

This is a set of papers relating to the first, ad hoc, meeting of ISO Fortran Experts. After further meetings of 'Fortran Experts' the group was formally established in 1983 as Working Group ISO TC97/SC5/WG9. After the reorganization of TC97 and the formation of JTC1, it became ISO/IEC JTC1/SC22/WG5. The papers included are:

1. *Agenda for Fortran Experts' meeting, 27-30 November 1978*
2. *Summary report to BSI, including attendance list*
3. *Agenda for Fortran Forum, 1 December 1978*

The full minutes are in INCITS/PL22.3 document X3J3/112. The background to setting up the first Experts' meeting is described in http://www.fortran.bcs.org/standards/meek_hague_1977_report.pdf

ISO/TC 97/SC 5 FORTRAN

1978 October 21

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ISO
INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION

SECOND DRAFT AGENDA

ISO/TC 97/SC 5 Ad Hoc FORTRAN Experts' Meeting to be held
November 27-November 30, 1978, at the Conference Centre
Hampden House
61 Green Street
London W1, ENGLAND

Monday, 9:00 a.m.

1. Opening of the meeting (Jeanne Adams, convener)
2. Welcome of delegates
3. Election of chair
4. Roll call of delegates
5. Adoption of agenda
6. National activity reports
7. Procedural matters
8. General philosophy
 - 8.1 Long range objectives, compatibility and portability (discussion leaders: Martin Greenfield, U.S., Colin Day, U.K.)
 - 8.2 Core-plus-modules (paper by Walt Brainerd, U.S.)
 - 8.3 Form and scope of the standard (paper by Brian Meek, U.K.)
 - 8.4 Identification of FORTRAN users (discussion led by Betty Holberton, U.S.)
 - 8.5 General discussion

Tuesday, 9:00 a.m.

9. Comments from members
10. Identification of any action items for agenda item 19
11. Some extensions to core FORTRAN
 - 11.1 Looping constructs (paper by J.L. Wagener, U.S.)
 - 11.2 Internal procedures (paper by John Lauer, U.S.)
 - 11.3 Program form (paper by James Matheny, U.S.)
 - 11.4 Data Structures (paper by Murray Freeman, U.S.)
12. Interfaces-to-modules
 - 12.1 An approach (topic presented by Richard Grove, U.S.)
 - 12.2 Discussion (led by John Murchland, U.K.)
 - 12.3 Interface to other standards (paper by Ingemar Dahlstrand, Sweden)

Wednesday, 9:00 a.m.

13. Comments from members
14. Identification of action items for agenda item 19
15. Data types, data structures, data representation
 - 15.1 General discussion (introduced by I. David Hill, U.K.)
 - 15.2 Requirements for numerical software (paper by Brian Ford, U.K.)
 - 15.3 Array extensions (paper by Richard Hendrickson, U.S.)
 - 15.4 Array questionnaire (presented by Alan Wilson, U.S.)

Thursday, 9:00 a.m.

16. Comments from members
17. Identification of action items for agenda item 19
18. Specialized areas
 - 18.1 Role of data base management (topic introduced by Richard Signor, U.S.)
 - 18.2 Requirements of statisticians (discussion led by John Nelder, U.K.)
 - 18.3 Real-time requirements (introduced by Richard Signor, U.S.)
 - 18.4 Graphic requirements
 - 18.5 Other possible areas
 - 18.6 Core + Modules
19. Action on recommendations
20. Requirements concerning a subsequent meeting
21. Any other business
22. Adjournment

MEMORANDUM

To: Members of DPS/13

From: D T Muxworthy
(Convener DPS/13 WG6, Fortran)

[DPS/13 was the BSI committee concerned with all Programming Languages]

File Ref.

Date: 8 December 1978

Subject: Ad-hoc ISO Meeting of Fortran Experts, London, 27-30 November 1978

Present:

J Adams	(USA)	B Meek	(UK)
C G F Ampt	(Netherlands)	L P Meissner	(USA)
W Brainerd	(USA)	M Munchhausen	(ECMA)
P A Clarke	(UK)	J D Murchland	(UK)
I Dahlstrand	(Sweden)	D T Muxworthy	(UK)
C Day	(UK)	J Nelder	(UK)
J F Dunn	(UK)	L Noordhuizen	(Netherlands)
J Engle	(USA)	P A J Penders	(Netherlands)
M Freeman	(USA)	K H Rotthausser	(Germany)
M N Greenfield	(USA)	G Schmit	(Austria)
R Grove	(USA)	R W Signor	(USA)
S J Hague	(UK)	G Stacey	(UK)
D Hendrickson	(USA)	B Swain	(Canada)
D Hill	(UK)	J L Wagener	(USA)
F E Holberton	(USA)	A J H Walter	(UK)
J E Lauer	(USA)	E H Whitley	(USA)
D T Law	(UK)	A Wilson	(USA)
J H Matheny	(USA)	J D Wilson	(UK)

1. **Purpose of Meeting**

The language known as Fortran 77 was standardized as ANS X3.9-1978 in April 1978 and is being processed for probable adoption as an ISO standard, The ANSI X3J3 (Fortran) committee is working on a revision, tentatively known as Fortran 82, which is also likely to become the ISO standard. The committee has become a language development committee; this is recognized by all and there is no suggestion that they standardize only that which already exists. The meeting was therefore called to allow other countries to discuss their requirements at an early stage.

2. Form of Meeting

The technical part of the meeting took the form of a series of presentations on specified topics followed by discussion. This was essentially a discussion meeting and it was up to the X3J3 members present who have to prepare detailed proposals, to sieve the varied, and often directly contradictory, opinions expressed.

A formal request to X3J3 was made only on one matter. It was clear from discussion that a proposal to adopt a core-and-modules approach to the language could have unexpected ramifications. A motion that this be the subject of an ANSI Technical Report and circulated for public review was heavily defeated but a revised motion that it be a report and circulated was approved nem.con.

3. UK Contribution

Several members of the UK delegation submitted papers and/or made presentations. These are detailed in the minutes of the meeting being prepared by ANSI.

4. Next Meeting

It was decided that it would be appropriate to hold another meeting in about 18 months time and Mr Ampt made a verbal invitation that it be held in the Netherlands.

The question of whether the group should become a formal ISO working group was never discussed at the meeting but informally the opinion was expressed that SC5 would decide on this without any communication from the group.

5. Organization

The organization of the meeting, administratively by Peter Wells for BSI and technically by Jeanne Adams and Loren Meissner of X3J3, was excellent and I wish to record the thanks of the UK delegation again here.

Fortran Forum 78 (London) Agenda
Friday 1 December 1978

- 9.30 Registration
- 10.00 Introduction - P.A.Clarke (Rothamsted Experimental Station)
- Fortran Overview and Fortran 77 Chair: David Muxworthy (ERCC)
- 10.00 History of Fortran Standards Development from the X3J3 Viewpoint
- Martin Greenfield (Honeywell Information Systems).
- 10.25 Philosophy of the Standards approach to programming languages including Fortran - Frank Engel (Independent Consultant).
- 10.45 Panel Session: Martin Greenfield (Chair), Frank Engel, Frances Holberton (National Bureau of Standards), James Matheny (Computer Sciences Corporation), Murray Freeman (General Electric Company).
- 11.15 Coffee
- Fortran Developments. Chair: Jeanne Adams (National Centre for Atmospheric Research).
- 11.40 The Fortran Interface to CODASYL database - Richard Signor (General Electric Company).
- 12.00 The Influence of Special User Groups on Future Fortran Development
- Loren P.Meissner (Lawrence Berkeley Laboratory).
- 12.30 Panel Session: Jeanne Adams (Chair), Rick Signor, Loren P.Meissner, Alan Wilson (International Computers Ltd.).
- 13.00 Lunch.
- Fortran 82 Proposals. Chair: Jeanne Adams
- 14.00 'core plus modules' approach to the future structure of Fortran
- Walter S.Brainerd (Los Alamos Scientific Laboratory).
- 14.15 An Enhanced procedural interface mechanism for extending Fortran
- Richard Grove (Digital Equipment Corporation).
- 14.30 A unified approach to Fortran control structure extensions for looping
- Jerrold L.Wagener (State University of New York at Brockport).
- 14.45 Panel Session: Jeanne Adams (Chair), Walter S.Brainerd, Richard Grove, Jerrold L.Wagener, John Lauer (Colorado Computing Centre).
- 15.15 Tea.
- Fortran 82 - Some national views. Chair: Frank Engel
- 15.40 The Characteristics of the Core - Mr.C.G.F.Ampt (Central Directorie der PTT, Holland, Chairman Dutch Fortran Study Group).
- 16.00 British proposals for Fortran 82 - David T.Muxworthy (Edinburgh Regional Computing Centre, Chairman BSI Fortran WG).
- 16.15 Some Swedish views on Fortran, I.Dahlstrand (Lund University).
- 16.30 Panel Session: Frank Engel (Chair), C.G.F.Ampt, David Muxworthy, I.Dahlstrand.
- 17.30 Close.