COMMAND DOS
4A DOS

By: Monty Schmidt

LOADING INSTRUCTIONS

Loading 4A DOS or COMMAND DOS into a RAM device or Super Cart is quite easy.

Choose option 3 (LOAD AND RUN)

Type in DSK1.DOS

When the "DSK1.DOS" is no longer visible, that's it, the Super Cart is loaded! Reset the computer, or perform a 'warm reset' in Classic99. 4A-DOS will now be listed as option 3.

Command DOS, also known as 4A DOS, is a unique program in the TI-99/4A user environment. This DOS is a utility 'shell' and an extension to the TI operating system. 4A DOS gives you more power and control over your system. Rather than using separate programs to accomplish a task, 4A DOS give you capabilities that used to require multiple programs.

You will find that like any other program, it may take a little time to learn all of its capabilities. Take the time, learn how to use 4A-DOS, read the manual, try out the examples and then move into the more powerful features.

4A DOS is designed to load into a RAM device at address >6000 - >7FFF in the cartridge port of the TI console. A GRAMKRACKER, GRAM CARD, MAXIMEM, SUPER CART, CACHE CARD or SUPERSPACE device is required when using this DOS on a real (non-emulated) TI system.

NOTES:

When 4A DOS is selected from the menu screen, it searches for a file named AUTO-BAT, if this file is not on the disk or on the virtual drive, you'll get nothing but a blank screen.

If you wish to have true lower case characters in 4A DOS, ensure that the CHARA1 font file is on the boot disk as well.

Even though this DOS utility is 27+ years old, it is still very useful. There are other utility programs available, RXB for example, but cartridges for that package or even the newer GROM emulator cartridges are very rare or expensive. Since there are many varieties of RAM cartridges in existence, and many more still being built to this day, 4A DOS remains a viable utility for the TI-99/4A Home Computer.

Those of you who have used MS-DOS in the past will recognize the command syntax used in 4A-DOS.

BATCH (file name)

Batch files MUST be in DIS/VAR 80 format. It is recommended that you place EDIT1 on the DOS disk to edit batch files, as TI-Writer and it's variants add 'garbage' to the end of the file that render them unusable. EDIT1 is the Editor that comes with the Editor Assembler Module, which by coincidence is also part of the Super Cart.

Batch files work the same as manual input to DOS, but in this case all the commands are stacked and executed in sequence automatically. The commands in a batch file can boot up programs, print instructions, and complete large tasks or just make a selection menu. The possibilities of a BATCH file are limited only by your imagination. Note that the BATCH command can contain the command BATCH inside of itself, but it must be the last command in the file otherwise it will be ignored.

BEEP

BEEP generates the tone generally used to indicate a response is needed.

CLS

CLS clears the screen and homes the cursor.

COPY (Source file) (Destination file)

The COPY command allows copying from one location to another. Both source and destination files must be specified. If the volume name is not specified the filename is copied to and from the designated default volume.

> Example: DSK1.>COPY DSK1.TESTA DSK2.TESTB
> <Copies the file TESTA from drive 1 to the file TESTB on drive 2>
>
> DSK1.> COPY TESTA TESTB
> <Copies the file TESTA from drive 1 to the file TESTB on drive 1>

DEL

See ERASE

DIR <volume name>

The DIR command will catalog the device specified in the Volume name parameter. If no parameter is specified then the default volume is cataloged. Care must be taken in using this command on multiple command lines. In this case the volume name must be specified otherwise DOS will interpret the next command as the volume name to be cataloged.

> Example: **DSK1.>**DIR   < Catalog of drive 1 >
> **DSK1.>**DIR DSK2.   < Catalog of drive 2 >
> **DSK1.>**DIR DSK1. DIR DSK2.   < Catalog of drives 1 & 2 >

DISKNAME (Volume title)

DISKNAME will rename the disk found in the volume specified. If no volume is specified, the default volume is assumed.

ECHO (ON/OFF)

ECHO is used in batch files to toggle on and off the display of commands to the screen.

ERASE (File name)

ERASE deletes the specified file name from a volume (or virtual disk). If a volume name is not specified, the default volume is assumed. The command DEL can also be used in place of ERASE.

      EXAMPLE: DSK1.>ERASE DSK2.TEST <Erases TEST from drive 2>
                      DSK1.>ERASE TEST   <Erases TEST from drive 1>

FIX80 (File name)

FIX80 will load a DIS/FIX 80 assembly language file. The file will execute if it's an auto executable file. If the file is not an auto-start, the name will be stored in the REF/DEF table and can looked up if unknown. Care must be taken not to load over the DOS memory usage area in low memory. See LOAD for more information.

See: INIT,LINK,REF

HELP

HELP list out all the commands supported by 4A DOS. The command ? can also be used in place of HELP.

HONK

Generates a low honk sound, usually associated with the Bad Accept tone.

INIT

INIT loads the file LOWMEM from the default drive. This sets up low memory for running DIS/FIX 80 assembly language files. INIT is always executed upon power up.

LINK (Start name)

LINK will look up the name specified in the REF/DEF table and if found begin executing the corresponding memory address.

LOAD (File name)

LOAD will load a PROGRAM (assembly language image file NOT, an Extended BASIC program). Once the file executes it cannot return to DOS, unless it is specially written to do so. Care must be taken to avoid loading programs that use the area from >2000->4000, since this is the area used by 4A DOS. If a file loads into this area, then a custom loader should be written which executes in high memory and loads the file into the >2000 area.

MORE (ON/OFF)

The MORE command can be used when viewing text or files. This command is extremely useful in batch files. When MORE ON is executed the display will be suspended every 24 lines until a key is pressed. MORE OFF will turn off the automatic suspension of the display feature.

ONKEY (n,n,n,n,n,)

ONKEY is used for menu selections in batch files. This command can be followed by up to 10 different numbers. Each one corresponds to a key that must be pressed. When a corresponding key is pressed, the batch file will skip that many lines within the batch file and continue executing any command that is on that line.

OUTPUT (ON/OFF)

When OUTPUT ON is executed, all output to the screen by commands will be echoed to the current printer. This command is especially helpful when printing directories.

P?

The P? command displays the current printer device name.

PRINT (File name)

PRINT prints a DIS/VAR or DIS/FIX file to the current printer device name and the screen simultaneously. Like the TYPE command, the record length is immaterial.

PROTECT (File name)

PROTECT sets the files status to PROTECTED.

Q

Q Exits the user from DOS.

REF

REF lists out the current contents of the REF/DEF table.

REM (Text)

When the REM command is executed, all the text listed on that single line is ignored for processing commands, but the data is sent to the screen. This command is especially useful in batch files where instructions are to be displayed.

RENAME (Old file name) (New file name)

RENAME will change the name of a file from the current file name to a new file name.

SETPRINT (Printer device name)

SETPRINT allows changing the name to be used by the PRINT command.

See: P?, PRINT

STA

STA prints out the values of the 9 status registers of the 9938 chip. If the user does not have an 80 column device, only the first register has any meaning.

NOTE: the STA command is NOT available or functional in all released versions.

TYPE (File name)

Type will list a DIS/VAR or DIS/FIX file to the screen. The record length of the file is immaterial to the TYPE command.

UNPROTECT (File name)

UNPROTECT sets a files status to unprotected.

VER

VER returns the version number of DOS.

VOL (Volume name)

VOL allows the user to change the current volume name. Volume names must end with a period.

      EXAMPLE: **DSK1.>**VOL DSK2.
                       Changes the default volume (drive) to DSK2.

WAIT

When WAIT is executed, the prompt "Press any key to continue" is displayed. The screen display will be suspended until a key is pressed. This command is especially useful when using a batch file to format multiple disks using a single disk drive.

WIDTH (40/80)

The WIDTH command toggles between 40 and 80 column modes. The default mode is 40 columns, however with a device like the old Mechatronic 80 column card, or a similar device, a full 80 columns can be displayed

X (File name) <associated parameters>

X is used to execute a designated system file command. The extended file commands include: CHKDSK, CMPDSK, DISKCOPY, EDIT40 and FORMAT.

      EXAMPLE: **DSK2.>**X EDIT40

Notes:
Besides running on the original TI-99/4A console, this program also works perfectly in Classic99 which is an emulator for the TI-99/4A.

<u>EXAMPLE</u>

ECHO OFF MORE ON CLS
REM SC/DOS
REM Version 1.0   Build - 07/04/2013
REM
BEEP

In this simple example, ECHO OFF turns off listing of executed commands to the screen, MORE ON suspends scrolling every 24 lines and CLS clears the screen. Also, information after the REM statement is displayed to the screen and then the computer makes the BEEP sound.

After the AUTO-BAT file is finished executing, the current volume or disk drive is displayed, in this case DSK1.