Public Review Comment #9 by Arjen Markus

To: J3
From: Craig Dedo
Date: November 11, 2002
Subject: Public Review Comment #9 by Arjen Markus

Public Review Comment #9
From: Arjen Markus [arjen.markus@wldelft.nl]
Sent: Thursday, October 31, 2002 4:38 AM
To: Donovan, Deborah
Subject: Comments w.r.t. Fortran 2000

Dear madam,

I approach you directly, instead of via my national standards body, because I could not find the proper address.

I would like to send you the following comments on the draft Fortran 2000 standard. They may be small details, but I would appreciate it if you could pass them on.

My main source of information is the latest issue of the Fortran Forum, which describes this standard.

The intrinsic module ISO_FORTRAN_ENV should in my opinion contain as much of the environment as possible, certainly those items that may be of influence on the working of the Fortran program. I think the following are missing:

1. Indication of big-endian or little-endian format for the representation of numbers. If this information is known at run-time certain operations, like reading binary files from other sources can be made essentially platform-independent.

J3 Response:

2. Unit used for the record length of direct-access files. Right now this is a piece of information that influences the results enormously and is difficult (though not impossible) to assess at run-time.

J3 Response: SV on #bits for: File Storage Unit, Character Storage Unit, and Numeric Storage Unit.

3. Some indication of the file system when one has to construct proper file names, for instance, the character used to separate directory names.

J3 Response: this is too system dependent.

4. The maximum length of messages from the IOMSG= keyword. That way, one can simply declare a string like:

```
    CHARACTER(LEN=MAX_MSG_LENGTH) :: string
```

and be sure that the message is saved in its entirety

J3 Response: No, this is not possible. Dick H's examples.

Other comments:

5. Does FLUSH allow the flushing of the standard output (FLUSH(OUTPUT_UNIT) would work as I expect?)

J3 Response: Any unit may be specified for the FLUSH statement.

6. Is there a way to influence the rounding mode for calculations (it is possible for formatted output)

J3 Response: Yes.

7. The current way of interfacing C and Fortran (via essentially FORTRAN77 constructs and platform-dependent encoding in C) will still work?

Kind regards,
Arjen Markus

References

02-007r3, Fortran 2000 Committee Draft

[End of J3 / 02-320r1]