ORIC
USER
MONTHLY
with Alternative Micros
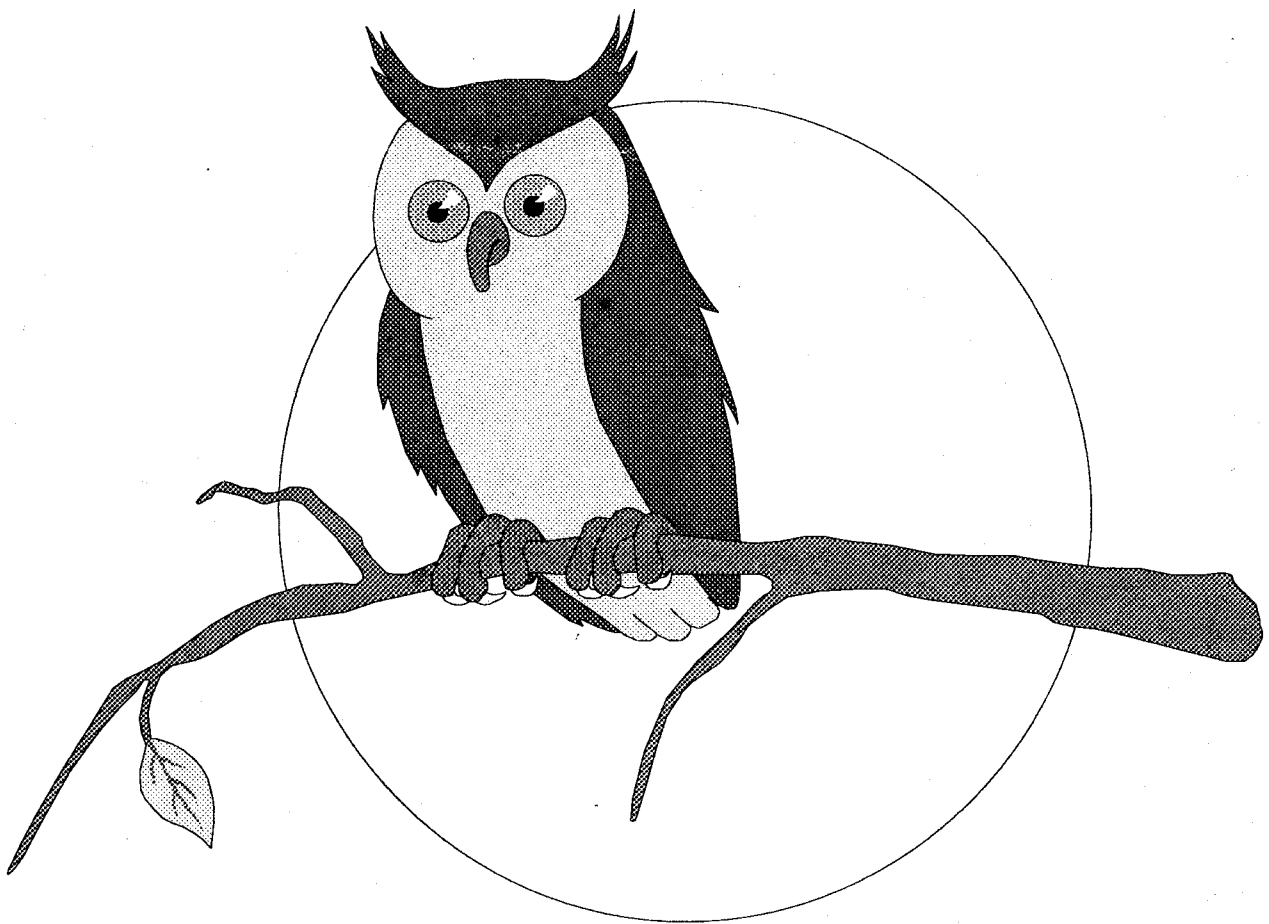
THE EDITORIAL

HELLO ONCE AGAIN,

AND WELCOME TO OUR DOUBLE ISSUE.

THE LAST TIME I WROTE WAS JUST BEFORE THE FAMILY EMBARKED ON OUR TWO WEEK VACATION AT STEVE HOPPS' APARTMENT IN NERJA. SOME 14 DAYS OF SUNSHINE FOLLOWED, AND I CAN THOROUGHLY RECCOMEND THE RESORT.

NOW BACK TO FACE UP TO ANOTHER BRITISH WINTER, AND TIME TO USE THOSE LONG WINTER EVENINGS TO DO SOME SERIOUS ORIC -ING. THUS, WITHOUT FURTHER ADO, THE INDEX.

INDEX

==

DECEMBER O.U.M.

ARTICLES FOR INCLUSION IN THE DECEMBER ISSUE, SHOULD REACH ME BY NOVEMBER 24th. AT THE LATEST PLEASE!

JANUARY O.U.M

IN PREVIOUS YEARS I HAVE GIVEN PETER BRAGG AND JON HAWORTH A BREAK OVER XMAS - NO CHANCE THIS YEAR! THEY HAVE ONLY JUST HAD A FREE MONTH, AND SO I BEG THAT THEY GET ME AN ARTICLE FOR THE JANUARY ISSUE - YOU HAVE BEEN WARNED. I WOULD ALSO LIKE TO SEE CONTRIBUTIONS FROM OTHER MEMBERS.

ALL ARTICLES FOR INCLUSION IN THE JANUARY ISSUE TO BE WITH ME BY DECEMBER 23rd. - PLEASE!

==

FOR SALE

I HAVE 3 IN QUANTITY OF POWER SUPPLIES FOR THE ORIGINAL ORIC MICRODISC SYSTEMS. ALL I WANT FOR THEM IS 2 POUNDS PLUS WHATEVER THE POSTAGE IS. THEY ARE IN WORKING ORDER. YOUR LAST CHANCE TO PURCHASE. CONTACT THE EDITOR.

GOTTA JOB

GOOD NEWS ON THE WORK FRONT FROM JAMES GROOM. AFTER 15 MONTHS OF TRYING, JAMES GROOM HAS LANDED HIMSELF A FULL-TIME JOB. HE IS A LABORATORY ASSISTANT IN AN EDIBLE NUT PROCESSING FACILTY (A PEANUT FACTORY).

IN THE SAME WEEK HE WAS OFFERED A JOB AS A COMPUTER PROGRAMMER - TALK ABOUT BUSES COMING ALONG ALL AT ONCE! JAMES DECLINED THIS OFFER,AS PROGRAMMING ACCOUNTS & STOCK TAKING PROGRAMS IN MAINFRAME ASSEMBLER WOULD OF PUT HIM IN A PADDED CELL IN 6 MONTHS.

WELL DONE TO JAMES.

MAGNETIX

Latest news from Jonathan Bristow is that his latest game called MAGNETIX is still being worked on. The music,general programming,and Hi-Score table are all finished. There are just some of the 9 levels to be designed.

It is hoped to release it in time for Xmas.

TAKING COALS TO NEWCASTLE!

John Foggin has kindly sent me an article he found in the August 1983 issue of EVERYDAY ELECTRONICS.

It states that Oric Products International were to form a new company in Japan to sell and manufacture the Oric range in Japan. According to Oric's Sales Director (Peter Harding), the technical team had developed the Kana character generator set to be used in the Japanes version of the Oric".

I checked the above story with the Bible according to Jon Haworth (ORIC - THE STORY SO FAR), and he says that the Japanese company probably onle existed on paper.

ORIC - THE STORY SO FAR is laser printed on quality A4 paper, contains 56 pages,scores of photos and is available direct from Jon for just 5 pounds,including postage - it is a must for all Oric owners.

CYBOJUDGE

CYBOJUDGE from Steve Marshall is still being worked on,but release is still some way away. Latest baddies to be pictured within the game are Dr.Paul and Arnie.

IT'S A BOY!

Congratulations to Stephen Haigh and his wife on the arrival of a son.

PC.MAG

James Groom informs me that he saw an advert in a PC magazine from the Welsh Wizzard (Brian Kidd). I sincerely hope that it was Oric related. Any replies yet Taff?

READERS LETTERS

DEAR DAVE,
            a couple of things to mention.
  1) In OUM a couple of issues ago,Steve Marshall asked about the address of
the CLASSIC COMPUTER CLUB. I saw the episode of THE NET,which mentioned the
club. I'm also interested in the older computers. I don't think an address
was given,but I remember one of it's members saying that he would travel up
to 200 miles to buy a desirable computer if he saw one advertised. At the
time,I thought that he must have been reading MICRO MART. One way of finding
out about the CLASSIC COMPUTER CLUB would be to put an advert in MICRO MART
asking for details.

  2) Recently you mentioned that you had got hold of a PC XT,which you were
using for OUM matters. As a number of OUM members use PCs,and,for example,my
letter was written on a PC,would it be helpful to you for OUM members to
submit letters,articles,etc on PC disks? You mentioned that you are using
WORDPERFECT and I know that WORDPERFECT can import files in ASCII format. I
use GALAXY LITE,which stores text in ASCII files. If you can recieve ORIC
stuff on PC disks,what size disks do you require?
                                                    - ROBERT CRISP (Leeds)

  DEAR ROBERT,

            1) A good piece of deduction regarding MICRO MART. I'll leave
it to Steve Marshall to put in a free advertisement. I know Tony Adams of
the Steam Computer Society would also be interested in the outcome of this
one.   Another option would be to write to the Television company,who
produced THE NET.

            2) I am more than glad to recieve articles/long letters on
disc.
  I can cope with ORIC discs sent to me on 3",3.5" and 5.25" using
WORDSPEED,WORDWORTH,AUTHOR or EASYTEXT word processors.
  I can also accept PC discs on 5.25" or 3.5" (double density only).

                                                    -- DAVE
===

  DEAR DAVE,
            DISK is short for diskette,and DISC is a flat round thingy,so
DISK is preferable when concerning the thing you stick in a computer. (but
DISC isn't really incorrect as the disc is a disc even if the disk isn't).
PROGRAM is a set of computer information,whereas PROGRAMME is used for a
sequence of events etc. All clear Frank???
                                                    - STEVE MARSHALL (Edinburgh)

  DEAR STEVE,
            I'm sure that Frank will appreciate that!
  It's as clear as mud to me!
                                                    - DAVE
===

  DEAR DAVE,
            I saw in the Contact List that you are now using an Amstrad
colour monitor. Does it work fine with colours? When I tried to make a lead
from my Oric to the monitor it did not as it became dominated by red or blue
colours - maybe I didn't give it my best try.

I am now able to use my Oric regularly again as I have designed a computer
desk for the Oric system - my dad did,however,the hard work as he was given
the job to build it. Picture to follow.
    I was very interested in the idea of SUB-EFFECT,and will maybe try to
organise something like this in Norway. I don't,however,think that I will
have the time to run it all by myself. In order to do so I have sent a
letter to "VG-kontakt",which is printed in "VG" every Saturday. This is not
a sex magazine. It is in fact Norway's biggest newspaper,and is read by
about 25% of the Norwegian population. This regular page in this paper helps
people   get   in   touch   with   people with special interests - e.g:
Music,Searching for people etc. I also sent them a picture of the Oric of
course. I hope they print something from my letter as I was searching for
owners/users of "old" computer equipment. I will let you know if anything
happens.
                    - ARNT ERIK ISAKSEN (Norway)

    DEAR ARNT,
                my Amstrad monitor works extremely well with the Oric,and I
know that other Oricians have been successful. In issue 72/73
(Aug/Sept.'93) of OUM - page 25, we showed the connections that are
required. The model number of my monitor is the CTM644.
    I believe that Jean Boileau uses the cream colored monitor from Amstrad. I
thought we published his letter,but have not yet found it.
    Also of interest (and to whoever asked me about a Phillips monitor with a
BBC and an Oric - it may have been Wilkie) is the article by Peter Bragg on
page 41 of issue 60/61 of OUM.

    I look forward to recieving the picture of your computer desk - it's
nice to publish such projects.

    Unfortunately SUB-EFFECT is no more. However, a new 8-bit magazine should
be hitting the streets - see the ALTERNATE MICROS section in this issue.
                                                          - DAVE
===

    DEAR DAVE,
                I am sorry that I will not be renewing my subscription to OUM.
Many thanks for an interesting and informative period of membership.
    The reason for this decision is the recent acquisition of a pile of bits
and pieces that purport to be a P.C. With limited funds and spare time to
spend on my "hobby", it is with sadness,that I have decided to part with my
Oric Atmos.
    Please advertise the sale of my Oric collection.

    If anyone is interested in Microtan 65 bits or an Acorn Elektron
system,then please telephone me on: 0225 790489 - I need the space!

                    - BRIAN BULL (Melksham)

    DEAR BRIAN,
                sorry to see another Oric user fall by the wayside. It's been
a pleasure communicating with you.
    I have contacted a couple of readers,who are interested in a drive system.
If they do not respond by the time that this issue goes to press, then I
will place an advert at the end of this issue.
    All the very best for the future,and the best of luck with your P.C.
                            - DAVE
===

6

EINSTEIN SOFTWARE

ON A RECENT VISIT TO 'CAPRI MARKETING', I ENQUIRED AS TO WHAT THEY HAD IN THE WAY OF 'EINSTEIN' SOFTWARE. ONLY ONE TITLE I'M AFRAID. IT'S 'MICRICLE WORD PRO' - WAS ORIGINALLY 129.95,AND NOW GOING FOR 29.95.
'CAPRI MARKETING' ARE AT: THE COMPUTER CAVERN, 9 DEAN STREET, MARLOW,BUCKS. SL7 3AA (TEL: 0628 891101)

ALSO FROM CAPRI!

THE REASON FOR THE VISIT TO 'CAPRI' WAS TO GET SOME SOFTWARE FOR YOUNG MATTHEW FOR MY PC-XT. DID I SAY MY P.C? I THINK IT IS ON PERMANENT LOAN TO HIM!
THEY HAVE MANY PC TITLES ON 3.5" AND 5.25" DISC FROM ONLY 4.99. SEND THEM AN S.A.E FOR A LIST,BUT BE CAREFUL,AS THE LIST DOES NOT STATE WHICH PROGRAMS RUN WITH WHICH P.C'S. WHEN YOU'VE MADE YOUR SELECTION A PHONE CALL IS ADVISED.

DRAGON USER GROUP

THE CHAIRMAN OF THE 'DRAGON' USER GROUP IS PAUL GRADE. HE IS TO BE FOUND AT: 6 NAVARINO ROAD, WORTHING,SUSSEX.
TELEPHONE NUMBER IS: 0903 207585

AMS8

'SS PROMOTIONS' PRESENT THE EIGHTH ALL MICRO SHOW,RADIO RALLY & ELECTRONICS FAIR ON SATURDAY 12th NOVEMBER BETWEEN 10 a.m and 4 p.m at: BINGLEY HALL,STAFFORDSHIRE SHOWGROUND,WESTON ROAD,STAFFORD. ENTRANCE ON THE DAY COSTS 2 POUNDS & IT'S FREE TO THOSE UNDER 14 YEARS OF AGE.
    ALL FORMATS SUPPORTED,INCLUDING; IBM PC,AMIGA,ATARI ST/8 BIT,EINSTEIN,ACORN,APPLE etc. HARDWARE,SOFTWARE,ACCESSORIES,RADIO,SATELLITE,PRINTERS,MEDIA SUPPLIES,SYSTEMS,ELECTONIC BRING AND BUY ETC.
THE VENUE IS OFF THE A518 STAFFORD-UTTOXETER ROAD,AND IS SIGNPOSTED FROM JUNCTION 14 ON THE M6. A BUS SHUTTLE RUNS FROM STAFFORD BRITISH RAIL STATION. FUTURE EVENT - THE SPRING ALL MICRO SHOW WILL BE HELD ON SATURDAY APRIL 15th 1995. FOR FURTHER DETAILS PLEASE CONTACT: SS PROMOTIONS, UPLAND CENTRE, 2 UPLAND ROAD, IPSWICH. IP4 5BT. TEL: 0473 272002   FAX: 0473 272008

OSBORNE

AN APPEAL NOW PASSED TO ME BY THE STEAM COMPUTER SOCIETY/U.K EINSTEIN USER GROUP. THEY HAVE HAD AN ENQUIRY FROM SOMEONE WHO HAS JUST BOUGHT AN OSBORNE EXECUTIVE. NO RESPONSE WAS FORTHCOMING FROM EITHER ADDRESS ON RECORD FOR 'BOOG'.
IF ANYONE HAS ANY INFORMATION REGARDING SUPPORT FOR THE OSBORNE,THEN WOULD THEY PLEASE LET ME KNOW.

8-BIT MART

ACCORDING TO THE INFAMOUS STEVE MARSHALL THERE WAS A NEW MAGAZINE DUE TO BE PUBLISHED FROM SEPTEMBER 1st. IT'S CALLED '8-BIT MART' AND NORMALLY COSTS 4 x FIRST CLASS STAMPS. FOR DETAILS CONTACT: BRIAN WATSON, HARROWDEN, 39 HIGH STREET, SUTTON-IN-THE-ISLE, ELY, CAMBS. CB6 2RA. TEL: 0535 777006

"MASTER FILE" for the C64

Disc utility "Masterfile","Master Basic","Master Screen" and "Master Print" plus manual & peripheral to connect to the C64 (not a cartridge). Also copies of "Disc Wizard" and "File Copier". Offers for sale or swap. As postage is about 5 pounds,then swaps may be of more interest.
    All enquiries to Arnt Erik Isaksen.

NIMBUS

Frank Bolton is now the proud owner of a NIMBUS (is that a submarine!).
I know that our local Grammar school has a room full of these (networked). That will bring memories back to Alistair Way,who studied there. Dr.Bond is still about, but the machines have been upgraded from 186's to 486's.

THE GAMESTER

ROCK RUN
ROCK RUN
---- ---

I recently recieved an order for ROCK RUN - an interesting 'Boulder Dash'
type game from Staale Eikbraaten. I hadn't played it for some time,and it
took young Matthew and I,all of 15 minutes to figure out the initial moves
again. I thought I'd put into writin those initial moves for those who may
have forgotten how to get going,and at the same time perhaps tempt others to
purchase this above average puzzle just in time for Christmas.
  ROCK RUN is only available on disc. Prices are: 3.00 - 3.5"/5.25" or 4.00 -
3" disc. •
  THE FIRST SIX MOVES - 1) Clear all dirt,except last block (next to
diamonds).
  2) Clear last dirt & walk back left,allowing first boulder to fall.
  3) Go up,right,and take first diamond.
  4) Go up and left,allowing second boulder to fall.
  5) Now go and take second diamond.
  6) Go up,move left & third boulder falls.

==

MONTANA PATIENCE
------- --------

  MONTANA PATIENCE is going to be the 'thinkers' hit of this Winter. Written
by Nick Haworth;it appears on OUMDISC 5. Our resident games tester has been
hammering away at it. Suitably impressed - he has proved that it is not
impossible. Well done! Who is the game tester - Henry Marke of course.

==

HI-SCORES
-- -------

  Not a lot happening on the Hi-Scores front, and so your Editor is giving
you Gamesters not one,not two,not three, but TEN games to attack over the
Winter months. Closing date for this competition will be January 31st. 1995.
  All you have to do is have a go hammering at least 6 of the following
ten;then send me your results. I'll give ten pounds cash (from my wallet -
not funds) to what I adjudge to be the best effort. Some of these ten appear
in the Hi-SCORE table and some do not. Your chance to be famous.
  Here are the ten to go at:

  1) - ATLANTID, 2) FLY FOR YOUR LIFE, 3) FRELON, 4) GALACTOSMASH, 5) PROBE
3, 6) XENON III (THE GENESIS PROBE), 7) PAINTER, 8) DIG DOG, 9) GRENDEL,
10) COLUMNS.
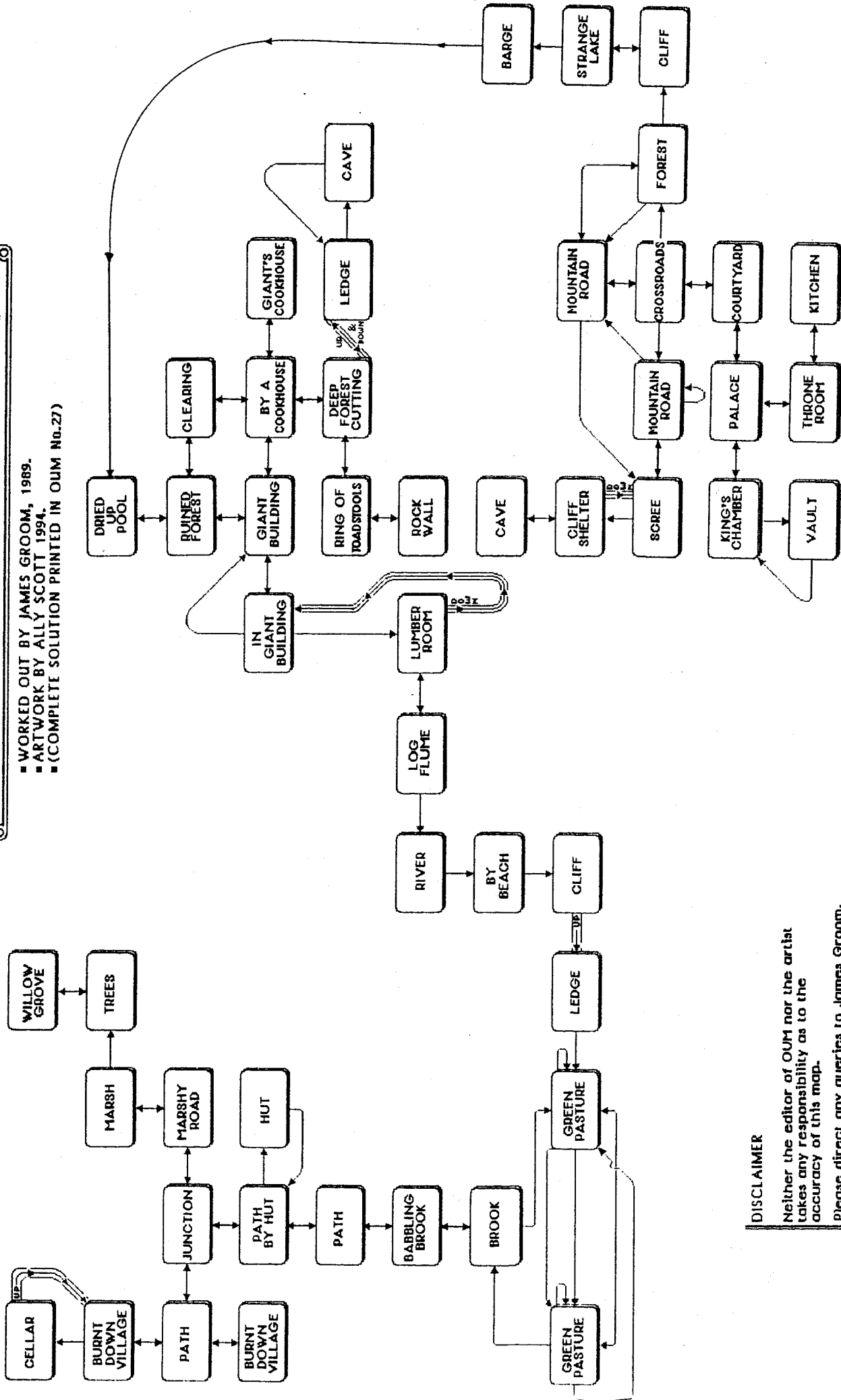
  Well - a good variety to get stuck into.
  I'll remind you next month to keep trying.
==

SOFTWARE PRICE LIST
-------- ----- ----

  I have desperately been trying for months now to update the OUM SOFTWARE
MAIL ORDER LIST. Latest news is that I have got young Matthew involved -
well a modern day school child should really learn about databases. He is
currently working on a new software price list/stock control with the aid of
DBASE and the PC. I want to send it out with this issue,but honestly don't
know if we will make it. Meanwhile - if you are after a particular title or
indeed a certain type of program, then just drop me a line. The odds are
that we have it in stock. This applies to both cassette and disc users.
Unfortunately some of the newer Oric titles are not available on cassette,
but MAGNETIX will be.
==

ARROW OF DEATH : Part I ~ MAP

- WORKED OUT BY JAMES GROOM, 1989.
- ARTWORK BY ALLY SCOTT 1994.
- (COMPLETE SOLUTION PRINTED IN OUM No.27)

BARGE — STRANGE LAKE — CLIFF

CAVE

LEDGE

GIANT'S COOKHOUSE

FOREST

MOUNTAIN ROAD — CROSSROADS — COURTYARD — KITCHEN

CLEARING — BY A COOKHOUSE

DEEP FOREST CUTTING

MOUNTAIN ROAD — PALACE — THRONE ROOM

DRIED UP POOL — RUINED FOREST — GIANT BUILDING — RING OF TOADSTOOLS — ROCK WALL — CAVE — CLIFF SHELTER — SCREE — KING'S CHAMBER — VAULT

IN GIANT BUILDING — LUMBER ROOM

LOG FLUME

RIVER — BY BEACH — CLIFF

LEDGE

GREEN PASTURE

WILLOW GROVE — TREES

MARSH — MARSHY ROAD — HUT

JUNCTION — PATH BY HUT — PATH — BABBLING BROOK — BROOK

CELLAR — BURNT DOWN VILLAGE — PATH — BURNT DOWN VILLAGE

GREEN PASTURE

DISCLAIMER

Neither the editor of OUM nor the artist takes any responsibility as to the accuracy of this map.

Please direct any queries to James Groom.

LOOKING AT CLASSIC GAMES
with Arnt Erik Isaksen
Part 2.1
Oric Classics

Part 2 of my series is about the games that have become classics only - as far as I know - for the Oric.

We start by looking at the Xenon series - the most classic of all Oric games.

XENON 1. IJK Software 1983. John Sinclair.
You are in control of a space-ship and must complete your mission on five different screens. 1&2. Shoot the flying "birds"/aliens. 3. Avoid the meteor storm. 4. Shoot Zorgon's parachutists. 5. Destroy Zorgon's space-ship. On all screens you must ensure that your space-ship has enough fuel. Number 8 in Your Oric's last charts. One of my private favourites.
O:**** S:**** G:***** A:****+

ZORGON'S REVENGE.
IJK 1983. John Sinclair.
At the start of this game you must choose one of four missions that are placed randomly under four numbers. If you lose your first life on this mission, you can choose this mission again or try one of the other missions. When all four levels are completed, you will get into Zorgon's castle. There you have to run to right and touch an object and then run to left and touch an object to shoot at Zorgon's throne. When Zorgon's throne is destroyed, you have rescued your beautiful princess. "Zorgon's Revenge" is in my opinion very difficult - and for that reason I use to play with unlimited lives to complete the game. Most popular Oric game ever - Your Oric and OUM charts.
O:***** S:**** G:***** A:*****

XENON III - THE GENESIS PROBE.
IJK Software 1985. Wun.
Collect animals to ensure continuing life on your planet - Radon. Visit five planets before returning to Radon. Your missions are very original - and difficult for me to describe. The graphics and sounds are good. PASE compatible. Very popular according to the OUM and Your Oric charts - one of the five most popular Oric games.
O:****** S:**** G:**** A:****+

DON'T PRESS THE LETTER Q.
IJK Software 1984. Andre Moore.
Move around the pathways and play unlimited variations of different games, including pac-man, racer, invaders and some very original games. An original game - but in my opinion not especially addictive. DPTLQ was in the middle of OUM's top 10 and Your Oric's top 30.
O:*****+ S:*+ G:*** A:**+

DAMSEL IN DISTRESS. IJK Software 1985.
Herman Zwaag & Marcel van Driel.
Collect the keys, avoid touching anything that moves and don't fall to high. Does it remind you about "Manic Miner"? 20 different screens. Great graphics and animations - real sprites are used on the limited Oric! The music is superb (Depeche Mode). The authors, from the Netherlands, were interviewed in Your Oric issue 4 and 5 - certainly an interesting read. The minus is that the game is too difficult - but the two authors proved that the Oric had better potential than many people thought. "Damsel in Distress" was number 2 in Your Oric's last charts. It is a pity that Zwaag and van Driel didn't write more Oric games...
O:**+ S:*****+ G:*****(+) A:***

OPERATION GREMLIN. Wintersoft 1983.
Your mission is to clear the city for the terrible gremlins. In order to do so, you are in control of eight troopers. Many keys are in use, including 1-8 to choose trooper, cursors to control the selected trooper and many more - but you will learn which keys to use after playing for a while. You can choose a short mission (12 mins.) or a long mission (24 mins.). Three types of gremlins exist : Gremlins, greeks and eggs. You must pick up weapons to kill the gremlins - some weapons are however dangerous as they make the number of gremlins increase. The troopers lose energy when they are close to the gremlins. Your mission is over when all your troopers are dead, the time is out or when you succeed in killing all the gremlins.
This is the only game for the Oric of this type. The idea of this game can be used in PC games as this type of game - with better graphics, sounds and gameplay - could become a hit on PC.
O:*****+ S:** G:*+ A:****

PASTA BLASTA. Arcadia 1983.
Control a bottle of tomato ketchup and shoot the creatures that are trying to steal your ravioli. Eat power-pills to increase the amount of ketchup in your bottle. A nice shoot'em up game that is PASE compatible.
O:**** S:**** G:***+ A:***+

ICE GIANT. Softek 1983.
Protect you castle from the ice giants - you must melt them with your laser. Not a great game - but what about the graphics? The ice giants move as good as Disney Cartoons!!!! Maybe not, but the animations are extremely well done. Graphics do not make a great game alone - but you must see the graphics of this game....
O:** S:*** G:*****+ A:**

Five titles from IJK Software in this part. Expect to "look at" more games from IJK Software in a future part of "LOOKING AT CLASSIC GAMES". Anyway, see you next month.

BITS 'N' BOBS

THE OLD ROUTINE

In an old computer magazine,Arnt Erik Isaksen found a short routine that works like Sedoric's MOVE command.
It works only on the Oric-1,but Arnt wants to know if anyone can make it work for the Atmos?
A demo routine follows - Arnt is desperate for an answer to this one!

```
10 CLS
20 FOR I = 48040 TO 48040+119
30 POKE I,65
40 NEXT
50 DOKE#200,48040: REM Start address
60 DOKE#204,120: REM Number of bytes
70 DOKE#202,48440: REM Move to here
80 CALL #ECOC
```

==

MESSAGE TO SIMON ULLYATT FROM ARNT

"I thought your SUB-EFFECT magazine was great,and I will be writing to you again soon".

==

COMPETITION WINNER

IN ISSUE 85 WE ASKED YOU TO NAME THE SOFTWARE TITLE THAT THE FRONT COVER ALLUDED TO,AND ALSO THE NAME OF THE SOFTWARE COMPANY. AS USUAL, ENTRIES WERE THIN ON THE GROUND,AND SO WE WILL PRINT THE REPLIES AND THEIR REASONING.

FROM JOHN FOGGIN - "Several programs come to mind, HOUSE OF DEATH,LAND OF ILLUSION,THE DIABOLICAL TOWER;to name but three. However,I am going to go for LAND OF ILLUSION by TANSOFT (because you start in a castle).

FROM STEVE MARSHALL - "There are several possible answers to the competition - THE CASTLE from Bug-Byte is most obvious. Then there is:BALROGS CASTLE,and BLACK ORC CASTLE - both from Sigma.
   More obscure titles are: KNIGHTS - Headfield. (They lived in Castles), SPOOKY MANSION - Mercury (Sort of Castly), DRACULA - Mr.Micro (lived in a castle), CROWLEY's HOUSE - Kenema (Well - A.Crowley lived in a mock castle), and finally, MYSTERY TOWERS from Quark Data. Erm....take your pick"
   THE RESULT - well it was quite simply THE CASTLE from Bug-Byte (and available on Public Domain), and that is the official answer from Jon Haworth. Mind you,if I'd of set the competition then I think I would of been tempted to go for STYX,that brilliant arcade game from No Mans Land!
   Steve Marshall wins and will be recieving a free copy of MAGNETIX just as soon as it is released.
   I think we will give John a runner-up prize for his effort - a couple of blank discs.

==

18 SECTOR

I, and many others, now format our 3.5" & 5.25" with Sedoric to 82 tracks by 17 Sectors with good reliability. Dr.Ray would like to know if anyone out there is successfully formatting to 18 sectors. Replies please on a postcard.

We've looked at ways of amplifying those funky Oric tunes you've been tapping
into Sonix. (You have been tapping Funky tunes into Sonix, now haven't you ? If
not, why not ? Anyone requiring more guidance, drop me a line.) This time we're
going to look at volume and how we respond to it.

The human ear is really a wonderful thing, and is much more complex than it
seems. Think of the huge range of sounds it has to cope with. As far as volume
is concerned, there is an enormous range, from a quiet whisper, to the noise
produced by a large jet aircraft. To fit all this in, nature has had to
'compress' the range – otherwise the ears would soon be damaged. The human ear,
in fact, has a logarithmic response – which solves the problem so we don't get
deafened every time we go to fetch the paper.
We have seen how sound travels as variations in air pressure. The pressure is
not exerted at a single point, but over an area, so sound pressure is expressed
as force per unit of area. Nowadays the unit is Newtons per square metre,
though Watts per metre square is usually used. Because the ear has a
logarithmic response, it is more convenient to use a log scale. This is the
familiar decibel range. (A single bel is so small that ten – hence 'deci' – are
counted at a time.) The decibel is therfore the unit for measuring sound
intensity.
What this means is that a sound isn't necessarily as loud as it appears to be.
We now need a unit for measuring loudness – as we recognise it. This is the
'phon'. Now, if we listen to a range of different frequencies that we recognise
as the same loudness, we can measure the sound intensity. Doing this at
different volumes, we can see how our ear resonds. A graph – shown below – was
the result of this research carried out by a Mr. Fletcher and Mr. Munsen in
1933. The chart of curves is therefore known as the Fletcher – Munsen curves.
At 1000 Hz (only), 1 phon = 1 decibel. The ear is most sensitive at about 3000
hz, which I've been told is the frequency of a scream – like that of a young
girl. Kind of makes sense, huh ! This is why the loudest sound produced by a
human being was made by a girl of 13. (I think – check your Guinness Book of
Records). The Sergeant Major bellowing on drill parade would probably move a
lot more air, but would produce a sound of a lower frequency where the ear is
less sensitive. Let's say he produced a note of 100 decibels at a frequency of
200 Hz. From the chart we can see that this is 100 phons. To equal this
loudness the girl, at 3000 Hz needs only to produce a sound of 85 decibels.
You may think this doesn't affect your Oric much. What you will find though, is
that the lower notes produced by the Oric which should be of the same volume as
higher ones, are in fact quieter. Now you know why.
If you spend some time creating a Sonix tune and find the bass notes are a bit
quiet, then create a sample for the higher notes that is the same, but with
less volume. This should cure any problems. Considerable improvements can be
made by amplifying the Oric's sound, and if you use the hi-fi you can easily
alter the sound by altering the tone controls on the hi-fi. See previous
article for details.

MARSHALL'S MUSIC part 13 by Ally Scott
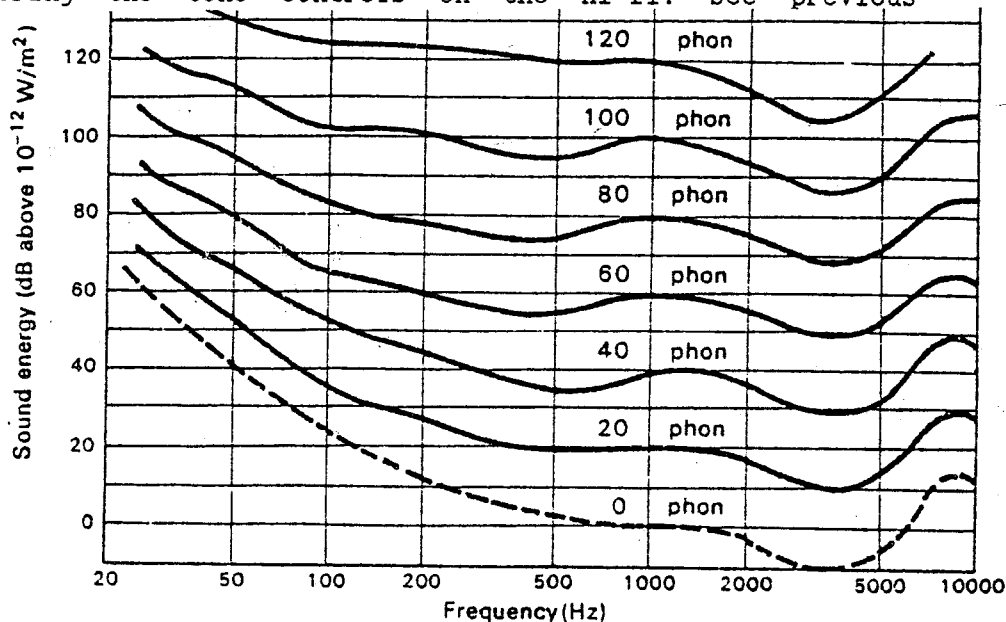
Last time I showed you how to construct a simple accompaniment using arpeggios, and we used a tune in 2/4 time *(Waltzing Matilda)* as an example. You can use exactly the same principle on a tune in 4/4 or 2/2 time - just use the arpeggio twice per bar instead of once. In general, if the *TOP* number in the time signature is 2 or 4, you can use these sort of arpeggios, consisting of 4 notes.

So what happens if the top number is 3 or 6, or any number divisible by 3? We obviously need an arpeggio which is also divisible by 3. Let's find a tune in 3/4 time as an example.

Let's have a go at producing an arpeggio for *Scarborough Fair*.

melody	D4		D4	A4 A4		A4	E4	F4 E4	D4	
arpeggio	D3 F3 A3 D4 A3 F3		D3 F3 A3 D4 A3 F3				E3 G3 A#3 E4 A#3 G3		D3 F3 A3 D4 A3 F3	
bass	D2		D2				E2		D2	

Flattened 3rd in Dm (F♮)

NOTE QUAVERS JOINED IN GROUPS OF 2. EACH PAIR OF QUAVERS EQUALS ONE CROTCHET BEAT.

Flattened 3rd in Em (G♮)

B♮ (natural)

Remember a dotted crotchet equals 3 quavers.

Remember, of course, that this tune is in D minor, which means that any Bs are flat (♭). Computers being stupid things (yes, even Orics!), don't understand flats, so whenever you see a B♭ you have to type in A# instead. (It means the same thing.) Notice on the syllable "-ry" in "rose-ma-*ry* and thyme" (and also on the arpeggio for Em) there is a natural symbol. (♮) A natural cancels out a sharp or a flat, so in this case you would type in B.

Notice also the crotchet rest in bar 5. See right for a quick recap on note and rest lengths, although you can read more fully about it in OUM 76, pp 15-16, Dec. '93, *Software Sounds Part 1 contd.*

What we're doing here is simply making a 6-note arpeggio,

QUICK RECAP: NOTES & RESTS

NOTE						
NAME	semibreve	minim	crotchet	quavers	semiquavers	
LENGTH (IN CROTCHET BEATS)	4	2	1	$\frac{1}{2}$	$\frac{1}{4}$	
EQUIVALENT REST						

NOTE					
NAME	dotted semibreve	dotted minim	dotted crotchet	dotted quaver	dotted semiquaver
LENGTH (IN CROTCHET BEATS)	6	3	$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8}$
EQUIVALENT REST					

using the 1st, 3rd, 5th, octave, 5th and 3rd again. (This is another common fingerpicking pattern.) Why not try harmonizing the rest of the tune? Be careful with the B♭ chord in bar 10 - it will have B♭ (written as A#), D and F. This pattern will work well for anything in *simple triple time* -ie, three whole notes of some sort in the bar. They can be three crotchets (3/4 time), three quavers (3/8 time), three minims (3/2 time) or more rarely three semiquavers (3/16 time). But the top number has to be 3.

As soon as the top number becomes a multiple of 3 (like 6, 9 or 12) we start getting into *compound time*. In compound time the groups of notes (not always quavers!) are joined in groups of 3, and we find ourselves counting not 1 & 2 & and so on, but 1 2 3 2 2 3 and so on. So the notes we're counting are not simple crotchets or minims, but **dotted notes.** For example, 6/8 time consists of 2 dotted crotchets per bar(which equals six quavers, hence the 6).

Have a look at the examples on the right, showing some of the commonest compound time signatures, and how the beats are divided up.

We're running out of space, but to give you something to think about in the meantime, try *The Animals Went in Two by Two,* which is in 6/8 time. Try counting *ONE two three TWO two three* in your head, and singing the words to the rhythm, and you'll see how it works.

COMPOUND TIME

2 dotted crotchets

2 groups of 3 quavers

3 dotted crotchets

3 groups of 3 quavers

4 dotted crotchets

4 groups of 3 quavers

2 dotted minims

2 groups of 3 crotchets

2 groups of 6 quavers

```
1 2 3 2 3 3 | 1  2  3    2   2   3 | 1  2  3    2  2  3
       The  | an-i-mals went___ in | two___ by two__ Hur

            | 1  2  3   2    2   3 | 1  2  3   2  2  3
            | rah!          Hur    | rah!          The

            | 1  2  3    2   2   3 | 1  2  3   2  2  3
            | an-i-mals went___ in | two___ by two__ Hur

            | 1  2  3   2    2   3 | 1  2  3   2  2  3
            | rah!          Hur    | rah!          The

            | 1  2  3   2    2   3 | 1  2  3   2  2  3
            | an-i-mals went___ in | two____ by two__  The

            | 1  2  3   2   2   3 | 1  2  3  1  2  3
            | el-e-phant and__ the | kan____ga-roo And they

            | 1  2  3      2  2  3 | 1  2  3   1 2 3
            | all___    went_____ | in-to the ark____

            | 1  2  3   2  2  3 | 1 2 3  2 2 3
            | For to get out of the | rain_____
```

Next time we'll try writing a harmony to *The Animals...,* and find out other ways to harmonize tunes. And, if there's space, how to work out the chords if there are none provided!

Ally *the other* Muso

LOOKING AT CLASSIC GAMES
with Arnt Erik Isaksen
Part 2.2
Oric Classics

We start this month's part of "Looking at Classic Games" by "looking at" two of Tansoft's most well-known arcade games, Defence Force and Ultima Zone.

ULTIMA ZONE. Tansoft 1983. Andy Green.
This game consists of three levels. 1. Shoot some monsters and moving balls. 2. This is the most original part of the game. Move an object up by hitting its left side and down by hitting its right side. Release bullets from the object by hitting it in the middle. Your mission on this level is to shoot the balls. 3. Get to your base by avoiding all the obstacles in the universe.
This game was a real disappointment when I first saw it in 1986/87. "Ultima Zone" was marketed heavily in popular computer magazines like Games Computing - but the game is far from as good as the advertisements gave an impression of. Original, but not particularly addictive. Three simple levels - then start at the beginning again. "Ultima Zone" is certainly not one of the Oric's more popular titles.
O:***** S:**** G:***+ A:**+

DEFENCE FORCE. Tansoft 1983. Andrew Moore.
This is a classic shoot'em-up-game for the Oric. Protect the humans from the "vulturae" and shoot anything that you want to get rid off. The sounds make me wonder if I have got to HELL, because the sounds are the worst I have ever heard on the Oric. Thanks - the sounds can be turned off, but what is a shoot'em-up-game without sounds?
This game was like "Ultima Zone" heavily marketed. "Defence Force was however, for some reason I don't know, a popular game for the Oric. It was number 7 in Your Oric's last charts and a regular in OUM's top 10.
O:*** S:* G:*** A:***

LONE RAIDER. Severn Software 1983.
The first stage of this game reminds me about Skramble. On the 2nd, 3rd and 4th stage, you are in a tunnel. Shoot/bomb all objects. Maintain fuel by hitting fuel dumps. This game is in fact quite good. On the tape version, a piece of music is actually played while loading the game. "Lone Raider" was number 26 in Your Oric's last charts, which proves that it was a quite addictive game.
O:*** S:****+ G:**** A:***+

GRAVITOR. Severn Software 1984. Stephen Haigh
Guide an aircraft from your homebase to four satellites. There you must pick up four fuel cells. When the four satellites are cleared, you will get to the reactor stage where you must collect the large fuel cell. Controlling the ship is done by rotating your ship and giving it thrust. The gravity makes the game difficult - and a couple of very steady hands are recommended before starting to play this game.
This game is in my opinion Stephen Haigh's most original and exciting game. It is indeed on my top 10 list. However, this game was not very popular for the Oric and didn't climb into the charts in Your Oric or in OUM. Anyway, "Gravitor" was number 2 in KON's* charts in issue 9 March/April 1991 - compiled by Ståle Eikebråten, Raul Hakli and me. Neither the graphics or sounds are good - but this is still one of the most addictive games for the Oric. Give this game a try!!
O:**** S:*** G:**+ A:*****(+)

THE HELLION. Orpheus 1984.
Shoot!!! This is certainly not a game that forces you to use your brain. "Shoot!!!" gives you an idea of what this game is all about. Each life consists of a large amount of energy to make a life last for more than a tenth of second. 101 levels in this fast shoot'em-up-game - and you can start playing on an advanced level if you would like.
The game is similar to "The Ultra" by John Marshall - and some of the levels are named after that game. "The Hellion" was number 3 in Your Oric's last charts.
O:** S:***** G:***** A:****

"M.A.R.C.". P.S.S. 1983. Tony Stoddard.
The full title of this game is actually "Moonbase Alpha Rescue Craft" - therefore "M.A.R.C.". In the future, astronaunts are living on planets. You are sent from earth to maintain their safety and rescue them if their villages are attacked. Shoot the space-ships before they bomb the villages. If the villages are bombed, you must rescue the astronaunts before they are kidnapped by baddies. Gravity makes the game realistic and you must remember to watch your fuel. The graphics are a sort of 3D. Seven keys are in use, which can make the game a little bit difficult before getting used to it. Not a popular Oric game. Why? This game is original and addictive. If you have never tried "M.A.R.C." - or if you have tried it but not liked it - you must play this game as soon as possible. Get hooked on it....now.
O:***** S:***** G:**** A:****+

Another six reviews. In four issues of OUM, we have actually "looked at" 40 (!) Oric games. This is not the end. In the next five parts of this series, we will look at games from IJK Software and from Loriciels, games written by John Marshall and by Alistair Way, and the last part is a surprise..... See you next month.

*Klubb Oric Norden (KON) was a Scandinavian club run by me until issue 10 May/June 1991.

INTRODUCTION FROM THE EDITOR

It is now some time since Steve Marshall went on to disc. One of the first things he typed up using EASYTEXT was the article below. Of course, things change,but basically the information holds good. I have mentioned any relevant updates in my FOOTNOTE.

I must admit that,though I myself used EASYTEXT for many,many issues of OUM; I now find it very slow compared to WORDSPEED.

FROM CASSETTE TO DISC

Many of you out there in the Oric world may be considering changing your system from the familiar old cassette, to the increasingly popular disc-based system. Whilst most will know of the advantages of the speed at which disc systems operate, there are other advantages to take into consideration.
This article is intended to inform cassette users of what is involved in becoming disc-based, and if it is worth all the effort.
After making the decision to turn my ATMOS into a disc based computer, I ordered the relevant goodies:-

```
        INTERFACE...........from STEVE HOPPS
        DISC-DRIVE+P.S.U....from DAVE DICK
        SEDORIC (V2)........from ALAN WHITAKER
```

I had decided to get a 3.5" drive as the 3" discs are becoming harder to come by, and are more expensive. Also, you can store more on a 3.5" disc than a 3" or 5.25. the old 5.25 disc are the cheapest and still widely available, but when you have several other computers (PC and a ST) in the house, it makes sense to get the same type.
In addition to the interface and drive, a power supply unit (PSU) for the drive is also required. Leads to and from the three devices are also needed increasing the cost again. This may sound a little daunting, but don't be put off just yet. Let's assume you've ordered the various goodies - what next?

The various items arrive in good time and need to be plugged in. This is a little fiddly, but if you read the labels you can't go far wrong.
Once all is connected, switch on the drive power, and then the interface. Everything is easy from here on!!! - just follow the on screen messages. First is the prompt to enter a disc. Slap in SEDORIC, and you soon have the menu screen. Just press a number from the menu, or press SPACE to exit to BASIC.

At this point I had no SEDORIC manual (ran out of copies), but Dave had told me the LOAD and SAVE commands were used, and flogged me OUM disc II. Eager to try this out, I press SPACE for BASIC, and insert OUM II and type LOAD"". This it doesn't like. You have to specify a file name. So I have a think, and type DIR. This does work, and gives a nice print out of the disc directory. Spotting a menu I load this and follow the on screen messages from there - easy! But then I come up against a snag. I had gone into BASIC from the OUM disc and then typed DIR. This time it was not accepted. So I turn to my OUM's, and soon discover the use of '!' which is required after a 'QUIT' is used, (a command which resets DOS pointers), so I type - !DIR which did work. I found this annoying, surely it could have been avoided.

When my manual did arrive, (a very professional job by JON HOWARTH), I found that you can load using just the filename, e.g. MENU. This makes things much easier, with less typing required.

There are a whole host of commands which can be used, making the system
very powerful. DEL allows you to delete a file or files.Strings and arrays
can easily be saved, and there are additional commands for string handling.
 The on screen information is very impressive, and on the whole, you just
need to follow the instructions given.
 Much has been made recently of various errors/bugs in SEDORIC. On the
whole there are ways of getting around these, and the new SEDORIC V2
should have these problems ironed out. The much publicised TRACK SECTOR
error I came up against...once ! And I was just messing about with the
system, getting familiar with it.   I just tried again and everything
worked that time.

   For me, one of the most impressive features on the SEDORIC disc is the
much improved BASIC. The cursor now whizzes across the screen, making
programming a much faster process, especially when editing. The function
key has been used extensively, to allow BASIC keywords to appear at the
press of a button. (Well actually two buttons, or three if SHIFT is used.)
   Extra commands/functions have been added, like an autoline numbering,
which can be adjusted to suit the user. There is also a RENUMber command,
a MERGE command, allowing you to merge BASIC programs, commands for
defining the function keys, and several for strings, error handling, text
formatting, user commands and much more.
If you're using an ATMOS, then you can select an option which effectively
turns your computer into an ORIC-1, allowing you to load your old tapes.
If you have an ORIC-1, then you can turn this into an ATMOS in the same
way. There are several utilities to allow you to save your tapes onto disc.
(There is one on OUM disc II and one on OUM disc III - both excellent
value!)
   The whole thing is put together extremely well. My ATMOS is now like
a different computer...a much more powerful one! Typing in programmes is a
dream, and the DOS is superb, dispite the odd bug. There are all the
commands you need and more. It is excellent to be able to load up those
old XENON favourites in seconds, and with more and more of new software
coming out on disc only, the idea of disc over tapes should look all the
more attractive. If you have thought about becoming disc based, my advice
to you is DO IT. It costs a bit but is well worth it.
(I would recommend a 3.5" drive though, which are cheaper and have more
memory space.)

                    - STEVE MARSHALL

       FOOTNOTE FROM THE EDITOR   ✓
       ———————— ———— ——— ——————

 I no longer supply Disc Drives & P.S.U's - if you have trouble in
obtaining them,then I can let you have addresses.
 Allan Whitaker no longer handles Sedoric - Jon Haworth is the man to
contact for the latest version (V2.1).
 A 5.25" will store as much as a 3.5",as long as the drive concerned is 80
track,double sided.
 Leads required: cable from interface to disc drive, connector from disc
drive to P.S.U, and power lead from P.S.U to mains (if not supplied with
unit). With the interface comes a cable ,which connects the interface to
the Atmos, and a lead to power your Atmos (the old Atmos power supply is
out the window).
 Sedoric V2.1 coupled with updates published in OUM and amended files
distributed via the OUMDISCS, should make Sedoric extremely reliable.
Meanwhile Dr.Ray is all the while working to improve it's capabilities.
 The upgrade is not really that expensive - you could pay more for a
NINTENDO; and what can you program on that?

               £ £ £

Machine Code for the Oric Atmos (Part 40)   Peter N. Bragg

The Story so far
---------------- We have looked at essentials for machine code programming
and a small selection of useful 6502 Instructions appeared in Part 22 of the
series. The last couple of issues have been looking at programming technique.
Let's see some of that technique put into use.

We have letters
--------------- Nice to know that there is somebody out there reading this
stuff. One of the recent queries concerned the use of Zero Page and just how
much of it is available, when Basic is not being used. You may have seen the
reply, which was published in OUM issue 84 (Aug 94). Since writing that, I
have now had the opportunity to have a longer look at Zero Page use.

Initially, Zero Page appeared to be completely free, when Basic is not in
use. Of course the only system that I can check on, is my own Atmos (with
Sedoric). However, after some experiments, including a complete overwrite of
Page Zero, it became obvious that six locations were still in use and active,
outside of "Basic" operation. The locations to avoid are #000C to #000F,
plus #0012 and #0013. These handle screen operations and do not appear
to be affected by anything written into them, because anything written in,
is itself promptly overwritten by Oric's Operating System.

So it appears that the whole of Zero Page is free for use, with the
exception of just six locations. This is definitely "one up" for the Oric,
because Zero Page is quite a useful facility and has it's own instruction
set. The instructions are shorter and offer some useful extras, which are
operated in the "Page Zero" area (0000 to 00FF). Many other 6502 computer
users find that most of this area has been earmarked for the Operating
System, leaving very little for the user, so the Oric has an advantage.

Of course "Basic" is different, in that it does make a lot of use of Zero
Page and furthermore it expects to find Zero Page in the same condition, on
return, as it was before you called your machine code program. So if you are
going to make use of the Zero Page facilities, it is a good idea to preserve
the whole of Zero Page, while your machine code program is running. This
would make your own use of Zero Page, "transparent" to Basic operation.

Now, we have looked at "transparent" operations before in Part 27 of the
series. That article concentrated on making use of the Stack to preserve the
contents of one or more registers. The Stack is quite adequate for that job
as you are only storing a few bytes each time. The Stack's maximum capacity
is only 100 hex/256 decimal bytes and some of it is used, automatically by
instructions such as "JSR". So it is obviously impractical to use the Stack
for preserving Zero Page, as there would be no room for anything else !
However there are other ways to make the operation "transparent".

One way to do this is to write a short routine which will swap the area of
RAM that you wish to use, with another unused area of RAM, while your own
software is running. This would allow you to set up your own "Zero Page" in
the unused area and then swap that area with the genuine Zero Page, at the
start of your software. At the end of your program, simply repeat the swap,
to return the original Zero Page contents, ready for "Basic" use on exit.
This would make your software operation "transparent" with respect to the
Zero Page and it is what I have done, when I needed to use it.

Have a look at one of the routines that can be used for this purpose.

• [JSR#1010]————————————————[Swap Page00 and Page30]——————————————————[/]

          ———start———   ———Preserve Accumulator and Register X———
1010:48   : PHA   : Put Accumulator on the Stack.
1011:8A   : TXA   : Copy Register X into the Accumulator and
1012:48   : PHA   : and put that on to the Stack too.

                               ———Set Register X for Index/Fetch & Copy use———
1013:A2 00   : LDX# 00   : Set Register X to zero.

                               ———Fetch 2 Bytes and Swap them over———
1015:BD 00 00 : LDA X 0000 : Index/fetch byte from Page00 address and
1018:48   : PHA   : preserve it on the Stack.
1019:BD 00 30 : LDA X 3000 : Index/fetch byte from Page30 address and
101C:9D 00 00 : STA X 0000 : index/copy it into Page00 address.
101F:68   : PLA   : Retrieve Page00 byte from Stack and
1020:9D 00 30 : STA X 3000 : index/copy it into Page30 address.

                               ———Update Index and check progress———
1023:E8   : INX   : Increment (add 01 to) Register X contents.
1024:E0 00 ·   : CPX# 00   : Test – is Register X (Index) at zero again ?
1026:D0 ED   : BNE"1015"   :   No – so back to "swap" another 2 bytes.
                               Yes – so "swap" operation is now complete....

                  ———Finish———
1028:68   : PLA   : Retrieve original Reg X contents from Stack
1029:AA   : TAX   : and copy them from Accu. back into Register X.
102A:68   : PLA   : Retrieve original Accumulator contents and
102B:60   : RTS   : then Exit.
          ———end———

As you can see, the major part of the above listing is written in plain
English and if I was French, or any other nationality, the listing would be
French, or other as appropiate. So much for "high level" languages !

The only part of the listing that goes into the computer, is put into the
first two columns, or the third columm, if you are using an Assembler. In
theory, the description columm on the right, should be sufficent to stand by
itself. However, this will vary according to experience gained. I don't have
to write nearly as much detail as when I first started. Understanding what
the Assembly "labels" mean is a help, because they are an abrieviation of
the instruction operation and they can be read as part of the description.

For example, the instructions 1028 and 1029 are PLA which is "PulL the
Accumulator off the Stack" and TAX which is short for "Transfer copy of
Accumulator into Register X". Now that I have gained more experience my own
listings tend to be abrieviated to something more cryptic and "PLA TAX
Retrieve Reg X", is quite sufficent to remind me, of what that was all about.

So what's it for, Mister ?
————————————————————————— In simple terms, the routine swaps the entire
contents of Page00 (Zero Page) with the entire contents of Page30 (all the
locations from 3000 to 30FF). So, if you wanted to make a lot of use of
Zero Page, you could set it up first in Page30 and then call the above
routine. When you have finished, you simply call the routine again to
restore the original Zero Page contents.

How does it work ?
------------------ The routine starts by preserving the contents of the
Accumulator and Register X. You don't have to do this, but it is useful to
know that if you are already making use of Register X in particular, it's
contents won't be corrupted by calling this routine.

The routine makes use of Register X as an index for fetching and copying the
items of data from one area of memory to the other. The index allows you to
use an instruction with a single address to fetch or copy the contents of up
to 100 hex locations, including that base address. It does that by adding
the contents of Register X to the instruction address. We have looked at
"indexed" instructions in Part 21 of the series, but it will do no harm to
have a brief recap, here.

There are four "indexed" instructions in this routine. two instructions set
to a base address of 0000 (instructs 1015 and 101C), for Page00 and two set
to a base address of 3000 (instructs 1019 and 1020), for Page30. As I said,
the address actually used by these instructions will depend on the value
that is currently held in Register X.

If for example, Register X contained the value 17, instruction 1015 would
fetch from the address 0017 and instruction 1019 would fetch from address
3017 and the same applies to the other two "indexed" instructions.

In fact. the routine starts off by setting Register X to zero, so that the
"indexed" instructions all start from their base addresses. The actual
"swap" is achieved by instructions 1015 to 1020. These fetch the first byte
from Page00 and hold it on the Stack. while a second byte is fetched from
the same location in Page30 and copied into Page00 to replace the first byte.
The first byte is then retrieved from the Stack and copied into Page30 to
replace the second byte taken from there. As Register X contains 00. the
effect of the operation is to swap the first two bytes of each Page.

It follows that. if you add 01 to the contents of Register X and repeat the
"swap" operation (instructs 1015 to 1020). it will swap over the next two
bytes in Page00 and Page30. Essentially, that is how the routine operates,
swapping each byte in Page00 with its equivalent in Page30 working through
the Pages from location 00 up to location FF.

Register X can only hold a single byte, or in other words a value in the
range 00 to FF. Instruction 1023 adds 01 ("INX") to the Register X contents
and will continue to do so on each pass, until Register X contents reach FF.
At that point, adding 01 to Register X simply returns it's contents to start
again at 00.

This means that we should test Register X contents after each "swap" for the
point at which they reach 00 again, because at that point the operation to
swap the two Pages is complete and we don't want to continue in an endless
loop. When Register X reaches 00, the test instruction ("CPX") at 1024,
tests and sets the Zero Flag which disables the Branch ("BNE") instruction
at 1026, with the result that the operation ceases to loop back to the
"swap" operation at 1015. but goes straight on to the finish instead.

The instructions 1028 to 102A simply retrieve the items originally
preserved by the initial instructions 1010 to 1012 and then instruction 102B
provides the usual exit, via "RTS" instruction.

Testing, Testing !
------------------ A few more points about this routine. If you are thinking
of trying it out by CALLing it from Basic, forget it ! The first thing that
Basic will look for on exit will be Zero Page, which of course will have
gone missing because you have just parked it, up in Page30. The Oric won't
like that and you will have to push the Reset Button to get it's attention
back again.

It's always a good idea to test any routines before making serious use of
them, even if you are confident that they are OK. That makes it easy to pick
up any errors, which might have been typed in. However, if we can't call
this routine from Basic, how do we check it out ?

A simple answer to that, is something we have used before. There is no
specific reason why the swap has to be with Page30, or even with Page00 for
that matter. If you wanted to use any other addresses you could substitute
them in instructions 1015 and 101C for the first Page address and 1019 and
1020 for the second Page address.

If you look at the addresses for the TEXT screen display in the manual, you
will find that they run from #BBA8 to #BFDF, which means there are a little
over four Pages visible on the screen in that mode. Now if you change the
addresses in the "swap" instructions and use two of those screen Pages, it
should be easy to check if the routine is operating correctly. Put the
address BBA8 into instructs 1015 and 101C, then put the address BCC0 into
instructions 1019 and 1020. Don't forget to enter the addresses in reverse
order as usual (ie. 1015:BD A8 BB : LDA X BBA8). Make sure you have a fair
amount of junk on the display screen, before you make your test call to the
routine, a blank screen will tell you nothing. Also make sure that the
cursor is not at the bottom of the display, whenever you call the routine,
otherwise the screen display will scroll and confuse the display effect.

Using the screen addresses, means that you can now call the routine from
Basic to test it out. If the routine is operating correctly, you should see
the top half dozen lines swap places with the next half dozen lines down.
Immediately after that, make a second call to the routine and you should see
the display screen return to normal. If that happens you can be assured that
the routine is operating correctly and therefore will do the same when set
to Page00 and Page30 addresses.

A couple more points. I must confess that instruction 1024 is not really
necessary and could be omitted. When Register X is finally incremented from
FF to 00, the result also sets the Zero Flag and would disable the Branch
(instruct 1026) anyway. The reason for the "CPX #00" in instruction 1024 is
purely cosmetic and is intended to make the listing easier to read, which I
feel is an essential part of programming. The slight overhead in speed and
memory incurred, is not worth worrying about in such a small routine, that
is only called a couple of times anyway.

The routine can be entered into the Oric in the usual way, as hex code from
the address and code columms, or by using an assembler. It was intended as a
demonstration of programming technique, but bear in mind, that while the
routine works, it is not the only way to achieve the result. It could be
improved and made more useful. For start the "swap" is limited to maximum of
100 hex bytes and the addressing is not that flexible. We can have another
look at that and also at those Zero Page instructions that started the whole
thing off...See you next month.

RAMBLING
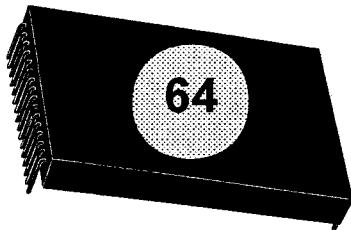
IN THE

ROM

MICROWAVES

are taking a rest
this month as we
get up to speed
and hobbling once
again becomes
rambling...

Rambling on...

D683	LDA (BD), Y	D73E	LDA (BD), Y	take the length	
D685	ADC CE	D740	ADC CE	and add to the string address	
D687	STA C9	D742	STA C9	it's the last byte	
D689	LDA CF	D744	LDA CF	of the block to move	
D68B	ADC #00	D746	ADC #00		
D68D	STA CA	D748	STA CA		
D68F	LDA A2	D74A	LDA A2	temporary top of memory	
D691	LDX A3	D74C	LDX A3		
D693	STA C7	D74E	STA C7	as target address	
D695	STX C8	D750	STX C8	(#CE=bottom of string)	
D697	JSR $C3FF	D752	JSR $C3FB	move the string to temporary top of memory	
D69A	LDY C4	D755	LDY C4	take pointer index	
D69C	INY	D757	INY	adjust to the string address	
D69D	LDA C7	D758	LDA C7	take new address low byte	
D69F	STA (BD), Y	D75A	STA (BD), Y	and save it	
D6A1	TAX	D75C	TAX	save in X	
D6A2	INC C8	D75D	INC C8	adjust high byte	
D6A4	LLDA C8	D75F	LDA C8	take it	
D6A6	INY	D761	INY		
D6A7	STA (BD), Y	D762	STA (BD), Y	and save it	
D6A9	JMP $D599	D764	JMP $D654	and start again...	

'+' (OPERATOR) : CONCATENATION OF STRINGS

Principal:

After recovering the various pointers, the routine calculates the new string length and then reserves room
for it. The address of the start of this zone is in #A4-#A5 as usual. The first string is then transferred there.
#A4-#A5 then points to the end of the string, and the second string can be transferred.

D6AC	LDA D4	D767	LDA D4	Save the address of
D6AE	PHA	D769	PHA	the pointer to the left operand
D6AF	LDA D3	D76A	LDA D3	on the stack
D6B1	PHA	D76C	PHA	
D6B2	JSR $CF74	D76D	JSR $D000	evaluate the right operand
D6B5	JSR $CE7C	D770	JSR $CF08	and verify it's a string
D6B8	PLA	D773	PLA	recover the pointer address
D6B9	STA DE	D774	STA DE	of the left operand
D6BB	PLA	D776	PLA	and save it in #DE-#DF for indirect indexing
D6BC	STA DF	D777	STA DF	
D6BE	LDY #00	D779	LDY #00	

D6C0 LDA (DE), Y	D77B LDA (DE), Y	take length of the first string
D6C2 CLC	D77D CLC	
D6C3 ADC (D3), Y	D77E ADC (D3), Y	and add to the length of the second
D6C5 BCC D6CC	D780 BCC D787	if above 255,
D6C7 LDX #B5	D782 · LDX #B5	'STRING TOO LONG ERROR'
D6C9 JMP $C485	D784 JMP $C47E	and display it
D6CC JSR $D4E8	D787 JSR$ D5A3	find A free bytes
D6CF JSR $D6E9	D78A JSR $D7A4	and transfer the left operand there
D6D2 LDA BF	D78D LDA BF	recover pointer address
D6D4 LDY C0	D78F LDY C0	of the right operand,
D6D6 JSR $D719	D791 JSR $D7D4	and remove the relevant reservation
D6D9 JSR $D6FB	D794 JSR $D7B6	now transfer the second operand
D6DC LDA DE	D797 LDA DE	
D6DE LDY DF	D799 LDY DF	take address of first operand pointer
D6E0 JSR $D719	D79B JSR $D7D4	and remove the relevant reservation
D6E3 JSR $D539	D79E JSR $D5F4	save the pointer on the stack
D6E6 JMP $CEA5	D7A1 JMP $CF31	and continue evaluation

TRANSFER OF A POINTER STRING IN #DE-#DF TO #A4-#A5

Entry: a string has been reserved and the address in free memory is pointed to by #A4-#A5. #DE-#DF contains the address of the pointer of the string to be moved there.

Exit: #A4-#A5 points to just after the string, #91-#92 points to the start of the original string.

D6E9 LDY #00	D7A4 LDY #00	
D6EB LDA (DE), Y	D7A6 LDA (DE), Y	Take length
D6ED PHA	DD7A8 ·	and save it
D6EE INY	D7A9 INY	
D6EF LDA (DE), Y	D7AA LDA (DE), Y	
D6F1 TAX	D7AC TAX	take address low byte
D6F2 INY	D7AD INY	in X
D6F3 LDA (DE), Y	D7AE LDA (DE), Y	and high byte in A
D6F5 TAY	D7B0 TAY	then Y
D6F6 PLA	D7B1 PLA	and recover length in A

TRANSFER A STRING POINTED TO BY XY AND OF LENGTH A

Entry: XY contains the address of the string, and A its length. Otherwise, see the preceding routine.

Exit: see the previous routine

D6F7 STX 91	D7B2 STX 91	save address of string to transfer
D6F9 STY 92	D7B4 STY 92	in #91-#92
D6FB TAY	D7B6 TAY	and the length in Y
D6FC BEQ D708	D7B7 BEQ D7C3	if string is empty, exit
D6FE PHA	D789 PHA	save the length for future addition
D6FF DEY	D7BA DEY	previous character (first time: adjust)
D700 LDA (91), Y	D7BB LDA (91), Y	take character
D702 STA (A4), Y	D7BD STA (A4), Y	and transfer it
D704 TYA	D7BF TYA	is it the last?
D705 BNE D6FF	D7C0 BNE D7BA	no, continue
D707 PLA	D7C2 PLA	recover the length
D708 CLC	D7C3 CLC	and add it because
D709 ADC A4	D7C4 ADC A4	#A4-#A5 points to after the end of the string
D70B STA A4	D7C6 STA A4	
D70D BCC D711	D7C8 BCC D7CC	
D70F INC A5	D7CA INC A5	
D711 RTS	D7CC RTS	

REMOVE THE RESERVATION, AND VERIFY THE STRING

D712 JSR $CE7C   D7CD JSR $CF08   Verify the string

REMOVE THE RESERVATION, POINTER ADDRESS IN #D3-#D4

D715 LDA D3   D7D0 LDA D3   Take pointer address
D717 LDY D4   D7D2 LDY D4   in AY

REMOVE THE RESERVATION, POINTER ADDRESS IN AY

Entry: AY contains the address of the string pointer

Exit: XY and #91-#92 contain the address of the string, A its length. If the pointer was on the pointer stack,
        it will have been removed.

Principal:
To render the string usable, it is necessary to give its address and length. Moreover, if the pointer was on the
stack (a temporary string), it is going to be removed. Indeed, if the string was the lowest, one is lowering the
ceiling of the stack, the less to encumber memory with redundant strings.

D719 STA 91   D7D4 STA 91   and save it
D71B STY 92   D7D6 STY 92   for indirect addressing
D71D JSR $D74A   D7D8 JSR $D805   adjust pointer stack
D720 PHP   D7DB PHP   save Z (=1 if at bottom of stack)
D721 LDY #00   D7DC LDY #00
D723 LDA (91), Y   D7DE LDA (91), Y   take length of string
D725 PHA   D7E0 PHA   and save it on the stack
D726 INY   D7E1 INY
D727 LDA (91), Y   D7E2 LDA (91), Y   take address low byte
D729 TAX   D7E4 TAX   in X
D72A INY   D7E5 INY
D72B LDA (91), Y   D7E6 LDA (91), Y   then high byte
D72D TAY   D7E8 TAY   in Y
D72E PLA   D7E9 PLA   recover length
D72F PLP   D7EA PLP   recover pointer to temporary string
D730 BNE D745   D7EB BNE D800   and jump if there isn't one
D732 CPY A3   D7ED CPY A3   was it the lowest string?
D734 BNE D745   D7EF BNE D800   no, it's OK
D736 CPX A2   D7F1 CPX A2
D738 BNE D745   D7F3 BNE D800   test low byte as well
D73A PHA   D7F5 PHA   save length
D73B CLC   D7F6 CLC   and add to bottom of strings
D73C ADC A2   D7F7 ADC A2
D73E STA A2   D7F9 STA A2   to calculate the new ceiling of strings,
D740 BCC D744   D7FB BCC D7FF   not forgetting the high byte
D742 INC A3   D7FD INC A3
D744 PLA   D7FF PLA   recover the length
D745 STX 91   D800 STX 91   save string address
D747 STY 92   D802 STY 92
D749 RTS   D804 RTS

DECREMENT THE POINTER STACK IF NECESSARY

Entry: AY=pointer address

Exit: Z=1 if the stack is decremented, that is to say remove a temporary string.

D74A	CPY 87	D805	CPY 87	is the pointer on the stack?
D74C	BNE D75A	D807	BNE D815	no, exit, Z=0
D74E	CMP 86	D809	CMP 86	test low byte as well
D750	BNE D75A	D80B	BNE D815	no, exit, Z=0
D752	STA 85	D80D	STA 85	save new pointer
D754	SBC #03	D80F	SBC #03	adjust current pointer
D756	STA 86	D811	STA 86	and save
D758	LDY #00	D813	LDY #00	Z=1
D75A	RTS	D815	RTS	

'CHR$' (Function)

D75B	JSR $D810	D816	JSR $D8CB	ACC1 -->X
D75E	TXA	D819	TXA	and save the ASCII code
D75F	PHA	D81A	PHA	
D760	LDA #01	D81B	LDA #01	reserve a string of length 1
D762	JSR $D4F0	D81D	JSR $D5AB	
D765	PLA	D820	PLA	recover the code
D766	LDY #00	D821	LDY #00	
D768	STA (D1), Y	D823	STA (D1), Y	and place it in the string
D76A	PLA	D825	PLA	take return address off stack to avoid
D76B	PLA	D826	PLA	the test for a numeric value
D76C	JMP $D539	D827	JMP $D5F4	and save the pointer on the stack

'LEFT$' (Function)

Principle:

Three functions are in fact rolled up in LEFT$: LEFT$, RIGHT$ and MID$. Two parameters, which are different depending on which instrcution is given, define the operation to be carried out on the relevant string. The first gives the position at which tyo commence thee resulting string, and the second its length.

D76F	JSR $D7D0	D82A	JSR $D88B	Recover the parameters
D772	CMP (BF), Y	D82D	CMP (BF), Y	compare possible length with that demanded
D774	TYA	D82F	TYA	A=0
D775	BCC D77B	D830	BCC D836	if shorter, OK
D777	LDA (BF), Y	D832	LDA (BF), Y	if longer, take the length of
D779	TAX	D834	TAX	the string, in X as well
D77A	TYA	D835	TYA	save index of starting point
D77B	PHA	D836	PHA	
D77C	TXA	D837	TXA	
D77D	PHA	D838	PHA	
D77E	JSR $D4F0	D839	JSR$ D5AB	reserve a string of length A
D781	LDA BF	D83C	LDA BF	
D783	LDY C0	D83E	LDY C0	take address of string pointer
D785	JSR $D719	D840	JSR $D7D4	and remove reservation
D788	PLA	D843	PLA	recover length of transfer
D789	TAY	D844	TAY	in Y
D78A	PLA	D845	PLA	and first byte to move
D78B	CLC	D846	CLC	
D78C	ADC 91	D847	ADC 91	adjust string address
D78E	STA 91	D849	STA 91	onto first byte to transfer
D790	BCC D794	D84B	BCC D84F	
D792	INC 92	D84D	INC 92	high byte as well
D794	TYA	D84F	TYA	length in A
D795	JSR $D6FB	D850	JSR $D7B6	and transfer to reserved zone
D798	JMP $D539	D853	JMP $D5F4	save pointer on stack

Jon Haworth

W O R D - S P E E D - T H E U P D A T E

Finally it is available - WORD-SPEED - Version 2.1.
Many of the upgrades to Dr.Ray's Wordprocessor are not obvious,whereas some are. For example: - the embedded command LC has been removed,and replaced by the the facility to suspend "Preview Text",by pressing the Spacebar (stopping then by pressing ESC or continuing by pressing something else,except the Spacebar). This facility is a great improvement.
The manual has been updated to give more information on certain aspects,and further EPSON compatible embedded commands have been included.

WORD-SPEED is only available direct from O.U.M.
Prices of the upgrade and prices to new purchasers are as follows:

UPGRADE

To recieve an upgrade to WORD-SPEED, please do the following: send a blank unformatted disc and 1 pound, plus your registration number (all bona fide purchasers will have a serial number to their original). In return you will recieve an upgrade to the program with the same serial number. You will also recieve copies of the relevant manual changes and additions.

NEW PURCHASERS

To become a registered user of WORD-SPEED,then please do the following: Send a blank unformatted disc and nine pounds. In return you will recieve the WORD-SPEED suite of programs (also included is a utility to convert AUTHOR text files and a Message program), and a 23 page manual.

If you wish me to supply the disc,then the total cost is 10 pounds on 3.5"/5.25" or 11 pounds on 3" disc.

                                                          - DAVE DICK

WORD-SPEED - THE WORD PROCESSOR FROM RAYZORSOFT FOR THE ORIC COMPUTER WITH SEDORIC.

ONLY AVAILABLE FROM ORIC USER MONTHLY.

===

CATALOGUE FOR YOUR BOOKS

FROM ARTHUR CRAWFORD COMES A NICE PROGRAM TO CATALOGUE YOUR BOOKS. IT IS DISC BASED,BUT JUST TO KEEP YOU 'TAPPERS' HAPPY, WE WILL PRINT THE LISTING IN THE NEXT ISSUE OF O.U.M.

===

FOR SALE

NOT ONE, BUT TWO MCP40 PLOTTER/PRINTERS FOR SALE IN ORIC-1 COLOURS. PRICE,INCLUDING POSTAGE,IS 15 POUNDS EACH. ORDERS TO THE EDITOR.
===

MESSAGE TO LAURENT FROM THE EDITOR

SAW YOUR MESSAGE IN THE CEOMAG. SORRY YOU FOUND THE RAIN. YOU WERE ON THE WRONG COSTA!

A LETTER FROM THE DOCTOR

AS I REPORTED ON PAGE 20 OF THE LAST ISSUE, I HAD JUST RECIEVED A LETTER FROM DR.RAY. I HAVE EDITED HIS 'WORD-SPEED' TEXT FILE,AND THEREFORE HERE ARE THE MAIN POINTS - OVER TO YOU RAY..........

Recently I have been in correspondence with Arthur Crawford who raised some interesting questions.
The first was about a swift save and load of arrays under SEDORIC. I thought about this and came up with the following.

In order to save string array AB$( ), use the following.

```
160 ' Locate the array.
170 Z=DEEK(#9E)
180 IF PEEK(Z)=ASC("A") AND PEEK(Z+1)=ASC("B")+#80 THEN 260
190 Z=Z+DEEK(Z+2)
200 IF  Z<DEEK(#A0) THEN 180
210 PRINT "ARRAY NOT FOUND."
220 END
230 '
240 ' Array found.
250 ' Save pointers.
260 SAVEO "ARRAYAB.PTR",A(Z),E(Z+DEEK(Z+2)-1)
270 ' Now save ALL strings set up by this program
280 ' not just those for this array.  This is faster
290 ' than trying to select only the strings for this array.
300 SAVEO  "ARRAYAB.STR",A(DEEK(#A2)),E(DEEK(#A6))
310 END
```

Notes : All strings for the array MUST be stored in HIMEM for this idea to work. If you wish to initialise a particular string literally in the Basic program with something such as AB$(5)="abcd" then this string will not be placed in HIMEM, instead use a statement such as AB$(5)="abcd"+"" or AB$(5)="ab"+"cd".

To save a real or integer array then omit lines 270 to 300 inclusively and amend line 180 in accordance with the array type.

```
180 IF PEEK(Z)=ASC("A") AND PEEK(Z+1)=ASC("B") THEN 260 ' REAL

180  IF PEEK(Z)=ASC("A")+#80 AND PEEK(Z+1)=ASC("B")+#80 THEN 260 '
INTEGER
```

In order to test this you could include the following (or similar for other array type).

```
100 ' Set up a string array to test.
110 DIM AB$(90)
120 FOR I=0 TO 90
130 AB$(I)=CHR$(I+#20) ' Such strings WILL be placed in HIMEM.
140 NEXT
150 '
```

For a string array you could effect a 'GARBAGE' collection before you save the array, with Z=FRE("") before line 170 above but this might slow down the operation. It is better to do a 'GARBAGE' collection when the array is subsequently reloaded as there will probably then be some 'GARBAGE'.

In order to reload the string array at a later stage use the following.

```
140 DIM AB$(90) ' Or whatever size on saving.
150 ' It MUST be the first array dimensioned or else you
160 ' must insert search code at line 330 (as in ARRAYSAVE).
170 ' Also, you must load this string array before
180 ' initialising any other string,
190 ' otherwise enter #A2 instead of #A6 below.
200 '
210 PRINT CHR$(#13); ' Screen off.
220 ERR SET
230 ERRGOTO 570 ; In case file does not exist.
240 ARRAYAB.STR,V      ' Get STart & EnD addresses.
250 ERR OFF
260 PRINT CHR$(#13); ' Screen on.
270 LS=ED-ST           ' File length.
280 X=DEEK(#A6)-LS     ' Where to load.
290 '
300 Y=DEEK(#A6)-ED     ' Offset for string pointers.
310 DOKE #A2,X         ' New bottom of strings.
320 '
330 Z=DEEK(#9E)
340 ' It MUST be the first array dimensioned
350 ' or else you must insert search code at line 330.
360 '
370 ' Don't declare any more scalar variables before line 480
380 '
390 ' Load pointers.
400 ARRAYAB.PTR,A(Z)
410 ' Load strings to HIMEM.
420 ARRAYAB.STR,A(X)
430 ' Adjust pointers.
440 FOR LS=Z+8 TO Z+DEEK(Z+2)-1 STEP 3
450 X=DEEK(LS)
460 DOKE LS,X+Y
470 NEXT
480 '

530 END
540 '
550 '
560 ' Error handler.
570 PRINT CHR$(#13); ' Screen on.
580 ERR OFF
590 ARRAYAB.STR,V ' Give error message.
```
Note : To reload a real or integer array you simply need lines 330 and 400 and the array dimensioned correctly of course. Take heed of the message in lines 150 to 190.

You can test this by adding the following.

```
100 HIMEM #5FFF
110 ' Set a different HIMEM to test
120 '
130 '

290 PRINT HEX$(X),HEX$(DEEK(#A6)) ' Strings' position.

490 FOR LS=0 TO 90
500 PRINT LS,AB$(LS) ' See if ok.
510 NEXT
520 '
```

other question raised by Arthur concerned the compilation of 'free-standing' code which an be CALL'ed from a Basic program. For this you need to do the following.

1. Use WORDSPEED to change the end of ADDRESSES.ASM to

    ```
    .prelim
    ;
    .start NOP
    ;
    ;
    ;
    CHAIN 'CODEA'
    ```

2. Use WORDSPEED in CODEA.ASM and any other CODE?.ASM, one or more files generated by the Compiler from your Basic program, to change ALL occurrences of JMP ENDall to RTS so that an orderly return to the calling program can be made. The assembly language statement, JMP ENDall, is compiled from the Basic statement END and is also appended to the last CODE?.ASM file.

3. Leave the assembly address as $501 and set the Basic page above this code, using DOKE #9A,#5001:POKE #5000,0:NEW for example. Load the Basic program, which you wish to RUN at the current Basic page, using such as LOAD "filename",J.

I haven't fully tested this idea but I think that it should work. Note that there is no relationship between the variables of the compiled program and those of the Basic program, ie variables are local, but they both share string space and any Garbage collection by either program may (and probably will) result in strings for the compiled code being lost. There is no way round this - make sure that there is sufficient memory available or CALL the compiled code early on in the Basic program.

I have also had requests over the past few months from various people to show how to save blocks of memory from within a machine code program and the subsequent reloading. There are two ".ASM" files in WORDSPEED format on the enclosed disk which illustrate (clearly, I hope) how to do it. Incorporated in these routines is some (but probably not all) error-checking and it is up to the user to take responsibility. I should add that these routines are essentially what I use in the ASSEMBLER for the saving and loading of the ".BIN" files and so the ideas are well-tested and trusted.

I have just about completed the upgrade of the Compiler which now handles all SEDORIC extensions except for

(i)   OPEN'ing files,
(ii) memory-intensive operations such as INIT, BACKUP and COPY,
(iii) routines used specifially for Basic listings, eg RENUM & SEEK.

A correspondingly updated manual is also ready. Is it worth producing a
printed manual rather than including it on the Compiler master disk?.
You might wish to consider this with respect to cost to existing customers
and to new purchasers of the Compiler.
  (REPLY FROM THE EDITOR:- MANUAL NOT REQUIRED,AS ALL COMPILER PURCHASERS
HAVE PRINTERS).

Finally, I have made progress on a hardware and software upgrade for the
ORIC with disk interface. Essentially it will comprise Basic & DOS
(improved and extended from SEDORIC) in EPROM, DOS workspace and buffers in
extra RAM and the overlay RAM vacant for any other application which may
become available, such as Assembler, PASCAL or "C" if time and inspiration
allows. The hardware design is well advanced and many ideas for software
are assembled. Bootup will be performed from (new) on-board EPROM and will
not be from disk although it is envisaged that there will be a "WELCOME"
disk containing demonstration programs and, of course a printed manual.
Helpful suggestions are invited from the wider OUM membership as also is
potential interest in the use of such a project. I do not anticipate any
modifications to either the ORIC itself or to the disk interface board - the
new system will simply plug in between the ORIC and the disk interface.
Would users prefer the cheaper alternative of a practical hardware project
with EPROM supplied (as in electronics magazines) or the more expensive
completed object.

As usual, all the information presented here may be used freely by OUM in
the magazine and/or on its disk and may be used by any subscriber of OUM
without copyright infringement - a simple acknowledgement of source would be
appreciated.
I hope that this is of some use. I appreciate efforts of all OUM
subscribers as it enables me and other OUM subscribers to learn more about
programming with the ORIC.

Yours sincerely

Ray McLaughlin.

==

NOTE FROM THE EDITOR:
____ ____ ___ _____

A BIG THANK YOU TO RAY FOR SOME INTERESTING ITEMS.

DON'T FORGET THAT SOME INPUT IS NOW REQUIRED FROM YOU ALL TO SECURE THE
FUTURE OF THE ORIC.
PLEASE DO NOT PUT THIS ARTICLE AWAY,AND FORGET ABOUT IT.
LET US KNOW YOUR VIEWS ON THE HARDWARE AND SOFTWARE UPGRADES.

THE   BACK   PAGE

AND SO TO THE BACK PAGE. THIRTY PAGES IN THIS ISSUE. I WANTED TO DO
MORE,BUT TIME BEAT ME.

DISC SOFTWARE

After having a good sort out of inlays to go with Disc software, I am
pleased to be able to do some Special Offers leading up to Xmas. Prices
applicable until December 31st.

MYSTERIOUS ADVENTURES: - The following are available on 3",3.5",5.25" at
the same price. (I will use second-hand 3" discs,but new 3.5"/5.25"discs.).
Prices: One adventure on disc - 2.50, Two adventures on a disc for 3.50,or
three adventures on a disc for 4.00.
Titles as follows: THE TIME MACHINE, THE WIZARD AKYRZ, WAXWORKS, THE GOLDEN
BATON, ESCAPE FROM PULSAR SEVEN, PERSEUS & ANDROMEDA, ARROW OF DEATH, ARROW
OF DEATH PT.2.
I ONLY HAVE A FEW,SO GET IN QUICK.

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DAMSEL IN DISTRESS, FANTASY QUEST, GREEN X TOAD, DON'T PRESS THE LETTER Q,
FRIGATE COMMANDER, GUBBIE, INVADERS, PLAYGROUND 21, TRICK SHOT, XENON I,
XENON III (THE GENESIS PROBE), ZEBBIE, PROBE 3, REVERSE, SUPERFRUIT, 3D
OXO/BACKGAMMON, ATTACK OF THE CYBERMEN, CANDY FLOSS/HANGMAN, 3D
MAZE/BREAKOUT, ZORGONS REVENGE.

PRICES: 1 TITLE ON DISC - 1.50, 2 TITLES - 2.20, 3 TITLES - 2.80, 6 TITLES
- 4.00.
NOW IS THE TIME TO ORDER - REMARKABLY CHEAPO!

===

SPECIALS ON CASSETTES

A FEW SPECIALS ON CASSETTE SOFTWARE: -

LANGUAGE LINKWORDS FROM TANSOFT - FRENCH,ITALIAN,SPANISH, OR GERMAN AT
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COLOSSAL ADVENTURE (ORIC-1) AT 2 POUNDS.
GOLDMINE AT 1.50, QUACK A JACK AT 1 POUND, STARWIND AT 1.50, BUCCANEER AT
1.50, HELLS TEMPLE AT 2 POUNDS.

ODDS AND ENDS: - MCP40 PENS (ONLY THE 3 COLOUR PACKS LEFT - NO BLACK) -
JUST A FEW AT 1.50.
ATMOS MANUALS AT 2.50.
===

BRICKY

ON THE CEODISC PRIOR TO THE LAST ONE,WAS THE GAME BRICKY,WHICH WOULDN'T
WORK CORRECTLY. THE LATEST CEODISC ALSO CONTAINS IT,BUT IS NOT SHOWN ON THE
MENU. I HAVE TRIED IT AND STILL CANNOT GET IT TO WORK. IF YOU ARE HAVING
TROUBLE WITH IT ,THEN PLEASE ADVISE JON HAWORTH.