ØRIC

Europe's longest running
Oric Magazine

Number 58

June 1992

MUSED

by
Jonathan
Bristow

NEW software from O.U.M.

    HELLO AND WELCOME TO THE SUMMER. WELL AT LEAST THAT IT IS WHAT IS   BEEN
HERE IN ENGLAND FOR THE FINAL 2 WEEKS OF MAY. I'VE BEEN BUSY   SUNNING   AND
RUNNING,AND MUST ADMIT TO FINDING IT TO DIFFICULT TO SIT AT THE   ORIC   FOR
ANY LENGTH OF TIME.
    UNFORTUNATELY ALLAN's EXCELLENT 'ORIC ENTUSIASTS' ARTICLES WERE   NOT
AVAILABLE ON TIME AND THERFORE I HAVE PUT   TOGETHER A   MAGAZINE   WHICH   I
HOPE RETAINS A HIGH STANDARD. IF NOTHING   ELSE,THERE   IS   VARIETY   AND   NO
LACK OF WIT. FOR A 'DEAD' MACHINE,THERE IS PLENTY STILL HAPPENING.
    HOW MANY PAGES IN THIS ISSUE? WELL YOUR GUESS IS AS   GOOD   AS   MINE.   THE
INDEX SHOWS WHAT IS IN THE FIRST 17 AND THERE THEN FOLLOWS A LIST OF   WHAT
I HOPE TO CRAM IN AND GET POSTED OUT BY JUNE 3rd.   AS IT IS NOW MAY   30th;
I HAVE SOME SERIOUS KEY TAPPING TO DO. SO WITHOUT   FURTHER   AVAIL,HERE   WE
GO.........

    PAGES 18 onwards ARE HOPED TO INCLUDE THE FOLLOWING:- REVIEW   OF   CEOSOFT
5, THE ORIC CONTACT LIST, A to Z OF SOFTWARE HOUSES, ORIC MEET   UPDATE,   A
COUPLE OF PROBLEMS SOLVED AND........
==

THE PAUL JOHNSON INTERVIEW
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    I HAD HOPED TO PUBLISH   MY   QUESTIONS/ANSWERS   WITH   THE   AFOREMENTIONED.
UNFORTUNATELY I AM STILL AWAITING A REPLY.
==

    ENVELOPE STICKERS
    --------- ---------

    DID YOU NOTICE THE OUM LOGO ON THE ENVELOPE WHICH   CONTAINS   THIS   ISSUE.
VERY PROFESSIONAL. ALL THE WORK OF JON H. JON   TELLS   ME   THAT   OTHE   ORIC
DATABASE HAS BEEN TRANSFERRED FROM "THE RATHER PEDESTRIAN 'LOCOSCRIPT'   TO
THE WHIZZO 'WORDPERFECT' ".
==

    JULY O.U.M
    ---- -----

    ARTICLES/ITEMS FOR THE JULY ISSUE MUST REACH ME BY JUNE 17th AT THE   VERY
LATEST.
    THE OUM OFFICE WILL BE   CLOSED   FROM   JUNE   26th   UNTIL   JULY   13th.   NO
TELEPHONE CALLS DURING THIS PERIOD. ALL MAIL SHOULD BE TIMED TO   REACH   ME
ON THE 13th JULY OR LATER.
==
    AUGUST O.U.M or lack of it
    ------ -----

    ORIC USER MONTHLY WILL NOT BE PUBLISHED IN AUGUST. TO   MAKE   UP   FOR   IT,
THERE WILL BE A DOUBLE ISSUE DESPATCHED ABOUT SEPTEMBER 1st. CLOSING   DATE
FOR ARTICLES IS   AUGUST 20th. KEEP SENDING THOSE ARTICLES IN AS   IT   WILL
TAKE A WHILE TO SORT OUT A 40+ PAGE ISSUE.
==

NEW SOFTWARE FROM NORWAY

   Staaale Eikbraaten is finishing off his new game for the Oric,which has
cars as the main theme.
   He is also working with Arnt Isaksen on a Boxing game. Staale is to do
the programming,whilst Arnt is using 'MUSED' from Jonathan Bristow to add
some sound. The game will also include speech and Hi-res drawings. I only.
hope that the speech does not include some of the obscenities used in
early issues of Arnt's ICE HOCKEY MANAGER.
   Each boxing opponent will look different and I am told that one is to
resemble your humble editor. It will probably be the one that looks like
Quasimodo. There is no truth in the rumour that Jon Haworth is to feature
as World Champion in the Super Heavyweight Division!
==

ORIC BOOKS

   Allan Whittaker is stacked ceiling high with Oric books. If you want
any from his price list;please act fast and order or else you could be
too late. The Binmen cometh.
==

ALL FORMATS COMPUTER FAIRS

   I duly recieved my complimentary ticket for the May 16th fair at the
Horticultural Halls. I'm glad I didn't make the journey as apparently it
got moved to Sandown Park. Horses for courses!
Peter Bragg did make it to Sandown and also the week previous to 'R/C
SYMPOSIUM' at the same venue. The R/C was apparently about 10 times the
size and packed solid. An excellent show as Peter spent LOADSAMONEY. He
was amused to see that one of the R/C traders provided his customers with
'TESCO' style shopping baskets. Were they off their 'trolleys'!
   Note to overseas readers: 'TESCO' is a large supermarket chain whose
designs resemble Fergies Palace - sorry,I mean ex-palace.
   Peter reprts that computer show organisers,large and small,could learn
something from 'that crowd'.
   Excuse my ignorance Peter,but what is 'R/C' ? Souns a bit religious to
me!

The ALL FORMATS FAIRS cost 4 pound to attend. Next fairs are as follows:

   JUNE 14th - Haydock Park
   JULY 19th - National Motorcycle Musuem
   SEPTEMBER 5th - As Above
   SEPTEMBER 12th - SANDOWN PARK
   OCTOBER 3rd - Northumbria Centre in Washington
   OCTOBER 18th - Brunel Centre,Temple Meads,Bristol
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THE OUM DISC

   It is proposed to follow up a recent suggestion to release OUMDISCS.
 Three will be produced per year. Cost will be approx. 4 pounds each.
Each one will contain A) Commercial software - we will pay the rights.
The software will be culled from various sources, B) Programs written by
you the viewer and C) a few surprises. There will be something to please
everyone.
   I plan to send out the first one with the September OUM; but only if I
get enough response from ALL of you out there to say that you want it. DO
NOT read this and forget about it - WRITE TO ME NOW!
   There will not be a cassette version available - Sorry!
===

The Saga (Pt II)

Oh no, I hear you groan. Don't worry, it involves neither me and RAMROM nor O.U.M. However, an important series has just started in the CEOMAG which parallels this one - a similarly annotated disassembly of the SEDORIC ROM which loads into RAM overlay when booted up. The point about Sedoric, of course, is that you can amend it at will - hence the utility of such a disassembly. If you're interested, the mag alone is available for £11 a year from me.

The P.D. Library

For our numerous new readers, a reminder that the Library contains 86 good quality programs not available elsewhere. A full listing and order form can be had from me for an S.A.E. sent to the usual address - 3, Madingley Road, Cambridge CB3 0EE.

Rambling on... with IF

CALCULATE DISPLACEMENT TO NEXT INSTRUCTION

CA1C	LDX #':'	CA4E	LDX #':'	second separator = ':'
CA1E	BYT $2C	CA50	BYT $2C	jump next instruction

CALCULATE DISPLACEMENT OF END OF LINE

Entry: The separator is in X (00 will always be a separator) and TXTPTR is correctly positioned.

Exit: Y contains the displacement to the required separator
Z=1
A contains the separator which has ended the search

Principal:
It is always necessary to stop the search at a ':', the second separator. Nul (00) is always a separator.
It is not necessary to count a ':' enclosed in a character string. So the second separator is going to be either a ':' (outside a string) or 00 (a ghost because it is intercepted before comparison) inside a string.

CA1F	LDX #$00	CA51	LDX #$00	second seperator = 0
CA21	STX 24	CA53	STX 24	Save second seperator
CA23	LDY #00	CA55	LDY #00	prepare index
CA25	STY 25	CA57	STY 25	Separator scale = 0 at the start

CA27 LDA 25	CA59 LDA 25	
CA29 LDX 24	CA5B LDX 24 ·	invert the second separator
CA2B STA 24	CA5D STA 24	
CA2D STX 25	CA5F STX 25	
CA2F LDA (E9),Y	CA61 LDA (E9),Y	take character
CA31 BEQ CA17	CA63 BEQ CA49	if nul (first separator), exit
CA33 CMP 25	CA65 CMP 25	if second separator
CA35 BEQ CA17	CA67 BEQ CA49	also exit
CA37 INY	CA69 INY	prepare for next character
CA38 CMP #""	CA6A CMP #""	and test if start or end of string
CA3A BNE CA2F	CA6C BNE CA61	no, continue
CA3C BEQ CA27	CA6E BEQ CA59	yes, invert the separators

'IF' (COMMAND)

Principal:

IF calls the normal evaluation routine without worrying what type of calculation it is. The relational operators =, > and < are therefore not obligatory. The test is done on #D0, whch contains the exponent for a number and the length of a string if it's...a string.

The value is treated as true (execute the THEN or GOTO) if #D0<>0, i.e. the string is not empty or the number is not nul.

The value is treated as false (execute an ELSE or the next program line) if #D0=0, i.e. if the string is empty or the number is nul.

Remark:

if it is true that any value other than nul is treated as true, one must pay attention to using the operator NOT: NOT 2 = -3 is true but also is not nul...

CA3E JSR $CE8B	CA70 JSR $CF17	Evaluate the condition
CA41 JSR $00E8	CA73 JSR $00E8	take character after the condition
CA44 CMP #97	CA76 CMP #97	is it GOTO?
CA46 BEQ CA4D	CA78 BEQ CA7F	yes, jump
CA48 LDA #C9	CA7A LDA #C9	no, so it's THEN
CA4A JSR $CFDB	CA7C JSR $D067	
CA4D LDA D0	CA7F LDA D0	Take result of the condition
CA4F BNE CA56	CA81 BNE CA88	condition true, jump
CA51 JSR $CA66	CA83 JSR $CA9E	look for an ELSE
CA54 BEQ CA0D	CA86 BEQ CA3F	if not found, go to next line
CA56 JSR $00E8	CA88 JSR $00E8	take current character
CA59 BCS CA5E	CA8B BCS CA90	· if not a number, jump
CA5B JMP $C9B3	CA8D JMP $C9E5	otherwise, do a GOTO
....	CA90 PHP	save the type of character
....	CA91 SEC	useless after a BCS branch
....	CA92 ROR 0252	set IF flag to ignore any ELSE
....	CA95 PLP	recover character type
CA5E JMP $C8FE	CA96 JMP $C915	execute comand in A

'REM' (COMMAND)

Principal:

the REM instruction doesn't do a great deal, as with DATA. The program continues execution fro the next line, so it would be pointless to put an instruction after a REM....

CA61 JSR $CA1F	CA99 JSR $CA51	Calculate displacement to next line
CA64 BEQ CA0D	CA9C BEQ CA3F	unconditional: adjust TXCTPTR and exit

IF (continued): FIND the ELSE

CA66 LDY #00	CA9E LDY #00	Prepare index
CA68 LDA (E9),Y	CAA0 LDA (E9),Y	take the character
CA6A BEQ CA74	CAA2 BEQ CAB0	if end of line, exit
CA6C INY	CAA4 INY	Prepare for next character
....	CAA5 CMP #C9	is it THEN?
....	CAA7 BEQCA99	yes, go to end of line
CA6D CMP #C8	CAA9 CMP #C8	is it ELSE?
CA6F BNE CA68	CAAB	BNE CAA0 no, continue the search
CA71 JMP $CA0D	CAAD	JMP $CA3F yes, position straight after it
CA74 RTS	CAB0 RTS	

FIND THE END OF AN INSTRUCTION

Action:

Finds the end of an instruction, but the ':' between quotes is also trated as a separator!

....	CAB1 LDY #FF	Prepare the index
....	CAB3 INY	pass over next character
....	CAB4 LDA (E9),Y	take character
....	CAB6 BEQ CABC	if end of line, branch
....	CAB8 CMP #':'	is it a separator?
....	CABA	BNE CAB3 no, continue
....	CABC JMP $CA3F	yes, place TXTPTR at end

CA75 JMP $CFE4	CABF JMP $D070	'SYNTAX ERROR'

Tailender...

We all know that RND on the Oric is anything but random. The constant used to generate the sequence of numbers is held in #FA–#FE, and it is always the same on powering on. At #276–#277 is an internal clock decremented every 1/100th of a second. So start your program with these two lines:

```
10  DOKE #FB, DEEK(#276)
20  DOKE #FD, DEEK(#277)
```

Thereafter any RND command will be truly random.

<div align="right">Jon Haworth</div>

C.E.O. SOFTWARE

CEOSOFT 1 – WILLY

Oric France's final release a month before it folded, penned by Daniel Duffau. Help Willy find and save his young bears. A stunning platform game, with superb graphics and real puzzles to solve in finding the correct route through each screen. For those who get frustrated, a cheat version is also available at no extra charge after a suitable interval!

CEOSOFT 2 – MLUCH, YAHTZEE, OEIL DE ZOLTEC & RISIKO

A collection of four games covering all tastes. MLUCH is a 'Boulderdash' type game – move around the screen without being obliterated by one of the rocks. YAHTZEE is the classic dice game excellently presented. OEIL DE ZOLTEC is a graphic adventure, and RISIKO a rendition of the familiar 'platform' games.

CEOSOFT 3 – MIZAR, OTHELLO & TETRIS   *(Cassette – TETRIS only)*

MIZAR finds you mounting your helicopter and setting off on a graphic voyage of exploration and danger. OTHELLO is the classic board game, with every option (including replay) that you could ever want. TETRIS is quite simply the ultimate puzzle/strategy game beautifully rendered for your Oric.

CEOSOFT 4 – FLIGHT SIMULATOR, ROBINSON CRUSOE & MR. PRESIDENT

The first Oric FLIGHT SIMULATOR worthy of the name – fly your plane across a 3D landscape under full control, view through the cockpit window or on radar. ROBINSON CRUSOE is a fully-featured graphic adventure game, and MR. PRESIDENT just what it sounds like – play the President and guide world affairs as best you can. The Senate votes on your decisions!   *(Cassette – FLIGHT SIM./MR. PRESIDENT only)*

CEOSOFT 5 – MAH JONG & ORIC SWAP

The latest release, from the pen of the English Magazine editor, Laurent Chiaccherini. MAH JONG is the classic board game, remove pairs of tiles as best you can. ORIC SWAP is a nice variation on the theme, requiring you to use all your strategic skills to clear a board of tiles pair by pair – your score goes down as well as up!

26 questions for you to answer on the ORIC. The answer to question one starts with an A, question 2 begins with a B,and so on to question 26, which starts with a Z.

Answers to the usual address by JULY 13th. Winner will be announce at the fourth Oric meet. Plenty of time , so get thinking.

A great surprise gift to the winner.

Anyone who gets question number 17 wrong, will get a booby prize of 10 copies of LOKI (but only if they pay the postage).

Q.1 - 'Softek' arcade game -
Q.2 - A high seas adventure -
Q.3 - Attack of the ....
Q.4 - He brings you a read every month - ....
Q.5 - A game by Alistair Way -
Q.6 - An 'Addictive' game -
Q.7 - It will be hard to swallow,this soon to be released game from Jonathan ! -
Q.8 - 'Classic ..... Racing' from Salamander.
Q.9 - You are the rabid boot in this - ....
Q.10 - Hebdologiciel arcade on P.D - ... .
Q.11 - If you are a black belt then you will be good at this game. -
Q.12 - Jon Haworth adventure translation -
Q.13 - A pinball classic -
Q.14 - This 'fruit' was responsible for Delta Four - ....
Q.15 - Pacman classic -
Q.16 - A 'nutty' French ladder game -
Q.17 - Which letter should you not press ? -
Q.18 - A 'Friday' island adventure -
Q.19 - War strategy from Lothlorien -
Q.20 - How many guns has this turtle got? -
Q.21 - Andy 'Grun' Green wrote this -
Q.22 - What your pontoon cards must total, in French - ....
Q.23 - Everymans got one! (a classic) - .....
Q.24 - 'The Genesis Probe'-
Q.25 - A 'Dicey' game -
Q.26 - A game to be played in 'spring' - ......

-===

WAXWORKS
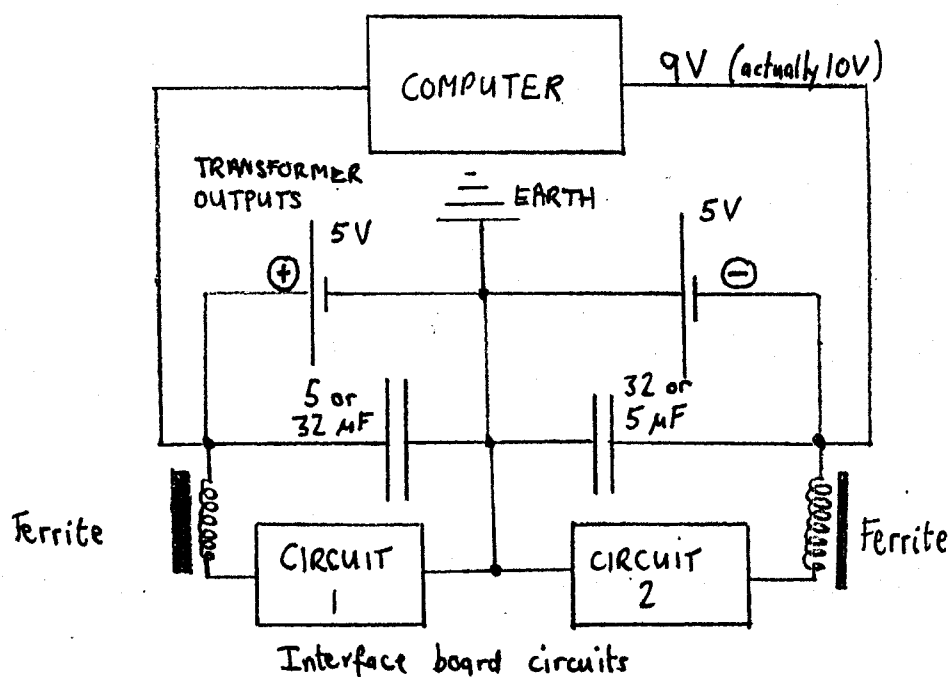
Solution by James Groom

Up,North,Say 1953,South,West,Say 46,East,Down,Insert Coin,Drop Paper,Get Beam,N ,Exam Toilet,Get Jacket,S ,W ,W ,S ,S ,Get aqualung,W ,Wear Aqualung,Drop Beam,Go airlock,Swim,W ,D ,N ,Exam Junk,Exam Junk,Get Lamp, Get Crow,Rub Lamp,Drop Jacket,D ,W ,W ,S ,W ,Get Beam,Rub lamp,Drop Beam, Rub Lamp, Go Airlock,Swim,W ,D ,Rub Lamp,Get Beam,Rub Lamp,Fix Trapdoor, Rub Lamp,Drop Aqua,Get Jacket,Exam Jacket,Exam Jacket,Drop Jacket,Get Pistol,Get Bullets,Load Pistol,D ,Move Guy,Get Barrel,Wait,Light Torch, Drop Barrel,Get Rope,Tie Rope,Get Barrel,Go Rope,E ,Shoot Zombie(till it dies),Go Door,Light Match,Light Fuse,Drop Barrel,W ,Drop Matches,Drop Pistol,Go Door,Go Passage,Open Sarcophagus,Drop Crowbar,W ,W ,W ,Go Tunnel,Rub Lamp,D ,U ,Get key,D ,Wait,Go Rope,Go Tunnel,D ,Exam Alter,Get Talisman,U ,N ,Go DOOR,Exam Jewellry,Get Casket,Open Casket,Get Leaves,E , S , U ,E ,Go Door,Go Passage,Wear Talisman,Give Leaves,Wear Mask...That's it folks!

James believes that this solution is a cheat. To escape from Torquemada he thinks that you are ment to use the rats and the pipe. The rats probably chew through the rope, setting you free. This version is however easier.

I see that John Hurley was having similar problems to mine with mains interference causing lock-out (Letters, page 12 of a back issue). I fitted a mains filter (Archer, from Tandy) to the power cable of my unit, which had no appreciable effect, so it must have been removing the wrong frequency or height of voltage spike causing the crashes. I was able to create a crash reliably by partially unplugging the power cable of a mains-powered cassette recorder in an adjacent wall socket, which I could see was causing voltage spikes because of the few lines of interference it made on my monitor. A few back-of-envelope calculations showed that the spike duration had to be of the order of 1 thousanth of a second, and instinct (rather than any electronics knowledge, which I do not have) suggested that a combination of capacitance and inductance on the DC supply to the interface board might reduce the problem to manageable levels.

After experimenting with 4700 microfarad capacitors, and finding that these prevented the Reset button from working, I settled for a 5 and a 32 microfarad which happened to be handy, and a couple of chokes taken out of an old broken hairdryer, and I fitted them between suplly and circuit boards as in the circuit diagram below.

Interface board circuits

With these quite arbitrary components fitted, the unit only occasionally hangs up these days, although I have had to get one appliance fitted with a suppressor unit by a service engineer, and I have to avoid using nearby wall sockets when the computer is on. For labour intensive work, such as WP or picture drawing, I have to unplug the ribbon cable to the drive, and store any work on cassette. This is inconvenient to say the least, and I agree with John Hurley and yourself, Dave, that the disc drives' power supplies leave a lot to be desired compared to the computer's own PSU which renders the machine totally unperturbed by the worst mains interference you can throw·at it. I think a re-designed PSU for the Opelco system should be attempted, possibly by knowledgable club members if they are willing to help, although a commercial company might get involved as it is something I am prepared to throw money at to solve. Even a NICAD battery backup for the Opelco system is possible, to protect against complete power failures, given the large amount of space in the case.

***

Machine Code for the Oric Atmos (Part 16)   Peter N. Bragg
————————————————————————————

The Story so far
———————————————— We have looked at the basic requirements for machine code
programming on the Oric and have used a small table (Subset) of machine code
instructions. In addition, we have looked at two Operating System calls that
enable us to read the keyboard and write to the display screen. Part 14 of
the series, gave a brief summary of how these subjects have been covered so
far, for the benefit of those who might be missing some issues.

Programming Kit
———————————————— We now have a few more instructions to add to our collection
so we might as well use them to make up a simple programming kit. On the next
page you will find an updated Instruction Subset, plus an additional column
to help you to locate information on specific items. Also included are the
two Operating System calls to read the keyboard and write to the display,
which complete the small machine code programming kit.

The set of five types of instruction and two system calls should be sufficent
to enable you to try some simple machine code programming of your own, which
you can control by using the keyboard and screen display system calls.

Restricting size of the instruction set used, to keep it as small as possible
at first, should make it easier to understand. Of course there are more
instructions in the complete set, which you will find very useful, when we
get to them, later on. Hopefully, by then the instruction subset shown here,
will have given you sufficent experience to make the additional instructions
easier to understand as well. In the meantime, the set covered so far, should
be enough to deal with most aspects of Oric programming.

It Went That-a-Way !
———————————————————— It is one thing to read about machine code, but really
the best way to get to understand it, is to have a go. Once you start to
experiment and also make some mistakes, things will become a lot clearer. In
the early days, when I started, I found that making a few rough notes as I
went along, also helped me to remember how I managed to get some of the
results, so that I could use them later in more ambitous projects. For a
start, I did small things, such as displaying simple graphics and moving them
around the screen. Easy enough to move them up and down, left and right, but
then try it diagonally and without altering the background ! Remember, on the
Oric, you can write directly into the screen addresses, or you can use the
system call "VDU".

So far, we have concentrated on the the TEXT mode display which gives the
largest number of display options for the simplest possible operation. There
are 256 display codes (00 to FF), all of which should be listed in your
manual together with their effects. Generally speaking, codes 20 to 7F cover
the alphabet, numbers and punctuation characters (alphanumerics to you too !).
The remainder are used for a number of purposes including controlling various
graphic and display effects.

You will find that some of these display effects will depend on whether you
use the Operating System "VDU" call or simply poke them straight into screen
addresses in the #BBA8 — #BFDF memory area. In addition, some display effects,
such as colour, make use of several codes together. You can experiment using
both methods to display the codes, if you haven't already done so. To do this
you can use the "Display Operation" routine, published last time, plus any
means to POKE the screen memory (ie. the Hexloader program).

6502 Instruction Subset

Accumulator Instructions	Absolute			Immediate			Info can be found in
	instruct	code		instruct	code		
Load Accumulator	LDA	AD xx yy		LDA#	A9 xx	–	Part 3
Store Accumulator	STA	8D xx yy					
Add with Carry	ADC	6D xx yy		ADC#	69 xx	–	Part 6
Subtract with Carry	SBC	ED xx yy		SBC#	E9 xx		
Compare Accumulator	CMP	CD xx yy		CMP#	C9 xx	–	Parts 5 & 6

Register "X" Instructions	Absolute			Immediate			
	instruct	code		instruct	code		
Load Register "X"	LDX	AE xx yy		LDA#	A2 xx	–	Part 16
Store Register "X"	STX	8E xx yy					

Flag Instructions					–	Part 4
	instruct	code				
Clear Carry Flag to 0	CLC	18	no operand/data		–	Part 6
Set Carry Flag to 1	SEC	38	no operand/data			

Conditional Branch Instructions					–	Part 5
Condition	instruct	code	Flag set by –			
Branch if Carry Flag = 0	BCC	90 xx	No Carry			
Branch if Carry Flag = 1	BCS	B0 xx	Carry			
Branch if Zero Flag = 0	BNE	D0 xx	Result Not Zero		–	Part 6
Branch if Zero Flag = 1	BEQ	F0 xx	Result Zero			
Branch if Negative Flag = 0	BPL	10 xx	Result Plus			
Branch if Negative Flag = 1	BMI	30 xx	Result Minus			

Jump Instructions						
	instruct	code				
Jump	JMP	4C xx yy	(address yyxx)		–	Part 10
Jump saving return address	JSR	20 xx yy	(address yyxx)		–	Part 10
Return/jump from SubRoutine	RTS	60	no operand/data		–	Part 3 & 10

IMMEDIATE (#) instructions supply the required data byte
                    as the operand "xx".   — Part 5

ABSOLUTE instructions on the other hand,   — Parts 5 & 8
        don't include the data byte, instead they give
        the address of a memory location which holds it.
        The addresses are written in reverse order,
        low part in "xx" and high part in "yy".   — Part 3

Useful Operating System Calls

Call	JSR	Operation	Effect produced is –		
"GTORKB"	EB78	20 78 EB 10 FB	Puts Key code into Acumulator.	–	Part 11
"VDU"	F77C	20 7C F7	Displays a code from Reg "X".	–	Part 15

NOTE There is a slight difference between the Atmos and the Oric-1.
----   "GTORKB" call address is E905 (operation is 20 05 E9 10 FB)
         "VDU"   call address is F73F (operation is 20 3F F7)
   I am not able to test these, but I understand that they are correct.

Register "X" Instructions

------------------------- I would not have included Register "X" instructions
in our collection at this stage, however, the instruction "LDX" is essential
to the Operating System's display routine "VDU" and our display options would
be a bit restricted if we had no access to it.

So, for the sake of completeness, you will find that three instructions for
Register "X" have been included in our little set. If you compare them with
the equivalents for the Accumulator, you should be able to see that there is
very little difference between Accumulator and Register "X" instructions, so
far. They can be used in the same way and also have the same method of
addressing, as their equivalents for the Accumulator.

Register "X" is the same size as the Accumulator, so it too holds one byte.
At this point, it can be used as an additional storage unit and as an
alternative to the Accumulator. Register "X" can do other things, as well, .
but we will have a look at those, a little later on.

Once again, the Register "X" instructions in our subset, give a choice of two
modes of operation. These are IMMEDIATE (#) or ABSOLUTE to load Register "X"
and just ABSOLUTE, for storing Register "X" contents in memory. The ABSOLUTE
instruction address is also written in the same way, as for the Accumulator
instructions. For example, STX 1002 would be written as 8E 02 10 and would
copy the contents of Register "X" into location 1002.

Are We Winning ?

---------------- We have used at least one sample of each type of instruction,
listed in the Instruction Subset above, although not in fact every
instruction in each group. For example, we covered the Branch instruction BNE,
but not the other five, in that group. In fact they all operate in the same
way. They simply give you a choice of the tests that you can make. When you
test an item, you start with a Compare instruction (CMP) which sets the Flags
in the Status Register. The Branch instruction you use to follow that,
decides what you are testing for. For example, to test if an item is too
large, use BPL. To test if it is too small, use BMI. I hope to cover more of
these and the rest of the 6502 Instruction Set in due course.

Taking it overall, we have covered about one third of the "6502" machine code
instructions in the series so far in quite a bit of detail. In fact this is a
lot better than it sounds, because if you have managed to understand what has
been written so far, it is very unlikely that you will have much difficulty
with the rest of the Instruction Set. All these instructions can be used in
other machines, which have a 6502 microprocessor. The system calls to read
the keyboard and write to the display on those machines will be very similar
in operation to the two (GTORKB and VDU) used by the Oric. In addition, most
of the instructions covered so far, also appear in the instruction sets for
other microprocessors, I have used. Of course the opcodes and many labels are
different, but there seem to be a lot of things in common, which makes life
much easier for the programmer.

Next time.....
     Getting Football TV contracts on an Amstrad...from our ITV correspondent !!

ULA

    DAVE UTTING HAS UPPED THE REWARD.
HE NOW OFFERS 50 POUNDS STERLING FOR THE FULL ORIC 'ULA' CIRCUIT DIAGRAM.

DAVE IS AT THE ADDRESS IN THE CONTACT LIST.

===

BOOK WANTED

STEPHEN FRIEND (ADDRESS IN CONTACT LIST) IS AFTER A COPY OF 'MADE EASY -
USING YOUR ORIC ATMOS' by GARY MARSHALL.
===

GREENWELD

GREENWELD ARE A COMPANY AT 27 PARK ROAD,SOUTHAMPTON,HANTS. SO1 3TB. TEL:
0703 236363. FAX IS : 236307.
THEY SELL ALL SORTS OF GOODIES, e.g: TAPE HEAD DEMAGNETIZERS (Ref: A170A)
at 2.95 POUNDS.
===

HCS GLOBAL

THIS COMPANY RECENTLY SENT ME THEIR CATALOGUE.   THEY   ARE   A   COMPUTER
SUPPLY SPECIALIST AND INCLUDED IN THE 100 PAGE BOOKLET ARE:
          CITIZEN 120D RIBBONS - 2.15, STAR LC 10 RIBBONS   -   3.00 (ONE
OFF PRICES), A TEN PACK OF 5.25" DISK MAILERS AT 3.95   WITH   EACH   MAILER
HOLDING UP TO 5 DISCS., WRIST RESTS AT   12.95, 36 PIN CENTRONICS
CONNECTORS AT 5.95, FILTER ADAPTORS FROM 22.00 , STAR LC 20 PRINTERS AT
129.00, EPSON LX400 AT 108.00, SPECIAL FOR IBM PC USERS - KEY PUBLISHER +
KEY CLIPMASTER + INFO MOUSE - ALL FOR 69.00 TOTAL!!
BRANCHES IN BRENTFORD (TEL: 081 560 8585) and GLASGOW (TEL: 0236 72 72
82)
===

DIAMOND COMPUTER SYSTEMS

ANOTHER CATALOGUE THROUGH THE POST.
PRICES INCLUDE: STAR LC 20 AT 124.95, CITIZEN 124D AT   179.95, SWIFT 9
COLOUR AT 179.95 AND WHAT REALLY APPEARS TO BE A BARGAIN IS THE 'NEW'
SEIKOSHA SP2400 AT ONLY 129.95. THEY RUN A CLUB FOR CHEAP TITLES FROM THE
GAMEGEAR/MEGADRIVE/GAMEBOR RANGE. THE CHEAPEST AROUND FOR THE GAMEBOY
COMPLETE WITH TERIS,BATTERIES,STEREO HEADPHONES, 2 PLAYER   LEAD,CLUB
MEMBERSHIP, AND GAMELIGHT ; ALL FOR 66.69 INC. VAT.
BRANCHES AT : LEAMINGTON SPA,EDINBURGH,MANCHESTER, LONDON W1, SOUTHAMPTON,
POOLE,BRISTOL, AND ROMFORD.
===

ERRATUM

A SMALL ERROR CREPT INTO THE RECENTLY PUBLISHED 'CAPTAINS LOG' MAP.
THE 'BASE OF TENTS' BOX SHOULD OF READ 'BASE OP(erations) TENT'.
THANKS TO GRAEME BURTON FOR THAT INFO.
GRAEME IS SHORTLY TO LET US ALL INTO THE SOLUTIONS TO ADVENTURE QUEST,
DEATH SATELLITE AND VELNORS LAIR.
=======================================

MESSAGE TO ARNT ERIK ISAKSEN

SORRY I WON'T BE AROUND WHEN YOU MAKE YOUR NEXT VISIT TO LONDON. I WILL
BE SUNNING MYSELF IN CORNWALL.

MESSAGE TO ORIC OWNERS IN THE LONDON AREA

    IF ANYONE WOULD LIKE TO MEET ARNT (THE STRAPPING NORWEGIAN), HE IS IN
LONDON FROM JUNE 28th UNTIL JULY 5th. JUST DROP HIM A LINE TO : SIGURDS
gt.23, N-2000 LILLESTROM, NORWAY. REMEMBER TO LOCK UP YOUR DAUGHTERS.
===

ROUTINE SCROLLS HIRES SCREEN TO LEFT

```
>
20A0  A2C8      LDX  #$C8
20A2  A9A0      LDA  #$A0
20A4  8504      STA  $04
20A6  A900      LDA  #$00
20A8  8503      STA  $03
20AA  A001      LDY  #$01
20AC  B103      LDA  ($03),Y
20AE  88        DEY
20AF  9103      STA  ($03),Y
20B1  C8        INY
20B2  C8        INY
20B3  C028      CPY  #$28
20B5  D0F5      BNE  $20AC
20B7  88        DEY
20B8  A910      LDA  #$10
20BA  9103      STA  ($03),Y
20BC  18        CLC
20BD  A503      LDA  $03
20BF  6928      ADC  #$28
20C1  8503      STA  $03
20C3  A504      LDA  $04
20C5  6900      ADC  #$00
20C7  8504      STA  $04
20C9  CA        DEX
20CA  D0DE      BNE  $20AA
20CC  60        RTS
>Z
```

DISPLAYS

```
1 HIRES:TEXT
2 HIMEM#98FF
5 T=#BB80
6 INPUT"No of HIRES lines 115 MAX ";L
7 L=INT(L/8+.5)
8 FORI=0TOL
10 POKET+I*40,30
15 NEXT
20 T=#BB80+(L+1)*40
25 H=8*T-343040
30 FORI=0TO7
50 POKEH+40*I,26
60 NEXT
100 DOKE#26D,T-40
110 POKE#26F,27-L
200 POKE#2C0,3
250 CURSET120,L*4,1
260 CIRCLEINT(L*2),1
270 CLS
300 PRINTHEX$(H+40*7)
400 REM *PSW*
```

ROUTINE SCROLLS HIRES SCREEN TO CENTRE

```
>D>Q000     2000,2060
2000  A977      LDA  #$77
2002  8500      STA  $00
2004  A9AF      LDA  #$AF
2006  8501      STA  $01
2008  A000      LDY  #$00
200A  B100      LDA  ($00),Y
200C  A050      LDY  #$50
200E  9100      STA  ($00),Y
2010  C600      DEC  $00
2012  A500      LDA  $00
2014  C9FF      CMP  #$FF
2016  D0F0      BNE  $2008
2018  C601      DEC  $01
201A  A501      LDA  $01
201C  C99F      CMP  #$9F
201E  D0E8      BNE  $2008
2020  A04F      LDY  #$4F
2022  A940      LDA  #$40
2024  9900A0    STA  $A000,Y
2027  88        DEY
2028  10FA      BPL  $2024
202A  A9AF      LDA  #$AF
202C  8501      STA  $01
202E  A9A0      LDA  #$A0
2030  8500      STA  $00
2032  A050      LDY  #$50
2034  B100      LDA  ($00),Y
2036  A000      LDY  #$00
2038  9100      STA  ($00),Y
203A  E600      INC  $00
203C  D002      BNE  $2040
203E  E601      INC  $01
2040  A501      LDA  $01
2042  C9BF      CMP  #$BF
2044  D0EC      BNE  $2032
2046  A500      LDA  $00
2048  C918      CMP  #$18
204A  D0E6      BNE  $2032
204C  A04F      LDY  #$4F
204E  A940      LDA  #$40
2050  99F0BE    STA  $BEF0,Y
2053  88        DEY
2054  10FA      BPL  $2050
2056  60        RTS
2057  A233      LDX  #$33      <— ENTRY.
2059  200020    JSR  $2000
205C  CA        DEX
205D  D0FA      BNE  $2059
205F  60        RTS
```

Dear Dave,
            I am on the move (new address enclosed). The Orics were
carefully packed back in their foam containers & among the first things
to go. I get my priorities right! Trouble is - convincing the wife...!
  I'm planning to do an in-depth (ha-ha!) article about 'FLIGHT SIMULATOR'
from the CEO (when I get the chance!). The programme really is something
'New'. You will probably recall my interest in this type of thing;so it
came as a nice surprise to find it a competent piece of software.
  I have a couple of queries about serial interfaces and sending converted
'AUTHOR' files down it,but will go into detail later.

                    - NIGEL ALEFOUNDER (Oswestry)

  Dear Nigel,
            it might be safer if the Orics go in the car with you and the
wife in the removal van! Don't want our priorities damaged - do we!
  I look forward to your article on FLIGHT SIMULATOR - perhaps the CEO
will put you on commission.
    Regarding your queries on the serial interface; I'm afraid it is all a
bit alien to me. You can either:- A) Send them to me and I will fotward
to Trevor Shaw, B) Write direct to Trevor,enclosing an S.A.E or C)
Telephone Trevor.
  Trevor's details are in the contact list.
                              - DAVE
==

  Dear Dave,
            regarding 'WORDSPEED',which I have been using for some time
now. I find it quite easy. Any reasonably good software has it's language,
that one has to get familiar with,and that comes usually with the use of
it.
 For me the beauty of it is that I can check and modify any SEQUENTIAL
FILES without first writing a program for it.
I have also adapted it to write in Polish,ahich has a few extra
characters.
  So,I am quite happy with it.
Hoping to see you at the Meet - Edmund Wisniewski (Huddersfield)

  Dear Edmund,
            thank you for your response to my review of WORDSPEED. I am
sure you are not alone in benefitting from this word processing package.

  I was impressed with the extra Polish characters that you printed in
your letter.
                              - Dave
==

  MESSAGE TO JON HAWORTH FROM DAVID WILKIN
  ——————— —— ——— ———————— ———— ————— ———————

  HELLO JON, WILKIE HERE. I WANT TO MAKE SOME AMENDMENTS TO THE DATA FILES
ON THE 'S.T.D' PROGRAM FROM THE PUBLIC DOMAIN. CAN YOU SUPPLY ME WITH THE
RELEVANT INFORMATION TO DO SO?
==

  MESSAGE TO PETER THORNBURN FROM PETER BRAGG
  ——————— —— ————— —————————— ———— ————— —————

  I HOPE TO BRING ORIC'S GRANDAD,OTHERWISE KNOWN AS THE MICROTAN 65,TO
THE NEXT ORIC MEET IN JULY;PROVIDING THAT I CAN FIND TIME TO CHECK IT OUT
FIRST,AS I HAVEN'T USED IT FOR A LITTLE WHILE. THE HARDWARE WAS FINE,WHEN
LAST USED,BUT THE TAPES TEND TO BE MORE TRICKY TO LOAD AS THEY GET OLDER.
==

65802 Assembler (CONTINUED)   by Bernhard Gröne

```
: $CB C, MEM PC @ 1+ - $BE C, ;

: IF,    ( -- )M )    )MARK ROT NOT $CB ;
: ENDIF, ( )M -- )    )RESOLVE ;  : THEN, ENDIF, ;
: ELSE,  ( )M1 -- )M2 ) )MARK BRA, SWAP )RESOLVE ;
: BEGIN, ( -- <M )    <MARK ;
: WHILE, ( -- )M )    IF, ;
: AGAIN, ( <M -- )    <RESOLVE BRA, ;
: UNTIL, ( <M -- )    <RESOLVE NOT $CB ;
: REPEAT, ( <M )M -- ) SWAP AGAIN, ENDIF, ;


\ System depending Constants, Macros
500 EQU ANFANG      \ start of Forth kernal
A6 EQU N                      \ Important Forth Adresses
AE EQU IP
B1 EQU W
B3 EQU UP
B5 EQU XSAVE
ANFANG 50 + EQU NEXT      \ important Forth routines (MC)
ANFANG 6B + EQU POP
ANFANG 49 + EQU PUSH
ANFANG 76 + EQU SETUP
ANFANG 4B + EQU PUT
ANFANG 70 + EQU PUSHOA
ANFANG 69 + EQU POPTWO


\ macros
: NEXT, NEXT JMP, ;                    \ get top stack word ( TOP LDA,)
: TOP 0 ,X ;                           \ get second stack word
: SEC 2 ,X ;                           \ N TH stack word    ( 4 TH LDA
: TH 1 - 2 * ,X ;
)
: GO65K,  CLC, XCE, ;                  \ enter 65802 mode
: GO6502, SEC, XCE, LONGA OFF LONGI OFF ; \ return to normal mode
: LA, 20 REP, LONGA ON ;               \ 16 Bit Accumulator
: SA, 20 SEP, LONGA OFF ;              \  8 Bit      "
: LI, 10 REP, LONGI ON ;               \ 16 Bit Index registers (X,Y)
: SI, 10 SEP, LONGI OFF ;              \  8 Bit      "        "
: LAI, 30 REP, LONGA ON LONGI ON ;     \ long Accu AND Index reg.
: SAI, 30 SEP, LONGA OFF LONGI OFF ;   \ short Accu AND Index reg.
: LBYT FF AND ;                        \ get lsbyte of word
: HBYT 100 / ;                         \ get msbyte of word


\ Labels, Vocabulary Adjustment
: (LABEL) R> DUP 2+ >R @ >BODY <MARK SWAP ! ;
: LABEL STATE @
            IF   COMPILE (LABEL)
            ELSE )IN @ DEFINED
                 IF NIP >BODY <MARK SWAP !
                 ELSE DROP )IN ! 0 CONSTANT <MARK HERE 2- !
                 ASSEMBLER
            ENDIF
        ENDIF ; IMMEDIATE
\ use LABEL to define the labels needed BEFORE a code definition
\ example:        label xxx label yyy ...
\                 code abc           instructions ...
\                     label xxx  instructions
\ That means: define labels before you use them. If you use labels with
\ names of other Forth words, define them with the word 0 constant xxx
\ to avoid trouble.
```

65802 Assembler   by Bernhard Gröne

```
\ end-code or ;c finish your code definition
: END-CODE AVOC @ CONTEXT ! REVEAL ;
: ;C END-CODE ;

VARIABLE POINTER
: ASM (ASSEMBLER) MEM ;
' ASM IS ASSEMBLER
ONLY FORTH DEFINITIONS ALSO ASSEMBLER ALSO DECIMAL

\ Code, Org, Ass
\ redefine the CODE word
: CODE CREATE HIDE PC @ HERE 2- ! CONTEXT @ AVOC ! ASSEMBLER ;

\ ORG forces the assembler to accept ORG as starting adress instead of
\ HERE :
: ORG ( n -- ) DUP ORIGIN ! POINTER ! 0 OFFST !
              ['] POINTER IS PC ;


\ ASS forces the assembler to writethe machine code to the adress ASS
\ example: you want to write a mc routine that starts at adress 600h.
\          labels...              define labels needed
\          600 ORG               define starting adress
\          create buff           create a data buffer to assemble to
\          buff ass              transfer buffer adress
\          assembler             switch on assembler
\          instructions...       program to assemble
\          buff .                get adress of code
\          here buff -           and lenght
\          leave FORTH, move buff to adress 600h and save file
: ASS ( n -- ) POINTER @  - OFFST ! ; \ Code bei Ass n. Adr

\ reset ORG and ASS to HERE
: DICT ( -- ) 0 OFFST ! ['] DP IS PC ; \ Assembl in dictionary

\ you can define macros just with the word : . To define macros
\ when you're in FORTH dictionary, use MACRO xxx instructions ;
: MACRO ( -- ) !CSP HEADER 5A9 , HIDE ] ;

ONLY FORTH ALSO CR .( 65SC802 Assembler ist geladen)  CR
```

∿∿

MISSION DELTA IS A SIMULATOR FROM ERE INFORMATIQUE IN FRANCE AND IS AVAILABLE VIA JON AT THE CEO FOR 5.99 ON CASSETTE. I HAVE A SET OF ENGLISH INSTRUCTIONS SHOULD ANYONE REQUIRE THEM – DAVE DICK

ALSO IN THE LATEST CEO PRICE LIST ARE MCP40 PRINTERS WITH PAPER AND PENS FOR ONLY 42 pounds – A BARGAIN.

THE CONTACT LIST

HERE AT LAST IS THE LATEST VERSION OF THE ORIC CONTACT LIST. IT INCLUDES ALL DETAILS SUPPLIED TO OUM BY YOU THE READER(APOLOGIES FOR ANY ERRORS). WHERE WE HAVE BEEN ASKED, ADDRESSES AND TELEPHONE NUMBERS HAVE BEEN OMITTED.

EACH PERSON WHO HAS EVER BOUGHT AN ISSUE OF OUM IS GIVEN A NUMBER. IN FUTURE THERE WILL BE A LUCKY NUMBER DRAW.

ALL INFO IS STORED ON DATABASE BY JON HAWORTH. THE LIST WILL BE IN ALPHABETICAL ORDER. IF THERE IS NO NUMBER,THEN THAT PERSON HAS NEVER BOUGHT OUM,BUT IS EITHER A MEMBER OF THE CEO OR JUST WANTS TO KEEP IN CONTACT. DUE TO THE VAST INFLUX OF NEW CONTACTS; THE LAST NAMES WILL BE SHOWN AS 'LATEST ADDITIONS' AND WILL NOT BE IN ALPHABETICAL ORDER. AS WE GO TO PRESS, THERE ARE 193 PEOPLE WHO HAVE BOUGHT A COPY OF O.U.M. I THINK NUMBER 200 WILL BE SENT A NICE SURPRISE!

ANYONE WHO HAS SOLD UP OR NOT WRITTEN/SUBSRIBED FOR 6 MONTHS OR MORE IS NOT INCLUDED.

THE LIST SHOWS: A) NAME/ADDRESS/TELEPHONE. B) OUM NUMBER (IF APPLICABLE). C) EQUIPMENT. D) INTERESTS WHERE KNOWN

NIGEL ALEFOUNDER, 23 ASTON CLOSE,OSWESTRY,SHROPSHIRE. SY11 2XU.... OUM 126.. ATMOS/CASS/MCP40/OKI 82A.....AUTHOR/ORICOMMS/RS232 TIMER CIRCUIT

GERRY AMATO, 9 PARKBRIDGE ROAD,PRENTON,BIRKENHEAD,MERSEYSIDE.L42 9JT TEL:051 6085861 ...OUM 171...ATMOS/ORIC 1/CASS..... WANTS TO LEARN ALL ASPECTS OF THE ORIC

FRANCISCO AREIAS, 12 RUE BREESCH, 1020 BRUSSELS,BELGIUM...OUM 128...FRENCH ATMOS/CASS/ORIC 1

PAUL BAKER, 14 CARNATION CLOSE,WESTON COYNEY,STOKE-ON-TRENT.ST3 6QG..TEL:0782 320718. OUM 133...ATMOS/ORIC 1/CUMANA 5.25"/MCP40.... WROTE 'GRANDAD'

BOB BAZLEY, AN DER ALSTER 10/76, 2000 HAMBURG 1, GERMANY.... OUM 137...ATMOS/CASS/HP DESKJET

THIERRY BESTEL, 3 RUE DES PETITS PRES, 77590 BOIS-LE-ROIS,FRANCE... TEL: 60 69 52 63... OUM 140.. ATMOS/TELESTRAT/MICRODISC/OLIVETTI DM105/ I/O CARDS.... FORTH & ROBOTICS

NICOL BLOUNT, 74 BRANKSOME DRIVE,FILTON,BRISTOL,AVON.BS12 7EF..OUM 44..ATMOS/ORIC 1/MCP40... ENJOYS ARCADE GAMES.

JEAN BOILEAU, 33 AVE.HENRI BARBUSSE, 93140 BUNDY,FRANCE..TEL:1 48 47 29 20...OUM 141... ATMOS/TELESTRAT/3" & 3.5" DRIVES/MCP40/BJ10/MT140/VOICE SYNTHESISER..MR. ATMOS

FRANK BOLTON, 35 MARKET PLACE,MOUNTSORREL,LOUGHBOROUGH,LEICS.LE12 7BA..TEL:0533 376180..OUM 41...ATMOS/ORIC 1/3"DRIVE/CIT.120D... EDUCATIONAL/LANGUAGES

DENIS BONFIELD, 52 OLIVE ROAD,CRICKLEWOOD,LONDON NW2 6UD....OUM 135..ATMOS/3 & 3.5" Dr...... ARCADE/ADVENTURES/M.CODE/ELECTRONICS

PETER BRAGG, 17 GLENA MOUNT,BENHILL WOOD ROAD, SUTTON,SURREY.SM1 4HW...TEL:081 642 7534..OUM 82..ATMOS/ORIC 1/MICROTAN 65/ARCHIMEDES/CUMANA Dr./MP165... 6522 INTERFCAING

JONATHAN BRISTOW, FLAT 5A, MIDDLE ST.,WATTON,THETFORD,NORFOLK...OUM 109..ATMOS/OPELCO 3"... AUTHOR OF CHARED/OBED/MUSED/GULPF

DON BROWN, 2 GLENTWORTH AVE,WHITMORE PARK,COVENTRY, W. MIDLANDS.CV6 2HW...OUM24...ATMOS/ORIC 1/CUMANA 3" + 5.25"/HP 82906A/MCP40..WRITES SOFTWARE,TESTS HARDWARE.

GRAEME BURTON, 5 HONEYBOURNE WAY,PETTS WOOD,KENT.BR5 1EZ..TEL: 0689 875008..OUM127.. ATMOS/ORIC1/ CUMANA 3" (When he pops over to me for it)/CGP115... AUTHOR OF INDIANA SMITH

ERIC CHAPLIN, 3 SILFIELD TERRACE, KINGS LYNN,NORFOLK.PE30 5NQ.. OUM39..ATMOS/CUMANA 3"+5. 25"/TOSHIBA WTZ/MCP40.. WORD PROCESSING & GAMES

LAURENT CHIACCHIERINI, 69 RUE BELLIARD, 75018 PARIS,FRANCE..TEL:1 42 52 22 61..OUM 138... TELESTRAT/3"+3.5"/EPSON... RUNS AN ORIC BULLETIN BOARD IN FRANCE AND PRODUCES THE ENGLISH CEO MAG/ AUTHOR OF MAHJONG

ALAN CHIDGEY, 411 ROCHDALE ROAD, HIGH CROMPTON,SHAW,LANCS. OL2 7NW..TEL:0706 849485..OUM 125. .ATMOS/ORIC 1/OPELCO TWIN 3"/GLF/MCP40/ P.C.... INTERESTED IN DATA TRANSFER

NEVILLE CLARK, 23 PARK ROAD,ASHINGTON,NORTHUMBERLAND. NE63 8DZ.. OUM 25..ATMOS/CUMANA 2DOS... . MAINLY USES ATARI NOW

RICHARD CLIFFORD, 15 WORDSWORTH DRIVE,KENILWORTH.WARKS.CV8 2TB...OUM 53..ATMOS/3"DRIVE

MATTHEW COATES, THE COTTAGE,MIDDLEMARSH FARM,GLATTON ROAD,SAWTRY,CAMBS. PE17 5SY..TEL:0487 830345..OUM 51..ATMOS/CUMANA 3" V1.0

TIM COLGATE, 24 LUCASTES ROAD, HAYWARDS HEATH, W.SUSSEX.RH16 1JW..OUM 87..ATMOS/OPELCO 3.5"

ROBERT COOK, 10 THOMSON AVE,KING'S NORTON,BIRMINGHAM.B38 8YD..OUM 76..ATMOS/CASS... FOUNDER OF O.U.M/AUTHOR OF KRYSTAL WORLDS/THE HAUNT

ROBERT CRISP, 44 BENTLEY GROVE,MEANWOOD,LEEDS,W.YORKSHIRE.LS6 4AT..TEL:0532 745294..OUM 88... ATMOS/ORIC 1/CASS...ROM DISASSEMBLY,PC TRANSFER

ALLEN CROWE, 1 ARDYMAGH ROAD,GLENWHERRY,BALLYCLARE,CO.ANTRIM.BT39 9TJ..TEL:026683 451..OUM 11...ATMOS/ORIC 1/CUMANA 3"+5.25"/CIT.120D/MCP40/MODEM

DAVE DICK, 65 BARNARD CR.,AYLESBURY,BUCKS.HP21 9PW..TEL:0296 26050..OUM 1..ATMOS/ORIC 1/OPELCO/CUMANA/3"+5.25"/MCP40/SEIKOSHA SP-2000.... EDITOR OF O.U.M etc.

KEN DUDDLE, 3 HOBART ST,LEICESTER LE2 0JS...TEL:0533 518889..OUM 48..ATMOS/CASS/CIT.120D.... TYPE-INS/ADVENTURES

STAALE EIKEBRAATEN, SKRIVERVEGEN 36, 2200 KONGSVINGER,NORWAY..TEL: 066 15836..OUM 151.. ATMOS/ORIC 1/MICRODISC...AUTHOR OF CHESS MADNESS

STAN ELLISON,35 ALNESS RD,WHALLEY RANGE,MANCHESTER,LANCS. M16 8HL..TEL:061 226 1709..OUM 2.. ATMOS/ORIC 1/CUMANA 3" TWIN...PROGRAMMING

JOHN EVANS, 7 KIMBERLEY HILL,LONDONDERRY,N.IRELAND.BT47 1QL..OUM 119..ATMOS/CASS....W.P and GAMES

RONALD EVANS, 157 LYMINGTON AVE.,WOOD GREEN,LONDON N22 6JJ..TEL:081 889 0065..OUM 3...
ATMOS/ORIC 1/3" CUMANA (when he pops over to pick it up)/MCP40/CITOH...CONVERTS LISTINGS FROM
BBC,ENJOYS TYPE-INS
 W.FALCONER, 51 TEMPLEHALL AVE,KIRCALDY,FIFE.KY2 6DA..TEL: 0592 203309..ATMOS/ORIC 1/CUMANA
3"/TANDY CGP
 PAUL FARNESSE, 5 SOUTHCHURCH HALL CLOSE,SOUTHEND,ESSEX .SS1 2TE..OUM 27...ATMOS/ORIC 1/DRIVE?

 PAUL FELLOWS, 156 HARDMAN AVE.,HALL CARR,RAWTENSTALL,ROSSENDALE,LANCS.BB4 6BL..OUM 146..ORIC
1/CASS....GAMES/ROM
 STEPHEN FRIEND, 'LIVING WATERS',29 HAZELMERE RD,PENN,HIGH WYCOMBE,BUCKS. HP10 8AD..TEL:
049481 5566..OUM 131..ATMOS/OPELCO 3"/STAR GEMINI 10X...UTILITIES/STRATEGY/ACCOUNTS etc.
 DAVID GEOGHEGAN, 31 PLANTATION WAY,WIGGINTON,YORK,N.YORKS.YO3 3ZE..TEL: 0904 765708...OUM 79.
.ATMOS/ORIC 1/MICRODISC....PROGRAMMING
 DAVID GOODRUM, 34 BEECH ROAD,HORFIELD,BRISTOL,AVON.BS7 8RP..TEL:0272 446231..OUM 31..
ATMOS/ORIC 1/OPELCO 3"/MCP40/MODEM/SPEAKEASY....WORD PROCESSING/GAMES/SOFTINDEX & CONVERSIONS
e.g.'THE BUSINESS'
 BERNHARD GRONE, APP.E4C, AM JADENHUBEL 15, W-6751 TRIPPSTADT, GERMANY..OUM 142..ORIC
1/ATMOS/MSE CONTROL - 3"+3.5"+5.25" DRIVES/MOUSE/BMC BX-80/MCP40/SERIAL KEYBOARD/VECTOR
GRAPHICS CARD... HARDWARE/FORTH/GAMES and PD
 JAMES GROOM, 129 NARROW LANE,HALESOWEN,W.MIDLANDS.B62 9NX..OUM33..ATMOS/CASS/PANASONIC
 MICHAEL GYNANE, 164 STOCKBRIDGE LANE,HUYTON,LIVERPOOL.L36 8BH..TEL:051 480 8073..OUM 63..
ATMOS/3"DRIVE
 RAUL HAKLI, KAUPPAKARTANONKATU, 16 1 118, 00939 HELSINKI,FINLAND. TEL:358 0 333072..OUM 114..
ATMOS/ORIC 1/CASS..GAMES/MUSIC/GRAPHIC UTILITIES
 DAVID HALL, 38 COLWYN AVE, MARTON,BLACKPOOL,LANCS.FY4 4EU..TEL:0253 66576..OUM 91..
ATMOS/ORIC 1/CUMANA 3"+5.25"/PANASONIC KXP1081..BLACKPOOL USER GROUP
 JON HAWORTH, FENNERS CHAMBERS,3 MADINGLEY RD,CAMBRIDGE. CB3 0EE....OUM 5 ...ATMOS/ORIC
1/TELESTRAT/CUMAN 3"+5.25"+3.5"/STAR LC 10/MCP40/TMPI SYNTHESISER... RUNS THE PUBLIC DOMAIN
AND IS U.K. AGENT FOR THE C.E.O - ADDRESS GIVEN IS A WORKS ONE
 SEAN HEALY, 23 ROCHFORD RD, WYMERING,PORTSMOUTH,HANTS...TEL: 0705 386430...
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1/CUMANA 3.5"...ARCADE/SIMS/BOARD GAMES
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3"/HRS/MCP 40/LIGHT PEN/SYNTHESISER.... AUTHOR OF 'NHL ICE HOCKEY MANAGER'
 EDDIE JACKSON, 30 BOOTH DRIVE,DAVYHULME,MANCHESTER,LANCS. M31 2PF..OUM 80...ATMOS/ORIC
1/CUMANA 3.5+5.25"...WRITES PROGRAMS and DELVES INTO ROM
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520STFM....MUSIC & PROGRAMMING
 RON KEY, 15 STRYD FAWR,RACHUB,LLANLLECHID,BANGOR,GWYNEDD. LL57 3EL .... OUM 28...
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0926 613162...OUM 38..ATMOS/ORIC 1/CUMANA 3"+5.25"/OKI 182/EPSON FX80/BYTE DRIVE
 HANS KRAUS, HABERLGASSE 62/10, A-1160 WIEN,AUSTRIA....TEL: 1 43 82 76...OUM113...ATMOS/ORIC
1/5.25" Dr./GP100A
 KEITH LESTER, 41 ST.HELENS DRIVE,LEICESTER.LE4 0GS...ATMOS/CASS/SEIKOSHA SP 1900
 DAVID MACKENZIE, 71 BRANXHOLME RD,HAWICK,ROXBURGHSHIRE.TD9 7BX.. TEL: 0450 75640...OUM 106..
ATMOS/ORIC 1/CASS/PHILIPS MONITOR
 HENRY MARKE, 26 ROSEBERY AVE,EAST COSHAM,PORTSMOUTH,HANTS.PO6 2PZ..TEL: 0705 385497...
ATMOS/OPELCO 3".... BOARD GAMES & ARCADES.

TITLE: CEOSOFT5...... OUTLET: CLUB EUROPE ORIC...FORMATS: CASSETTE AND
DISC FOR ATMOS (DISC VERSION IS SEDORIC), ALSO RUNS ON TELESTRAT
 PRICE: 3.99 ON CASSETTE or 4.99 ON DISC DIRECT FROM JON HAWORTH.

   I JUST KNOW THAT THIS BRACE OF TITLES FROM THE PEN OF LAURENT CHIACCHIERINI
IS GOING TO BE A WINNER.
 BOTH 'MAHJONG' AND 'ORICSWAP' ARE BOARD GAMES PLAYED ON A 10 x 24 BOARD.
 IT TOOK ME QUITE A WHILE TO HAVE A PROPER GO AT 'MAHJONG', DUE TO THE FACT
THAT I COULDN'T GET THE WIFE OFF THE KEYBOARD. THERE ARE 5 LEVELS TO COMPLETE
AND SHE IS WELL INTO THE FOURTH.
 THE IDEA IS TO REMOVE PAIRS OF TILES FROM AN EDGE WITH THE SAME PATTERN. AS
THE LEVEL INCREASES,SO THE NUMBER OF PATTERNS INCREASES AND THUS THE NUMBER
OF PAIRS REDUCES. I TIMED THE WIFE AT 80 MINUTES TO GET AS FAR AS SHE DID AND
THEREFORE DEFINITELY ONE TO CONCENTRATE ON.
 YOU CAN SAVE YOUR HI-SCORE TO DISC.
 IT WILL TAKE A WHILE FOR YOU TO GET YOUR EYES SETTLED AND CONCENTRATE ON THE
SHAPES,BUT WHEN YOU GET GOING,YOU WILL BE HOOKED!
 I HAVEN'T FIGURED OUT HOW YET,BUT YO CAN APPARENTLY CHANGE THE TILE
PATTERNS BY USING YOUR OWN CHARACTER SET. UNLIKE OTHER CEOSOFT5 RELEASES;THIS
ONE IS NOT PROTECTED AND YOU CAN GET INTO THE DIRECTORY.
 A TARGET TO BEAT IS MY WIFE'S SCORE OF 6792. IT WILL TAKE SOME DOING!

 'ORICSWAP' IS SIMILAR IN CONCEPTION. THE TILES ARE OF VARIOUS COLOURS. THE
EASIER THE LEVEL,THE LESS THE VARIETY. YOU MUST MOVE AND SWAP TILES SO THAT
ADJOINING TILES ARE OF THE SAME COLOUR. THESE TILES ARE THEN TAKEN FROM THE
BOARD. YOU HAVE TO COMPLETELY WIPE THE BOARD OF TILES. THE SCORE REDUCES IF
YOU MAKE A MOVE,SWAP OR TRIGGER A RANDOM AVALANCHE. THE SCORE INCREASES AS
TILES ARE REMOVED. I FOUND IT DIFFICULT AT FIRST AND SOON DOWN TO ZERO POINTS
AT WHICH JUNCTURE YOU LOSE. AFTER A WHILE, I WORKED ON MY STRATEGY AND FOUND
A LITTLE CHEAT METHOD. I CAN NOW GET REALLY INTO THIS.
   IN SUMMING UP - 2 EXCELLENT STRATEGY GAMES AND WELL WORTH THE PRICE. WELL
DONE LAURENT.
==

   L'ETE SERA CHAUD
   ----- ---- -----
 I RECENTLY CAME ACROSS THIS FRENCH ARCADE FROM 'SPRITES'. UNFORTUNATELY,I
COULD ONLY GET IT TO RUN ON THE ORIC 1.
 THE THEME IS SIMPLE - 'Z' FOR LEFT, 'X' FOR RIGHT, AND 'SPACE' TO FIRE.
 YOU ARE ON THE BASE LINE AND AT EACH LEVEL A DIFFERENT OPPOSITION ATTACKS
YOU. MOVEMENT IS A LITTLE SLOW. I GOT TO THE FOURTH LEVEL AND DON'T KNOW HOW
MANY MORE WERE TO COME. YOU DECIDE HOW MANY OF THE ENEMY THAT YOU MUST DEFEAT
(FROM 10-90). PURE,UNASHAMED FUN!
===

     FOR SALE********FOR SALE*******FOR SALE******FOR SALE
     --- ----   --- ----   --- ----   --- ----

   I HAVE JUST HAD A CALL FROM RICHARD KING IN MAIDA VALE. RICHARD IS AN
'APPLE' MAN, WHO IS ALSO THE PROUD OWNER OF AN ATMOS/ 3" MICRODISC/MAPLIN
SPEECH SYNTHESISER. IT IS ALL UP FOR SALE. RICHARD IS NOT FORSAKING US, BUT
IS HOPING TO UPGRADE TO THE 'TELESTRAT',WHICH IS MORE SUITED TO HIS
APPLICATIONS.
 RICHARD IS BRINGING HIS SYSTEM TO THE 'MEET' ON JULY 18th. I WOULD ENVISAGE
THE ATMOS/MICRODISC GOING FOR ABOUT 75 POUNDS. THE SPEECH MACHINE WILL BE
SOLD SEPARATELY. IF YOU ARE INTERESTED,BRING YOUR MONEY. IF YOU CAN'T ATTEND
THE MEET; YOU CAN PHONE ME UP WITH A BID.
     ==

   ***** FOR SALE ***** FOR SALE **** FOR SALE ****
     --- ----   --- ----   --- ----
   FORSAKING THE ORIC IS PETE WEISNER FROM WESTON TURVILLE,NEAR AYLESBURY.
PETE WAS RESPONSIBLE FOR MODIFYING THE ACCOUNTS/CALC PACKAGE ON DISC. HE IS
NOW ON A PC.
 HIS SYSTEM COMPRISES OF THE FOLLOWING : OPELCO TWIN 3" DRIVE (AND VERY
TELIABLE IT IS TOO), ORIC ATMOS, and OVER 30 DISCS CONTAINING ENGLISH/FRENCH
GAMES AND UTILITIES (HUNDREDS OF TITLES). THE SOFTWARE ALONE HAS TO BE WORTH
OVER 100 POUNDS.
 ASKING PRICE FOR THE THE COMPLETE PACKAGE IS 150 POUNDS (INC. POSTAGE).
 IT WILL BE ON DISPLAY AT THE 'ORIC MEET'. IF YOU ARE NOT ATTENDING,THEN GET
IN TOUCH FAST TO SNAP THIS UP. THERE IS A CHANCE THAT THE PACKAGE CAN BE
SPLIT. IF YOU ARE INTERESTED IN JUST THE ATMOS OR JUST THE DISCS, LET ME KNOW.

YOUR LAST CHANCE TO GET TICKETS FOR THE AYLESBURY ORIC MEET ON SAT. JULY 18th. PRICE IS 2 POUND EACH.
THE FOLLOWING HAVE BOUGHT TICKETS OR IMPLIED THAT THEY WILL ATTEND. IF YOU WANT TO GET TOGETHER TO SHARE TRANSPORT,THEN GET IN TOUCH WITH EACH OTHER. SEE THE CONTACT LIST FOR ADDRESSES/TELEPHONE NUMBERS.
JON & NICHOLAS HAWORTH (CAMBRIDGE), RICHARD KING (MAIDA VALE), GRAHAM SHAW & Guest (HALIFAX), DEREK SMITH & Guest (WALSALL),DAVID GOODRUM & Guest (BRISTOL),STEPHEN FRIEND (HIGH WYCOMBE),ALLAM WHITAKER (STAVELEY), DAVID WILKIN (SUNBURY),PETER BRAGG (SUTTON),DAVID UTTING + 2 (LEICESTER), BOB TERRY (AYLESBURY),LAURENT CHIACCHIERINI and Guest (PARIS),COLIN COOK (PITSEA),EDMUND WISNIEWSKI + Wife (HUDDERSFIELD),ALISTAIR WAY (CAMBRIDGE), SEAN HEALY (PORTSMOUTH),PAUL BAKER (STOKE),FRANK BOLTON (LEICESTER), JONATHAN BRISTOW (THETFORD),ROBERT COOK (BIRMINGHAM),JAMES GROOM (HALESOWEN),DAVID HALL (BLACKPOOL),CHRIS HEARN (TRING),STEVE HOPPS (WOKINGHAM),ROB KIMBERLEY (LEAMINGTON SPA),JOHN McKAY,MALCOLM SCOTT,PAT McNEILL(LINCOLN),PETER THORNBURN & Wife (CANTERBURY) and KEN AUSTIN (LIVERPOOL).
IT LOOKS LIKE IT WILL BE OUR BIGGEST EVER!

BAR-B-Q
--- - -
WEATHER PERMITTING,THE WIFE HAS AGREED TO DO A BARBECUE ON THE EVENING OF THE MEET. ALL WELCOME . LET ME KNOW IF YOU PLAN TO COME,SO THAT WE CAN CATER.

SHOPPING TRIP
-------- ----
A FEW MEMBERS ARE BRINGING THE WIFE. IF THEY ARE NOT ORIC MAD,WE CAN ARRANGE TO SEND THEM ON A SHOPPING/SIGHTSEEING TRIP OF AYLESBURY. SATURDAY IS MARKET DAY. THERE ARE PLENTY OF ANCIENT BUILDINGS TO SEE AND SOME NICE PICNIC AREAS.

ORIC MEET RAFFLE
---- ---- ------
TICKETS 1 POUND EACH. FOR OVERSEAS READERS, 2 TICKETS IN EXCHANGE FOR 1 ISSUE OFF THEIR OUM SUBSCRIPTION. PRIZES DONATED SO FAR INCLUDE: MODEM, CASSETTE SOFTWARE, THE COMPLETE SET OF PUBLIC DOMAIN AND CEOSOFT 5 (MAHJONG/ORICSWAP). IF YOU ARE NOT ATTENDING,PLEASE SEND FOR TICKETS. IF YOU ARE COMING,PLEASE BRING A PRIZE - CHOCOLATES,WINE,ANYTHING WITHIN REASON!
===

**** HI-SCORES **** HI-SCORES ***** HI-SCORES *****
-- ------ -- ------ -- ------

RABBIT - 85,950 (Peter Thornburn)
TETRIX - 1,482 (" ")
GUBBIE - 85,820 (" ")
TROUBLE IN STORE - 267,000 (P.T. - WITH 6 LIVES LEFT)
GHOST GOBBLER - 31,000 - Clary Thornburn
TROUBLE IN STORE - 1,060,758 (Graeme Burton) - YOU SHOULD OF HELD ONTO THOSE 6 LIVES PETER.
THE HELLION - 149,580 (Graeme Burton)
SUPER JEEP - 81,723 (Graeme Burton)
PLAYGROUND 21 - 52,190 (Graeme Burton)
ELEKTROSTORM - 12,190 - WHEN I PULLED THE PLUG OUT (Louise Dick)
QUACK A JACK - 28,950 (LEVEL 7) (Dave Dick)
===

TO THOSE ON 3" DISC
-- ------ -- - ----
ARNT ERIK ISAKSEN WOULD LIKE TO EXCHANGE PROGRAMS ON 3" DISC WITH OTHER USERS.
PLEASE WRITE TO ARNT DIRECT (ADDRESS IN CONTACT LIST).
I ASSUME THAT ARNT MEANS NON-COMMERCIAL PROGRAMS,AS THE COPYRIGHT LAW STATES : "UNAUTHORISED COPYING,LENDING,BROADCASTING OR RESALE BY MEANS STRICTLY PROHIBITED"
===
THE CASTLE
--- ------
THE CASTLE WAS AN ORIC-1 ADVENTURE. I HAVE IN MY POSESSION,A LETTER FROM BUG-BYTE SOFTWARE,WHICH STATES THAT THEY FOUND PROBLEMS WITH THE PROGRAMME AND HAVE WITHDRAWN IT FROM SALE. SO DAVID HALL HAS PROBABLY GOT A COLLECTORS ITEM THERE. WHAT AM I BID FOR MY COPY?
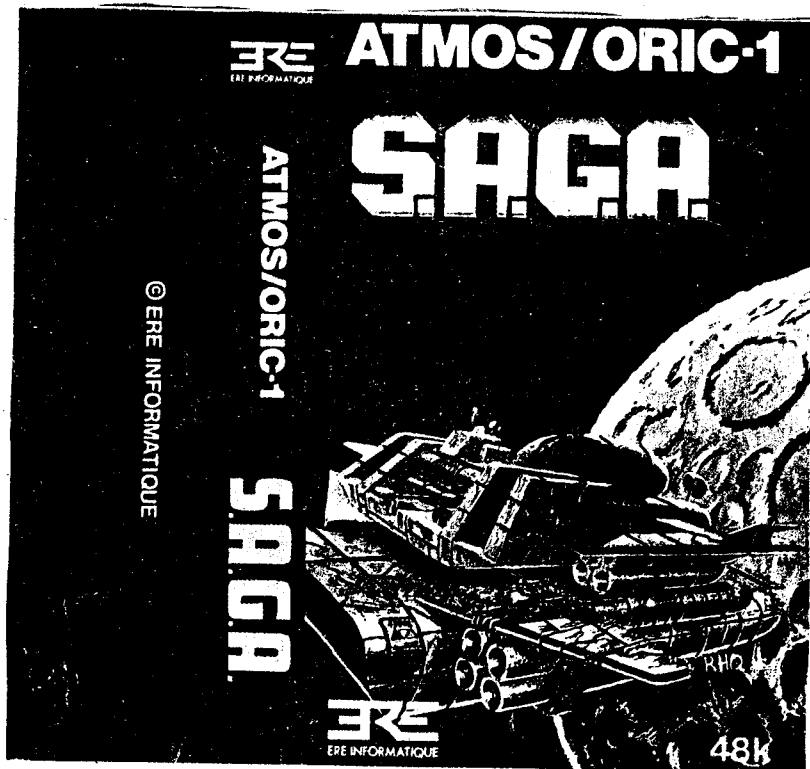===

```
10 REM IEU   .
20 REM INDUSTRIAL EXCAVATOR UNIT
30 LEV=0
40 GOSUB1000:GOSUB3000:GOSUB2000
45 FORA=1TO20:FORB=2TO37:PLOTB,A,")":IFRND(1)>.8THENPLOTB,A,"("
46 NEXTB:NEXTA
50 P=PEEK(#0208):MS=MS+1:IFMS>37THENMS=35
51 IFP=142THENLV=LV-1:PLOT33,22,LV+48:IFLV<1THENGOTO3000
52 IFP=185 THEN600
55 IFP=172THENIFSCRN(X-1,Y)=32ORSCRN(X-1,Y)=41THENPLOTX,Y,32:X=X-1
60 IFP=188THENIFSCRN(X+1,Y)=32ORSCRN(X+1,Y)=41THENPLOTX,Y,32:X=X+1
70 IFP=156THENIFSCRN(X,Y-1)=32ORSCRN(X,Y-1)=41THENPLOTX,Y," ":Y=Y-1
80 IFP=180THENIFSCRN(X,Y+1)=32ORSCRN(X,Y+1)=41THENPLOTX,Y," ":Y=Y+1
90 IFBF=1ANDSCRN(X1,Y1+1)=32THENGOSUB500
100 IFSCRN(X,Y-1)=40THENX1=X:Y1=Y-1:BF=1
110 IFP=172ANDSCRN(X-1,Y)=40ANDSCRN(X-2,Y)=32THENPLOTX,Y,32:X=X-1:T=-1
120 IFP=188ANDSCRN(X+1,Y)=40ANDSCRN(X+2,Y)=32THENPLOTX,Y,32:X=X+1:T=1
130 IFT=-1THENPLOTX-1,Y,40:IFSCRN(X-1,Y+1)=32THENX1=X-1:Y1=Y:GOSUB500
140 IFT=1THENPLOTX+1,Y,40:IFSCRN(X+1,Y+1)=32THENX1=X+1:Y1=Y:GOSUB500
150 PLOTAX,AY,AS:AS=AS+1:IFAS>47THENAS=42
199 PLOTX,Y,MS:T=0:GOTO50
500 REM LET BOULDERS FALL!
510 X2=X1:Y2=Y1:BF=1
515 IFSCRN(X1,Y1-1)<>40THENS550
520 IFSCRN(X1,Y1-1)=40THENBF=BF+1:Y1=Y1-1:GOTO520
530 Y2=Y2+1:PLOTX2,Y2,40:PLOTX2,Y2-BF,32:IFSCRN(X2,Y2+1)=32THENGOTO530
540 EXPLODE:RETURN
550 Y1=Y1+1:PLOTX1,Y1-1," ":PLOTX1,Y1,40:IFSCRN(X1,Y1+1)=32THENGOTO550
560 EXPLODE:RETURN
600 REM DONE?
610 X=1:Y=1:Z=0:REPEAT:X=X+1:IFX>37THENX=2:Z=0:PLOT0,Y,5:Y=Y+1:IFY>20THEN635
620 IFSCRN(X,Y)=40THENZ=Z+1
630 PLOT0,Y,145
635 UNTILY>20ORZ=36
640 IFY>20THENPLOT10,25,"I SEE NO ROW!":WAIT500:PLOT10,25,"
650 IFY>20THENX=2:Y=1:GOTO50
660 CLS:PLOT10,10,"WELL DONE!":LEV=LEV+1:GOTO40
999 END
1000 FORA=46360TO46909:READB:POKEA,B:NEXTA:RETURN
1010 DATA0,4,4,44,13,8,8,0
1020 DATA0,8,8,13,44,4,4,0
1030 DATA0,0,18,12,12,18,0,0
1040 DATA3,3,5,2,11,2,5,1
1050 DATA0,20,1,44,13,32,10,0
1060 DATA0,0,30,61,61,59,53,10
1070 DATA0,18,0,10,0,36,0,10
1080 DATA0,8,0,0,0,0,4,0,0,4,0,0,0,0,8,0,0,0,2,0,0,16,0,0,0,0,1,32,0,0,0
1090 DATA0,0,0,32,1,0,0,0,0,0,16,0,0,2,0,0
1120 DATA12,18,18,18,18,18,12,0
1130 DATA12,4,4,4,4,4,14,0
1140 DATA12,2,2,12,16,16,12,0
1150 DATA12,2,2,12,2,2,12,0
1160 DATA18,18,18,12,2,2,2,0
1170 DATA12,16,16,12,2,2,12,0
1180 DATA12,16,16,12,18,18,12,0
1190 DATA14,2,2,4,4,4,4,0
1200 DATA12,18,12,18,18,18,12,0
1210 DATA12,18,18,14,2,4,8,0
1220 DATA0,0,12,0,12,0,0,0
1230 DATA0,0,12,0,12,8,0,0
1240 DATA0,2,4,8,4,2,0,0
1250 DATA0,0,26,0,26,0,0,0
1260 DATA0,8,4,2,4,8,0,0
1270 DATA12,22,6,12,12,8,0,8
1280 DATA30,51,53,51,53,51,30,0
1290 DATA14,0,17,0,31,0,17,0
1300 DATA30,0,31,0,17,0,30,0
1310 DATA14,0,16,0,16,0,14,0
1320 DATA30,0,17,0,17,0,30,0
1330 DATA30,0,24,0,16,0,30,0
1340 DATA30,0,24,0,16,0,16,0
1350 DATA14,0,16,0,19,0,14,0
1360 DATA17,0,31,0,17,0,17,0
1370 DATA31,0,4,0,4,0,31,0
1380 DATA31,0,1,0,17,0,14,0
1390 DATA17,0,20,0,20,0,17,0
1400 DATA16,0,16,0,16,0,30,0
1410 DATA10,0,21,0,17,0,17,0
1420 DATA25,0,21,0,19,0,17,0
1430 DATA14,0,17,0,17,0,14,0
1440 DATA30,0,17,0,30,0,16,0
1450 DATA14,0,17,0,21,0,11,0
1460 DATA30,0,17,0,30,0,19,0
1470 DATA3,0,6,0,1,0,14,0
1480 DATA31,0,4,0,4,0,4,0
1490 DATA17,0,17,0,17,0,14,0
1500 DATA17,0,17,0,10,0,4,0
1510 DATA17,0,21,0,21,0,14,0
1520 DATA25,0,13,0,22,0,19,0
1530 DATA17,0,31,0,1,0,30,0
1540 DATA31,0,6,0,12,0,31,0
1550 DATA26,26,26,26,26,26,26,26
1560 DATA0,21,63,0,63,63,42,0
1570 DATA0,1,3,0,7,15,2,0
1580 DATA0,16,56,0,60,62,40,0
1590 DATA28,44,44,20,10,13,13,14
1600 DATA0,0,0,0,0,0,0,0
1610 DATA1,2,59,55,16,32,0,0
1620 DATA32,16,63,63,2,1,0,0
1630 DATA0,30,26,22,26,22,30,0
1640 DATA12,12,2,17,12,16,38,32
1650 DATA24,24,4,20,8,48,24,16
1660 DATA24,24,4,8,4,20,35,32
1670 DATA48,48,40,16,52,16,40,32
1700 PRINTPEEK(#0208):GOTO1700
2000 CLS
2010 PAPER0:INK7:
2020 PLOT0,0,"J\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\^"
2030 FORA=1TO20:PLOT0,A,5:PLOT1,A,"[":PLOT38,A,"[":NEXTA
2040 PLOT0,21,"J\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\^"
2050 PLOT0,22,4:PLOT4,22,"TIME REMAINING=0000    LIVES= 000"
2060 PLOT0,24,2:PLOT4,24,"        LEVEL=0    SCORE=0000"
2070 LV=9:TM=1000:JW=0
2080 X=3:Y=1:XM=0:MS=35:AX=RND(1)*30+5:AY=RND(1)*10+1:AS=42:RETURN
3000 LEV=0
3010 PAPER0:INK7:HIRES:INK0:A$="SANDPIPER":FORA=1TOLEN(A$)
3020 CURSET70+(A*7),80,3:CHARASC(MID$(A$,A,1)),0,1:NEXTA
3030 A$="BY JCBTECHNICS 1990":FORA=1TOLEN(A$):CURSET50+(A*7),100,3
3040 CHARASC(MID$(A$,A,1)),0,1:NEXTA:B=4
3050 FORA=0TO7:CURSET20,80+A,3:FILL1,1,B+16:CURSET20,100,3:B=B+1
3055 IFB>7THENB=1
3060 FILL8,1,B:NEXTA:IFKEY$<>" "THEN3050ELSETEXT:RETURN
10000 CALLDEEK(#FFFA)
```

"INDUSTRIAL EXCAVATOR UNIT" IS A LITTLE GAME THAT JONATHAN BRISTOW SENT IN SOME TIME AGO. IT IS AN IDEA AND NOT COMPLETE. IT SHOWS WHAT CAN BE DOWN AND HAS SOME NICE IDEAS. AFTER THE COLOURFUL 'SANDPIPER' LOGO APPEARS,PRESS 'SPACE' TO GO INTO THE GAME. YOU START IN THE TOP LEFT AND MUST EAT THE DOTS.MOVEMENT IS BY WAY OF THE CURSOR KEYS. GOING DIRECTLY UNDER A BOULDER CAUSES LOSS OF LIFE. THE SCORE BOARD etc. DOES NOT WORK. IT IS A NICE IDEA TO BE WORKED ON.

OF COURSE,BY BUYING CHARED/MUSED FROM O.U.M YOU COULD PERHAPS DESIGN A BETTER GAME. BY BUYING MUSED, YOU COULD ADD MUSIC TO IT.

AND SO THE SAGA CONTINUES......

THE TITLE OF THIS PAGE IS ONE OFTEN TO BE FOUND IN JON HAWORTH'S RAMBLINGS.
IT REMINDED ME OF THE GAME FROM 'ERE INFORMATIQUE',WHICH WAS AVAILABLE VIA THE
CEO FOR 5.99 ON CASSETTE. I BELIEVE IT MAY BE CURRENTLY OUT OF STOCK. A VERY
WELL PUT TOGETHER 'SPACE' TYPE GAME WITH MANY INTERESTING FEATURES AND MORE TO
IT THAN AN ARCADE. AN EXCELLENT SIMULATION. IT COMES WITH A BOOKLET IN FRENCH.
HOWEVER,I CAN SUPPLY A TRANSLATION OF IT.


```
0 REM*** A LITTLE LIGHT MUSIC ***
1 REM*** FROM J.BRISTOW ***
3 GOSUB2000
4 SOUND2,1900,1:SOUND3,1900,1:B=0
5 FORA=1019:READB,C
10 PLAY7,0,1,650
15 IFD>6THENB=B/2:E=E+1:IFE>7THENB=B/2:E=3:D=2:F=1
20 SOUND1,B,0:IFD=0THENSOUND2,B+2,0:SOUND3,B-2,0
25 IFA)BORB=1THENP=1:SOUND2,B/4,9:C=C-1
26 D=D+1:IFD>72THEND=48:C=0:SOUND3,B/4,9:SOUND2,B/4,9
27 C=C-2
30 WAITC:NEXTA
1000 DATA1274,20,1274,20,955,08,851,08,1274,20
1010 DATA851,20,1274,10,955,20,1274,10,1430,20
1020 DATA1274,20,1274,20,851,20,1274,20,955,20,1274,10,1071,20,1274,10
1030 DATA1430,20
1040 RESTORE:GOTO5
2000 CLS:PAPER0:INK7:RETURN
```

PROGRAMMING HELP REQUIRED

I RECENTLY RECIEVED A LETTER FROM PAUL FELLOWS. AS I RECALL IT WAS ONE OF ABOUT 20 THAT
WEEK AND ONE THAT I DO NOT HAVE TIME OR PROBABLY KNOWLEDGE TO SORT OUT. I WILL PRINT THE
SALIENT POINTS IN THE HOPE THAT SOMEONE OUT THERE CAN RESOLVE THE PROBLEMS. YOU CAN WRITE
TO ME OR DIRECTLY TO PAUL AT : 156 HARDMAN AVE, HALL CARR,RAWTENSTALL,ROSSENDALE,LANCS.
BB4 6BL
    PAUL OWNS AN ORIC 1 AND THEREFORE ATMOS OWNERS MAY NOT BE ABLE TO HELP. I ALSO KNOW
THAT PAUL HAD CASSETTE LOADING PROBLEMS AND IT COULD BE THAT OTHER PARTS OF HIS ORIC 1
HAVE SOME BUGS IN THEM.

    THE LETTER -   DEAR DAVE,
                I LIKE PROGRAMMING GAMES AND HAVE BEEN TRYING TO PROGRAM THEM IN MACHINE
CODE FOR THE 'HIRES' MODE. I DID MANAGE TO GET HOLD OF THE GEOFF PHILIPS MACHINE CODE/
GRAPHICS ROUTINE BOOK. OUT OF ALL THE GRAPHICS ROUTINES PROVIDED,THE ONLY ONE THAT WORKS
CORRECTLY IS THE 'PLOT CHARACTER CELL' ROUTINE USING EXCLUSIVE - OR.
    WHAT DOESN'T WORK IS THIS: TEST COLLISION/TEST DESTROYED/THE PIXEL ROUTINES = SET DOT:
CLEAR DOT:ALTER DOT:TEST DOT. ALSO THE COLOUR CHARACTER/REMOVE CHARACTER COLOUR? AND THE
FAST PAINT ROUTINE. THERE IS A ROUTINE FOR DRAWING LARGER ODD SHAPES,BUT I DID NOT NEED
IT AND HENCE NOT TRIED IT.
I CHECKED ALL THE PARAMETERS IN THE SETUP SECTIONS BEFORE CALLING THE ROUTINES AND THE
PROGRAMS I HAVE CHECKED USING THE 'EVE' DISASSEMBLER.
    THE ONLY OTHER QUESTION I HAVE (DON'T WORRY,THIS IS THE LAST), IS IF I AM IN 'HIRES'
MODE USING A MACHINE CODE PROGRAMME IN A PROTECTED AREA e.g. HIMEM, AND I HAVE A BASIC
PROGRAM ALSO; WHEN I RETURN TO TEXT AND LIST,I FIND THE BASIC PROGRAM IS DESTROYED. IS
THIS A FAULT OR IF NOT A FAULT,CAN I REMEDY THIS.
    REGARDING MY FIRST QUERIES ON THE GRAPHICS ROUTINES; I WONDERED IF EITHER YOU OR ANY OF
THE READERS KNOW IF GEOFF PHILIPS'S BOOK HAS ANY PRINTING ERRORS. IF NOT PERHAPS THEY CAN
HELP WITH MY PROBLEM. IT COULD BE MY ORIC 1 -   YOURS - PAUL
==

Mr. D. Dick
65 Barnard Crescent
AYLESBURY
Buckinghamshire
HP21 9PW

@UM

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ADRIAN MATTHEWS, 47 Lynwood Drive,Merley,WIMBORNE,Dorset. BH21 1UT...OUM 16...
Atmos/Microdisc
JOHN McKAY, 21 Holme Drive,Sunbrooke,LINCOLN,Lincs. LN2 2QL..Tel:0522 754870..OUM 19...
Atmos/Oric 1/Cass....War Games
Dr.RAY McLAUGHLIN, 28 Farmfields Close,Waterthorpe,SHEFFIELD,S.Yorks. S19 6LR..Tel:0742
470094..OUM 120..Atmos/Oric 1/3 + 5.25" Dr./Printer Buffer using spare Oric/Byte Drive 500..
Basic,Forth,Assy. lang.(65CO2),Author of WORDSPEED,responsible for Byte Drive.
PAT McNEILL, 3 The Chestnuts,Nettleham,LINCOLN,Lincs. LN2 2NH..Tel:0522 751564..OUM 134..
Atmos/Oric 1/Cass.
ALLAN MOORE, 3 Lundwood Close,Owlthorpe,SHEFFIELD,S.Yorks. S19 6SP..Tel:0742 475562..OUM 150.
.Atmos/Opelco 3" Twin/Citizen 120D...Learning M/code
BERNARD MURPHY, 6 Medcalfe Way,Melbourn,ROYSTON,Herts. SG8 6HU...Tel:0763 262729..OUM 156..
Atmos/Cass.
JOHN MUSSETT, 22 Claypit Cottage,Herringfleet,LOWESTOFT,Suffolk. NR32 5QU..Tel:0502 732370...
OUM 100..Oric 1/Cass.
W.OAKES, 9 Kenneth Grove,Erdington,BIRMINGHAM,W.Mids. B23 7TT...OUM 23..Atmos/Oric 1/Cass...
Type-ins/games.
THOMAS OSWALD, Westgate Hall,DENHOLM,Roxburghshire. TD9 8LT..Tel:045087 301...oum 71..
Atmos/Oric 1/Cass./GP100A/MCP40...Electronics Design
JIM OSWIN, 54 Coppice Rd.,ARNOLD,Notts. NG5 7HU..Tel:0602 209042..OUM 107..Oric1/Cass.
JIM PATERSON, 29 Newfield Cr.,HAMILTON,Lanarkshire. ML3 9DS..OUM 108..Atmos/Oric 1/Cass....
6522Via project
JOHN PEACH, LONDON....OUM 165..Atmos/Oric 1/French Microdisc/MCP40
HARRY PETERS, Marathon 28,Krimpen Aan Den Ijssel - 2924 XD, HOLLAND. Tel:01207 19798..OUM
160..Atmos/3" + 5.25" Dr./Star LC10... V1.5 ROM
TIM PHOENIX, 54 Granville Road,GRANGETOWN,Cleveland.TS6 7DF..Tel:0642 455187..OUM 144...
Atmos/Oric 1/Cass.
JEAN PITT, 46a Tabernacle Rd.,Hanham,BRISTOL,Avon.BS15 3DZ..OUM 13..Atmos/Cass./MCP40...C64
conversions/ The ROM
ANTHONY QUINN, Heckenrosenweg 6, 3170 GIFHORN,GERMANY..OUM 149...Atmos/Cass..Author of
'GRAFFIX' and 'ATMOS ARTIST'
ROY ROSE, ENFIELD,Middsx...OUM 136..Atmos (V1.0)/Cass....Also has a ST.
MALCOLM SCOTT, 1 Lambourne Rise,Bottesford,SCUNTHORPE,S.Humberside.DN16 3TN..OUM 167..
Atmos/Cass.
JOHN SEABROOK, 15 Frinstead Walk,MAIDSTONE,Kent.ME16 ONN..OUM 172..Atmos/Oric 1 (16k)/Cass.
MATTHEW SHAKESHAFT, 47 Newton Rd.,Ashton-on-ribble,PRESTON,Lancs. PR2 1DY..Tel:0772 727420..
OUM 4..Atmos/Oric 1/Cass.
GRAHAM SHAW, 5 St.Anne's Place,Beestonley Lane,Stainland,HALIFAX,W.Yorks. HX4 9PR...
Atmos/Oric 1/Microdisc/Mcp40
TREVOR SHAW,8 Robinson Terrace,Loftus,SALTBURN-BY-THE-SEA,Cleveland.TS13 4HY..Tel:0287
641827...OUM 158..Atmos/Oric 1/Microdisc/MCP40/Qdata DWP1120/Prism Modem...
Music/WP/Programming/Astrology/Astronomy/wrote 'ORICOMMS'.
JUDY SIMMS, Flat One, 20 Holly Rd.,EDGBASTON, B'HAM,W.Mids. B16 9NH..Tel:021 454 6906..OUM
12...Atmos/Microdisc/MCP40...Games/programming
DEREK SMITH, 26 Lake Ave.,WALSALL,W.Mids.WS5 3PA..Tel:0922 34833..OUM 49... Atmos/Cass.
/MCP40
VINCENT TALVAS, 58 Rue Des Sculpteurs,93240 STAINS,FRANCE. ..Tel: 010 331 4821 9014..OUM 78..
Telestrat/3 + 5.25"/Olivetti DM105...President of 'CLUB EUROPE ORIC' and a friend of the
pigeons!
BOB TERRY, 2 Windrush Court,AYLESBURY,Bucks...Tel:0296 436280..OUM 77..Atmos/Microdisc/NEC
PETER THORNBURN, 12 Lady Wootens Green, CANTERBURY,Kent.CT1 1NG..Tel:0227 766510..OUM 115..
Atmos/Oric 1/Cumana 3"/Mcp40...Adventures/Arcades/Music/Model Railways
R.TOWNSEND, 10 Broadmark Ave.,RUSTINGTON,W.Sussex.BN16 2HQ..Tel:0903 784008..OUM 92..
Atmos/Cumana 3"/KXP 1081..Utilities/strategy games.
DAVID UTTING, 47 Gainsborough Road, LEICESTER. LE2 3DG..Tel:0533 705076..OUM 22..Atmos/Oric
1/Cumana & Opelco Drives/Lc24-10/Modem
RICHARD WALKER, 30 St.Wilfrid's Grove, LEEDS,W.Yorks...OUM 124..Atmos/Cass.
ALISTAIR WAY, Pembroke College,CAMBRIDGE..OUM 58..Atmos/Cass./Tandy..
Music/programming/Author of GRENDEL,FOOTBALL,GALACTOSMASH,GRAND PRIX,CRICKET and STARWIND.
ALAIN WEBER, 1 Bd.Theophile Sueur, BAT F103, 93110 ROSNY-SOUS-BOIS,FRANCE...OUM 139..
Telestrat/Microdisc/Thompson 3.5"/Cit.120D... Chief Editor of the CEOMAG.
ADRIAN WESTLEY, 165 Worthing Rd.,RUSTINGTON,W.Sussex.BN16 3PR..Tel:0903 773270..OUM 103..
Atmos/Oric 1/Cass./M-line 80/MT81....Games/Basic programming
ALLAN WHITAKER, 8 Staley Hall Rd.,STALYBRIDGE,Cheshire.SK15 3DT..Tel:061 303 7369..OUM 75..
Atmos/Oric 1/Opelco 3" + 3.5" + 5.25"/Dot Matrix/MCP40/Graphics Tablet....ORIC ENTHUSIASTS (
Shareware/books/peripherials.
ANDRE WIDHANI , Birckholtzweg 15, 2000 HAMBURG 72,GERMANY...OUM 47..Atmos/Oric
1/Telestrat/Microdisc 3"/ 3.5"/LC 24-10...Programming/games/Author of TETRIX
DAVID WILKIN, 22 Saxonbury Ave,SUNBURY-ON-THAMES,Middsx. TW16 5HD..Tel:0932 782448..OUM 40..
Atmos/Microdisc/Shinwa CP...Repairs/WP/Strategy games.
EDMUND WISNIEWSKI, 6 Stutely Grove,Bradley,HUDDERSFIELD,W.Yorks. HD2 1SA..Tel:0484 546850..
OUM 110..Atmos/Oric 1/Byte Drive 500.... WP
PETER WOOLLEY, 4 Spice Quay,Old Portsmouth,HANTS. PO1 2JU...Tel:0705 851543..OUM 20..
Atmos/Cumana 5.25"/Canon PW1080/Modem.... FORTH

AND THE LAST OF THEM

NORMA WRANGHAM, 'Allways',Station Rd, Sible Headingham,HALSTEAD,Essex.CO9 3QD..Tel:0787 61615...OUM 70..Atmos/Opelco 3"/Star LC10
STUART WRIGHT, 65 Chelmsford Rd, CLACTON,Essex.CO15 5DJ..Tel:0255 812057...OUM 73..Atmos/Oric 1/3 + 3.5 + 5.25" drives/BYTE DRIVE 500/DMP2000/Modem

LATEST ADDITIONS (NOT IN ORDER):

TIMOTHY GRIMWOOD, 103 Lower Lambricks,RAYLEIGH,Essex...OUM 176..Atmos/Cass...GAMES
RODNEY TITCHENER, 48 Birdhurst Ave,SOUTH CROYDON,Surrey.CR2 7DX..Tel: 081 680 3484...OUM 177..Atmos/Cass.
KENNETH AUSTIN, 23 Wellington Ave, WAVERTREE,Liverpool. L15 OEH..Tel:051 733 3059...OUM 181..Atmos/Oric 1/Cass.(SOON TO BE CUMANA 3.5")/PANASONIC KXP1081
A.DALE, THE FORGE, Sibton,SAXMUNDHAM,Suffolk.IP17 2JH..OUM 183...Atmos/Cass.
CHRIS MAIDMENT, 261 Ermin St.,Lower Stratton,SWINDON,Wilts. SN3 4LN..OUM 185... ORIC 1/Cass...GAMES
CHRIS EVANS, NORTHAMPTON...OUM 187..ATMOS/ORIC 1/Cass.
COLIN COOK, 2 Lombardy Close, PITSEA,Basildon,Essex. SS13 2RE..Tel:0268 550973..OUM 188...Atmos/Opelco 3" Twin/CGP115...Basic programming/Mathematics
BILL BRIGGS, 25 Fairford Close, Church Hill North,REDDITCH,Worcs. B98 9LU..Tel:0527 67301..OUM 190..Atmos/Cass/Citizen 120D...Basic programming/Astronomy
KIERON SMITH, 43 Sirdar Rd.,Portswood,SOUTHAMPTON,Hants. SO2 3SH..Tel:0703 555593...OUM 191..Atmos/Oric 1/MCP40
JAMIE SPURR, 4 New Hill, Walesby,NEWARK,Notts. NG22 9PB..Tel: 0623 836113...OUM 192...Atmos/Oric 1/Cass...M/Code/Writing programs.
PETER LOWE, 333 Westdale Lane,Mapperley,NOTTINGHAM. NG3 6EU...Tel:0602 620217..OUM 193..Atmos/Oric 1/Cass.....Educational/games/Tinkering with the soldering iron.

WELL, YOU CAN'T SAY THAT YOU HAVEN'T GOT ANY BEDTIME READING. I MAKE NO APOLOGIES FOR PRINTING THIS AS ABOUT 50% OF OUR MEMBERS PROBABLY DON'T KNOW WHO'S WHO!
PLEASE KEEP THIS SAFELY AS WE CAN THEN SAVE ON SPACE IN FUTURE ISSUES BY NOT PRINTING ADDRESSES.

PRIZE TIME

OKAY, YOUNG MATTHEW HAS JUST ARRIVED HOME FROM SCHOOL. I WILL GET HIM TO PICK A NUMBER OUT OF THE HAT. THE LUCKY WINNER WILL HAVE ONE ISSUE OF 'OUM' ADDED TO THEIR SUBSCRIPTION.
AND THE LUCKY NUMBER IS : 157
I'LL JUST LOOK THAT UP .... AH! YES.. MR. R.LAWRENCE FROM OXFORD....HE ONLY BOUGHT THE SEPT. 1991 ISSUE AND CAN'T WIN.
OKAY, YOUR TURN LOUISE.... THIS TIME 2 FREE ISSUES - WOW! - AND THE WINNER IS.... 073...STUART WRIGHT FROM CLACTON.

CAN YOU SOLVE THIS THEN!

A PROBLEM FROM CHRIS EVANS OF NORTHAMPTON - RESPONSES PLEASE TO OUM.
CHRIS SAYS - " THE R.G.B OUTPUT FROM THE ORIC/ATMOS IS I UNDERSTAND AT 5v TTL AND ALTHOUGH THIS IS FINE WITH MY FERGUSON/TV MONITOR, I AM UNABLE TO OBTAIN ANY DISPLAY WHEN CONNECTED TO THE 21 PIN SCART PLUG CONNECTED TO A LARGE SCREEN HITACHI SET. I DID SEE A CIRCUIT WITH 3 TRANSISTORS AND SOME RESISTORS TO OVERCOME THIS PROBLEM,BUT THE DETAILS WERE UNREADABLE. CAN YOU PLEASE HELP!"
NOTE FROM THE ED. - I HAVE A COUPLE OF ITEMS OF INFO. WHICH I AM SENDING TO CHRIS,BUT FEEL THEY ARE NOT ENOUGH. READERS HELP WOULD BE MOST WELCOME

WHILE YOU ARE AT IT!

OKAY,YOU TECHNICAL GUYS - HERE'S ANOTHER ONE FOR YOU. THIS TIME FROM RICHARD JAMES IN TROWBRIDGE. AND I QUOTE - " I WONDER IF ANYONE HAS FOUND A WAY OF CLEANING UP THE ORIC DISPLAY,WHICH IS OBTAINED VIA THE UHF OUTPUT. IT DID NOT BOTHER ME FOR LONG,BECAUSE I BOUGHT A TV WITH RGB INPUT THAT DISPLAY IS FINE,BUT AS I NOW HAVE A CAMCORDER;I WOULD LIKE TO USE THE ORIC TO PRODUCE TITLES AND THIS MEANS I NEED A COMPOSITE VIDEO OR UHF SIGNAL TO GO INTO THE VIDEO RECORDER,WHEN I AM EDITING. I HAVE MANAGED TO COMBINE THE RGB SIGNALS TO PRODUCE A BLACK AND WHITE VIDEO SIGNAL,BUT WOULD LIKE,IF POSSIBLE,TO HAVE A COMPOSITE COLOUR VIDEO SIGNAL"

MESSAGE TO ARNT FROM DAVE DICK

I HAVE AN ANSWER FROM PETER BRAGG ON USING AN AMSTRAD COLOUR MONITOR WITH YOUR ATMOS. WHEN I CAN FIND THE LETTER, I WILL SEND DETAILS..OOPS!

THE BACK PAGE

WELL,I FINALLY MADE IT TO THE LAST PAGE. I DON'T KNOW HOW THIS ISSUE
WILL TURN OUT - DIFFERENT I THINK!

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NEWS FROM FRANCE

THE NEXT MEET IN FRANCE ON SATURDAY JUNE 13th. WILL TAKE PLACE IN A TOWN
NEAR TO PARIS. THE ADDRESS IS : 126, RUE DU LANDY, 93 SAINT-OUEN.

VINCENT TALVAS WILL BE IN AYLESBURY FOR OUR MEET ACCOMPANIED BY 1 OR
PERHAPS 2 TELESTRATS - LETTER TO FOLLOW VINCENT.

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SHARP PRINTER MECHANISM

AT ONE TIME AND PERHAPS THEY STILL DO, 'J & N BULL' WERE SELLING THE
SHARP PRINTER/PLOTTERS VERY CHEAPLY. MCP40 USERS WILL KNOW THAT WHEN THE
PRINT MECHANISM GOES,THEN THERE IS NO WAY OF REPLACING IT. CHRIS HEARN
HAS NOW FITTED A SHARP MECHANISM INTO AN MCP40 CASE. AFTER BLOWING UP THE
FIRST MCP40 DRIVER BOARD (TOO MUCH GUINESS!); HE HAD SUCCESS ON THE
SECOND.
THOSE WHO HAVE THE 'SHARP' OR ARE INTERESTED CAN SEND ME AN S.A.E FOR
FULL INSTRUCTIONS ON THIS FEAT OF ENGINEERING.

==

OUM READERS

THE MARCH ISSUE WENT OUT TO 102, THE APRIL ISSUE TO 105 AND THE MAY
ISSUE TO 103.
THANK YOU FOR HELPING WITH THE MAILSHOT. I AM STILL GETTING RESPONSE AS
FRIENDS OF FRIENDS PASS MY ADDRESS ON.
THE JUNE ISSUE WILL AGAIN GO OUT TO OVER 100 READERS.
THERE IS STILL A BACKLOG IN THE OFFICE. PLEASE ALLOW 2 WEEKS FOR A REPLY
TO A LETTER AND UP TO 4 WEEKS FOR 'MIRAGE' SOFTWARE ON CASSETTE.

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MIRAGE SOFTWARE

I CAN NO LONGER SPARE THE TIME TO DUPLICATE CERTAIN CASSETTE SOFTWARE.
AS OF AUGUST 1st, THE FOLLOWING 'MIRAGE' TITLES WILL BE NO LONGER
AVAILABLE ON CASSETTE: 'GRENDEL', 'GALACTOSMASH','GRAND PRIX','ESCAPE'
and 'KRYSTAL WORLDS'.
IF YOU WANT THESE PLEASE ORDER SOON.

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SECOND-HAND SOFTWARE

NOW FOR A BARGAIN! AN ATMOS USER IS SELLING UP AND I HAVE HIS STOCK OF
CASSETTES TO DISPOSE OF. I WILL SPLIT THEM INTO 4 PACKS. THEY WILL BE
SOLD ON A FIRST COME FIRST SERVED BASIS. SO GET IT FAST - DON'T SEND
MONEY AT THIS STAGE. THE PRICES SHOWN EXCLUDE POST/PKG. WHICH WILL BE
ADDED AT COST OR OF COURSE YOU CAN PICK THEM UP AT THE MEET AND SAVE ON
POSTAGE. THEY ARE ALL 'ORIGINALS' BUT SOME INLAYS ARE PHOTOCOPIES AS THEY
WERE 'REVIEW' COPIES.

PACK A - 'THE ORIC -1 PACK' - WARLORD,GALAXY 5,SUPER METEORS,TOOLKIT,
ASTEROIDS,HUNCHBACH,DRACULAS REVENGE,ORIC GOLF,FILESTAR and EXMON - 10
TITLES FOR 2.50

PACK B - 'THE MIX PACK' - KROKATILE WALTZ,MULTIGAMES 2,WAYDOR,ORIC
CALC,QUIZMASTER,INVADERS (ARCADIA),THE HELLION,MEMORY GAME,MINED-OUT,
MORIA,KILLER CAVERNS,LOCH-NESS MONSTERS,DEATH SATELLITE and VELNORS LAIR -
14 TITLES FOR 3.50

PACK C - 'THE SERIOUS STUFF' - COMPOSER (ATMOS),CLASSIC RACING,FRENCH
LINKWORD,SPACE SHUTTLE,THE HOBBIT and AUTHOR - all WITH MANUALS WHERE
APPLICABLE - 6 TITLES FOR 3 POUND.
PACK D - ' GOODIE ARCADE PACK' - OPERATION GREMLIN,RATSPLAT,QUACK A
JACK,ELEKTROSTORM,GRAVITOR,FIREFLASH,XENON I and XENON III - 8 TITLES FOR
JUST 2.70

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