

Meeting of ISO/JTC1/SC22/WG5**BSI Conference Centre, London. 18-22 March 1991****1. Opening of the Meeting**

The meeting was opened on Monday, 18 March 1991 by the convenor, Jeanne Martin.

She pointed out in her opening remarks that the editorial policy of this meeting is to end up with as few edits as possible in order to expedite the production of the official international standard.

Guidelines for such a policy are contained in ISO/IEC JTC1/SC22/WG5-N639 by John Reid.

2. Appointments

The following appointments were made:

Jeanne Martin	Convenor
Bert Buckley	vice chair
Mike Roth	Recording Secretary
Malcolm Cohen	Librarian
John Reid	Editor
David Muxworthy	Head of Drafting Committee
Jeanne Adams	Head of GEN Subgroup
Lawrie Schonfelder	
and Steve Morgan	Heads of DATA Subgroup
Andrew Tait	Head of CIO Subgroup
Maureen Hoffert	Head of PROC Subgroup

3. Reports

Jeanne Adams reported on the work of the X3J3 committee, confirming that the Fortran Extended Standard will be identical to Fortran 90. There was then some discussion about how to make sure we finish by the end of X3J3's April meeting in Minneapolis.

4. Subgroup Work

Once the agenda had been adopted, most of the work of the committee during this meeting was carried out in subgroup sessions.

Reports from the first such session were given by:

John Reid,	Editorial
Andrew Tait,	GEN/CIO
Lawrie Schonfelder,	DATA
Maureen Hoffert,	PROC

There was then some discussion on the precise definition of 'partially associated', semicolons on the end of a line, host

association inaccessibility, targets in COMMON and structure components in EQUIVALENCE.

A straw vote to allow structure components in EQUIVALENCE failed 5-11-6, but another straw vote on whether to make this a constraint or a restriction was undecided 3-3-15.

Discussion then continued on whether the intrinsics ALL and ANY need to examine further elements once the result has been determined, on the optionality of dummy arguments of some of the intrinsics and on shared DO termination.

5. Edits

The Tuesday session started with a formal vote to accept all the non-controversial parts of N606, that is to say all those parts not mentioned in the WG5 Informal Letter Ballot.

This passed 4-0-0, 20-2-0.

Most of the remainder of the meeting alternated between subgroup sessions and reports on these from the subgroup heads. This lasted until Friday morning.

Other topics discussed during this time are left to the next section of these minutes.

The remainder of this section consists of subgroup reports and the committee's responses to them. It will be of interest only to those who wish to trace what happened to any particular edit, and even then will require reference to the documents containing the subgroup reports. These are in the range ISO/IEC JTCl/SC22/WG5-N636 through N676.

N656 Editorial John Reid.
Except edits 164.1 and 183.1.
Passed without objection.

N655 DATA Lawrie Schonfelder.
Except edits 97.4, 99.1, N636 and N639 5-17/16.
This requires amendment as follows:

94	Change "be a subobject with" to "have" (twice)
116.1	Omit the reference to 14.4.1.1.

With these amendments, N655 passed, though not entirely without objection. In particular, edit 62.1 passed 4-0-0, 20-2-0 and edits 127 and 128 passed 4-0-0, 18-2-1.

N657 PROC Maureen Hoffert.
Except edits 149.2, 159.3, 184.3, 185.2, 191.4 and 191.5.
Passed with some objections:

151.2	passed 3-1-0, 15-5-1
153	passed 4-0-0, 18-2-1
159	passed 4-0-0, 18-3-0

A straw vote that edit 159.3 required some additional wording passed 11-4-5.

Edit 191.5 failed 0-3-1, 3-13-5.

N662 Editorial John Reid.

Except edits 64, 128, 129.4, 130.1, 147.1, 147.2, 147.3 and 215.1. Also reject the edits 164.1, 183.1 and 185. Note that 202.1 refers to the first of these. Passed without objection.

During this process, several straw votes were held, all upholding the subgroup's position on the relevant edits:

62.3	13-3-5
131.2	10-8-5
202.2	13-3-5
203.1	9-6-5
212.1	9-5-6

N663 GEN and CIO Andrew Tait.

Except edits 48.2, 125(both), 125.2, 131.1, N640 3-3/3, 3-4/4, 3-4/36, 8-11/46-47, 9-2/36,37, 9-4/44-45, 9-14/13+, 9-22/37, 10-3/36, N646 3-5/31+ and 3-6/19+.

Note that 132.1 should read 132.2 and that edit 132.1 should be accepted because it fixes an error. Change edit N640 7-8/29 from accept to reject. Change edit N640 9-15/16 and 9-16/21+ from reject to accept. Passed without objection.

During this process, several straw votes were held, upholding the subgroup's position on the relevant edits:

N639	1-2/11,16	9-5-7
N640	7-18/27	10-3-7
N640	9-2/41-43	12-5-4

while two reversed the subgroup's decision from reject to accept:

N640 9-15/16 3-13-5 N640 9-16/21+ 5-11-5

N660 DATA Steve Morgan.

This paper included a question for the full committee to decide whether SAVE applies to named constants.

The relevant edits are 5-8/42 and 5-10/42

(also 5-2/20 which had already been rejected in the vote on Paper N655).

The choices were:

- 1) Reject the edits if it is WG5's intention to extend tile language.
- 2) Accept the edits if it is WG5's intention to conform to Fortran77.

The straw vote was 5-5-11 and the subcommittee chose option 1. With these amendments, N660 was passed without objection.

N661 PROC Maureen Hoffert.

Only edits 149.2, 193.1, 199.3, 201, 202.1/2, 203.3, 207, 209.1, 216.1, 217.4, 218.3 and 219.

Passed without objection.

N669 CIO Andrew Tait.

Also edit N654 10-16/26.

Passed without objection.

N668 Editorial Mike Metcalf.

Except edit N654 5-2/22.

Passed without objection.

N666 PROC/Editorial Steve Morgan.

This requires amendment as follows:

N654 12-7/21 and 37 should include also line 38

N654 13-3/28 accept

N654 13-20/30 reject should read 13-21/30 accept

N654 C-30/4-5 the last word is TRIM.

With these amendments, N666 passed without objection.

N671 PROC Bert Buckley.

Except edit N636.

This requires amendment as follows:

159.3 Change "with" to "specified by"

218.4 Change LBOUND to UBOUND and add Delete "For ... dimension."

121.2b should refer to 7-10/43

265.Oa Add "only" after "or".

With these amendments, N671 passed without objection.

N670 Resolutions David Muxworthy.

There was much discussion on the first draft of the resolutions, but no conclusions were reached as yet.

N673 PROC Maureen Hoffert.

Passed without objection.

N674 DATA Lawrie Schonfelder.

Passed without objection.

N675 CIO Christian Weber.
Except that edit 129.4 is rejected.
Passed without objection.

N661 PROC Miles Ellis.
Only edits 191.4, 196 and 221.3.
The subgroup recommendations passed without objection.
Also, edits N654 13-35/17+ and 13-37/33+ were rejected without objection.

As a result of these edits, John Reid produced N672 as a list of the changes to N606 accepted at the London meeting.
There was some discussion on this and subgroup heads gave their amendments to John Reid for him to produce a final document defining what the committee considers to be Fortran 90.

N654 CIO Wolfgang Walter.
Reject 3-4/4 and delete the sentence "Any ... labelled".
Passed without objection.

N676 Editorial John Reid. Passed without objection.

6. Other topics discussed

The Tuesday session ended with some discussion on how to get examples of languages such as that in N651 to Walt Brainerd. This concluded with a straw vote on whether to pursue the CASE example N606/130.

The result was 7-8-7.

On Thursday morning, Lawrie Schonfelder presented his latest version of Varying Length Character Strings in Fortran, N649.
This was accepted without any need to vote on anything.

The Thursday morning session ended with the acceptance without objection of the Rotterdam Minutes, N629, and Jerry Wagener led some discussion of the responses to the Rotterdam resolutions in N650.

7. Future meetings

On Thursday afternoon, future meetings were discussed. The following two meetings have been arranged:

Lund, Sweden June 1991
Victoria, Canada July 1992

Jerry Wagener pointed out that there may be two meetings each year.

8. Change Document

On Friday morning, having concluded all the edits, the subgroup heads checked the resulting change document N672a and presented

a few minor corrections to John Reid. It was then proposed that N672a with these corrections together with N676 should become the definitive change document and be renumbered N683.

This was carried by a formal vote 5-0-0, 23-0-0 as it was hoped that this then fully defines Fortran 90.

9. Further Evolution of Fortran

There are 5 papers on this subject: N627, N628, N665, N678 and N679. There was much discussion on the further evolution of the Fortran standard based on the third draft resolution in N670a. In particular, Bert Buckley presented the Canadian proposal, N679, for an ad hoc committee to formulate a new work item to produce a revision of the standard.

There was then a straw vote: Are you in favour of setting up a committee whose mandate is to provide input on the future evolution of Fortran to the Lund meeting.

This passed 15-3-6.

When it was demonstrated that not enough people had time to support such a committee, the idea was abandoned.

10. Adoption of Resolutions

The following resolutions in N670b were presented by Mike Metcalf

L1. Text of the Fortran 90 International Standard

That WG5, following the approval of DIS 1539 (Fortran 90) in the JTC1 ballot and consideration of the ballot comments, presents document ISO/IEC JTC1/SC22/WG5 N606, as modified by document ISO/IEC JTC1/SC22/WG5 N683, as the changes needed to produce the final IS 1539.

Further that WG5 directs its convenor to:

- provide a draft incorporating N606 and N683 to X3J3 in time for its April 7-12, 1991 meeting in Minneapolis,
- request X3J3 to review the transcription of those changes into this draft,
- incorporate any additional error corrections that X3J3 might generate during this review, and
- deliver the final document to JTC1 by May 1, 1991, the synchronization date specified in ISO/IEC JTC1/SC22/N848.

Individual votes: 21-0-0

Country votes: 5-0-0

L2. Standard String Module

That WG5 records its intent to finish work on the ISO_VARYING_STRING module (WG5/N649) according to the specification in WG5/N682 and to forward the updated draft to SC22 after the June 1991 WG5 meeting in Lund for processing as an international standard collateral to ISO/IEC 1539:1991.

Further that WG5 thanks DIN for serving as Secretariat for this Work Item, and thanks Lawrie Schonfelder for his work as Project Editor.

Individual votes: 21-0-0 Country votes: 5-0-0

L3. Further Evolution of the Fortran Language Standard

A straw vote to include four references in this resolution passed 9-6-4

That WG5 believes that evolution of the Fortran language beyond Fortran 90 would benefit the programming and computing communities, and that promoting the principle of a single worldwide Fortran language standard would maximize this benefit.

Further that WG5 strongly urges individual members, SC22 member bodies and other interested groups to submit to the WG5 Convenor suggestions (such as WG5/628, 665, 678 and 679) for achieving these objectives for comprehensive review by WG5 at its meeting on June 24-28, 1991.

Individual votes: 19-1-1 Country votes: 5-0-0

L4. Appreciation of Gerhard Schmitt

That WG5 deeply regrets the decision which has led to the abrupt resignation of Gerhard Schmitt from WG5.

Further that WG5 wishes to record its gratitude and admiration for the important contribution made by Gerhard Schmitt to Fortran standardization, and directs its convenor to write to the Austrian member body to express the hope that he will soon be allowed to resume his work on WG5.

Passed by acclamation.

L5. Appreciation of editing work on change document

That WG5 expresses its appreciation to John Reid for maintaining the cumulative change document during the March 18-22, 1991, WG5 meeting, and in particular for producing daily versions for the meeting and distributing them by e-mail.

Passed by acclamation.

L6. Appreciation of DIS editing work

That WG5 expresses its appreciation to Walt Brainerd for his dedicated work as document editor in producing the many successive drafts of the Fortran 90 International Standard throughout its development.

Passed by acclamation.

L7. Electronic Mailing List

That WG5 expresses its appreciation to David Muxworthy for offering to support the SC22WG5 electronic mailing list, should Gerhard Schmitt be unable to continue to do so.

Passed by acclamation.

L8. Appreciation of X3J3

That WG5 expresses its appreciation for the synergistic working relationship that has developed over the years between X3J3 and WG5, which has been instrumental in the development and adoption of the Fortran 90 International Standard.

Passed by acclamation.

L9. Vote of Thanks for Support

That WG5 thanks British Gas plc and the British Computer Society Fortran Specialist Group for generously supporting the reception on March 19, 1991.

Passed by acclamation.

L10. Vote of Thanks

That WG5 wishes to express its appreciation to the Convenor (Jeanne Martin), the vice chair (Bert Buckley), the secretary (Mike Roth), the librarian (Malcolm Cohen) and the hosts (the BSI Fortran Panel and its parent body BSI) for their contributions to the success of the meeting.

Passed by acclamation.

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