Published: 09/19/68

Identification

Reverse_index
J. H. Cecil

Purpose

Reverse_index is a routine equivalent to the built-in function, index, except that it searches the given character string from right to left, and has an additional restriction and an additional capability both described below.

Description

Reverse_index searches the input character string from right to left and returns the number of the first location (left-most character is location number 1, next is 2, etc.) in the string which contains the character corresponding to the input character, or returns zero if no character corresponds. Note that reverse_index has a limitation which the index function does not have: it searches only for one character instead of for a string.

Reverse_index, however, has an additional capability and an additional input argument. The user can set a switch, the third input argument, which controls whether reverse_index searches for the first character which is either equal to or <u>not equal</u> to the input character. This capability is especially useful in searching for the right end of a phrase which may contain blanks. To do this, merely use reverse_index to find the first character <u>not</u> equal to a blank.

Usage

```
loc = reverse_index (in_string, in_char, equ_sw);

     dcl  in_string char (*) var,

          in_char char (1),

          (equ_sw, loc) fixed bin(17);
```

where in_string is the string to be searched for a character equal to or not equal to in_char.

equ_sw is a switch such that

if equ_sw = 0	then reverse_index searches for the first character in in_string equal to in_char
if equ_sw = 1	then reverse_index searches for the first character not equal to in_char.

loc is set to the location number of in_char in in_string; or to zero if the search fails.

Examples

```
loc = reverse_index ("test_string", "t", 0);
```

returns loc = 7 having found the t in "string" at location 7.

```
loc = reverse_index ("segment name ", " ", 1);
```

returns loc = 12, the length of the phrase, after effectively passing over the blanks on the right.