71-00004   PROGRAM DESCRIPTION

Program Title ___Banner___

Contributor ___Hewlett-Packard Company___

Address ___1000 NE Circle Blvd___

City ___Corvallis___   State ___Oregon___   Country ___U.S.A.___

Telephone _____   Zip/Postal Code ___97330___

Program Description (include equations) ___The lex file contains one keyword: BANNER$. BANNER$ is a banner-building tool. It takes a string argument of from 1 to 3 characters, and returns a 48-character string representing a 6x8 "banner" of the characters. For example, BANNER$ ("A") returns the string:___

" AAA A   A A   A AAAAA A   AA   AA   A   ",

which, when printed in 8 rows of 6 characters, is:

```
+------+
| AAA  |
|A    A|     (border shown for emphasis only)
|A    A|
|AAAAA |
|A    A|
|A    A|
|A     |
+------+
```

Necessary Accessories ___None___

Supported Accessories ___N/A___

Operating limits and warnings _____

File name(s) ___BANNER___

Size of file(s) ___202 bytes___   Additional RAM Requirement to run the program ___None___

References _____

```
+------------------------------------------------------------------+

                           CHAPTER 2
                           BANNER

+------------------------------------------------------------------+
```

New LEX File Indicates "BNR:A" in VER$ string.

Program Title: Banner-building utility.

Category Number(s): ???

File Name(s): BANNER.

Primary Category Name: ???

Size of File(s): 202 bytes.

Additional RAM Requirement: None.

Abstract: String keyword to create banner-type representations of characters in the built-in or alternate character sets. This allows easy printing of banners (posters) using large characters.

Necessary Accessories: None.

Supported Accessories: N/A.

2.1 Program Description

The lex file contains one keyword: BANNER$. BANNER$ is a banner-building tool. It takes a string argument of from 1 to 3 characters, and returns a 48-character string representing a 6x8 "banner" of the characters. For example, BANNER$("A") returns the string:

```
    " AAA  A   A A   A AAAAA A   A A   A A   A        ",
```

which, when printed in 8 rows of 6 characters, is:

71-00004   **SAMPLE PROBLEM**

The following program implements a large-display clock on the screen of an
HP 82163A video interface. It requires an HPIL interface and an HP 82163A.

The program works by figuring out the current time, converting to 12-hour format
and "painting" the banner representations of the numbers and the am/pm indicators
on the screen using cursor control escape sequences for the 82163A. The banner is
built out of the CHR$ (160) character, which displays as a white block on the
HP 82163A.

```
10 PRINTER IS :DISPLAY @ DISPLAY IS *
20 PWIDTH INF @ DELAY 0 @ DESTROY ALL
30 CLEAR :DISPLAY
40 T$="        "
50 M$="   "
60 U$=TIME$ @ T=VAL(U$[1,2])
70 IF T<12 THEN N$="am" ELSE N$="pm"
80 T=MOD(T-1,12)+1
90 U$[1,1]=" "
100 IF T<10 THEN U$[2,2]=STR$(T) ELSE U$[1,2]=STR$(T)
110 DISP U$[1,5]&" "&N$
120 FOR I=1 TO 5
130 IF T$[I,I]#U$[I,I] THEN CALL DSPDGT(U$[I,I],I,0)
140 NEXT I
150 T$=U$
160 FOR I=1 TO 2
170 IF M$[I,I]#N$[I,I] THEN CALL DSPDGT(N$[I,I],I+1.5,7)
180 NEXT I
190 M$=N$
200 WAIT 60-MOD(TIME,60) @ GOTO 60
210 SUB DSPDGT(D$,P,S)
220 DIM Z9$[48]
230 Z9$=BANNER$(D$[1,1]&CHR$(160))
240 FOR Z9=1 TO 8
250 PRINT CHR$(27)&"%"&CHR$(6*(P-1))&CHR$(Z9+S-1);
260 PRINT Z9$[Z9*6-5,Z9*6-1]&CHR$(27)&"<"
270 NEXT Z9
280 END SUB
```
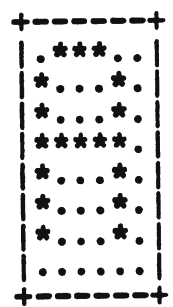
71-00004

If the argument is two characters long, the second character is used as
an alternate building character, so BANNER$("A*") is:

```
+-------+
| ***   |
| *   * |
| *   * |
| ***** |
| *   * |
| *   * |
| *   * |
|       |
+-------+
```
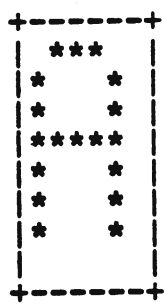
If the argument is three characters long, the third character is used as
an alternate space character, so BANNER$("A*.") is:

```
+-------+
|.***..|
|*...*.|
|*...*.|
|*****.|
|*...*.|
|*...*.|
|*...*.|
|......|
+-------+
```

BANNER$ works for the built-in character set and for any characters
defined in the alternate character set.