

DEAR DAVE, I've been a bit busy (fortunately) at work recently. Came across an article on early Computergames, which I enclose. Can you suggest a supplier of 3.5" disk drives (complete with a recommended DOS of course). Also would appreciate a price for the ATMOS Emulator on the 486 PC.

- DAVID CLIFFORD (Bantry, EIRE).

DEAR DAVID,

glad to hear that you're keeping busy.

Without buying one of those Computer Magazines I have no idea where to get my hands on a 3.5" drive. If I needed one I'd probably get a copy of MICRO MART. Readers may know of an outlet, but postage to EIRE might be prohibitive. There must be some outlets in your fair country. Though you can only format with SEDORIC to 720k, you can actually use a 1.44m drive, as the 720s are not so easy to get hold of these days. You can still use Double Density (720s) disks on the 1.44m drives.

The DOS does not come with the drive. You can purchase it from Jon Haworth for the princely sum of pounds. This includes SEDORIC on disk and an excellent manual.

The ATMOS Emulator is just 1.50 from Jon Haworth. It can be updated anytime by just returning the disk with an S.A.E.

- DAVE

DEAR DAVE,

I haven't been over active during the beautiful summer of last year,but,as with most others now that it's warmer to be indoors I am spending time with an ORIC.

It is interesting to read of the new lease of life that the INTERNET is giving to our (now old) friend the ORIC. My faith in persevering with its working has not been in vain. I myself do not have access to the INTERNET, but I'm sure that others that can will pass on any good programs or information that may come about.

Programs are something I miss being a finger tapper. I have spent many,many hours reading through and amending loads of programs just for the hell of it, due to the lack of something new to type. I have completed most of the Oric programming books now,and tidied the published games and demos to look better,run faster ,and run correct.

I think I read in the magazine at the end of last year that Jon Haworth acquired a set of old German Oric magazines with programs in; how about re-printing a program every month?

I have also been putting to English some programs from the French THE'ORIC magazine, and have completed ATMOS IN PARIS, POULE and PILOTTE, but have a bugged listing of SPIES KILLER. So if anyone can supply me with a complete listing I would appreciate it. I also have an incomplete listing of a game that I found by chance at the end of a tape from the lads that ran ORIC OWNER many years ago,called CARNE3, credited to Loriciels 3 by G.Espieche copyright 1983, if anyone has a listing of this to send.

- JOHN HURLEY (Yeovil)

DEAR JOHN,

I've cut your letter a little short,so that I have room to answer some points. We will continue the letter next time.

If Jon Haworth would like to send me a few of the German programs then I would only be to happy to publish them. Perhaps Jon may even Fax you a few (JON you can Fax John on 01935 78162). I hope other readers can help with your other problems. Do you have a full set of THE'ORIC magazines? If not then please let me know, as often they corrected programs in later issues. I think I have CARNE3 somewhere,and so I will check it out to see if mine is bugged. As it is a Loriciels program,then perhaps famed software collector Jean Boileau can help (How are you Jean ? - long time no hear!). Notice how we have progressed from John to Jon to Jean!

Regarding other listings - do you have all the Oric books published. If you send me a list of those you have,then I can see if I have any that you don't, and can lend you these. The other option is to convert programs from other machines. Alternately there is The Public Domain Program listings as supplied by Jon Haworth.

Keep up the good work. It's nice to hear that everyone gets a variety of enjoyment from the trusty old ORIC.

- DAVE

Here we are again looking at those old computers you used to drool over in the old computer mags like 'Your Computer'. The Oric was a great buy at the price, and such a good machine that we're still using it. Of the other machines there were many that were good but over-priced, but you can now pick them up dead cheap and often with loads of software so it's well worth looking out for another heap of plastic to stick beside your Oric. Let's get on with it then.

'F' - There arn't many computers that began with 'F'. There was the FUJITSU which was an MSX machine so we will meet that later. We looked at the Colour Genie under 'C', and there's nowt for 'H' and 'I' so on we go with the Jupiter Ace.

* **JUPITER ACE** There was a rumour in the 80s that there were two designers responsible for the Sinclair Spectrum. They both left and one went to design the Jupiter Ace and the other, the Oric. This is, of course, not true. What is true is that the Ace was designed by a chap who had worked for Sinclair, and the Ace looks very similar to the ZX81 and has a similar keyboard layout. Another rumour was that Sinclair sued because of design similarities, but I don't know how truthful that is.

The Jupiter Ace is famous for one feature which probably led to its downfall - the only resident programming language was Forth. Every other machine had BASIC even if it had to be loaded in like on the Einstein, or like the plug in cartridge versions of the Ataris. BASIC was all the rage but it was known to be slow and sometimes difficult to use. The Ace designer therefore chose to base the machine on Forth which was gaining in popularity. Oric may have decided to give Forth free with the 48K machine to attract people away from the Ace.

All in all, the Ace was OK for ambitious programmers but failed to interest most computer buyers interests and promptly disappeared.

SPEC. Z80 CPU. 8K ROM, 3K RAM (expandable to 51K) SCREENS: 32x24 text, 64x46 graphics. MONO ! One expansion port, one user port. No sound. No monitor port. 40 rubber keys & the usual cassette interface.

Right let's move straight on to 'M' and one of the machines I haven't got but would really like and have been after for some time - the Memotech.

* **MEMOTECH MTX 500/512** Memotech had earned themselves a good reputation as a manufacturer of ZX81 peripherals/add-ons and introduced these two machines to take a slice of the home computer market. The MTX 500 was a 32K machine while the MTX 512 had 64K RAM, although the 500 was expandable internally to a massive 512K. Here RAM is REAL RAM - whatever screen mode you are in you always have the full 32K or 64K free to use.

Both machines were extremely well built and came housed in a black aluminium case. The case is easily opened by unscrewing two Allen-key bolts to reveal a CPU free of ULA chip - this supposedly makes for easier repair. Also noticeable is the excellent keyboard with separate numeric keypad and separate function keys.

The machine comes very close to MSX standard and the main difference is the Texas Instruments 76489 sound chip instead of the good old AY 38910. It has the usual 16 colours and up to 32 sprites graphics of MSX machines. The MTX machines also have 127 pre-defined characters and up to 127 user-definable characters.

Most machines have BASIC included. The MTX has BASIC, an assembler and a language called NODDY which is aimed at first time users and has only 11 keywords. The BASIC is well thought out and has those commands missed out on the original Oric - like AUTO, but no renumber facility. There is also no REPEAT/UNTIL or WHILE/WEND loops but the syntax is checked as you enter it and keywords can be entered in a shortened form.

SPEC. Z80 CPU 32K(MTX500) 64K(MTX512) RAM, 24K ROM SCREENS: 40 X 24 text or 32 X 24 with graphics. 256 x 192 graphics. 16 colours with upto 32 sprites. PORTS: 2x RS232. 2X joysticks. Composite video, TV, cassette. Parallel port (conforms to Centronics) 79 keys with 8 function keys. 3 channel sound.

Disk drives and analogue to digital/digital to analogue add-ons were available and the machine could run CP/M. Also available, like for several of the Z80 machines was the Speculator - a plug-in Spectrum emulator.

All in all a very nice machine which deserved a better market than it got, but was hampered by lack of software though all the usual board games, arcade shoot em ups and business software plus some educational programs were available.

M u s o

A L T E R N A T E M I C R O S

USER GROUPS

STench is a group for owners of ATARI STs and 8-bits (i.e. 800/400/XE/XL) - Telephone Simon on 0161 437 7474.

ICPUG was for COMMODORE enthusiasts. Nothing published recently, but an old address was: Jack Cohen (ICPUG), 30 Brancaster Rd, Newbury Park, Ilford. IG2 7EP. Telephone was 01 346 0050 and 01 579 1229. The 01 code will now be 0171 or 0181.

For ATARI 8-bit owners, one worth trying is the ATARI CORRESPONDENCE CLUB based at : 160 Newland Rd, Withywood, Bristol. BS13 9DX (Tel: 01272 647196).

Many thanks to Steve Marshall for all the above information.

==========

ACORN

Rumour has it that ACORN is going through a bad patch, subsequently bargains can be had. Peter Bragg recently snapped up the top of the old range ARCHIMEDES A500 for one-third of list price. This will keep his A310 company. Peter informs me that the A500 has hard disk and "RISCOS 3" (similar to WINDOWS 95, but has been out for about 7 years). It is better designed than WINDOWS,especially with respect to memory use. As a result it has a WP,Music,two Graphics packages etc., and all built into ROM, and thus little chance of being bombed out by a virus. It can read,write and format IBM and ATARI disks.

Peter says: "Eat your heart out, PC users!", and hopes to join you on the INTERNET sometime.

==========

FROM LLAMAS to SHEEP

David Clifford from County Cork sent me in a clipping from a computer magazine. Apparently the BRITISH FILM INSTITUTE has announced that it's now collecting computer games, from the earliest examples to the latest interactive video games.

The BFI stated that they are determined not to see early computer games disappear in the same manner as many of their early films. Assistant Director , Jane Clarke, also appears to believe that a study of these games will enable reasearchers in years to come to gain insight into the lifestyles and interests of young people. PC games are easy to get , but she is missing games from the following: LYNX, DRAGON 32, BBC, TEXAS TI 994A, SHARP M2700, VIC 20, ATARI VCS, MATTEL INTELLIVISION, COLECO VISION and JUPITER ACE. I know for a fact that ORIC gamester Henry Marke was a great fan of INTELLIVISION.

One can only assume that the BFI have ALL the ORIC games, or don't they know of its existence! As the magazine states:" It's a little hard to see what insights into yesterday's youth will be provided by the collected works of Jeff Minter,for example,who wrote the best games for the VIC-20; most of which featured mutant Llamas in space. Apparently Jeff has now progressed to Sheep - there must be some Welsh in him!

Machine Code for the Oric Atmos (Part 52)

Peter N. Bragg

The Story so far

Recent issues have looked fairly intensively at the subject of Zero Page instructions and in the last article we looked at another method of fetching and storing large quantities of data. Essentially, this technique consisted of writing to an active instruction, in a routine and modifying it's operation while the routine is actually running.

We have used this technique before, very early in the series and I should mention again, that this is not a particularly orthodox method of operation and a large number of programmers, would consider such operations "illegal". The expression "illegal" is silly and much mis-used by the computer trade. The computer is a machine, Any technique that helps to make programming easier is worth using, where needed. We will be making use of this type of technique later on, but in the meantime, lets have another look at the two instructions that we use to modify addresses. We have already used "Add with Carry" (ADC) for this purpose, but not "Subtract with Carry" as yet.

The Easy Number !

The great thing about using a computer, is that you don't need to play around doing arithmetic, let the computer take care of all that. The two main arithetic instructions "Add with Carry" and "Subtract with Carry" operate using the Accumulator and are therefore restricted to a maximum value of one byte. In the past we have used "Add with Carry", so we can start by refreshing our memory about that one.

For example, if you want to move about on the Text screen display, you make the Oric add a number to the screen address you wish to start from. If you add "1", or more correctly 01 in hex, to that address, you will move one character space to the right on the screen. Start with an address that is the beginning of a line and continue to add 01 to the address and you will eventually reach the right hand end of the line and then move down to the first address on the the next line and so on. Continue to add 01 and you will move across and eventually down the screen, line by line.

If you use the hex value 28h instead of the value 01h, you will move vertically down the Text screen, because the Oric has forty character spaces on each line and the hex code for 40 decimal is 28h, so each addition of 28h, will take you down one line on the screen.

(The reason for using the screen area for these examples, is that that it is much easier to see the effect of any demonstration in that area of RAM, but in fact the result will be the same anywhere in the computer memory.)

So we can move down the screen from the top to the bottom and we have used the addition instruction in past demos to provide the addresses which have enabled us to fill the screen from top to bottom with all sorts of rubbish.

OK, so we can go one way, that is down the screen display but we haven't done it the other way, from the bottom of the Oric's screen display, back up to the top. So how do you do that ? Simple, start from the bottom address and subtract the value from that screen address, instead of adding it. That will move the screen address to the left, along the line and back up the screen. This is where we need to change from an addition instruction to a subtraction instruction. The two instructions are very similar, but there is a difference in the way that they make use of the Carry.

You will probably remember that when using the addition instruction ADC, you need to clear the Carry Flag (to "0") first. This was done by instruction CLC, which stands for CLear Carry. This is necessary because the Carry Flag is included in the addition operation and if it happens to be already set (to "1") by some previous unconnected operation, it will obviously introduce an error into the addition result.

The reason why the Carry is included in the instruction operation is quite simple. As noted above, the addition and subtraction operations are carried out, using the Accumulator, which as you may recall is limited to a maximum value of one byte. That is a value in the range 0 to 255 in decimal or up to a maximum of FF in hexadecimal.

Obviously, a value that small is a bit limited, particularly if you consider that even addresses are two bytes each. This is where the Carry comes in.

Back to Skule ?
---------- Usually, when we add a couple of numbers together, we start with the lowest two digits and add those together. If the result is larger than one digit (ie. 10 or above), we write the lowest digit into the result and make a note to "carry" the overflow digit. Now when we add the next two digits together, we also include the "carry" in the addition and we repeat this operation until we have added all the digits in both numbers and if there is still a "carry" left over, we add that to "0" and write it in as the highest digit in the result.

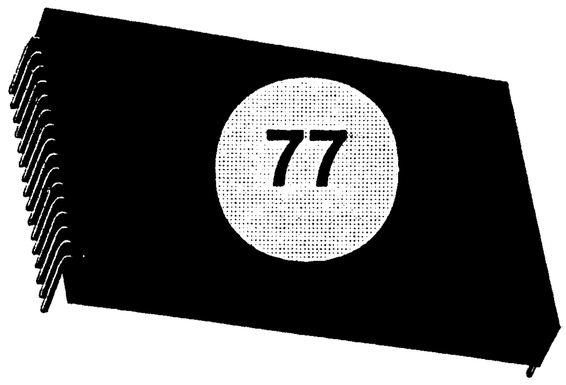
Subtraction is very similar, the only difference is that we "borrow" from the next digit up if we need to subtract a high value digit from a low value digit. In effect, the "borrow" is a "carry" of minus one and if you add that to the next digit up, you will reduce it's value by one.

A Quick Byte
---------- OK, so thats the way we did it in school and that is also the way the Oric does it. Instead of digits the Oric's 6502 chip can add or subtract single bytes, so if you have a two byte address, you deal with the lowest two bytes first and then the next two higher bytes. The state of the Carry Flag is always added, so it must be correct state before the first two bytes are added or subtracted. However, once that has been done, it can be left alone for the rest of the calculation and you can go on to deal with any pair of values, providing you do it byte by byte. After the first pair of bytes have been dealt with, the Carry operation is completely automatic. So there really is no limit to the size of the two values that you can add or subtract.

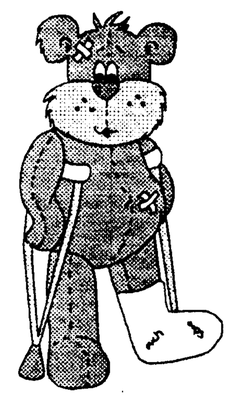
The Carry Flag does have other uses apart from arithmetic. It is unlikely that you will know what state it is in, when you need it, so you might as well clear or set it to the condition you require before you make use of it.

When you use the "Add with Carry" instructions (ADC), you should clear the Carry Flag first, using the "CLear Carry" (CLC code 18h) instruction. Likewise the "Subtract with Carry" instructions (SBC) need to be started off, by setting the Carry Flag (to "1") using "SEt Carry" (SEC code 38h).

A routine to update addresses in the way described above, is a lot simpler than it sounds and can be very useful for moving things about. We will have a look at that next time.....



RAMBLING IN THE ROM



Sedoric v3.0

The big news this month is the arrival of a new version of Sedoric, one that is fully compatible with both v1.0x and v2.x, so that all machine code programs run without trouble. The new version is the result of continuing co-operation between Dr. Ray and André Cheramy, the latter having re-worked the code.

The system vector table (used by some machine code programs) has been restored to its original location (#FF43 to #FFF9). This has meant moving some Sedoric commands to a new Bank 7, so that a master disc is prompted for when using such commands as EXT, STATUS, PROT, UNPROT and SYSTEM (all normally used from direct mode).

Those of you who have the latest English manual will know the bugs associated with typing commands in lower case. None of us ever do it. So the decision has been taken to remove that feature to make the space available for other improvements. All Dr. Ray's improvements in v2 are retained.

So what's new? The KEYSAVE command has been extended to include the table of pre-defined commands (see again the latest English manual). You can now save not only KEYDEF and user-defined command tables, but also predefined commands. The KEYDEF table has been completely redesigned. You can now enter most Sedoric commands using a FUNCT key combination, and most BASIC commands with a FUNCT + SHIFT key combination. All ASCII characters (including CHR$(96) and CHR$(60) plus the 'unnumbered' Sedoric commands are now available from the keyboard.

The maximum disc formatting capacity has been increased to 101 tracks - useful only if you are working in Euphoric, the Oric emulator.

There are two brand new commands, and space for more to be added. They are:
VIEWHIRES - to view all hires screens on a disc
CHKSUM - an extended DIR command which lists the start, end and execution addresses of the files, their file type and a checksum of all bytes in the file. The latter is useful to see whether two files are identical or not.

The following commands have been amended or added to by Dr. Ray or André: >, BACKUP, CHKSUM, DKEY, DNAME, DNUM, DSYS, DTRACK, EXT, INIST, INIT, KEYSAVE, LINPUT, LOVE (Get character from keyboard!), PROT, STATUS, SYSTEM, TRACK, UNPROT, VIEWHIRES - a total of 20 commands!

The new Sedoric is, as before, public domain software. There will be an update to the English manual shortly; meanwhile Sedoric v3.0 is available from me for £1.50 on 3½" disk, £2.50 on 3" disc. If you send your own disk/disc and an S.A.E., there is no charge.

Club Europe Oric - more good news!

We now have a number of members of CEO via the Internet, and I know that more and more OUM members have a PC. It has therefore been decided to offer the CEO magazine with an additional disk subscription option - in Euphoric format. The quarterly disk will as before contain an interesting selection of software (identical to that on the Oric format disc), together with the latest version of Euhporic. As a bonus the English version of the Euphoric disk will include not only the Oric Atmos software, but also Telestrat software culled from previous Club Teletrat disks - your opportunity to run a Telestrat and its software without the need to purchase a machine!

Subscription rates are identical - £20 a year for the monthly magazine and 4 quarterly disks. Existing subscriptions can be transferred or upgraded from magazine subscription at any time. If you would like the Euphoric disk in addition to the Oric disk, the additional cost is £8 per year. So the subscription rates are now:

CEO magazine only	£11
Magazine and four Oric 3½" disks	£20
Magazine and two Oric 3" discs (twice a year, same content as 4 quarterly disks)	£22
Magazine and four Euphoric PC 3½" disks	£20
Magazine and eight Oric/Euphoric 3½"disks	£28

In addition, all the CEO software discs and previous issues of the quarterly discs (including the discs from Club Disc'Oric, CEO's predecessor) are available to members in either Oric or Euphoric format. The range of software contained on past quarterly discs is enormous, and with Dave's permission the full list is set out below. They cost £3.00 each in either Oric or Euphoric format - but are available to CEO members only. The early (JEO) ones even include the English on-disc magazine, a real piece of Oric history!

If you would like to see a copy of the latest CEO magazine, just drop me a line. Finally, for any disc/disk subscription taken out before the end of February, 1996, you may deduct £2.00 from the above prices. Remember that much of the best Oric software was French - I hope some of you are tempted! Here is the list of disc backnumbers:

CLUB DISC'ORIC - J.E.O. BACK NUMBERS

J.E.O. No.1	Disc magazine Tendre Poulet Cabbage Patch Champion Reversi Masque d'Or 3D Graph	J.E.O. No.2	Disc magazine Contact List Tableur Graphique Yam Crypt Show Delta 4
J.E.O. No.3	Disc magazine Music Pharaon FL-Compte Cock'in Bataille Navale	J.E.O. No.4	Disc magazine Easytext Psychiatric Music Contact List Singerie

CLUB EUROPE ORIC - J.E.O. & S.W.D. BACK NUMBERS

J.E.O. No.1 Spring 1990	Club magazine Contact List Music Zamcopter Septieme Dan Triolympic Desktop	J.E.O. No.2 Summer 1990	Club magazine Roland Garros Europe Music Cheops Hyperball Micr'Oric programs	SWD No.3 Winter 1990	Cobra Pinball Poker Driver Notre Dame Micr'Oric programs Jeux en Basic programs Character sets
SWD No.7 Winter 1991	Music Frelon Rabbit Terminus Hires screens Contact List	SWD No.8 Spring 1992	The Forgotten Isle Music Pengoric Hires screen Cocoric Odyssey 2000 Cataldisc	SWD No.9 Summer 1992	View to a Kill 3 French Draughts Music/Hires Lode Runner Orictools Help L'Heritier Imago
SWD No.10 Autumn 1992	Millionaire Contact List Montsegur Mornifles File Bezier PC Transfer	SWD No.11 Winter 1992	Soft File Hires Hardcopy Formule 1 Around the World in 80 Days Hollywood	SWDNo.12 Spring 1993	Damsel Extra Contact List Hires Screens Cassette Inlays Music Tic Tac Toe Photofit
SWD No.13 Summer 1993	Secret de Kaipur	SWD No.14 Autumn 1993	Lorigraph L'Affaire en Or Trident de Neptune	SWD No.15 Winter 1993	Editeur Musical Macadam Bumper Spirograph Music More Music
SWD No.16 Spring 1994	Secret du Tombeau Bricky 3D Fongus Alpha directory Music Hires screens	SWD No.17 Summer 1994	Esquive Super Jeep Musirama Super Dallas Music Hires screens	SWD No.18 Autumn 1994	Memoric Doggy Football Manager Music (1) Music (2) Rogue's Gallery
SWD No.19 Winter 1994	Jump Fox Video Flipper A.T.M. Disc Explorer Music Copform PCX Conver BIT120 Hires screens	SWD No.20 Spring 1995	Styx TRON Go-Bang Lottery Selector Windows for Oric Music Hires screenst	SWD No.21 Summer 1995	Fireflash La tour Fantastique The Game of L Circus Hires screens
SWD No.22 Autumn 1995	Slime Sokobac Linker Hires screen	SWD No.23 Winter 1995	L'Aigle D'Or Planetary Explorer Font Editor Music Hires screens		

Typing that lot out brought back some memories! And any form of subscription gives you access to them. Enough temptation, just room for a little Rambling to send you off in a doze...

<u>Rambling on in the maths...</u>

AACC1 --> ACC2

```
DEDD JSR $DEEC      DEE5 $DEF4          round off ACC1
```

ACC1 --> ACC2

```
DEE0 LDX #06        DEE8 LDX #06        decrement 6 bytes
DEE2 LDA CF, X      DEEA LDA CF, X      take ACC1
DEE4 STA D7, X      DEEC STA D7, X      in ACC2
DEE6 DEX            DEEE DEX
DEE7 BNE DEE2       DEEF BNE DEEA       up to the exponent...
DEE9 STX DF         DEF1 STX DF         extension=0
DEEB RTS            DEF3 RTS
```

AACC1 --> ACC1 (ACCORDING TO EXTENSION)

Principal:

The mantissa is incremented or not according to bit 7 of the extension. It is like rounding a decimal number in decimal notation; add 0.5 and take the integer.

```
DEEC LDA D0         DEF4 LDA D0         if nul, also the result
DEEE BEQ DEEB       DEF6 BEQ DEF3
DEF0 ASL DF         DEF8 ASL DF         take extension bit
DEF2 BCC DEEB       DEFA BCC DEF3       if 0, nothing to do: exit
DEF4 JSR $DBD1      DEFC JSR $DC2A      otherwise increment the mantissa
DEF7 BNE DEEB       DEFF BNE DEF3       if no carry forward, exit
DEF9 JMP $DB68      DF01 JMP $DBF3      otherwise increment exponent
```

YA --> ACC1 (UNSIGNED)

```
......... ................  DF04 JSR $D2A9    YA --> ACC1 (unsigned)
......... ................  DF07 LSR D4
......... ................  DF09 BCS DF0F
```

'FALSE' (FUNCTION)

```
DEFC LDA #00        DF0B LDA #00        indicate result=0
DEFE BEQ DF15       DF0D BEQ DF24       A -->ACC1 (signed)
```

'TRUE' (FUNCTION)

```
DF00 LDA #FF        DF0F LDA #FF        indicate result = -1
DF02 BMI DF15       DF11 BMI DF24       A --> ACC1 (signed)
```

A=SGN (ACC1)

Entry: the number is in ACC1 (sign in #D5)

Exit: A=#00, Z=1, C=?, N=0 if ACC1=0
A=#FF, Z=0, C=1, N=1 if ACC1<0
A=#01, Z=0, C=0, N=0 if ACC1>0

```
DF04 LDA D0         DF13 LDA D0         take exponent
DF06 BEQ DF11       DF15 BEQ DF20       if nul, number=0 and sign=0
DF08 LDA D5         DF17 LDA D5         take sign
```

DF0A	ROL A	DF19	ROL A	and the sign in C now
DF0B	LDA #FF	DF1A	LDA #FF	prepare for negative sign
DF0D	BCS DF11	DF1C	BCS DF20	and exit if yes
DF0F	LDA #01	DF1E	LDA #01	indicate plus sign
DF11	RTS	DF20	RTS	

SGN (FUNCTION)

DF12	JSR $DF04	DF21	JSR $DF13	A=sign ACC1

A --> ACC1 (SIGNED)

DF15	STA D1	DF24	STA D1	save the number
DF17	LDA #00	DF26	LDA #00	nullify the low byte
DF19	STA D2	DF28	STA D2	
DF1B	LDX #88	DF2A	LDX #88	exponent base 2=7
DF1D	LDA D1	DF2C	LDA D1	and take the sign
DF1F	EOR #FF	DF2E	EOR #FF	invert the sign
DF21	ROL A	DF30	ROL A	in C

#D2-#D1 --> ACC1

Entry: #D2-#D1 contains the number; C=0 if it is negative, C=1 if positive; X contains the desired exponent.

Exit: floating point number in ACC1

Principle:

If C=0, the number is going to be complemented, that is transformed into a negative number.

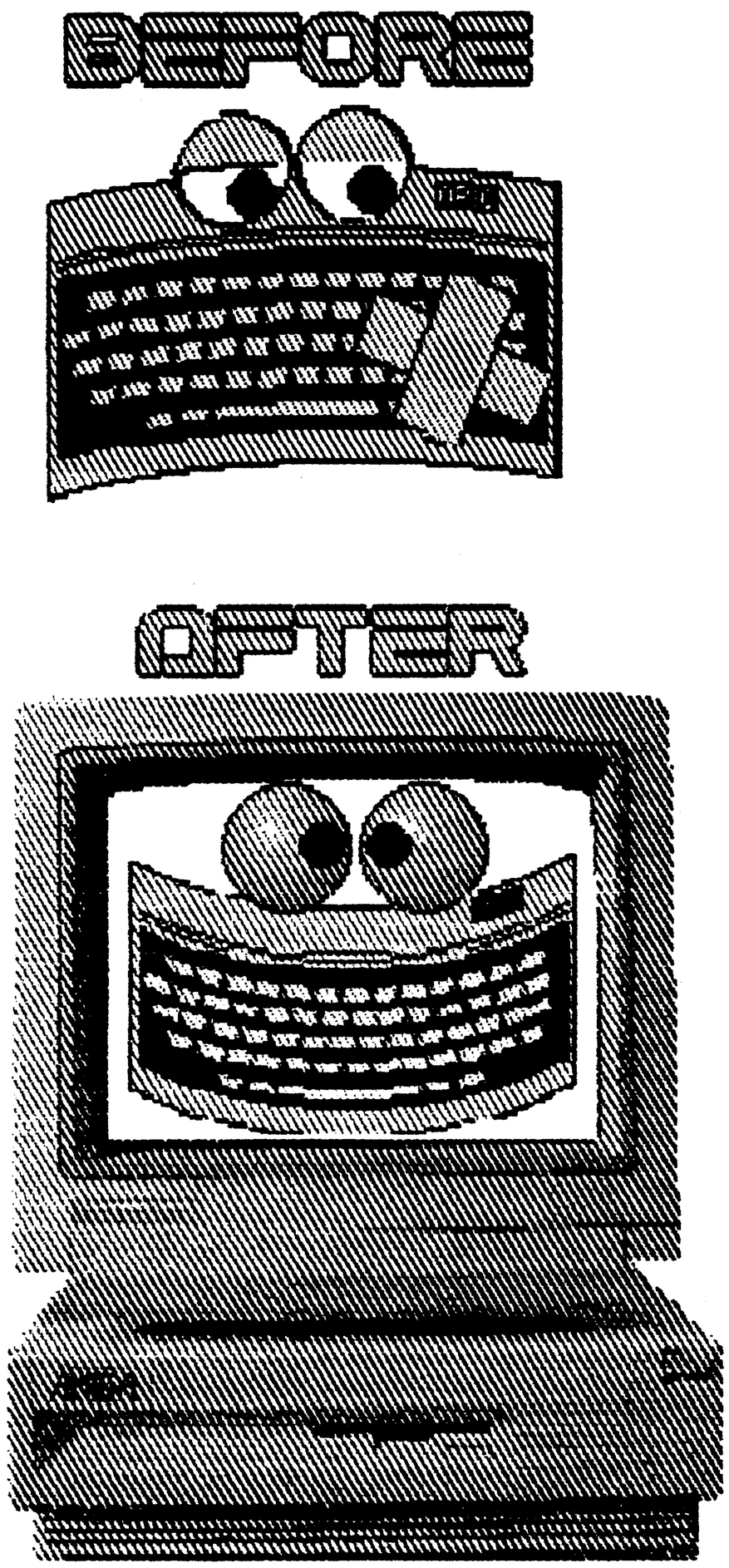
DF22	LDA #00	DF31	LDA #00	and nullify the remainder of the mantissa
DF24	STA D4	DF33	STA D4	byte 4
DF26	STA D3	DF35	STA D3	byte 3
DF28	STX D0	DF37	STX D0	place exponent
DF2A	STA DF	DF39	STA DF	product of signs nul
DF2C	STA D5	DF3B	STA D5	signed nul for the moment as well
DF2E	JMP $DB02	DF3D	JMP $DB8D	adjust the mantissa according to the exponent

YA --> ACC1 (UNSIGNED)

.....	.....	DF40	STA D1	save high byte
.....	.....	DF42	STY D2	then low byte
.....	.....	DF44	LDX #90	exponent desired=+15
.....	.....	DF46	SEC	indicate positive
.....	.....	DF47	BCS DF31	and end

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

Jon Haworth
3 Madingley Road
Cambridge
CB3 0EE



AMORIC V1.3

In the previous few issues of OUM was mention of the Amoric Oric emulator for the Amiga. Well thanks to Dave Dick's & Jon Haworth's help, I've received a copy, and been able to give it a try. The emulator itself comes as two main pieces of software, one for the 68000 based A500/600, and a version for 68020+ Amigas.

According to the instructions (which are viewed using Workbench's Multiview software), the 68000 version is very slow (I have yet to try this software out), but as most Amiga users now have an A1200, speed should be very little of a problem. I tried the emulator with a 68030 40MHz Amiga, and the running speed is very accurate to the original machine. There is some software supplied with the emulator, when running, could fool anyone that you are using the real thing. Various Amiga screen modes are supported, though why anyone would wan't

to play an Oric game in 1280x512 interlace beats me. Display in the standard 320x256 is fine. Sound is supported, but not fully implemented, as the noise channel is not yet included. The emulator, on start-up, offers a choice of ROMs enabling emulation of the Oric 1 and the Amtos to provide maximum compatibility. However, I have found a few bugs with the software - although it may be just limited to my system. If you do not select a screen mode directly, and select a program on the tape loading section on start-up, the program has a tendency to crash or bring up an error message.. These small hitches aside, the emulator is reliable and a pleasure to use. When loading software, Amoric loads from disk in a way which is similar to the real Oric, and the software is not saved in a Snapshot of RAM, which is often the case with other emulation software like the Spectrum emulator. This makes the Oric software more compact, & capable of multi-load software. I have yet to master writing and saving of my own software, along with the loading of my software cassettes, which is done via an 8-bit sampler from tape. The software, by the way, is giftware, though the emulator's writer, Jean-Francois Fabre would appreciate any software you have written, or a postcard etc.

When I received the emulator from Jon, I received some additional Oric games. I do not know if these we're ported accross for the PC's Euphoric emulator or were specifically for the Amoric, but they worked fine. These include Defence Force, Rat Splat, Ultima Zone etc. Whilst reading the document file, there is news of an Oric emulator for the ATARI ST. I believe there are some Oric users with STs, so this may be of interest.

Anyone who would like a copy of this emulator should get in contact with me. I will gladly supply AMORIC with the additional software for £1.50, or alternatively, you can send me a blank disk and a SAE. Please write to:

Simon, 6 School Lane, Butterwick, Boston, Lincs. PE22 0HU

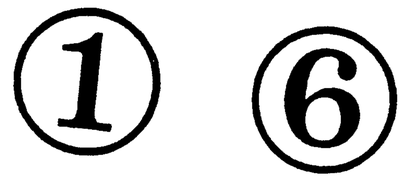
Contact the author J.F.Fabre at:

J19 Rue Emile Duploy, 345000 BEZIERS FRANCE

or email:

fabre@supaero.fr

BITS 'n' BOBS



FOR SALE

A couple of months ago we mentioned that Simon Ullyatt had put in an offer for some Computer gear. He now has the equipment and the following is now for sale:

2 off BBC MASTER 128k computers, Good working order,but no software,manuals or T.V. lead - 25 pounds plus postage at cost. Simon is wiling to swap one of these for a second-hand Atmos.
1 off BBC MASTER - as above. Powers up O.K, but comes up with the message: "This is not a language" - 10 pounds plus postage.
4 off boxes of ten new '3M' 5.25" disks - 2.50 plus post per box.
2 off boxes of ten Memorex 5.25" disks - 2 pounds plus post per box.
1 off single 5.25" drive for BBC - 6 pounds plus post.
1 off double 5.25" drive for BBC - 9 pounds plus post.
COMMODORE 1541 drive for VIC or C64 - 28 pounds plus post.
ATARI JAGUAR console, plus 2 games,boxed and under guarantee - 85 pounds plus post.

Simon is at: 6 School Lane, Butterwick, Boston, Lincs. PE22 0HU.
TEL: 01205 760577

==========

BRISTOW's LAST STAND

Before he departs for his lengthy cruise, Oric software author, Jonathan Bristow has many goodies and not so goodies to dispose of. We start with items 1 to 24.
1) REALISTIC tape recorder, 2) ORIC ATMOS (internal speaker removed - replaced with stereo board! to pins 4 (left) & 5 (right) on cassette socket), 3) 2 working ATMOSs, 4) 2 ATMOSs in parts, 5) a MICRODISC system (faulty), 6) ORIC talkback board (wire missing), 7) IJK JOYSTICK interface (in bits), 8) Working (WOW!) PASE joystick interface, 9) ORIC V23 Modem, 10) ORIC-1 in working condition, 11) Sinclair QL (unexpanded) + 35 micro cartridges containing various software, 12) Acorn Elektron (bit tatty),works fine + manual + 2 books + 26 games, 13) Broken Spectrum + 3 for parts, 14) Old RX80 - needs bits and pieces,but still works, 15) ZX Spectrum + (rare version), 16) CASIO Midi Keyboard (MT 240), 17) RAM TURBO,GAMECART/2 joy interface Speccy, 18) CHEETAH Joy Interface, Speccy, 19) CPC 464 manual (strangely he never owned the computer), 20) Loads of Speccy books, 21) Loads of ORIC books, 22) 2 Speccy +3 joysticks (plug with link to 2nd plug), 23) Loads of Speccy mags. & magazine tapes (approx.50), 24) A strange C128D - 110v version computer - not working.
You can have items 1 to 7 for 50 pounds or contact Jon for individual prices - this is also the case for other items.
Other items also for sale (write to Jonathan for list) - C64 tapes,discs and books. Speccy and Elektron software and all manner of other things.
Jonathan Bristow has moved, and is now to be found at :
SOMEWHERE IN NORFOLK!!!!!!!
As we go to press I am not sure where Jonathan is located. He has moved out of his old flat. He was staying with a friend,and I have left a message for him to contact me. Meanwhile - if you are interested in any of the above,then please contact me and I will hopefully let you know where he is or alternately will pass on any correspondence.

You will have to be quick as Jonathan now plans to set off on his journey on May 1st.

BRIAN KIDD , 32 KIER HARDIE CRESCENT , NEWPORT , GWENT . NP9 9DQ

I MUST ADMIT TO BEING VERY DISAPPOINTED THAT ONLY TWO PEOPLE CLAIMED THEIR PRIZES FROM THE RAFFLE - WELL DONE TO STAN HOLDEN , WHO WON A TRAVEL ALARM CLOCK , AND TO JOHN HUGHES WHO TOOK AWAY A WEIRD & FULL PENCIL CASE - ESPECIALLY WHEN TAKING INTO CONSIDERATION THAT THE PRIZES WERE FREE , INCLUDING POSTAGE AND PACKING - THE ONLY COST TO THE WINNERS BEING TO HAVE TO SEND ME PROOF OF THEIR WIN.
OK THE PRIZES WERE NOTHING EXCITING , BUT SINCE NOBODY TOLD ME WHAT THEY WANTED TO SEE AS PRIZES , I JUST PURCHASED THE ODD ITEM - AT LEAST I'M DOING SOMETHING FOR OUR CLUB.
NOW I AM LEFT WITH THE REMAINING PRIZES , AND HAVE TO DISPOSE OF THEM ONE WAY OR ANOTHER , SO I PROPOSE TO :
1) ALLOW TWO MORE WEEKS FROM THIS PUBLICATION , FOR PEOPLE TO CLAIM THEIR PRIZE/S
2) ACCEPT OTHER CLAIMS , ie SEND YOUR NAME , ADDRESS AND ANY RAFFLE TICKET , AND I WILL DRAW RANDOM CLAIMS TO RECEIVE A RANDOM PRIZE.
3) ANY REMAINING PRIZES WILL BE MADE AVAILABLE TO DAVE FOR THE NEXT MEET GRAND RAFFLE.

NOW ONTO USUAL BUSINESS , IN OTHER WORDS THE POSERS FOR THE MONTH , SO HEAR GOES.....
1) IT WAS TUESDAY NIGHT , AND APPEARING ON THE 'ORIC CHANNEL' REGULAR GENERAL KNOWLEDGE QUIZ , WERE : TOM ,DICK AND HARRY.
EACH CONTESTANT WAS ASKED TWENTY QUESTIONS , AND AT THE END OF THE PROGRAMME THE SCOREBOARD SHOWED THE AMOUNT THAT EACH CONTESTANT HAD WON...

TOM....#466.00 , DICK....#481.00 , HARRY....#202.00
AT THE BEGINNING OF THE PROGRAMME THEY WERE ALL GIVEN A BALANCE OF #100.00. THEREAFTER EVERY EASY QUESTION THEY ANSWERED CORRECTLY WON THEM #24.00 , AND EVERY DIFFICULT QUESTION WON #30.00 . HOWEVER FOR EVERY QUESTION ANSWERED INCORRECTLY #15.00 WAS DEDUCTED.
FROM THE FINAL SCORES CAN YOU WORK OUT HOW MANY OF EACH QUESTION WERE ANSWERED CORRECTLY AND HOW MANY WRONG ANSWERS EACH COMPETITOR GAVE ?

(NOTE : FOR # READ POUND SIGN)

2) AT THE END OF THE SHOW , TOM , DICK AND HARRY , ALL TOOK PART IN A USELESS 'ORIC CHANNEL' SURVEY , WHERE GROUPS OF THREE PEOPLE WERE ASKED JUST ONE QUESTION EACH , IN ORDER . THE QUESTIONS WENT AS FOLLOWS :
TOM HAD TO THINK OF A DIGIT (NOT ZERO) AND WRITE IT DOWN THREE TIMES ON A PIECE A PAPER.
DICK HAD TO THINK OF ANY DIFFERENT DIGIT TO TOM'S , THEN WRITE HIS NUMBER DOWN THREE TIMES IMMEDIATELY AFTER TOMS.
FINALLY HARRY WAS ASKED TO CHOOSE A THIRD DIGIT , DIFFERENT FROM THE OTHER TWO , AND AGAIN WRITE IT DOWN THREE TIMES IMMEDIATELYY AFTER THE OTHER TWO.
THE RESULT OF THIS HAVING BEEN TO PRODUCE ONE NINE DIGIT NUMBER.
FOR INSTANCE IF THEY THOUGHT OF ONE , TWO AND THREE RESPECTIVELY , THE FINAL NUMBER WOULD HAVE BEEN WRITTEN AS 111222333.
HOWEVER , THE NUMBER FORMED PROVED TO BE ONE LESS THAN A PERFECT SQUARE . CAN YOU WORK OUT THE NUMBERS CHOSEN BY TOM , DICK AND HARRY ?
OH BY THE WAY , THE PURPOSE AND RESULTS OF THE SURVEY WERE NEVER REVEALED - TYPICAL OF THE 'ORIC CHANNEL' !

FINALLY THE RESULTS TO THE POSERS SET IN LAST MONTHS ISSUE .....

1) BRIEFCASE POSER :

THE COMBINATION NUMBER WAS '0495' WHICH WHEN * 12 = '5940'

2) GRANDADS AGE :

GRANDAD IS 69 YEARS OLD (6+9=15 : 69+15=84 : 8+4=12 : 12+84=96)
DON'T FORGET TO WRITE - SEE YOU ALL NEXT MONTH !!!