



17. The optional String word set

17.1 Introduction

17.2 Additional terms and notation

None.

17.3 Additional usage requirements

Append table 17.1 to table 3.5.

See: $\underline{3.2.6}$ Environmental queries

Table 17.1 - Environmental query strings

String Value data type Constant? Meaning

STRING flag no string word set present

STRING-EXT flag no string extensions word set present

17.4 Additional documentation requirements

None.

17.5 Compliance and labeling

17.5.1 ANS Forth systems

The phrase **Providing the String word set** shall be appended to the label of any Standard System that provides all of the String word set.

The phrase **Providing name(s) from the String Extensions word set** shall be appended to the label of any Standard System that provides portions of the String Extensions word set.

The phrase **Providing the String Extensions word set** shall be appended to the label of any Standard System that provides all of the String and String Extensions word sets.

17.5.2 ANS Forth programs

The phrase **Requiring the String word set** shall be appended to the label of Standard Programs that require the system to provide the String word set.

The phrase **Requiring name(s) from the String Extensions word set** shall be appended to the label of Standard Programs that require the system to provide portions of the String Extensions word set.

The phrase **Requiring the String Extensions word set** shall be appended to the label of Standard Programs that require the system to provide all of the String and String Extensions word sets.

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17.6 Glossary

17.6.1 String words

17.6.1.0170 -TRAILING dash-trailing STRING (c-addr u1 -- c-addr u2)

If u1 is greater than zero, u2 is equal to u1 less the number of spaces at the end of the character string specified by c-addr u1. If u1 is zero or the entire string consists of spaces, u2 is zero.

```
17.6.1.0245 /STRING slash-string STRING

( c-addrl ul n -- c-addr2 u2 )
```

Adjust the character string at c-addr1 by n characters. The resulting character string, specified by c-addr2 u2, begins at c-addr1 plus n characters and is u1 minus n characters long.

See: A.17.6.1.0245 /STRING

```
17.6.1.0780 BLANK
STRING

( c-addr u -- )
```

If u is greater than zero, store the character value for space in u consecutive character positions beginning at c-addr.

```
17.6.1.0910 CMOVE
c-move STRING
( c-addr1 c-addr2 u -- )
```

If u is greater than zero, copy u consecutive characters from the data space starting at c-addr1 to that starting at c-addr2, proceeding character-by-character from lower addresses to higher addresses.

See: A.17.6.1.0910 CMOVE , 17.6.1.0920 CMOVE>

```
17.6.1.0920 CMOVE>
c-move-up STRING

( c-addr1 c-addr2 u -- )
```

If u is greater than zero, copy u consecutive characters from the data space starting at c-addr1 to that starting at c-addr2, proceeding character-by-character from higher addresses to lower addresses.

See: <u>17.6.1.0910 CMOVE</u> , <u>A.17.6.1.0920 CMOVE></u>

```
17.6.1.0935 COMPARE STRING

( c-addrl ul c-addr2 u2 -- n )
```

Compare the string specified by c-addr1 u1 to the string specified by c-addr2 u2. The strings are compared, beginning at the given addresses, character by character, up to the length of the shorter string or until a difference is found. If the two strings are identical, n is zero. If the two strings are identical up to the length of the shorter string, n is minus-one (-1) if u1 is less than u2 and one (1) otherwise. If the two strings are not identical up to the length of the shorter string, n is minus-one (-1) if the first non-matching character in the string specified by c-addr1 u1 has a lesser numeric value than the corresponding character in the string specified by c-addr2 u2 and one (1) otherwise.

See: A.17.6.1.0935 COMPARE

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17.6.1.2191 **SEARCH** STRING

```
( c-addr1 u1 c-addr2 u2 -- c-addr3 u3 flag )
```

Search the string specified by c-addr1 u1 for the string specified by c-addr2 u2. If flag is true, a match was found at c-addr3 with u3 characters remaining. If flag is false there was no match and c-addr3 is c-addr1 and u3 is u1.

See: A.17.6.1.2191 SEARCH

17.6.1.2212 SLITERAL STRING

Interpretation: Interpretation semantics for this word are undefined.

Compilation: (c-addr1 u --)

Append the run-time semantics given below to the current definition.

Run-time: (-- c-addr2 u)

Return c-addr2 u describing a string consisting of the characters specified by c-addr1 u during compilation. A program shall not alter the returned string.

See: A.17.6.1.2212 SLITERAL

17.6.2 String extension words

None



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