

# **DSSTXT**

**Hydrologic Engineering Center  
Data Storage System  
Text Data Entry Program**

**User's Manual**

**Version 1.2  
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# DSSTXT

## 1. Introduction

DSSTXT is a program for storing and retrieving text data from a DSS file. Text data is defined as generic alpha-numeric lines of text, where each line is preceded by a line feed character and ends with a carriage return character. It does not, at this time, include other types characters, such as those that would be used to create a graphical display.

DSSTXT is a prompt driven program that requests information from the user. It may be run interactively (i.e., from the keyboard), or in a batch mode with input commands from a file. Text to be stored may be in a file (regardless whether the program is run interactively or batch) or it can be entered from the keyboard. Text that is retrieved from a DSS file can be placed in a file or displayed on the screen.

There are no definitive size limitations for the number of lines in a DSS text record, but it is recommended that a record contain no more than about 200 lines. The maximum possible length of a line in a DSS text record is 160 characters. A reasonable maximum length is 132 characters. The maximum number of bytes that can be stored in a text record (including begin and end of line characters) is 9600 on DOS machines, and 16,000 on most other machines. The number of lines that can be stored is dependent on the average length of the lines. For example, if the average length is about 40 characters, the maximum number of lines would be about 200 for DOS and about 350 for other computers. Generally, an appropriate number of lines to store in a single record is from 2 to 150 lines. If one desired to store a large amount of text, for example an entire book, the text could be divided into sections consisting of 1 to 3 pages.

There are no conventions set for the structure of a text record's pathname. However, it is recommended that the pathname parts be labeled in a descending order of importance, and that the pathname imply that the record contains text data and not one of the other types of data.

All information entered at the keyboard is copied into a "log file" (scratch file "SCRATCH.002" on personal computers). If an abort or some other error should occur, DSSTXT may be rerun using the log file as the input (e.g., DSSTXT INPUT=SCRATCH.002).

## 2. Use

2.1 To store text data into a DSS file, the program is initiated by entering its name (and the directory or qualifier of where the program is located):

```
DSSTXT
```

To retrieve text data from a DSS file, the "DIR=RETRIEVE" parameter must be given on the execution line:

```
DSSTXT DIR=RETRIEVE
```

Text data may not be both retrieved and stored in a single execution.

2.2 Optional parameters that may be specified on the execution line are:

| <u>Name</u> | <u>Default</u> | <u>Description</u>             |
|-------------|----------------|--------------------------------|
| INPUT       | standard in    | Command input file             |
| OUTPUT      | standard out   | Output file                    |
| DSSFILE     | none           | DSS file                       |
| DIRECTION   | STORE          | STORE or RETRIEVE text records |
| TEXTFILE    | none           | Text input or output file      |
| LOG         | SCRATCH.002    | Copy of input commands         |
| FUNFILE     | GENFUN         | PREAD function file            |
| MACFILE     | GENMAC         | PREAD macro file               |
| SCNFILE     | GENSCN         | PREAD screen file              |

The execution line parameters may be abbreviated to 2 characters (INPUT can be IN).

If a command input file is specified on the execution line, it should contain DSSTXT input as if it were being entered at the keyboard (NOT just text data). If the text file name is given on the execution line, text will be placed in (or read from) that file. The text file name will not be asked for in the input. If a DSS file name is provided on the execution line, the program will not ask for it.

### 3. Command Input

3.1 DSSTXT prompts with "Enter DSS File Name", whereby the user enters the name of the DSS file to use. If the file does not exist, it will be created.

3.2 The next prompt is "Enter Pathname, or Pathname Part(s), or FINISH". The full six part pathname, including slashes (/), may be given, or individual pathname parts may be specified. To enter individual pathname parts, type the part letter (A, B, C, D, E, or F) followed by an equal sign "=" then the part. One to six parts may be entered, separated by a comma or a blank space. If a pathname had been given earlier, then those parts not specified will remain the same as in the earlier pathname. The program may be terminated at this prompt by entering "FINISH".

3.3 If text data is being retrieved, the following prompt is given:

```
"Enter the name of the file to write to, or a "*" to write to your screen"
```

At this point, the user may either enter a asterisk (\*) to cause the text to be displayed on the screen, or the name of an ASCII file to put it in. If the file does not exist, it will be created by DSSTXT.

3.4 If text data is being stored, the following prompt is given:

```
"Enter the name of the file to read from (or a "*" to read from your keyboard)"
```

The user may either enter a asterisk (\*) to cause the text to be read from the keyboard (interactive use only), or a file name to read the text from. If a file name is given, the file must be an ASCII file that the user has access to. All lines in that file will be stored in a single record with the pathname specified in step 3.2. If an asterisk (\*) is entered, DSSTXT will read directly from the keyboard until an end-of-file marker is entered. An end-of-file marker is either a control-D for UNIX computers, or a control-Z for other computers, entered on a separate line and followed by a carriage return. The size of the record to store should not exceed the limits discussed in the introduction.

3.5 After the text record has been stored or retrieved, the program will return to step 3.2 ("Enter Pathname. . ."), where a new pathname may be specified, or the program may be terminated by entering the word **FINISH**. If text is being retrieved, the same ASCII text (output) file will be used if a blank line is entered for the text file name, when prompted.

## 4.1 Example

Store weather forecasts received from the National Weather Service. The daily forecast is in file NWS.FOR, and the 3-4 day forecast is in file NWS.EXT.

```
>DSSTXT
```

```
DSSTXT: 1.2.0 ; June, 1990
```

```
Enter DSS File Name
```

```
File = WEATHER
```

```
-----DSS---ZOPEN; Created DSS File: WEATHER
```

```
-----DSS---ZOPEN: New File Opened, File: WEATHER  
Unit: 71; DSS Version: 6-FA
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: /NWS/SAC/FORECAST/04JUL90///
```

```
Pathname: /NWS/SAC/FORECAST/04JUL90///
```

```
Enter the name of the file to read from (or a "*" to read from your keyboard)
```

```
File: NWS.FOR
```

```
-----DSS---ZWRITE Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90///  
13 lines Stored.
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: F=EXTENDED
```

```
Pathname: /NWS/SAC/FORECAST/04JUL90//EXTENDED/
```

```
Enter the name of the file to read from (or a "*" to read from your keyboard)
```

```
File: NWS.EXT
```

```
-----DSS---ZWRITE Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90//EXTENDED/  
12 lines Stored.
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: F=NOTES
```

```
Pathname: /NWS/SAC/FORECAST/04JUL90//NOTES/
```

```
Enter the name of the file to read from (or a "*" to read from your keyboard)
```

```
File: *
```

```
Enter Text. When Complete enter "^Z"
```

```
>Communications lost with NWS for 4 hours beginning at 1600 hours.
```

```
>July 3rd forecast was 5 degrees lower than recorded temperature.
```

```
>^Z
```

```
-----DSS---ZWRITE Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90//NOTES/  
2 lines Stored.
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: FIN
```

```
-----DSS---ZCLOSE Unit: 71, File: WEATHER  
Pointer Utilization: 0.29  
Number of Records: 3  
File Size: 16.5 Kbytes  
Percent Inactive: 0.0
```

```
STOP
```

## 4.2 Example

Retrieve weather forecast from a DSS file. Display one of the records on the screen, and place the other in a (new) file named FOR.EXT.

```
>DSSTXT DIR=RET
```

```
DSSTXT: 1.2.0 ; June, 1990
```

```
Enter DSS File Name
```

```
File = WEATHER
```

```
-----DSS---ZOPEN: Existing File Opened, File: WEATHER
Unit: 71; DSS Version: 6-FA
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: /NWS/SAC/FORECAST/04JUL90///
```

```
Pathname: /NWS/SAC/FORECAST/04JUL90///
```

```
Enter the name of the file to write to, or a "*" to write to your screen
```

```
File: *
```

```
-----DSS--- ZREAD Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90///
```

```
LOWER SACRAMENTO VALLEY FORECAST
```

```
NATIONAL WEATHER SERVICE SACRAMENTO CA
```

```
9 AM PDT WED JUL 04 1990...DO NOT USE AFTER 3.30 PM PDT WEDNESDAY
```

```
LOWER SACRAMENTO VALLEY
```

```
.TODAY...MOSTLY SUNNY. HIGHS MID 80S TO LOW 90S.
```

```
.SOUTH WINDS 5 TO 15 MPH WITH SOUTHWEST DELTA WINDS 15 TO 25 MPH.
```

```
.TONIGHT...FAIR. LOWS MID 50S TO LOW 60S.
```

```
.SOUTH WINDS 5 TO 15 MPH WITH SOUTHWEST DELTA WINDS 15 TO 25 MPH.
```

```
.THURSDAY...MOSTLY SUNNY. HIGHS MID 80S TO LOW 90S.
```

```
DOWNTOWN SACRAMENTO 87 57 89 MARYSVILLE/YUBA CITY 88 57 90
```

```
.END
```

```
13 lines Retrieved.
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: F=EXTENDED
```

```
Pathname: /NWS/SAC/FORECAST/04JUL90//EXTENDED/
```

```
Enter the name of the file to write to, or a "*" to write to your screen
```

```
File: FOR.EXT
```

```
-----DSS--- ZREAD Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90//EXTENDED/
```

```
12 lines Retrieved.
```

```
Enter Pathname, or Pathname Part(s), or FINISH
```

```
Path: FINISH
```

```
-----DSS---ZCLOSE Unit: 71, File: WEATHER
```

```
Pointer Utilization: 0.29
```

```
Number of Records: 3
```

```
File Size: 16.5 Kbytes
```

```
Percent Inactive: 0.0
```

```
STOP
```

### 4.3 Example

Retrieve text from a DSS file in a "batch mode", giving the command input file, the DSS file, the text (output) file, and an output file on the execution line.

DSSTXT is executed by the following line:

```
DSSTXT DIR=RET DSS=WEATHER IN=FPATHS OUT=OUT TEXT=FOR.SUM
```

The INPUT file is a list of the pathnames to retrieve:

```
/NWS/SAC/FORECAST/04JUL90///  
/NWS/SAC/FORECAST/04JUL90//EXTENDED/  
/NWS/SAC/FORECAST/04JUL90//NOTES/
```

The TEXT file will contain the retrieved data:

```
LOWER SACRAMENTO VALLEY FORECAST  
NATIONAL WEATHER SERVICE SACRAMENTO CA  
9 AM PDT WED JUL 04 1990...DO NOT USE AFTER 3.30 PM PDT WEDNESDAY
```

```
LOWER SACRAMENTO VALLEY  
.TODAY...MOSTLY SUNNY.  HIGHS MID 80S TO LOW 90S.  
  SOUTH WINDS 5 TO 15 MPH WITH SOUTHWEST DELTA WINDS 15 TO 25 MPH.  
.TONIGHT...FAIR.  LOWS MID 50S TO LOW 60S.  
  SOUTH WINDS 5 TO 15 MPH WITH SOUTHWEST DELTA WINDS 15 TO 25 MPH.  
.THURSDAY...MOSTLY SUNNY.  HIGHS MID 80S TO LOW 90S.  
  DOWNTOWN SACRAMENTO  87 57 89      MARYSVILLE/YUBA CITY  88 57 90
```

```
.END  
NORTHERN CALIFORNIA EXTENDED FORECAST  
NATIONAL WEATHER SERVICE SAN FRANCISCO CA  
4.30 AM PDT WED JUL 4 1990
```

```
PARTLY CLOUDY AT TIMES OVER THE NORTHERN MOUNTAINS...OTHERWISE FAIR  
WITH PATCHY COASTAL LOW CLOUDS AND FOG.  
COAST...HIGHS 60S TO LOWER 70S.  LOWS MID 40S TO MID 50S.  
COASTAL VALLEYS...HIGHS 70S TO LOWER 90S.  LOWS MID 40S AND 50S.  
INLAND VALLEYS...HIGHS UPPER 80S TO UPPER 90S.  LOWS UPPER 50S AND 60S.  
MOUNTAINS...HIGHS 70S AND 80S.  LOWS UPPER 30S TO MID 50S.
```

```
.END  
Communications lost with NWS for 4 hours beginning at 1600 hours.  
July 3rd forecast was 5 degrees lower than recorded temperature.
```

The output from DSSTXT is:

```
DSSTXT: 1.2.0 ; June, 1990

-----DSS---ZOPEN: Existing File Opened, File: WEATHER
                    Unit: 71; DSS Version: 6-FA
Pathname: /NWS/SAC/FORECAST/04JUL90///
-----DSS--- ZREAD Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90///
13 lines Retrieved.
Pathname: /NWS/SAC/FORECAST/04JUL90//EXTENDED/
-----DSS--- ZREAD Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90//EXTENDED/
12 lines Retrieved.
Pathname: /NWS/SAC/FORECAST/04JUL90//NOTES/
-----DSS--- ZREAD Unit 71; Vers. 1: /NWS/SAC/FORECAST/04JUL90//NOTES/
2 lines Retrieved.
-----DSS---ZCLOSE Unit: 71, File: WEATHER
                    Pointer Utilization: 0.29
                    Number of Records: 3
                    File Size: 21.5 Kbytes
                    Percent Inactive: 0.0
```