DSKDREAM for DRAGON DOS

This addendum describes the enhancements to the ALLDREAM Editor - Assembler
and Monitor system in the version for use with DRAGON DOS.

Differences exist in the following areas, and will be discussed in this
sequence:

1) Loading the package

2) Disk source file I/O

3) Loading source files from cassette

4) Assembler 'GET' directive

5) Error codes

6) Memory map and entry points

1.   Loading the package

Before loading DSKDREAM, reserve memory for it, as described in the ALLDREAM
manual, e.g.

    PCLEAR 1
    CLEAR 100,8191

Load DSKDREAM from disk as follows:

    LOAD "DSKDREAM.BIN"

Execute by typing

    EXEC

2.   Disk Text File Input-Output

With DSKDREAM, the Load and Save commands, (BREAK L and BREAK S) apply to
Dream text files on disk. The specification of filenames is as described in the
Dragon DOS manual, but without the surrounding quotation marks. e.g. the
following commands will save the text table onto disk:

    S FILEA
    S NAME:2   (use drive 2)
    S TEXT.ABC   (specifying an extension

DSKDREAM will append the extension "DRM" where none is specified.
Automatically produced backup files will have the normal "BAK" extension.

The following will load Dream text files from disk:

    L FILEA   (assuming extension DRM)
    L MUCHDATA.BAK:4

3.   Loading files from cassette

Dream text files on cassette previously created by ALLDREAM (ROM cartridge) can be loaded via the J command, e.g:
    J OLDFILE

Use of the S command will enable the file to be transferred to disk.

To transfer to disk a text file created by the cassette version of DREAM proceed as follows:

a) Switch on the Dragon with the DOS cartridge in place.

b) Type PCLEAR 1: CLEAR 100,&H17FF

c) Load and execute DREAM from cassette using
    CLOADM "DREAM",&HF100
    EXEC

d) Use DREAM to load the cassette text file

e) Quit from DREAM

f) Load DSKDREAM from disk and EXEC it, answering 'Y' to OLD TEXT ?

g) Use the S command to save onto disk.

If a cassette file is too large to fit into memory with DSKDREAM, use ALLDREAM or DREAM to split it into sections and transfer them seperately to disk. They can still be assembled as one program by using the new Assembler directive 'GET'.

4.   The GET directive

The new Assembler directive 'GET' will include a source file from disk at assembly time, not requiring that file to be all resident in memory. Thus with DSKDREAM, very large programs can be assembled. To make maximum use of this facility, a large program could be created as a number of modules on disk (say FILE1, FILE2, FILE3 etc.), each of the maximum size handleable by the Editor, and the combined program assembled with only the following statements resident in the text table:

    GET FILE1   N.B. All text files which are
    GET FILE2   to be subjected to 'GET'
    GET FILE3   must start with a comment
    etc.   line (* in col.1)

GET is coded in the Op-code field. The label field should be left blank.

GET directives can be nested (to a limit of 8 deep). e.g. if a disk file (say PROG1) contained the above GET statements, then the entire program could be assembled by assembling the single statement:

    GET PROG1

Different versions of a program can easily be created by coding a common main section, and a seperate version-dependent section. e.g.

    GET VERS1   GET VERS2
    GET MAIN   GET MAIN

5. New Error Codes

The only error codes added in DSKDREAM are those corresponding to standard Dragon DOS error messages. They each appear as one of the two-letter codes listed in the Dragon DOS manual.

Examples:

a) The command   S FILE:9   will produce the message   ? DN   (device number error) in the Editor.

b) Attempting to 'GET' a non-existant file for assembly, will produce the Assembly error   ERROR NE

c) Attempting to save a file to a write-protected disk will cause a return to BASIC, followed by the messages:

    ?WP ERROR
    OK

Correct the situation and re-enter DSKDREAM, answering Y to OLD TEXT ? and then repeat the Save command.

GET Nest Level Error

If Assembler source files are nested more than 8 deep (using GET), the ninth level will not be expanded at assembly time, causing the GET to be flagged as an illegal op-code.

6) Memory Map and Entry Points

DSKDREAM resides in RAM from hex 5E00 to 7FFF. The package uses hex 5C00 to 5CFF as its 'direct' page. 5D00 to 5DFF holds the breakpoint and GET nesting tables. The text table extends downwards from hex 5BFF.

The entry point to DSKDREAM is at hex 5E00. The entry to DREAMBUG from BASIC is at hex 7404.

The following will reserve about as large a workspace as possible under Dragon DOS:

    PCLEAR 1
    CLEAR 50,5000

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