



**USER
MONTHLY**

with Oric Enthusiasts

*Europe's longest running
Oric magazine*

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An Oric fan !!

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

THE EDITORIAL

HELLO AND WELCOME TO SPRING. A LIITTLE LATE IS THIS ISSUE, BUT IT IS 18 PAGES AND STILL I DIDN'T FIT EVERYTHING IN. THANKS TO ALL WHO SENT ITEMS IN. APOLOGIES IF I STILL YOU A LETTER.

I AM STILL AWAITING UNCORRUPTED 'MIRAGE' CASSETTE MASTERS FROM ROBERT COOK ON 'GRAND PRIX' AND THAT IS WHY THERE ARE A FEW ORDERS VERY VERY LATE.

QUESTIONNAIRE RESULTS HAVE BEEN FLOWING IN, BUT THERE ARE STILL A LOT TO COME - GET THEM IN NOW PLEASE; SO THAT WE CAN FEED THE DATABASE WITH YOUR INFO AND GET CONTACT LISTS PUBLISHED.

I HAVE HAD MANY REQUESTS FOR CLEARER INSTRUCTIONS TO CERTAIN SOFTWARE TITLES. THE TROUBLE IS THAT THEY ARE GENERALLY WRITTEN BY THE AUTHOR OR PUBLISHER WHO KNOW THEIR WAY AROUND THE GAMES. NEXT ISSUE SEES A DETAILED LOOK AT 'GALACTOSMASH' FOR ALL THOSE WHO HAVE ASKED.

ALSO WE WILL TAKE A LOOK AT YOUR REQUESTS VIA THE QUESTIONNAIRE AND TRY TO IMPLEMENT SOME.

OVER THE LAST MONTH I HAVE RECIEVED SOME 80 ORIC RELATED LETTERS, LISTINGS etc. AND ABOUT 20 PROGRAMS TO TEST. I AM STEADILY PLOUGHING THROUGH THEM.

WELL, I HOPE YOU LIKE THIS ISSUE AND NOW FOR THE CONTENT.

PAGE 1 - THE COVER - Jon Haworth

PAGE 2 - THE EDITORIAL

PAGE 3 - MEET REPORT and CHARTS

PAGE 4 - NEWS

PAGE 5 - LISTING - a very nice Program in which your screen takes on the effect of a neon sign.

PAGES 6,7,8 - RAMROM - Jon Haworth

PAGE 9 - A FURTHER PEEK AT MY SOFTWARE

PAGES 10,11,12 - MACHINE CODE - Peter Bra99

PAGE 13 - HIRES/TEXT and THE PHOTO LINE-UP

PAGE 14 - THE PHOTOS - NICHOLAS HAWORTH

PAGE 15 - ORIC DATA TRANSFER/LINKING - David Goodrum

PAGE 16 - FROM THE POSTER

PAGE 17 - BITS AND BOBS

PAGE 18 - CASSETTE TO DISC

LABELS WILL IN FACT BE USED ON MANY ENVELOPES THIS ISSUE.

ON THE BOTTOM RIGHT IS A CODE.

12/91 MEANS THAT YOU HAVE TO PAY AGAIN FOR THE DECEMBER ISSUE. THEREFORE THE NOVEMBER ISSUE IS THE LAST IN YOUR CURRENT SUBSCRIPTION.

A NEW MAIL ORDER PRICE LIST WILL BE MAILED SOON. SOME PRICES MAY HAVE TO BE INCREASED SO TAKE ADVANTAGE OF THE CHERP PRICES NOW. MANY NEW TITLES WILL BE ON THE NEW LIST AS WILL THE BOOK LIST.

ARTICLES FOR INCLUSION IN THE NEXT ISSUE SHOULD REACH ME BY MARCH 22nd

HOW MANY PAGES WILL THERE BE IN THE NEXT ISSUE?

I WILL COST OUT OUR PRINTING EXPENSES AND ASCERTAIN HOW MANY WE CAN AFFORD. ALTERNATELY WE CAN INCREASE THE SIZE AND INCREASE THE PRICE - YOUR COMMENTS WOULD BE APPRECIATED.

MEET REPORT

THE SECOND ORIC USER MEET took Place in Aylesbury on Saturday Feb 9th. Weatherwise, it was the worst week-end for many years. Snow forced many to cancel their trip, but still they trekked from Bristol, Cambridge and Wolverhampton etc. With better weather, we would of beaten last year's attendance. The 'Who's Who' of apologies included: Alan Whitaker, David Hall, Ray McCloughlin, David Utting, Stuart Wright and Peter Bra99 etc. Many of these Played their Part by sending Programs and information. Those attending were treated to a wide range of demos.

One machine was reserved for game Playing as my lad Matthew took on all and sundry with his 'Joyball' on ROLAND GARROS and other classic arcade games.

David Wilkin with a table full of chips, tools, capacitors, solder and ash trays; tinkered away merrily for most of the day, only Pausing to sup ale and make comments relative to the demo at hand.

Rob Kimberly sold 3" drives for 18 Pounds and I Purchased a case for mine for only 50 Pence.

Schrap books and the OPELCO leaflets were inspected.

David Goodrum gave us a bulletin board demo - very nice.

Rob Kimberly unveiled 75K of Astronomy Program - very engrossing and now out on PD.

Rob and Jon between them went through 'WORD-SPEED' - a lot of interest here with Plenty of feedback from the audience.

Jonathan Bristow showed us CHARED'90 and then unveiled QBED'91 - an object editor. We just about kept Jonathan awake - he had been up until 2.00 a.m. designing BOULDERDASH games with Bob Terry.

Bob Terry displayed ATMOS CAD from Brian Kidd, which has since been updated with Medallions etc.

I once again showed TETRIX from Andre Widhani and then went through the repertoire of titles that Judy Simms had sent me; including BUGLE CALL, ELECTRICITY METER READING and BOMBER COMMAND QUIZ (no KIMBO, you don't Pronounce FOKKER like that!).

Thanks to all those attending in Person or by sending items in; this was another tremendous day.

Chris Hearn, Alistair May, Sean Healy and Fitzroy Davies all chatted away merrily as Nicholas Haworth snapped Pictures. Young Louise and Sharon took orders for lunch.

You will soon see many of the titles demonstrated released on either MIRAGE, SHAREWARE or PUBLIC DOMAIN.

The event broke up about 5 P.m. with David Goodrum, Bob Terry, Fitzroy and Mr. Bristow joining me in gorging Chinese take-aways at my Place. We listened to music, supped ale, sipped wine and threw down G and T's. Of course we also Played some serious arcade games on the Atmos. Are your fingers still hurting from Playing KARATE lads?

THE NEXT MEET COULD BE IN EARLY JULY. HOW DOES THAT SUIT YOU ALL?

THE CHARTS

This chart is based on actual sales figures since I took over the distribution of AGC cassettes and MIRAGE cassettes/discs. It is based on a 3 month title when over 150 titles were sold. For the Purpose of this exercise, MIRAGE MAGIC counted as one sale each to INSECT INSANITY, GRENDL and GALACTOSMASH.

ARCADE:- 1) TETRIX 2) INSECT INSANITY 3) PANIC 4) GALACTOSMASH
5) GRENDL 6) IJK INVADERS 7) RATSPLAT 8) GHOSTMAN 9) XENON I
10) ISLAND OF DEATH...ADVENTURES - BUCCANEER & LAST WARRIOR.
STRATEGY - IJK DRAUGHTS and CHESS II..... UTILITY - C.A.D (No Mans Land)

CLUB EUROPE ORIC

The Board of Directors of the CEO met on FEB. 9th 1991. The main outcome with relation to D.U.M was as follows.
The Board of CEO agreed that articles could be exchanged between the two Publications, but a total cooperation could not be agreed due to the high costs of duplicating D.U.M.

TO ME this is a nonsense. For One Pound per issue, we not only get a 16 Page magazine, but fund stands at shows, write to people on member's behalfs, and a whole host of things.
Also at their meeting it was decided to raise the price of the CEO bulletin to 11 Pound a year from MAY. Will that have 16 Pages and will it be issued regularly? We shall see.

I leave the best part until last. ORIC users who do not subscribe to the CLUB EUROPE ORIC may now buy their software, but at a higher price than their members can. i.e 2 Pound extra.

ALL CEO software can be ordered directly from JON HAWORTH. DISC VERSIONS WHERE applicable and 'WILLY' on cassette will be mailed to you from JON. All other titles on cassette will be a LITTLE longer as JON has to order from FRANCE.

Titles that I would recommend are: WILLY - a super game in which there are 6 screens, but don't expect to get past the second one. - 5.99 on cass. and 7.99 on disc to non-members.

"LORIGRAPH" - a super drawing aid - 13.99 on cassette.

"STANLEY" - a super little arcade/strategy - 5.99 on cassette.

"PSYCHIATRIC" - a wonderful ladder game - 7.99 on cass.

"MACADAM BUMPER" - a Pinball game where you can design your own tables - 7.99 on cass.

"NIBBLE/BDDISK" - 2 exceptional utilities on disc - 6.99

"FORTH F83" - with comprehensive English manual - 5.99 on disc.

"TETRIS" - the strategy game - 5.99 on cass.

WELL GET YOUR CHEQUE BOOKS OUT AND START ORDERING. MORE ON THE OTHER TITLES IN THE NEXT ISSUE. DON'T BOTHER WITH 'ORISCRIBE'; Just get it as 'SCRIVENER' off the PUBLIC DOMAIN.

THE DATABASE

JON's database is now UP and running. From the next issue of DUM labels will take the place of my scrawly writing and you will receive reminders of when you need to re-subscribe.

5.25" DISCS.

VERY SHORTLY I WILL BE ABLE TO OFFER 'MIRAGE' SOFTWARE ON 5.25" AS WELL AS 3".

ORIC ENTHUSIASTS

DUE TO ILLNESS AND WORK COMMITMENTS; ALAN WHITAKER WAS UNABLE TO FINISH HIS ARTICLE IN TIME FOR THIS EDITION. ALAN SENDS HIS APOLOGIES AND WILL BE BACK IN PRINT NEXT ISSUE.

Translated—R.Evans. 5

"PUB"

is French
for

Advertising

```
1 GOSUB500
2 '+++++++ PUB ++++++
3 ' +++Written by+++
4 '++BWA NDVO Frisco++
5 '++15 October 1986++
6 '
9 HIMEM#1F50:GOSUB70
10 CLS:PAPER0:INK1:POKE16383,96:GOTO35
11 B=#4000:CLS
12 PRINT:PRINT"Enter a message(file),
13 PRINT" if you hear a PING Press RETURN and wait"
14 INPUT"MESSAGE":A$
15 FORM=1*LEN(A$)
17 C=ASC(MID$(A$,M,1))
19 POKEB,C:DOKEB+1,8224:POKEB+3,00:B=B+1
21 NEXT
23 PRINT:INPUT"IS THE MESSAGE FINISHED (YES or NO):A$
25 IF A$="Y"THEN35
27 IF A$="N"THENINPUT"CONTINUE MESSAGE:":A$:GOTO15
29 POKE#BB80,00:DOKE#1FFE,#4000
31 CLS
32 POKE618,10:CALL#1F56
35 CLS:PRINT:PRINT" 1 - NEW MESSAGE"
37 PRINT:PRINT" 2 - SAVE MESSAGE ON TAPE"
39 PRINT:PRINT" 3 - LOAD MESSAGE"
41 PRINT:PRINT" 4 - CLEAR SCREEN AND START":PRINT:PRINT:PRINT
50 PRINT:PRINT:PRINT" CHOSE A NUMBER":GETA$:INPUTN
52 IFN<10RN>4THEN50
55 ONNGOTO11,57,63,29
56 GOTO35
57 INPUT"Will you Give a name to the message(file)":D$
58 IFD$="NO"ORD$="no"THENEND$=""
59 IFD$="YES"ORD$="yes"THENINPUT"GIVE THE NAME":D$
60 PRINT:PRINT:PRINT" Start the RECORDER (SAVE)"
61 PRINT:PRINT" PRESS ANY KEY":GETT$:CSAVED$,A#3FFF,EB+3,AUTO
62 GOTO35
63 PRINT"Give the name of the file to be loaded OR Press'S'and then RETURN
64 INPUTD$
65 IFD$="S"THENEND$=""
66 CLOADD$
67 GOTO35
70 FORA=#1F56TO#2098
73 READB$:B=VAL("#"+B$):POKEA,B
75 NEXT:RETURN
77 DATAEA,00,FF,C8,B9,66,1F,99,80,BB,D0,F7,4C,F7,1F,EA,06,43,72,65,65,20,70,61
79 DATA72,20,42,55,41,20,4E,4F,56,4F,20,46,72,2E,05,53,54,4F,50,20,3D,3E,20,03
81 DATA45,53,43,20,00,00,00,00,8C,FC,1F,A0,40,8C,FF,1F,60,EA,EA,AD,DF,02,C9,9B
83 DATAD0,57,20,8C,1F,60,20,8C,1F,4C,F7,1F,EA,EA,EA,EA,A2,00,B5,04,20,BB,1F,E8
85 DATAE0,08,D0,F6,60,2A,95,04,00,06,A9,20,9D,98,20,60,A9,2A,9D,98,20,60,EA,EA
87 DATAA0,03,A2,00,A9,BB,85,01,A9,A8,85,00,B1,00,88,91,00,A5,00,69,28,85,00,A5
89 DATA01,69,00,85,01,E8,C8,E0,1C,D0,E9,C8,C0,28,D0,DA,60,A9,00,85,01,A0,00,B9
91 DATA00,40,85,00,85,0D,C0,FF,D0,03,EE,FF,1F,C9,00,D0,0B,4C,A4,1F,EA,EA,EA,EA
93 DATAEA,EA,EA,EA,A0,00,C8,A5,00,69,07,85,00,A5,01,69,00,85,01,C4,0D,D0,EF,A9
95 DATAB4,A2,00,86,02,85,03,A5,02,65,00,85,02,A5,03,69,00,65,01,8D,4F,20,A5,02
97 DATAE9,01,8D,4E,20,A2,00,BD,00,B5,95,04,E8,E0,08,D0,F6,EA,A0,07,98,48,20,AD
99 DATA1F,A9,BD,8D,72,20,A9,0E,69,28,8D,71,20,A2,00,BD,98,20,8D,77,BE,AD,71,20
101 DATA69,28,8D,71,20,AD,72,20,69,00,8D,72,20,E8,E0,08,D0,E5,20,CE,1F,68,A8,88
103 DATAC0,00,D0,C8,EE,FC,1F,4C,98,1F,20,55,55
500 PRINT"This program will let you write giant sized letters moving across the
;
505 PRINT" screen from right to left,suitable as an advertisement or to";
510 PRINT" leave a message for your friends"
520 PRINT" The message must first be SAVED"
525 PRINT" and then LOADED":WAIT300:RETURN
```

RAMBLING IN THE ROM - 24P.D. Library

No sooner asked for than it's here...

CPD-49 CLIPPER

This 3k machine code program not only strips out all spaces from a BASIC program, it will even put them back again for you! And that's not all; it includes a selective REM shortener. The program stops at each REM in the listing, then gives you the option to leave it as it is, delete it entirely, or reduce it to a ":" if the line is likely to be called by a GOTO or GOSUB. Available on disc or cassette, it's compatible with both Oric-1 and Atmos, and it's only 15p!

CPD-50 RUNES

A fun 5k, this Basic program (Oric-1 and Atmos compatible) translates ordinary English into Hobbit runes!

CPD-51 ASTRONOMER

This suite of programs from Rob Kimberley is a massive 75k, and therefore available on DISC ONLY, I'm afraid. It enables you accurately to forecast sunrise and -set, moonrise and -set and eclipses for any date, time and position on earth! There are other utilities included, and the whole thing is a tribute to Rob's perseverance. If there is a demand, it may be that I can make one or two sections of the suite available on tape as well. And, following the rules, it's only 50p!

I'm presently evaluating another half-dozen programs - many thanks to those who submitted them - more news next month.

Envelope

A long letter from Patrick Van Ewijk prompted a number of thoughts. He has been playing with 'Nibble' (the disc editor from C.E.O.), but on 5¼" discs formatted on an IBM PC! You can both read from and write to such discs, provided you format them as 512 bytes per sector, 9 sectors per track, 40 tracks per side. The veratility arises from the Western Digital 1793 floppy disc controller chip. Are there, asks Patrick, any utilities available that can read or write PC DOS Ascii files? If there aren't, don't worry, because Patrick says he'll probably write one! And a final question - the FDC can be programmed to vary the head step speed; neither Oric DOS nor SEDORIC permit you to do this, and it's not possible to poke the FDC because the appropriate register is updated every time it receives a new command. Has anyone any suggestions as to what Patrick might POKE?!!

The saga

We continue this month with the tables of commands, operators, etc. We've only got one more page of tables to go, then it's down to the nitty gritty of the BASIC interpreter.....

Jon Haworth

COEA	COEA	80	BYT	'EN', 'D'+#80
COED	COED	81	BYT	'EDI', 'T'+#80
COF1	82	BYT	'INVERS', 'E'+#80
....	COF1	82	BYT	'STOR', 'E'+#80
COF8	83	BYT	'NORMA', 'L'+#80
....	COF6	83	BYT	'RECAL', 'L'+#80
COFE	COFC	84	BYT	'TRO', 'N'+#80
C102	C100	85	BYT	'TROF', 'F'+#80
C107	C105	86	BYT	'PO', 'P'+#80
C10A	C108	87	BYT	'PLO', 'T'+#80
C10E	C10C	88	BYT	'PUL', 'L'+#80
C112	C110	89	BYT	'LORE', 'S'+#80
C117	C115	8A	BYT	'DOK', 'E'+#80
C11B	C119	8B	BYT	'REPEA', 'T'+#80
C121	C11F	8C	BYT	'UNTI', 'L'+#80
C126	C124	8D	BYT	'FO', 'R'+#80
C129	C127	8E	BYT	'LLIS', 'T'+#80
C12E	C12C	8F	BYT	'LPRIN', 'T'+#80
C134	C132	90	BYT	'NEX', 'T'+#80
C138	C136	91	BYT	'DAT', 'A'+#80
C13C	C13A	92	BYT	'INPU', 'T'+#80
C141	C13F	93	BYT	'DI', 'M'+#80
C144	C142	94	BYT	'CL', 'S'+#80
C147	C145	95	BYT	'REA', 'D'+#80
C14B	C149	96	BYT	'LE', 'T'+#80
C14E	C14C	97	BYT	'GOT', 'O'+#80
C152	C150	98	BYT	'RU', 'N'+#80
C155	C153	99	BYT	'I', 'F'+#80
C157	C155	9A	BYT	'RESTOR', 'E'+#80
C15E	C15C	9B	BYT	'GOSU', 'B'+#80
C163	C161	9C	BYT	'RETUR', 'N'+#80
C169	C167	9D	BYT	'RE', 'M'+#80
C16C	C16A	9E	BYT	'HIME', 'M'+#80
C171	C16F	9F	BYT	'GRA', 'B'+#80
C175	C173	A0	BYT	'RELEAS', 'E'+#80
C17C	C17A	A1	BYT	'TEX', 'T'+#80
C180	C17E	A2	BYT	'HIRE', 'S'+#80
C185	C183	A3	BYT	'SHOO', 'T'+#80
C18A	C188	A4	BYT	'EXPLOD', 'E'+#80
C191	C18F	A5	BYT	'ZA', 'P'+#80
C194	C192	A6	BYT	'PIN', 'G'+#80
C198	C196	A7	BYT	'SOUN', 'D'+#80
C19D	C19B	A8	BYT	'MUSI', 'C'+#80
C1A2	C1A0	A9	BYT	'PLA', 'Y'+#80
C1A6	C1A4	AA	BYT	'CURSE', 'T'+#80
C1AC	C1AA	AB	BYT	'CURMO', 'V'+#80
C1B2	C1B0	AC	BYT	'DRA', 'W'+#80
C1B6	C1B4	AD	BYT	'CIRCL', 'E'+#80
C1BC	C1BA	AE	BYT	'PATTER', 'N'+#80
C1C3	C1C1	AF	BYT	'FIL', 'L'+#80
C1C7	C1C5	B0	BYT	'CHA', 'R'+#80
C1CB	C1C9	B1	BYT	'PAPE', 'R'+#80
C1D0	C1CE	B2	BYT	'IN', 'K'+#80
C1D3	C1D1	B3	BYT	'STO', 'P'+#80
C1D7	C1D5	B4	BYT	'O', 'N'+#80
C1D9	C1D7	B5	BYT	'WAI', 'T'+#80
C1DD	C1DB	B6	BYT	'CLOA', 'D'+#80
C1E2	C1E0	B7	BYT	'CSAV', 'E'+#80

C1E7	C1E5	B8	BYT	'DE','F'+#80
C1EA	C1E8	B9	BYT	'POK','E'+#80
C1EE	C1EC	BA	BYT	'PRIN','T'+#80
C1F3	C1F1	BB	BYT	'CON','T'+#80
C1F7	C1F5	BC	BYT	'LIS','T'+#80
C1FB	C1F9	BD	BYT	'CLEA','R'+#80
C200	C1FE	BE	BYT	'GE','T'+#80
C203	C201	BF	BYT	'CAL','L'+#80
C207	C205	CO	BYT	'!'+#80
C208	C206	C1	BYT	'NE','W'+#80

MISCELLANEOUS KEYWORDS

C20B	C209	C2	BYT	'TAB','(''+#80
C20F	C20D	C3	BYT	'T','O'+#80
C211	C20F	C4	BYT	'F','N'+#80
C213	C211	C5	BYT	'SPC','(''+#80
C217	C215	C6	BYT	'@'+#80
C218	C216	C7	BYT	'AUT','O'+#80
C21C	C21A	C8	BYT	'ELS','E'+#80
C220	C21E	C9	BYT	'THE','N'+#80
C224	C222	CA	BYT	'NO','T'+#80
C227	C225	CB	BYT	'STE','P'+#80

OPERATORS

C22B	C229	CC	BYT	'+'+#80
C22C	C22A	CD	BYT	'-'+#80
C22D	C22B	CE	BYT	'*'+#80
C22E	C22C	CF	BYT	'/'+#80
C22F	C22D	DO	BYT	''+#80
C230	C22E	D1	BYT	'AN','D'+#80
C233	C231	D2	BYT	'O','R'+#80
C235	C233	D3	BYT	'>'+#80
C236	C234	D4	BYT	'='+#80
C237	C235	D5	BYT	'<'+#80

FUNCTIONS

Note: The keyword 'GO' is to be found in V1.0. Certain versions of Basic accept GO TO as GOTO, which is not the case with the Oric. It's true to say that the facility has no practical use.

C238	C236	D6	BYT	'SG','N'+#80
C23B	C239	D7	BYT	'IN','T'+#80
C23E	C23C	D8	BYT	'AB','S'+#80
C241	C23F	D9	BYT	'US','R'+#80
C244	C242	DA	BYT	'FR','E'+#80
C247	C245	DB	BYT	'PO','S'+#80
C24A	C248	DC	BYT	'HEX','\$'+#80
C24E	C24C	DD	BYT	'&'+#80
C24F	C24D	DE	BYT	'SQ','R'+#80
C252	C250	DF	BYT	'RN','D'+#80
C255	C253	EO	BYT	'L','N'+#80
C257	C255	E1	BYT	'EX','P'+#80

A LOT OF READERS STILL 'PLAY GAMES AND WOULD LIKE TO SEE MORE ABOUT THE LESS SERIOUS TITLES THAT ARE AVAILABLE. SO HERE WE GO WITH A FURTHER LOOK AT MY COLLECTION. WHERE TITLES ARE AVAILABLE THROUGH OUR MAIL ORDER SCHEME, I HAVE INDICATED THE PRICE.

BACKGAMMON

from IJK - this Plays an exceptionally good game and includes a well Presented demo for the novice.

THE HELLION

--- - 101 screens of Pure zap'em from ORPHEUS. - 2.75

COBRA PINBALL

--- - a stunning Pinball game from France, where you can even shove the table like I used to in the sixties or in the case of JON H and WILKIE - in the fifties. - if you take advantage of the latest offer from the CEO then you will get this for free.

SOFTWARE INDEX

--- - on the PUBLIC DOMAIN and what I'm currently using to catalogue my software. Not as fast as some other utilities in it's sort routines and no way if Printing the list alphabetically. However DAVID GOODRUM is looking into this and of course it is Purpose written for my task

HUNCHBACK

--- - a stupid, but classic game from OCEAN. Overcome the hazards on many various screens to rescue the Princess. Starts easy enough, but gets tougher and tougher.

JIMMY POUBELLE

--- - real ear shattering sound in this Platform game from LORICIELS. Screens and screens of Pounding hammers, electric shocks and escalators moving against you - SUPER!!

DON JUAN

--- - a bit of fun from INNELEC/NO MANS LAND in which you take the role of a DON JUAN. Choose a brunette, redhead or blonde; then use all your guile to chat her up. Kiss her too quick and she will slap you; upset her and she will cry - GOOD CLEAN FUN (UNLESS YOU MAKE IT OTHERWISE!!)

DARTS

--- - from W.E. , set the start to 301 or 501 etc., get on the oche and fling those arrows.

FRELON

--- - is French for Hornet. You take control of your helicopter and must pick up steel girders and re-build a bridge, whilst all the time avoiding the enemy fire from tanks/Planes etc. Popular with SADDAM is this one.

ORIC MUNCH

--- - A CLASSIC from Geoff Phillips. MUNCHMAN AT IT'S BEST- 1.00

STYX

--- - from NO MANS LAND a very colorful arcade. 4 DIFFERENT screens to complete & after each you have to make the castle in the sky crumble whilst all the while mutant birds attack you.

Intro

----- This is the first of a new series on Machine Code Programming, which hopefully will help take some of the mystery out of the subject. These articles are intended as a guide only, there is a limit to the size of the magazine and we don't want the postman to have a hernia, or make the cat neurotic, when Oric User Monthly arrives on the mat.

For those who are new to this type of programming this first article is intended to give a simple overview of the subject. Following articles will go into more detail, on all the items mentioned here. The main aim behind this series is to do two things. Firstly to explain machine code programming and how to use it, secondly and perhaps more useful, to pass on a few hints and tips which hopefully will make your programming more interesting and productive, instead of having the Oric always a couple of bugs and a crash ahead of you.

Usually machine code programming is thought to be very difficult, a skill far beyond the average computer user. In fact this is quite wrong. The main difficulty is that information on the subject is often presented in such a way, that it is difficult for the newcomer to take it in. I am not an expert and I am not a professional programmer. Quite a few readers know far more about the subject of machine code programming and the Oric than I will ever know. My sole qualification for writing this, is an ability to write machine code software that will do what I want it to do, with the minimum amount of hassle and computerised mayhem. Hopefully my somewhat unusual, but so far, fairly successful approach to programming will work for you too.

Book at Bedtime

----- I hope to cover machine code programming fairly comprehensively but you will find that reading books on the subject will help too. The Oric Atmos manual, if you have it, has a brief introduction to machine code, which is a good place to start. Obviously a good idea is to make your local library, the first port of call. They won't have everything, but it is worth looking to see what they do have.

The book on 6502 machine code by Rodney Zaks, was recommended by Stan Ellison. I found "6502 Assembly Language Programming" by Lance Lethenthal very useful. I must confess that I only read about a third of it in any real detail, so don't think that you have struggle through everything. One book that I have found invaluable is "Oric Advanced User Guide" by Leycester Whewell, which is a mine of information about the Oric.

I used to do most of my reading (and even some of my programming) while travelling on the London Underground, or while hanging around waiting. It is a more interesting way of passing the time and you will find that you are more receptive to new ideas when you are in a boring situation.

Of course a lot depends on the way information is presented. Most books I have seen, list machine code instructions in alphabetical order, with a cryptic collection of ticks, crosses and other hieroglyphics. Alphabetical order may appear to make sense, but in fact it is not very useful to the newcomer. The reason is that it tends to hide the fact that many instructions are related to each other and understanding one instruction will make the operation of others easy to understand too. Another favourite with manuals is a list of hexadecimal and binary numbers consisting of a huge mass of 1's and 0's, more than enough to knock a budgie off its perch. Don't let these worry you, there are easy ways of dealing with this sort of thing.

It is a good idea to consult more than one book. Many authors may be expert on their subject, but find it difficult to pass on that knowledge to others. A particular operation may be difficult to understand, even after you have read the description several times. If you can, move on to another author and read his description of the same operation. You will get a different perspective, which is often enough to make the light dawn. Rather like those stereo pictures which look flat, when viewed in isolation, but spring to life, when viewed together.

Setting the Atmosphere

----- Like many members, I use an Oric Atmos and the information provided here is mainly "Atmos" based, for that reason, although I should hasten to add that the machine code instructions are exactly the same for both the Atmos and the Oric-1. The slight differences between the Atmos and the original Oric-1, are mostly in the Operating System ROM chip and the manual. Although the the Atmos ROM and manual are not essential for successful machine code programming they make a considerable improvement in the Oric operation and if you can get hold of either they are worth the small cost involved. I also use the Cumana V1.3 disk system, but I shall concentrate on information suitable for use with the cassette tape systems, which means that it can be used by any Oric user. Whether they have disks or not, should not matter.

Watch your Language

----- Binary Code, Assembly Language, Hexadecimal Code are all terms used in connection with Machine Code, but just what are they?

BINARY CODE was the first real computer language. Entirely written in ones and noughts, it is difficult even to recognise single instructions in a program. It is now rarely used in programming except very occasionally in small amounts for specific items such as setting up hardware.

ASSEMBLY LANGUAGE is still strictly speaking, binary code, but in the much simpler form of a language which organises the binary code for you, into the required group of ones and noughts for each instruction, so that a whole group of say, 24 binary digits can be called up and used, by a simple label. The labels are an abbreviated description of the instruction operation and provide a far easier way of reading and writing programs than raw binary code.

HEXADECIMAL CODE is like Assembly language, in that it organises all those ones and noughts into an easier system of numbers. These numbers are used by all computer languages, including Assembler and Basic for operating and controlling the computer. For instance each Basic command has to be converted into a hexadecimal code by the computer, before it can act on the command. The definition Hexadecimal is usually abbreviated to "hex" and is normally expressed as a minimum of two digits (ie A9 or 08), which is one "byte". Each byte is made up from a collection of eight of those binary ones and noughts. Occasionally a half byte, single hex digit is used. This known as a "nybble".

As for the expression **MACHINE CODE**, that is an overall term that applies to all three of, binary code, hex code and assembly language. Most machine code programs are written in Assembler. Hex code can also be used as a quick and simple method for entering an Assembler program into the computer.

Strictly speaking, any hex value should be shown as a number with a small subscript "16", however as I use hex code most of the time, it is not necessary to do that. A small "h" or "d" is sufficient to indicate hex or decimal values on the rare occasions it is required. For example 15d = 0Fh.

Chatting up the Oric

----- When programming most computers there are just two things that matter. One is obviously the language you are using, the other is the computers Operating System.

The Language

----- Lets look at language first. The Oric uses the 6502 Assembly Language Set which contains about sixty instructions in all. However, as some are not available on the Oric's 6502 chip and others are rarely used, this simplifies things somewhat. Just like the individual components of those wonderful "Lego" or "Mechano" sets, the Assembly Language instructions can be used to build up large programs from quite simple components but unlike "Lego" it wont cost an arm and a leg to do so. Once you have written your Assembly language program, you can enter it into the Oric as simple hex code numbers, using DATA and POKE commands in a short Basic routine. Alternatively, it can be entered as a language, using one of the software assemblers that are available.

The Operating System

----- The other consideration after language, is the Operating System. This is the system provided by the computer manufacturer to give any of the software that you are using, access and control over all the computer hardware both inside the computer and anything plugged in on the outside. Essentially the Operating System controls everything from image on the display screen, to communications with external items such as the printer.

The Operating System is usually invisible to you, as it runs the essential background services, such as the screen display and watching the keyboard. You can of course ignore it and write machine code programs that do not need to use it directly. However there are many useful routines which can be very simply called for use in your own programs, which can save a lot of time and effort. For example there are routines to read the keyboard and to write to the screen. The Oric Operating System lives in the O.S. ROM chip together with Oric Basic. There is a complete listing of its contents in the "Advanced User Guide", previously mentioned. At first much of the listing will be meaningless to the total beginner. Not to worry, any use of the Operating System, by these articles, will be explained at the time. Also in another part of the forest, Jon Haworth is running a series on both Oric ROMs, which should prove very useful here too.

What the Hex is next

----- Using the Oric, it is possible to write machine code using either the decimal or the hex code numbering systems. If I was restricted to one piece of advice only, it would be simply, use hex code, not decimal when programming in Assembler or Machine Code. In an era of "Decimalisation" and "Metrication", this may seem strange advice, but believe me there is a good reason for it.

While most calculation is best done in decimal, calculation is not an essential requirement of programming. Let the computer do its own calculating ! Programming is the means by which we control computer hardware and hex code will provide that control, far easier than decimal values. This becomes more obvious, as experience is gained, particularly when programming in Assembly language. It took me a little while to get used to writing 9,A,B ...etc instead of 9,10,11 ...etc, but it was much easier than I expected. Having done it that way from the start, I soon found reading and writing Assembly Language programs a lot easier and the advantages can extend to Basic programming too.

So much for the overview..... Next time, how to wear out the RESET button !!

HIRES / TEXT

LAST ISSUE THERE WAS A LETTER FROM ADRIAN WESTLEY, ASKING HOW TO GO FROM A 'HIRES' SCREEN TO A 'TEXT' SCREEN AND THEN BACK TO 'HIRES' WITHOUT LOSING ANY 'HIRES' GRAPHICS. WELL, READERS HAVE COME UP TRUMPS; A LISTING FROM BRIAN KIDD AND 2 FROM STAN ELLISON. ALL 3 ARE AVAILABLE FROM 'OUM' FOR AN s.a.e. A BIG THANK YOU TO STAN WHO WAS ON SHAKY GROUND WITH THE WIFE, AFTER WORKING FOR TWO DAYS ON THE ROUTINES.

```

10 HIMEM29000
100 REM HIRES STORE CODE
1010 M=29000
1020 FORA=1TO87:M=M+1:READD:POKEM,D:NEXTA
1030 DATA#EA,#EA,#AD,0,160,#8D,22,118,#A9,191,#CD,77,113,#F0,39
1040 DATA#18,#D8,#AD,76,113,#69,1,#8D,76,113,#AD,77,113,#69,0,#8D,77,113
1050 DATA#18,#D8,#AD,79,113,#69,1,#8D,79,113,#AD,80,113,#69,0,#8D,80,113
1060 DATA#4C,73,113
1070 DATA#EA,#EA,#A9,223,#CD,76,113,#F0,3,#4C,88,113
1080 DATA#A9,118,#8D,80,113,#60
1100 END
4000 REM STORE HIRES SCREEN
4010 CALL29001:RETURN
5000 REM RETRIEVE HIRES SCREEN
5010 HIRES:POKE29004,22:POKE29005,118:POKE29007,0:POKE29008,160
5020 POKE29010,149:POKE29058,246:CALL29001:RETURN
6000 REM STORE TEXT SCREEN
6010 POKE29004,128:POKE29005,187:POKE29007,172:POKE29008,113
6020 POKE29010,191:POKE29058,223:CALL29001:RETURN
7000 REM RETRIEVE TEXT SCREEN
7010 TEXT:POKE29004,172:POKE29005,113:POKE29007,128:POKE29008,187
7020 POKE29010,149:POKE29058,246:CALL29001:RETURN
8000 REM TRANSFER HIRES STORE TO DISC WITH !SAVE "NAME",A30230,E30390
8010 REM RECALL WITH !LOAD"NAME"
9000 REM TRANSFER TEXT STORE TO DISC WITH !SAVE"NAME",A29080,E30200
9010 RECALL WITH !LOAD"NAME"

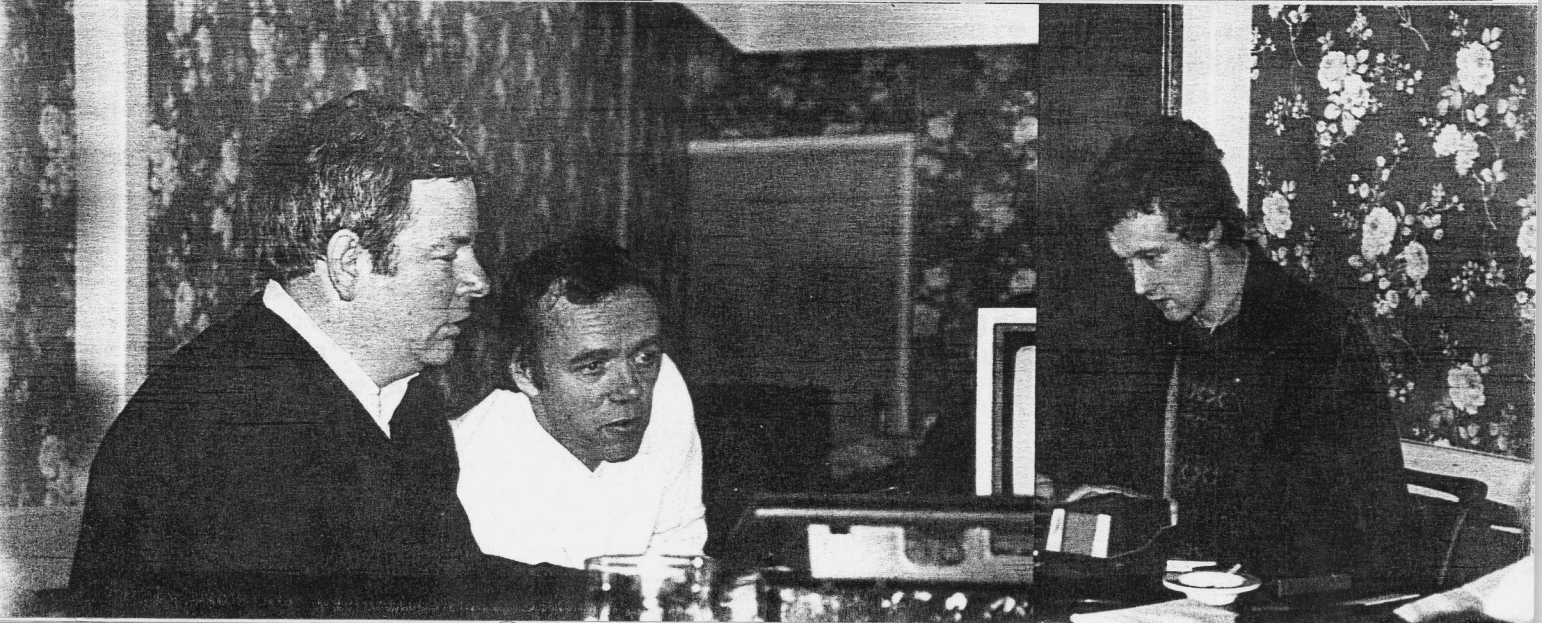
```

'O.U.M' GOES PICTORIAL

On the next Page are a selection of Pics from the recent ORIC MEET in Aylesbury. Set out below are the stories behind the Pictures:

- TOP LEFT - JON HAWORTH & DAVE DICK - "Alright Jon, I Promise not to try and grab your toupee again!"
- TOP RIGHT - ALISTAIR WAY in Pensive mood. He's just been to the Men's room & realised that 'GRAND PRIX' doesn't necessarily relate to Motor Racing.
- CENTRE LEFT - DAVID GOODRUM looks away in disgust. Young Matthew Dick zaps the aliens as dad hollers: "turn that bloody SPECTRUM off". CHRIS HEARN has been on the GUINNESS and thinks it's a TELESTRAT.
- CENTRE RIGHT - as the technically oriented DAVID WILKIN sticks in another chip; the amazed ROB KIMBERLEY asks if it had salt and vinegar on it.
- BOTTOM LEFT - "Now repeat after me ; MY NAME IS BOB TERRY AND I PROMISE TO TRY AND GET THE ATMOS THE RIGHT WAY ROUND IN FUTURE.
- BOTTOM RIGHT - JONATHAN BRISTOW, AUTHOR of 'CHARED' and 'OBED' looks as if he is ready for 'A BED'.

THE MEET - FEB '91



Following on from Peter N. Bragg's article in issue 41 regarding the transferring data and graphics between the Oric Atmos and other computers, I would like to describe a further alternative software solution.

In 1984, BBC Radio 1 "The Chip Shop" programme published a software package called "Basicode 2+". Basicode 2+ was available for a number of different computers ranging from Apple, BBC, CBM, Dragon, MSX, Oric, Spectrum and so on.

Each specific computer had a translation program, which allowed programs to be saved and loaded in the Basicode 2+ format. Note that the Oric (and the Spectrum) could only load Basicode 2+ programs.

The idea was simple, but effective. To quote from the manual: "Basicode 2+ is essentially a subset of BASIC which can only use parts of the BASIC language common to the microcomputers that support it. Since these range across several different machines, many features have had to be omitted from the language".

The problem around specific machine instructions (for example to clear screen etc) were "solved" by using reserved standard routines. These being BASIC statements, with line numbers of under 1000. For example, to clear the screen GOSUB 100 would perform this task.

Although Basicode 2+ programs are no longer broadcast, the translation programs are very powerful. One of these programs can be found in the Oric Public Domain library, namely "Hind" (CPD-45). A closer inspection of this program demonstrates the workings of Basicode 2+.

It was by using Basicode 2+ that I have transferred several programs from the BBC microcomputer to the Oric Atmos. Two of these programs appear in the Oric Public Domain library: "Business" (CPD-41) and "Converter" (CPD-42).

The transfer of these BASIC programs was relatively simple. In line with Basicode 2+ standards, the BBC programs were renumbered with line numbers above 1000, program lines were adjusted to 60 characters and control codes were removed. These were then saved in the Basicode 2+ standard, and then loaded into the Oric Atmos.

Once loaded on the Oric, the Basicode 2+ machine specific instructions (program lines below 1000) were deleted and the program was renumbered. The utilities within Sedoric made this possible. After this, the programs were modified to run under Oric Basic (rather than BBC Basic), and amendments were made (mainly to variable usage and colour/graphics).

Although Basicode 2+ may seem limited compared to the other suggestions made in the previous article, it has proved very useful in being able to transfer BASIC programs. I hope that "Business" and "Convertor" within the Oric Public Domain library prove to be a success.

David Goodrum

I would like to clear up a point made in the previous two issues of QJM. In hints for speeding up Basic programs, it was mentioned that decimal numbers are better than hexadecimal numbers because they are usually shorter. However decimal numbers are in fact much slower. This is because hex numbers are more similar to the way numbers are represented internally in the machine. This is obvious if you have ever tried to write machine code routines to print out numbers in decimal and hex. It is mentioned on page 42 of 'L'ORIC A NU'.

- TIM COLGATE (Haywards Heath)

I have the book "EXPLORING ADVENTURES ON THE ORIC 48K" By Peter Gerard. With regard to the 3 adventures in the book in basic I have typed them in but cannot get any of them to work. I found the book badly put together with lots of mistakes. I don't think that the fact that I have an ATMOS should make any difference. If anybody has actually managed to get these programs running, I would be grateful for a printout or cassette of them. I will reimburse any costs incurred.

KEN DUDDLE - Leicester.

REPLY FROM THE EDITOR - Ken sent me the games on tape so I decided to try them out. My first thoughts were that it may be the fact that you have to add 1 to the ORIC 1 PLOT routine to function properly on the Atmos. After glancing through my own copy of the book at the adventure 'TUNNEL' it became apparent that this was not the problem. I then loaded in the program, typed RUN and off I went into the tunnel. No problems so far. I did notice that when you type in a word, it is shown vertically instead of horizontally, but when I typed in SCORE, I got the response one would expect. I then loaded the game on the ORIC 1 and it ran the same. Though I keep falling down a dark pit and dying, I can find nothing wrong. I then tried the second one - CASTLEMAZE and was told I had a MISMATCH ERROR in line 2070. I cannot see why. Well Ken there are 2 options. Either some kind hearted soul will have sorted it out and tell us or you could write to GERALD DUCKWORTH who made the games available on cassette. You never know they might have hundreds of the things at giveaway prices. Ken can be reached on 0533 518869 or drop him a line at 3 HOBBART STREET, LEICESTER. LE2 0JS

David Goodrum informs me of the following:

ORIC PUBLIC DOMAIN SOFTWARE SOFTWARE INDEX (CPD-43)

There is a problem with the 'Amend System Settings' option within this program. A further two program lines need to be added:

```
9151 IF ST(2) = 5 THEN 9180
9351 IF ST(3) = 9 THEN 9380
```

NOTE FROM THE EDITOR: All those spaces in program lines are O.K. for clarity in print, but leave them out when programming or get CLIPPER (CPD - 49) to do it for you. The new Public Domain list and CD forms will be with this issue if I remember.

OPELCO

OPELCO (STEVE HOPPS) HAVE A NEW ADDRESS:

56 MANOR PARK DRIVE
FINCHAMPSTEAD
WOKINGHAM
BERKS. RG11 4XE

POLAND

STEVE HOPPS ASKS IF ANYONE HAS CONTACTS IN POLAND AS HE WISHES TO GET IN TOUCH WITH ANYBODY OUT THERE WHO MAY HAVE AN ATMOS.

NEW MEMBERS

WELCOME TO OUR NEW READERS WHO INCLUDE ONE FROM VIENNA AND ONE FROM HELSINKI. IF WE GET ANY MORE OVERSEAS READERS, WE WILL HAVE TO CHANGE OUR NAME - HOW ABOUT "CLUB EUROPE ORIC"!!!

FOR SALE

Mr. A SMITH bought 2 ATMOS's for his sons which they now want to sell. Each comes with an MCP40 Print/Plotter, books, utilities and about 50 cassettes.

Both in excellent condition.

Price of SYSTEM 1 complet with datacorder is 70 Pounds.

Price of SYSTEM 2 without datacorder is 60 Pounds.

You will have to haggle over Postage costs, but the Gentleman is open to offers on the above prices and may split the systems. RING him on :

0202 511099 or write to: 104 NORTON RD.

BOURNEMOUTH

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FOR SALE

ORIC 1 - 48K Plus 2 books ,12 cassettes etc.

APPLY TO: Sheila Stevens

63 Newlands

Dawlish

Devon EX7 0DY

PRICE IS 25 Pounds.

PACKET RADIO

George Fopple writes to say that he has used the ORIC very successfully on Radio Teletype (RTTY) but wonders if anyone has written an Oric Program for Data Transfer by Radio via Packet Radio. Well George, my contacts say that it is all in the book: 'COMMUNIQUEZ AVEC VOTRE ORIC' by D. Bonomo and E. Dutertre, which was Published by: Editions Soracom, La Harie Pour, FRANCE. This should Provoke a letter or two - The Editor

Recently I have been asked if we could do an article on transferring cassette software to disc. Many readers have just bought drives and others with drives have had difficulty in transferring certain titles. I will start the ball rolling and perhaps others could write with their hints.

Day 1 saw me with a 3" ORIC MICRODISC system and ORICDOS. What is initially required is a formatted disc, the cassette to transfer and an auto-stop routine. The first thing to do was to save an auto-stop routine to disc. 'SAFE STOP 1A' from FGC was chosen as it was just an 8 line basic program that could be typed in and saved to disc and was known to auto-stop 80% of titles. I then set the program running and tried to load in a cassette. 'Searching' did not change to 'Loading'. This was due to the fact that the original Microdisc couldn't cope with disc and cassette at the same time. (Later in my forays I bought an 82 Buffer from David Wilkin and this solved the problem). What was required originally was to carefully pull the drive lead out from the Atmos after the 'Searching' message appeared and then start the tape. Then when the tape had loaded, the drive lead was carefully re-inserted. Initial titles transferred were one part files. For basic files they were just saved to disc with !SAVE "title",AUTO. The manual talked of transfer addresses and not auto files if machine code. I ignored the transfer addresses and save in auto e.g. !SAVE"title",Rxxxx,Exxxx,AUTO

Many games were transferred in this way. Problems did arise with BACKGAMMON from IJK. The HIMEM was the problem. It was #B3FF. I spoke to Alan Whitaker and he advised to a) check that the GRAB command was in the program and b) deduct 1 from HIMEM i.e. amend to #B3FE. This did not work. I looked through some old magazine listings and noticed the regular use of HIMEM #97FF. This worked perfectly. (I have recently been advised by someone on CUMANA V1.13 that they took HIMEM out altogether.)

Next came the titles with 2 or more parts where perhaps a header needed to be amended so then a line was changed to !LOAD"title" from CLOAD". The games gradually went across: RATSPLAT, LOST IN SPACE, CHESS II, FEASIBILITY EXPERIMENT, VIDEO FLIPPER, SLALOM RACE, ORIC GOLF, FOOTBALL MANAGER etc.etc. Many caused problems. For example an infuriating keyclick appeared on IJK INVADERS - solved with line 105 POKE 618,10. WIZARD OF AKRYZ - add line 10 CALL #1000. HOUSE OF DEATH - delete line 0 which states 'cheats never prosper' and amend line 1 from HIMEM#97FF to HIMEM#97FE. 3D FUNGUS was fun to do. It consisted of a basic auto file, a machine code non-auto file and another basic auto file. The problem was that when I loaded in the machine code file via SAFE STOP, the screen crumbled and I was unable to read the start and end addresses. I tried the other auto-stop routine on the FGC tape. This allowed me to read the addresses but not to save the file. Unperturbed I again turned to SAFE STOP and this time saved with: !SAVE"FUNGUS.1",A#9FFF,E#BF3F (even though the screen had crumbled and I couldn't see what I was typing in).

Next came SEDORIC and the tape to disc copier on BDDISK which of course was of no use to me because of the buffer problem. Again I turned to SAFE STOP, but this time to no avail. Armed with CONVERT, I then set about the task of converting ORICDOS files to SEDORIC with some success. Certain games would not run, mainly basic ones, unless the !QUIT command was utilised prior to loading on SEDORIC. Some would still not run so I transferred these to a short DOS for games (GAMEINIT) and was very successful.

The next phase was to get the buffer from David Wilkin and at last the chance to use BDDISK solely. This utility even allows you to examine the cassette prior to loading so that you can see how many files are on it. Next month I will delve further, but meanwhile I leave you with some more of my and other users notes: -

FIREFLASH - has a loader line with no stop signal, the disc drive kept on going. Put a loader program in front of the main one and insert a WAIT sequence before it runs the program.

SPECIAL OPS - easily to transfer to SEDORIC, but does not run due to the part at #400. Works well on GAMEINIT.