



**INTERNATIONAL STANDARD ISO/IEC 1539-1:2018**  
**TECHNICAL CORRIGENDUM 1**

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**Information technology — Programming languages — Fortran —**  
**Part 1: Base language**

TECHNICAL CORRIGENDUM 1

*Technologies de l'information — Langages de programmation — Fortran — Partie 1: Langage de base*

*RECTIFICATIF TECHNIQUE 1*

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# Information technology — Programming languages — Fortran — Part 1: Base language

## TECHNICAL CORRIGENDUM 1

### *3.145.3bis*

Add new definition 3.145.3bis after 3.145.3, as follows:

#### **3.145.3bis**

##### **sibling teams**

teams created by a single set of corresponding executions of the FORM TEAM statement (11.6.9)

### *3.145.4*

In the definition, change “within its parent team” to “among its sibling teams”.

### *4.3.3*

Add new paragraph after paragraph 10, as follows:

Fortran 2008 required ACOSH of a complex value to have the imaginary part nonnegative and had no requirement on the real part. This document requires ACOSH of a complex value to have a nonnegative real part and has no such requirement on the imaginary part.

### *5.3.4, paragraph 2*

In the last sentence, replace “Within its parent team,” with “Among its sibling teams,”.

### *5.3.7, paragraph 1*

Add “or failed” at the end of the last sentence.

### *7.5.6.2, paragraph 1*

In list item (2), change “All finalizable” to “All nonallocatable finalizable”.

### *7.5.6.3, paragraph 2*

In the second sentence, delete “or a subobject thereof”.

### *8.5.8.7*

Insert the following at the end of constraint C837:

, or the associate name of a RANK DEFAULT block in a SELECT RANK construct whose selector has assumed rank.

8.8, paragraph 2

Replace the second sentence with the following:

This is the default for an interface body that is not a module procedure interface body.

8.8, paragraph 4

Replace the second sentence with the following:

This is the default for a derived-type definition, internal subprogram, module procedure interface body, module subprogram, or submodule”.

8.9

Replace constraint C8105 with the following:

C8105 (R868) A *namelist-group-object* shall not have the PRIVATE attribute in the local scope if its *namelist-group-name* has the PUBLIC attribute.

9.6, paragraph 3

Replace the second sentence with the following:

If a TEAM\_NUMBER= specifier appears in an *image-selector* and the current team is not the initial team, the value of the *scalar-int-expr* shall be equal to the value of a team number for a sibling team of the current team and the team of the image selector is that team; the object shall be an established coarray in an ancestor of the current team, or an associating entity of the CHANGE TEAM construct.

9.7.3.2, paragraph 9

Replace the sentence with the following:

If an allocatable component is a subobject of a finalizable object, any final subroutine for that object is executed before the component is automatically deallocated.

10.2.2.4, paragraph 3

Replace the sentence with the following:

If the pointer object has an explicit interface, its characteristics shall be the same as the pointer target except that the pointer target may be pure even if the pointer object is not pure and the pointer target may be an elemental intrinsic procedure, even though the pointer object is not elemental.

11.1.3.3, paragraph 5

Replace the last sentence with the following:

If a selector is not permitted to appear in a variable definition context (19.6.7), neither the associate name nor any subobject thereof shall appear in a variable definition context or a pointer association context (19.6.8).

*11.6.9, paragraph 1*

Replace the first sentence with the following:

The FORM TEAM statement creates a set of sibling teams whose parent team is the current team.

*12.5.1, paragraph 4*

Add the following at the end of the first sentence:

; it is not preconnected on any other image.

*15.4.3.4.1, paragraph 1*

Replace the second sentence with the following:

The PROCEDURE statement lists nonintrinsic procedures with explicit interfaces that have this generic interface.

*15.7, paragraph 1*

Remove “or” in the fourth bullet point and add the following two new points before the fifth point:

- a procedure pointer that has been specified to be PURE,
- a type-bound procedure that is bound to a pure procedure, or

*15.8.1, paragraph 1*

Replace the text with the following:

An elemental procedure is

- an elemental intrinsic procedure (16.1),
- a module procedure in an intrinsic module, if it is specified to be elemental,
- a procedure that is defined by an elemental subprogram, or
- a type-bound procedure that is bound to an elemental procedure.

An elemental procedure has only scalar dummy arguments, but may have array actual arguments. A dummy procedure or procedure pointer shall not be specified to be ELEMENTAL.

*16.9.5, paragraph 5*

Replace the last sentence with the following:

If the result is complex, the real part is nonnegative and the imaginary part is expressed in radians and lies in the range  $-\pi \leq \text{AIMAG}(\text{ACOSH}(X)) \leq \pi$ .

*16.9.97, paragraph 3*

For item TEAM\_NUMBER, replace the last sentence with the following:

It shall identify the initial team or a sibling team of the current team.

*16.9.145, paragraph 3*

For item TEAM\_NUMBER, replace the last sentence with the following:

It shall identify the initial team or a sibling team of the current team.

*16.9.161, paragraph 3*

For item OPERATION, change “type and type parameters” the two times it appears to “declared type and type parameters”.

*16.9.161, paragraph 4*

Change “type and type parameters” to “declared type and type parameters”.

*16.9.189, paragraph 5*

Change “within its parent team” to “among its sibling teams”.

*16.10.2.13*

Replace the text with the following:

The value of the default integer scalar constant INPUT\_UNIT identifies the same processor-dependent external unit as the one identified by an asterisk in a READ statement; this unit is the one used for a READ statement that does not contain an input/output control list (12.6.4.3). This unit is preconnected for sequential formatted input on image one in the initial team only, and is not preconnected on any other image. The value shall not be –1.

*17.11.17, paragraph 8 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.19, paragraph 8 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.24, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.25, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.26, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.27, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.28, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.29, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.41, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.42, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.43, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.44, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.45, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*17.11.46, paragraph 7 EXAMPLE*

Change “IEEE\_VALUE (IEEE\_QUIET\_NAN)” to “IEEE\_VALUE (1.0, IEEE\_QUIET\_NAN)”.

*19.5.1.4, paragraph 1*

Replace the first sentence with the following:

A derived-type definition, interface body, internal subprogram, module subprogram, or submodule has access to entities from its host as specified in 8.8.

*C.1, paragraph 1*

Add a new item at the end of the bullet list as follows:

- An internal procedure name can appear in a *procedure-stmt* in a generic interface block.

*C.1, paragraph 2*

Change “two” to “three”.