
CLARION TECHNICAL BULLETIN

Bulletin #115

Using Text Fields To Edit dBase III Memos

Overview

This document explains how to use the TEXT field capability to edit dBase memos in the Clarion dBase III Language Extension Module. A sample program listing is also provided.

Using Text Fields To Edit dBase III Memos

If you have the Clarion "dBase III Language Extension Module" (LEM), you can use its TEXT field capability to edit dBase memos. This task is easily accomplished using a small amount of code. The following sample of a partial program listing demonstrates the relevant code necessary for doing this:

Sample Program

```

MEMOWIDTH    EQUATE(78)                !WIDTH OF MEMO FIELD
MEMOLENGTH   EQUATE(25)                !LENGTH OF MEMO FIELD

MEMOSCR      SCREEN                    WINDOW(12,80),HUE(3,4,0)
              ROW(1,1)                  STRING('201,205(78),187>').
              ROW(2,1)                  REPEAT(10);STRING('<186,0(78),186>').
              ROW(12,1)                 STRING('2\<200,205(78),188>')
              ROW(2,2)                  TEXT(10,MEMOWIDTH),USE(MEMOGROUP),HUE(3,4),LFT

MEMOFILE      DOS,ASCII,NAME('DBASEDIT.TMP')
              RECORD
MEMOREC       STRING(MEMOWIDTH)

MEMOGROUP     GROUP                    !USE VARIABLE FOR TEXT FIELD
MEMOAREA      GROUP,DIM(MEMOLENGTH)    ! DIMENSIONED TO # OF LINES
MEMOBYTE      BYTE,DIM(MEMOWIDTH)      !   BYTE ARRAY FOR LINE SIZE
MEMOSTR       STRING(MEMOWIDTH),OVER(MEMOBYTE) !   USE AREA AS A STRING TOO
              . .                      !END OF GROUPS

CODE          !YOUR CODE GOES HERE

              .
              .
DB3GET_MEMO(DEFAULT,'MEMO')            !GET MEMO FROM DBASE FILE
IF ~ERROR() THEN DSPMEMO().             !IF NO ERROR, EDIT MEMO

DSPMEMO PROCEDURE
CODE
CLEAR(MEMOGROUP)                       !CLEAR MEMO AREA
OPEN(MEMOFILE)                         !OPEN MEMO FILE
IF ~ERROR()                            !NO ERROR
    I# = 1                             !INITIALIZE LINE COUNTER
    SET(MEMOFILE)
    LOOP UNTIL EOF (MEMOFILE)          !LOOP UNTIL END OF MEMO FILE
        NEXT(MEMOFILE)                ! GET NEXT LINE OF MEMO FILE
        MEMOSTRING[I#] = MEMOREC      ! MOVE INTO MEMO AREA

        LOOP                          ! LOOP FOREVER
            J# = INSTRING('<141>',MEMOSTR[I#]) ! CHECK FOR WORDWRAP CHAR
            IF J# = 0 THEN BREAK.      ! IF NONE THEN EXIT LOOP
            MEMOBYTE[I# ,J#] = VAL('') ! REMOVE WORDWRAP CHAR
            .                          ! END OF INNER LOOP

            I# += 1                    ! INCREMENT LINE, CHECK SIZE
            IF I# > MAXIMUM(,MEMOAREA[,1) THEN BREAK.

        .
    .
OPEN(MEMOSCR)                          !OPEN SCREEN WITH TEXT FIELD

```

```

ALERT(CTRL_ENTER)          !ALERT ACCEPT KEY
ALERT(CTRL_ESC)            !ALERT REJECT KEY
ACCEPT                     !ACCEPT TEXT FIELD
ALERT()                    !CLEAR ALERTED KEYS
UPDATE                     !UPDATE USE VARIABLE
IF KEYCODE() <> CTRL_ESC    !IF NOT REJECT KEY
    PUT(MEMOFILE,1,0)      ! TRUNCATE THE FILE
                            ! LOOP - CLIPS BLANK LINES

    LOOP I# = MAXIMUM(MEMOAREA[],1) TO 1 BY -1
        IF MEMOSTR[I#] <> '' THEN BREAK.
        ! BREAK IF NON-BLANK LINE
        ! END OF LOOP

    IF I# <> 0
        ! IF NOT COMPLETELY BLANK
        LOOP J# = 1 TO I#
            ! LOOP THRU LINES
            MEMOREC = MEMOSTR[J#]
            ! MOVE TO RECORD AREA
            ADD(MEMOFILE)
            ! ADD LINE TO RECORD
        ! END OF IFs, LOOP
    ! CLOSE SCREEN
    ! CLOSE MEMO FILE
    !END IF

CLOSE(MEMOSCR)
CLOSE(MEMOFILE)

```

- MEMOWIDTH** An EQUATE used to define the width of the memo and to declare the size of the record in the DOS file. It is also used to declare the size of a line in the fields of the MEMOGROUP.
- MEMOLENGTH** An EQUATE used to define the maximum number of lines contained in a memo. When assigning a value to this EQUATE, consider how many lines your largest memo currently contains. If your memo contains more lines than MEMOLENGTH, your memo will be truncated when it is read into the TEXT field.
- MEMOSCR** A screen structure which contains only one field, a TEXT field. The width of the TEXT field is determined by the MEMOWIDTH equate. The TEXT field has a LFT attribute in order to support word-wrapping while editing.
- MEMOFILE** An ASCII DOS file used to read and write the file created by DB3GET MEMO procedure (DBASEDIT.TMP). The size of the RECORD area for this file is determined by the MEMOWIDTH equate.
- MEMOGROUP** The USE variable for the TEXT field. It consists of a DIMensioned GROUP (MEMOAREA) which represents the lines of the memo. Within this group, is a DIMensioned BYTE array (MEMOBYTE) which is used to manipulate the individual characters of the memo. MEMOSTR is a STRING which is declared OVER the MEMOBYTE array and is used to manipulate the individual lines of the memo.

DSPMEMO

A procedure which should be called after successfully calling DB3GET MEMO(). As you already know, DB3GET MEMO() extracts the memo associated with the last record accessed and places it in a file called DBASEDIT.TMP.

The DSPMEMO procedure opens DBASEDIT.TMP as an ASCII DOS file and reads each line. Each line is placed into the array of strings which make up the USE variable or the TEXT field. As each line is read, it is checked for the dBASE word-wrap character combination, '<141,10>'. Since the ASCII attribute causes a line to be terminated by a linefeed, '<10>', we only need check for the first character, '<141>'. The INSTRING() function is used to check for this character and all occurrences are changed to spaces.

DSPMEMO keeps track of the number of lines read (I#) and makes sure that the total number of lines read does not exceed the size of the USE variable for the TEXT field. At this point, DSPMEMO opens a screen and ACCEPTs the TEXT field. After editing of the memo is completed, the TEXT field is checked to see how many blank lines exist at the bottom of the TEXT field. These blank lines are not written out so that we may keep the dBASE memo file as small as possible.