

## ISO/IEC JTC1/SC22/WG5 N1320

To: WG5  
From: Internationalization Subgroup  
Subject: Internationalization in Fortran 2000

The subgroup was of the unanimous opinion that the aim should be that a standard-conforming program should continue to compile when moved from one cultural environment to another, but that it should be possible to write it so that it can handle data of different cultures. This should be explained in the Introduction to the Standard.

To achieve the first aim, the source form should be as for Fortran 95 in these respects:

- (a) characters of non-default kind should be permitted only in character contexts and in comments,
- (b) the decimal point in a real or complex constant should be a period, and
- (c) quotation marks should be as for Fortran 95.

To achieve the second aim, at least the following should be added:

- (a) a mechanism to specify the kind value for the ISO 10646 character set on those processors that support it,
- (b) a means to alter formatted, namelist, and list-directed i/o to use a comma as the decimal point. The subgroup proposes a new *io-control-spec* for a READ or WRITE statement:

DECIMAL = *scalar-default-char-exp*

where the *scalar-default-char-exp* shall evaluate to COMMA or POINT. This shall control the decimal point for i/o by the statement, with any comma separators replaced by semicolons when commas are used for decimal points. The default in the absence of a DECIMAL *io-control-spec* shall be POINT. Also, there shall be a new edit descriptor for formatted i/o:

*decimal-edit-desc*      **is** DC  
   **or** DP

which will change the representation of decimal points until another *decimal-edit-desc* is encountered.