

1 To: J3
2 From: Malcolm Cohen
3 Subject: Editorial replacement for INDEX Result Value.
4 Date: 2012/02/13

5 1. Introduction

6 The current description of the intrinsic function INDEX has a large number of minor glitches as listed
7 in 12-115.

8 2. Edits to 10-007r1

9 [356:18-24] 13.7.80 INDEX, paragraph 5 (Result Value),
10 Replace the entire Result Value paragraph with the Result Value paragraph shown below.

11 13.7.80 INDEX (STRING, SUBSTRING [, BACK, KIND])

12 **Description.** Character string search.

13 **Class.** Elemental function.

14 **Arguments.**

15 STRING shall be of type character.

16 SUBSTRING shall be of type character with the same kind type parameter as STRING.

17 BACK (optional) shall be of type logical.

18 KIND (optional) shall be a scalar integer initialization expression.

19 **Result Characteristics.** Integer. If KIND is present, the kind type parameter is that specified by the
20 value of KIND; otherwise the kind type parameter is that of default integer type.

21 **Result Value.**

22 *Case (i):* If $\text{STRING \% LEN} < \text{SUBSTRING \% LEN}$, the result has the value zero.

23 *Case (ii):* Otherwise, if there is an integer I in the range $1 \leq I \leq \text{STRING \% LEN} - \text{SUBSTRING \%}$
24 $\text{LEN} + 1$, such that $\text{STRING}(I : I + \text{SUBSTRING \% LEN} - 1)$ is equal to SUBSTRING,
25 the result has the smallest such I if BACK is absent or present with the value false, and
26 the greatest such I if BACK is present with the value true.

27 *Case (iii):* Otherwise, the result has the value zero if BACK is absent or present with the value false,
28 or has a value equal to $\text{STRING \% LEN} + 1$ if BACK is present with the value true.

29 **Examples.** INDEX ('FORTRAN', 'R') has the value 3.

30 INDEX ('FORTRAN', 'R', BACK = .TRUE.) has the value 5.