



# DECUS

## PROGRAM LIBRARY

DECUS NO.	12-46
TITLE	STRINGS
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SOURCE LANGUAGE	DIAL



## STRINGS

ABSTRACT

This program provides a character string search function to the DIAL-MS editor. Any character string up to 15 characters in length may be searched for in the work area of the editor using STRINGS.

REQUIREMENTS

A DIAL-MS LINCtape must be mounted on tape drive 0 when STRINGS is started. In disk systems, the disk must have been previously initialized with a DIAL-MS system. Any machine which can run DIAL-MS can run STRINGS.

EXECUTION TIME

Execution time depends on the length of the source, the frequency of near matches and most of all on the speed of the device which contains the DIAL-MS work area.

USAGE

Load STRINGS by typing "LO STRINGS,u"

You will immediately be confronted with the display:

```

                STRING SEARCH
CHAR STRING  _ _ _ _ _
STARTING LINE  _ _ _

```

This display is presented to you by QANDA, and answers are entered into it by typing from the keyboard; all of the standard QANDA special characters are recognized (see DEC-12-FISA-D). In addition, QANDA recognizes the character CTRL/D; when this character is typed QANDA immediately restarts DIAL-MS.

Type the character string you wish to search for into the first line of the display. If you would like to have all of the matches prior to a certain point in the work area be ignored, you will want to enter the first allowable line number on the bottom line of the display. If no line number is entered, all of the source program will be searched (equivalent to entering line 0000).

When the first match with your character string is found, the line is displayed on the scope, together with a list of your options at that point. Assume the string "LDA I BR" was entered into the above ("STRING SEARCH") display and that the first occurrence of this character string is on line 1001:

```

1001  LOOP,  LDA I BR2      /WAKE UP

                OPTION  _
D--DIAL RESTART
N--SEARCH FOR NEXT MATCH
S--SEARCH FOR NEW STRING

```

Option "D" will immediately restart DIAL-MS (CTRL/D also does this; this option is included only for the benefit of the forgetful operator). Option "N" causes STRINGS to resume its search for matches to the char string previously

entered from the point at which it left off. If more than one match occurs on the same line, that line will be displayed once for each match it contains. Option "S" returns you to the initial ("STRING SEARCH") display, whence you can enter a new string and/or line number.

If no match to the char string entered is found (after the starting line number, if specified) then STRINGS will display "NO MATCH FOUND" on the scope. Typing cr or lf returns you to the initial ("STRING SEARCH") display; typing CTRL/D returns you to DIAL-MS.

### TABS

QANDA will not accept a tab (CTRL/I) as input. Since tabs are very common in most DIAL source files, STRINGS must deal with tabs as a special case. When STRINGS is searching for a match, it ignores all tabs in the source program. This means that you may simply omit any tabs from the char string you type into the "STRING SEARCH" display. STRINGS will find all matches to the char string with tabs mixed in among the other characters in any combination. For example, if your char string is "ABC,DEF/", any of the following lines in the source will be identified as matches:

```
ABC,    DEF           /COMMENT--USE YOUR IMAGINATION
A      BC,D          EF/
ABC,DEF           /DOZING OFF?
X4ABC, DEF        /IT'S EASY.
ABC,DEF/         HA, CAUGHT YOU ON THAT LAST COMMENT DIDNT I?
                TEXT ABC,DEF/ENDA
```

### UNDISPLAYABLE CHARACTERS

The version of QANDA used by STRINGS has been modified so that it can display more characters than the QANDA distributed by DEC, but there are still three characters which it cannot display: @, \, <. These characters are all changed to the underline character ( \_ ) when they are found in your source program on lines which contain matches and must be displayed. (Just changed in the scope display, of course, not in your work area!) The TAB character in DIAL is 47 (ASCII apostrophe) and this is correctly displayed as a tab (series of spaces).

### LISTING

The source file is on the LINctape with the Binary file; assemble it with DIAL.