

⑨ MICRODRIVE EXCHANGE

G.A. BOEKER. 29 Chadderton Drive, Unsworth, Bury, Lancs. Tel: 061-766 5712

In this issue a "FALSE" Header is used in the Loading of several programs. These can be made using the MAGIC-MESSAGE tape or by using the FALSE HEADER MAKER in MDX8.....If you haven't already put this on Microdrive then please do so. It'll save time later.

BLUE-THUNDER TO MICRODRIVE

P.DAVIES of Biggin Hill, Kent, speeds-up the loading process by saving the various sections all as one long block of code. If you simply transfer game onto m/d, then it loads in about 40 secs, or using the DAVIES method this is reduced to just 8 seconds. This 8 second loading time only applies if the Screen\$ is omitted, but it is better to Load in the Screen as it includes "instructions" Follow the step as given below:

1. Type in the following Loader program;
10 CLEAR 25099: LOAD*"m";1;"THUNDERS" CODE 16384
20 LOAD*"m";1;"THUNDER" CODE 25100
30 POKE 26200,1: POKE 26201,1
40 RANDOMIZE USR 40971
Save to Microdrive by; SAVE*"m";1;"BLUE" LINE 10
2. Wind THUNDER tape to be just after the Basic part, then LOAD and SAVE Screen\$ by;
LOAD "" CODE 16384: SAVE*"m";1;"THUNDERS" CODE 16384,6912
3. Enter RUN USE 0 to clear Spectrum, then Load in the 5 blocks of Codes from the tape by first setting the tape to be just after the Screen section. Enter CLEAR 25099 then load the 5 blocks by entering:
LOAD "" CODE 60000: LOAD "" CODE 25100: LOAD "" CODE 58300:
LOAD "" CODE 55552: LOAD "" CODE 59100
When all Loaded in, Save to Microdrive by;
SAVE*"m";1;"THUNDER" CODE 25100,40000
Include in the Basic; 35 POKE 41006,255 to get 255 Helicopters
If you like surprises, try this: Load "CODER" from the tape by;
CLEAR 59999: LOAD "CODER" CODE 60000. When O.K. message appears, enter RANDOMIZE USR 60000

DELTA WING TO MICRODRIVE

A.D.McMURTRIE of Partick, Glasgow found the major secret of DELTA WING transfer is to transfer the screen AND temporarily corrupt the top part of screen...it'll all become correct in the end.

1. Load & Save the SCREEN\$ part of DELTA WING by;
LOAD "" CODE 16384: SAVE*"m";1;"DELTA1" CODE 16384,6912
2. Make a FALSE HEADER using FALSE MAKER from MDX8 for M/CODE of length 3000. Load this False Header by LOAD "" CODE 16384
Set last part of DELTA to be just AFTER it's Header, then play it in. Only the first 3000 Bytes will load in.
3. Save this 3000 to m/d by; SAVE "DELTA2" CODE 16384,3000
4. Rewind DELTA to be at start of the Header of last part.
5. Enter CLEAR 24575: LOAD "" CODE 24576 then play in complete last part (including it's Header).
6. Enter CLEAR 27575: SAVE*"m";1;"DELTA3" CODE 27576,37944
7. Clear Spectrum by entering RUN USR 0 then type in;
10 CLEAR 26000
20 LOAD*"m";1;"DELTA1" CODE 16384 These two addresses
30 LOAD*"m";1;"DELTA2" CODE 16384 are correct.
40 LOAD*"m";1;"DELTA3" CODE 27576
50 DATA 33,0,64,17,0,96,1,184,11,237,176,195,0,96:
FOR J=23296 TO 23309: READ X: POKE J,X: NEXT J:
RANDOMIZE USR 23296
Save this to Microdrive by; SAVE*"m";1;"DELTA" LINE 10

- D.SARENS of London NW10, Splits WORLD CUP into 3 parts, then by re-joining two of them together end result will load faster.
- Using HEADER MAKER from MDX8, or on MAGIC MESSAGE, make up a Header for M/code having a length of 41780 Bytes.
 - Set WORLD CUP tape to be just at start of very last part. Load the False Header by; CLEAR 27754: LOAD "" CODE 27755 then play in the last part of WORLD. When all in save as two parts by;


```
SAVE*"m";1;"WORLD1" CODE 27755,4000
SAVE*"m";1;"WORLD2" CODE 31755,33780
```
 - Rewind WORLD tape to start of last part again. Load in the False Header by; CLEAR 44138: LOAD "" CODE 44139 then play in all the last part of WORLD; last 4000 Bytes goes onto Screen. Save these 4000 by; SAVE*"m";1;"WORLD3" CODE 16384,4000
- We now have WORLD CUP split into 3 parts. To speed-up loading, the last two parts are joined together as follows;
- CLEAR 27754: LOAD*"m";1;"WORLD2" CODE 27755:


```
LOAD*"m";1;"WORLD3" CODE 61535
```

 When these Loaded Erase WORLD2 & 3 from cartridge then save;


```
SAVE*"m";1;"WORLD2" CODE 27755,37780
```
 - Type in the following;


```
10 CLEAR 27754: LOAD*"m";1;"WORLD1" CODE 16384
20 LOAD*"m";1;"WORLD2" CODE 27755
30 DATA 33,0,64,17,203,92,1,160,15,237,176,49,255,91,195,0,168
40 FOR J=23296 TO 23312: READ X: POKE J,X: NEXT J
50 RANDOMIZE USR 23296
```
- Save this to Microdrive by; SAVE*"m";1;"WORLD" LINE 10

BUGABOO TO MICRODRIVE

GEORGE COCHRANE of Carnoustie, Scotland has transferred BUGABOO without losing the interesting movie effect start of the program The part we require are the last two Headerless-Files which have to be Loaded by machine-code routines as they have a "code" zero

- Type in the following;


```
10 CLEAR 25999:
20 DATA 221,033,144,101,017,108,082,175,055,205,086,005
30 DATA 221,033,144,226,017,076,029,175,055,205,086,005,201
40 FOR J=23300 TO 23324: READ X: POKE J,X: NEXT J:
RANDOMIZE USR 23300
50 SAVE*"m";1;"BUGABOO1" CODE 26000,21100
60 SAVE*"m";1;"BUGABOO2" CODE 58000,7500
```
- Wind BUGABOO tape to be at start of the first Headerless-File RUN program above and play in the tape. When the TWO Files have Loaded, lines 50 & 60 will Save them to Microdrive.
- Clear Spectrum by RUN USR 0 then type in this Loader;


```
10 CLEAR 25999
20 LOAD*"m";1;"BUGABOO1" CODE 26000
30 LOAD*"m";1;"BUGABOO2" CODE 58000
40 BORDER 0: PAPER 0: INK 7: CLS: RANDOMIZE USR 62372
50 RANDOMIZE USR 29000: GOTO 50
```

Save to Microdrive by; SAVE*"m";1;"BUGABOO" LINE 10
 Game can be Stopped without powering off, by pressing CAP SHIFT & BREAK when the Pterodactyl (the big dicky-bird) catches flea.

NEW CHEQUERED FLAG

I have been constantly asked to redo Chequered Flag as it didn't work. It appears main reason is that this game has been re-made and latest version is as supplied with the "free" six pack given with Spectrums. The last section is now shorter, and is called "flagV2". New length is 38400 Bytes and still starts at 24000.

Since the length is only 38400 it can now be transferred much easier altho it will require Block Moving as it starts too low in memory. Since the Basic area starts at 23813 & we have to allow for approx 600 Bytes when doing any Microdrive command and allow about 100 Bytes for the "Work-Space" after Basic program & the Basic program will probably be at least 100 Bytes long. This

means lowest safe location is about 24614. Actually I have over estimated, and generally lowest location is about 24500.

Moving a program temporarily higher in memory needs some care since the top 100 Bytes (actually 90 Bytes) are used by the ROM to hold GO SUB and/or STACK info.....If you include a CLEAR such as CLEAR 30000, then the GO-SUB & STACK info appears below the 30000 and we CAN then put our program upto 65535 in memory. Meanwhiles, back at Chequered Flag....If we load the long block into 26500 onwards then the last Byte of it only goes into 64899 and won't give problems. (Block Mover moves it down later).

We have to include the SCREEN\$ from the game as first action is checks a screen location to ensure you haven't stolen their game.

CHEQUERED FLAG V2 TOMICRODRIVE

1. LOAD/SAVE the SCREEN\$ to Microdrive by entering;
 LOAD "s" CODE 16384: SAVE*"m";1;"FLAG1" CODE 16384,6912
 Then play in your FLAG tape from the beginning.
- 2 .LOAD/SAVE the main long part by entering;
 LOAD "flagV2" CODE 26500: SAVE*"m";1;"FLAG2" CODE 26500,38400
3. Type in this Basic Loader;
 10 LOAD*"m";1;"FLAG1" CODE 16384
 20 LOAD*"m";1;"FLAG2" CODE 26500
 30 DATA 33,132,103,17,192,93,01,00,150,237,176,195,166,205:
 FOR J=23300 TO 23313: READ X: POKE J,X: NEXT J:
 RANDOMIZE USR 23300

Save this to Microdrive by; SAVE*"m";1;"FLAG" LINE 10

RUN....EASY LOADING

A variety of programs to simplify Loading and/or Menu type progs. have been sent in. I regret that most had been too long to print This listing by D.W.P.CROUCHER of Marlborough,Wiltshire is the shortest and simplest to use;

```
10 CLS#: CAT 1
20 INPUT "Enter program name ";A$
30 LOAD*"m";1;A$
```

Save to Microdrive by; SAVE*"m";1;"run" LINE 10 then in future just press RUN key then ENTER key and this program will Load.

(Only works when initially powered-up, or after a NEW).

This will only be able to Load a Basic from cartridge but all programs use a Basic Loader initially.

An interesting alternative would be to always Save your Machine-Code programs beginning with a letter M for example, then could make this "run" program recognise the letter M in the A\$. To do this add in a line 25 thus:

```
25 IF A$(1)="M" THEN LOAD*"m";1;A$CODE ---This is Keyword CODE
```

Now if you enter a name with first character being an M, then line 25 will Load Machine-Code program. If first character isn't an M, then line 30 Loads program as Basic. Another alternative is to always Save Basic with capital letter and Code programs as small letters. Then all you need recognise is that CODE A\$(1) is greater than 96. Check the Character set in your Sinclair manual.

HACKERS START HERE

When trying to solve the mysteries of a Basic program, we know how to STOP and LIST any Basic program, but some programs when LISTED show all lines as line 0? A program such as the "run" program simply follows one line after the other with no GO TO or GO SUB in it. Just for fun, we could POKE all lines to be zero. We need to know start of basic area to be able to do this. This starts at 23755 if just switched on, or at 23813 after a m/drive command has been issued. Let's prove this. Enter RUN USR 0 which will set your Spectrum to same condition as it you have powered off then on. Enter then RUN this short program:

```

10 LET A=1
20 LET B=VAL "1"
100 FOR J=23755 TO 66666
110 PRINT J;"=";PEEK J
120 NEXT J

```

Program will print out:

ADDR No.	THIS IS	
23755=0	} {0} Line No.	
23756=10		
23757=11	} {11} No. Bytes	
23758=0		} {0} in line.
23759=241	LET	
23760=65	A	
23761=61	=	
23762=49	1	
23763=14	Indicate No.	
23764=0	} Method Spectrum	
23765=0		uses to hold
23766=1		numbers.
23768=0		
23769=13	Enter	
23770=0	} {0} Line No.	
23771=20		} {20}
23772=8	} {8} No. Bytes	
23773=0		} {0} in line.
23774=241	LET	
23775=66	B	
23776=61	=	

As no Microdrive command has yet been issued, Basic area starts at 23755 & actual program itself will be PEEKed at and Listed as shown. Note that ALL line numbers use 2 Bytes. The two Bytes AFTER line number are to tell Spectrum how many Bytes in complete line. Note also that end of each line is a 13 (this is code for Enter key). Listing also shows that line 20 is shorter than line 10. This is because line 20 uses VAL.VALing a number will save 3 Bytes.

Write down part of the listing. Now do a Microdrive command...CLS#is the easiest. Re-RUN program and your program has been moved up to start at location 23813 onwards. The "10" of line 10 is now at location 23814. The "20" of line 20 is now at 23829. If you enter POKE 23814,0 & POKE 23829,0 you have your program with two line 0. DO NOT POKE ADDRESSES AFTER END OF YOUR PROGRAM..SPECTRUM WONT LIKE IT. If checking an "invisible" program gives values of less than 32 in the bytes immediately after the first 4 bytes, POKE them to 32 to reveal line (DO try this on my HEADER READER).

JON LEDBURY of London N22 sends the info obtained from TASWORD to change paper colour on 64 column POKE 60641, colour number. FOR SALE. JON has for sale a PRISM VTX5000 (new) for £60. This is a bargain if you want one. Write to me to pass it on.

M.A.CLAYTON of Blackpool would like to contact other members in the Blackpool and nearby areas. Telephone him on Blackpool 63443

Technical name for TASWORD is WUSIWUG. This stands for What You See Is What You Get. (What you see on screen is what is printed)

 * This is issue number 9. Since issue one in April 1984 it has *
 * become apparent that we have covered majority of the aspects *
 * of transferring programs to the Microdrive. Even the longer *
 * programs can now be transferred by splitting them into 2 or 3*
 * parts. Obviously cannot be done for 48K programs as there is *
 * no room to manoever them. It must by now be coming clear that*
 * there is no way in which Microdrive-Exchange can continue in *
 * its present format as we'll have covered so much in the first*
 * year. I would welcome any suggestions as to how the format *
 * could be changed to maintain Microdrive-Exchange as a useful *
 * club. Whilst it would be nice to include machine-code features*
 * on the shadow ROM, I regret this would take far to much time.*

In next issue we'll re-transferr SCRABBLE as latest version as supplied with the free six pack is different to previous. Also I will check the transferring of Business programs which means that we have to reclaim Map area whilst running. Transfer part of program to screen when SAVEing, etc, then reclaiming area of Map afterwards....if it is possible to achieve this.

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