

DOS 8D

Dos 8D and the controller for connect Apple][disk drive to Pravetz 8D was created from eng. Borislav Zahariev in the end of 80's. Most of the controllers were „home made“, but there were a bit „original“ drives, which were build in the Pravetz computer factory.



The earlier versions of the controller hasn't support overlay RAM - #C000 - #FFFF. The factory-made drive hasn't support it too. The last version of the controller supports overlay RAM, so you can use the last versions of DOS. You can connect two disk drives to controller like any apple][controller.

There are several versions of Dos8D, but all they can be collect on two families: v.1x family, and v. 2x family. The main difference between these families is that dos 8D 1.x family works in computer memory at address #6600-#8FFF. So you have around 24K of RAM for programs. At first look you can see that you can't work with the longest games with this DOS family. Dos 8D v2.x family load itself in overlay RAM, so you have all the computer memory free, even the addresses #400-#4FF, so you can load any program that you can load from tape.

To work with Dos 8D the first step is to load it in memory. To do it you must use commands:

```
CALL #320  
or  
CALL800
```

After pressing a RETURN key you wait a few second and see the message

BOOTING...

in version 2.x of dos the message is RDOS 2.1 (for 2.1 version of DOS)

after loading of DOS 8D you are back at computer prompt, but now you have not only BASIC commands, but and additional set of DOS commands. You can use TAPE recorder and Floppy Drive at a time.

Dos 8D is physically and logically compatible to DOS 3.3 for Apple][family computers, but you have more:

- Dos 8D is 3 times faster,
- you have info for free sectors in commands DIR and MAP;
- break the command DIR with OSV (ESC key in Oric);
- message for the number of the path and sector that you're using at the moment;
- message FORMAT when you're formatting a diskette;
- message for program length when you load BASIC program in memory;
- info about the begin and end addresses when you load a machine code program

The last two infos are useful when you work with disk drive and tape recorder at the same time.

Disk drive parameters

Normally the dos 8d command are for the first drive - Drive 1 (in Euphoric Disk A). If you have second drive you must use „D2“ after the filename and other parameters. So, to format a disk in drive 2 you must use:

INIT, D2

After using drive 2 all later commands are for this drive, so command

DIR

will show the files in drive 2.

So, to back at drive 1 you must use command:

DIR1

The format of DOS commands

The parameters in square brackets are not compulsory, and they has't order to use. The order letters substitutes a number or a name:

f – filename

d – drive number

v – the volume number

a – beginning address

e – ending address

l – record length

r – record number

b – byte number in a record.

The filename

The filename is using right after the command and is from 1..30 signs. You may use every sign except „, , ,“.

DIR command

The format of the command is:

DIR [1] [2]

If you are using 1 or 2 after DIR command, the computer will show the filenames on the first or the second disk drive. At the left you have info about every file. The left field shows if file locked or not. If there is „*“ the file is locked and file is protected and you can't change or delete it, so this file may only be readen.

The next field shows the file type. There are 4 file types:

B – BASIC program

C – Machine code program

T – Text file

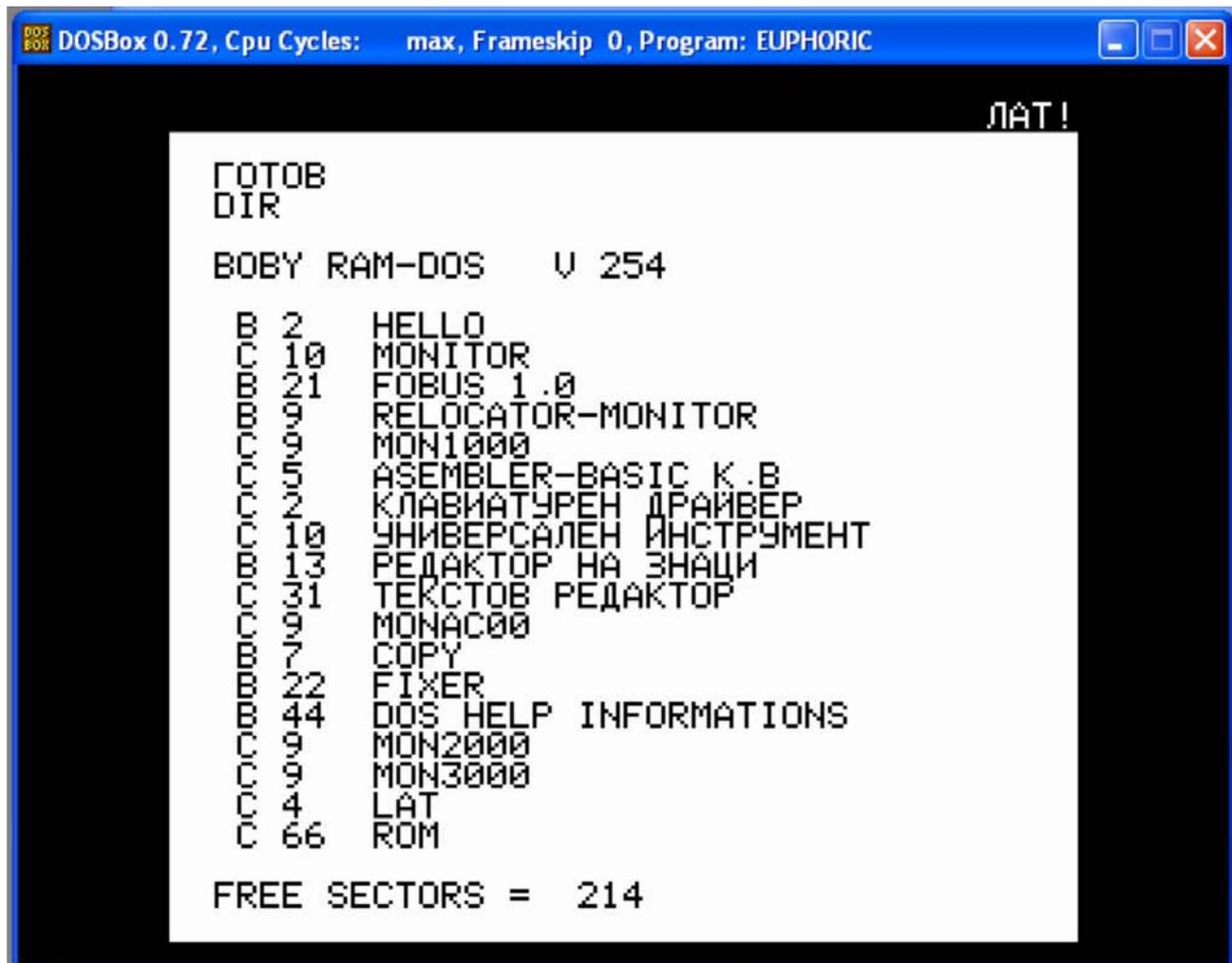
M – Text file created with MAKE command

The number after the letter shows the length of the program in disk sectors. Every sector can hold 256 bytes of code. The smallest possible file – empty text file uses one sector at the disk. You may use 507 sectors at the disk.

When the files are more than screen may show, DIR command shows the first 24 files. To see other files you simply press any key except CTRL or SHIFT. Pressing ESC breaks listing.

After listing theres a message that shows:

FREE SECTORS = XXX



```
DOSBox 0.72, Cpu Cycles: max, Frameskip 0, Program: EUPHORIC
LAT!
ГOTOВ
DIR
BOBY RAM-DOS U 254
B 2 HELLO
C 10 MONITOR
B 21 FOBUS 1.0
B 9 RELOCATOR-MONITOR
C 9 MON1000
C 5 ASEMBLER-BASIC К.В
C 2 КЛАВИАТУРЕН ДРАЙВЕР
C 10 УНИВЕРСАЛЕН ИНСТРУМЕНТ
B 13 РЕДАКТОР НА ЗНАЦИ
C 31 ТЕКСТОВ РЕДАКТОР
C 9 MONAC00
B 7 COPY
B 22 FIXER
B 44 DOS HELP INFORMATIONС
C 9 MON2000
C 9 MON3000
C 4 LAT
C 66 ROM
FREE SECTORS = 214
```

FORMAT a disk.

The format of the command is:

```
INIT [,Vv] [,Dd]
```

The V is volume number you can use. The number must be between 1 and 254. If you don't use V parameter, dos writes 254 as a volume number.

The INIT command writes a dos at the disk too.

Writing a DOS on the disk.

Sometimes you want to write dos, but using INIT command you will destroy all the info at the disk. At this situation you may use DOS command. If you are using a new disk you must use format it with INIT command. The format of DOS command is:

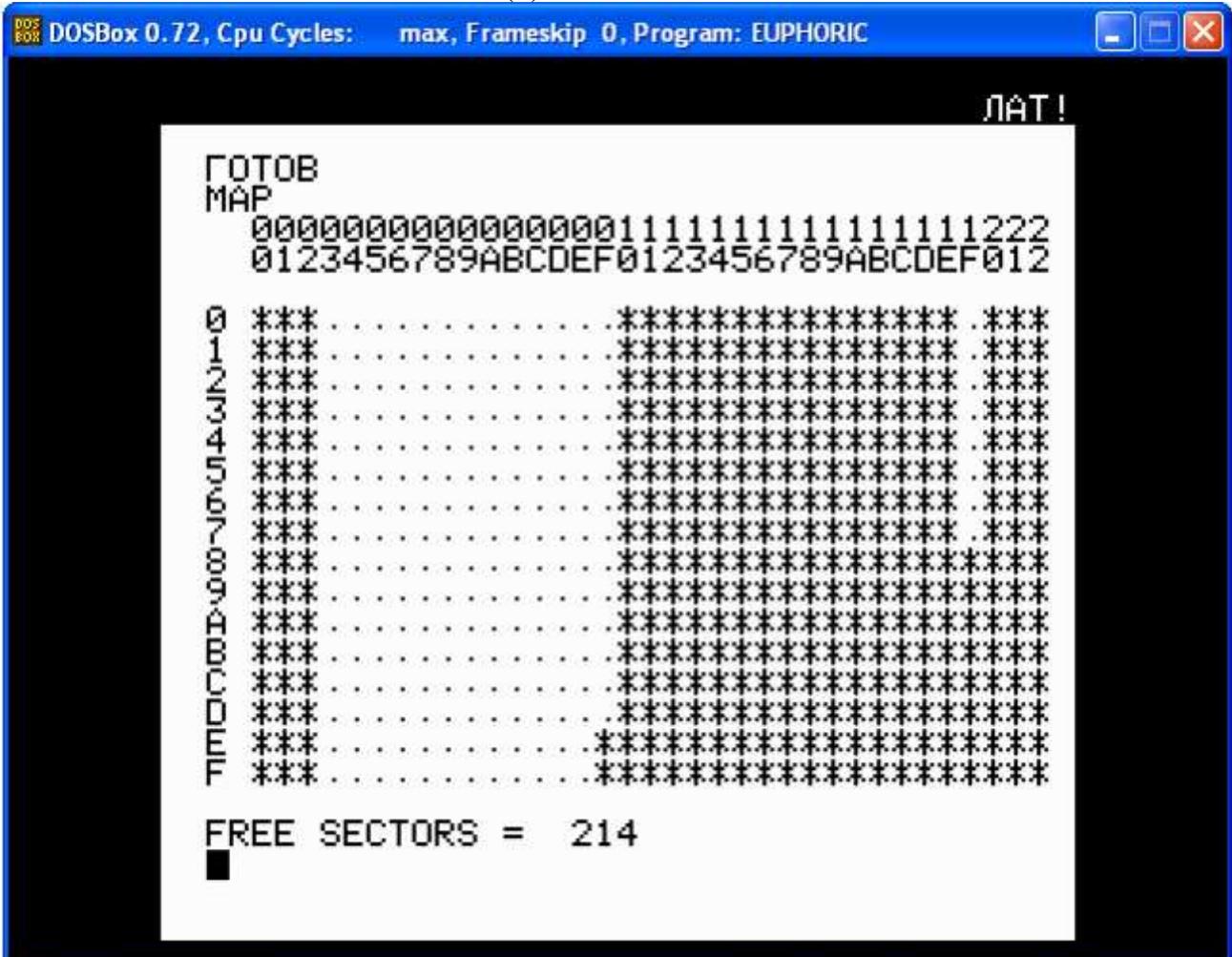
```
DOS [f] [,Dd] [,Vv]
```

after using DOS command with such parameters the dos 8d will try to load and execute a file in f-parameter. The DOS doesn't check if the f file exists. So you can create this file after that. You may use every filetype – B, C, T, M.

If the file is BASIC or Binary it will execute like any basic or machine code program right after dos loading. If the file is text-type (T or M), the text will be interpreted like DOS or BASIC commands.

Check used space on the disk – MAP command.

The MAP command shows a map of the used space of the disk. From left to right are sectors from \$0 to \$F, and at a top are the pats from \$00 to \$22 (0..34). The free sectors are shown like points (.), and the used sectors are shown like stars (*):



Saving a file

With SAVE command you can save a B and C files on the disk. The format of the command is:

```
SAVE f [,Aa] [,Ee] [,Vv] [,Dd]
```

If when using SAVE command you don't use A and E parameters, the command saves the basic program in memory (type B). If you are saving a binary file (type C), you must use the A and E parameters. The „A“ parameter set the beginning of the memory you saving from 0 to 65535 (#0 - #FFFF). The „E“ parameter set the end address of the memory segment you're saving.

Example:

```
SAVE PICTURE, A#A000,E#BFDF
```

Load file in memory

This command loads a files of disk in memory. The file type may be form 4 possible – B, C, T, M. The command format is:

```
LOAD f [,Aa] [,Dd] [,Vv]
```

If you are loading a basic program (B type) the program is loading from address #501 (the contents of \$9A and \$9B if they're not changed). The end address is in dependency from the length of the basic program and is shown on the screen like hex number with letter L in front of it.

```
LOAD BEGIN [RETURN]  
LOAD BEGIN L#456
```

If you're loading a file of type C and if you don't use A parameter the file is loading from the same address the file were saved on the disk. If you are using the A parameter the file loads from an address it sets.

```
LOAD DRIVER,A#400
```

The files of type M and T are loaded only if you use the beginning address:

```
LOAD TEXT,A#1C00
```

Merging a program

If you have program in a parts you can use MERGE command to stick it. The format is:

```
MERGE f [,Vv] [,Dd]
```

Execute e program – the „-“ command

If you want to start a program type B or C you must use the „-“ command. The format is:

```
- - f [,Aa] [,Vv] [,Dd]
```

for B files the „-“ command substitutes the commands

LOAD
RUN

and for C files the commands:

LOAD
CALL address

when address is the beginning address of a machine code program.

Deleting a program

This command is for deleting a file from the disk. The format is:

DELETE f [,Dd] [,Vv]

you can't delete a file if it's locked.

Renaming a program

If you want to change a name of a file you must use:

RENAME f1, f2 [,Vv] [,Dd]

where

f1 is the old name of the file

f2 is a new name of the file

The command doesn't check if the new filename exists, so it's possible to have several files with the same names on the disk. Be careful to avoid it.

Lock and unlock files – the „*“ command

With this command you can protect a file against carelessness. The format is:

* f [,D] [,Vv]

So after command

* DEMO

locks a file DEMO, and command DIR shows a star in front of its name. If you try to delete it you will see:

FILE LOCKED.

If you want to unlock file you must use the „*“ command again.

Quitting dos

If you want to quit the dos and free memory (in dos 1.x family) you must use command EXIT

EXIT

Executable text files.

Executable text file is a text file that contains BASIC or DOS commands. Using the „-“ command with such a file will execute these commands.

You can create such a file with MAKE command:

```
MAKE f [,Vv] [,Dd]
```

Example:

```
MAKE BOBY  
CLS  
FOR I = 1 TO 10: PRINT „BOBY“;I : NEXT  
DIR  
<Ctrl-C>
```

Command for viewing text files:

You can use this command to see a content of a T and M files. The format of the command is:

```
TYPE f [,Dd] [,Vv]
```

if you try to use TYPE command with B or C files you will see:

```
NOT TEXT FILE
```

Command for adding text to a text file from the keyboard.

If you want to add extra rows to your text files from the keyboard you must use the APPEND command. The format is:

```
APPEND f [,Vv] [,Dd]
```

It's is usable when you want to add commands in T and M files.

Command for editing a text file

With MAKE and APPEND command you can correct only the information in the current row. But if you want to correct a whole file you must use EDT command. The format is:

```
EDT f [,Rr] [,Vv] [,Dd]
```

You must use this command carefully. If you don't use the R parameter the file opens and typed from the keyboard signs begin to write from the beginning of the file. If you want to correct only separate row you must use the „R“ parameter. The first row is 0. To be shure that you are using the right R parameter you may try this:

```
TYPE f, Rr
```

and if showing of the files begin from the row to correct you may use:

EDT f, Rr

when r is the number of the row.

You must type the whole row and press RETURN on the right plase and use Ctrl-C to end the editing.