

**Minutes of Meeting 143**

**J3 ANSI Fortran Standards Committee**

**November 10-14, 1997**

**Las Vegas, Nevada, United States**

**J3/97-267**

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The format of these minutes attempts, wherever possible, to follow the structure of the agenda (see Appendix A). If an agenda title is listed but there is no text for that title, it means that that portion of the meeting was unscrubbed or there was nothing of import to record.

## **1. Monday, November 10, 1997**

### **1.1 Opening Business**

Meeting 143 of the J3 Fortran Standards Committee was called to order at 8:30am.

### **1.2 Meeting Objectives (work plan: 97-010r3)**

The J3 Chair outlined the main meeting objective was to continue processing of items listed in the Fortran 2000 Work Plan, namely:

- R3 (97-248r1, 97-251, errata) *Procedure Pointers*; nothing scheduled for this meeting, but it may be useful to get a start on processing the edits for this item.
- R5 (97-104r2) *Parameterized Derived Types*; edits are scheduled for this meeting.
- R8 (97-146) *Internationalization*; specs are scheduled to be approved at this meeting.
- R9 (97-154) *Interoperability with C*; item to be progressed this week.
- M1 (97-236) *Increased stmt length*; edits are scheduled for this meeting.
- M5 (97-249) *Extend MAX/MIN to character strings*; specs are scheduled for this meeting.
- M6 (97-259) *Enhanced Initialization Expressions*; specs are scheduled for this meeting.
- M15 (WG5#41) *Renaming Defined Operators*; specs to be completed at this meeting.
- M16 (97-197r1) *Derive-type Assignment Fix*; will not be processed at this meeting.
- M17 (97-252) *Enhanced Complex Constants*; specs are to be completed at this meeting.

The /INTERP subgroup was reconvened in Breckinridge and there was some opinion that the processing of interpretations, raised against Fortran 95, should start at this meeting.

### **1.3 Adoption of Agenda**

There were a small number of changes made to the draft agenda. See Appendix A for the final form of the meeting agenda.

Motion: (Whitlock/Maine): “Approve the agenda as amended.” Motion passed by unanimous consent.

### **1.4 Approval of Meeting 142 minutes (97-233)**

A small number of errors were highlighted by Synder and Zongaro.

Motion: (Whitlock/Snyder): “Approve Meeting 142 minutes as amended.” Motion passed by unanimous consent.

### **1.5 Secretarial Arrangements**

The office of secretary is a revolving post. The acting secretary for Meeting 143 is John Cuthbertson; Craig Dedo is scheduled to be acting secretary at Meeting 144.

### **1.6 NCITS/OMC Report**

- (a) The five year review of the Fortran 90 Standard was due in October 1997. OMC (without a recommendation from J3) reaffirmed the F90 Standard for five more years. Ron Silletti, J3’s OMC liaison, indicated that OMC would reconsider their action if J3 recommends withdrawal of the F90 Standard.
- (b) A committee vote on SD-3 (97-220) is required at this meeting. SD-3 was forwarded to NCITS in time for their last meeting. SD-3 was in the new NCITS format and they were extremely happy with the layout. However SD-3 was not approved and the reason NCITS gave was it was “too good”. A hypertext link in SD-3 referenced a paper from the WG5 convenor regarding market potential. One person at NCITS objected to the content of this paper and wanted SD-3 to be withdrawn.
- (c) The first call for applications for the (soon to be vacant) office of J3 Chair closed on 25 September 1997. No applications for the office were received and NCITS indicated that a further call for application would be issued in early October. So far the second call has not been issued and no information has been received from NCITS regarding this matter. It is understood that a second call will result in one applicant (Tony Warnock) unless any objection is raised. Tony Warnock indicated that funding has been approved for a two year appointment. It is unknown whether the new chair will be appointed in time for Meeting 144.

### **1.7 Other Reports**

#### **1.8 Treasurer’s Report**

All bills from the last meeting have been settled, and there was one between-meeting expenditure. The balance as of November 7 is \$1694.03. At this meeting the meeting room will have to be paid for as only 17 rooms have been reserved. The meeting fee (which was set in Breckinridge) is \$50; checks should be made payable to “X3J3”.

#### **1.9 Beginning Membership Report.**

The committee currently has 19 members. J. Adams, R. B. Kearfott, and K. Low are absent and not represented at this meeting. R. Maine is representing M. Cohen. For this meeting the majority is 10 and the quorum is 7.

One visitor on Tuesday: Bill Clodius.

## 1.10 Local Arrangements

### 1.11 Comments from Members

There were comments from several members about the repercussions of the J3 web page and its contents.

### 1.12 Discussion on Second Call for J3 Chair

See (c) under agenda item 1.6.

### 1.13 Subgroup Organization

The technical subgroups for this meeting were organised as follows:

- JOR: Whitlock (head), Adams (absent), Bleikamp, Dedo, Hendrikson, Meissener.  
Primarily responsible for the processing of R1, R2, R4 (module fix ups), Minor Technical Enhancements (MTEs), and B items.
- DATA: Cuthbertson (head), Cohen (absent), Hirschert, Low (absent), Snyder, Maine, Martin.  
Processing R3, R5, R6, and R7.
- INTERVAL: Kearfott (head), Bierman, Warnock.  
Processing of R4 (possibly as an intrinsic type) as discussed in 97-142.
- INTEROP: Rollison (head), Butler, Zongaro.  
Processing of R9 (C Interoperability).
- INTERP: Whitlock (head), Bleikamp, Cohen (absent), Rollison, Zongaro.  
Considering the interpretations raised against F95.

Before recessing for subgroup meetings there was a discussion about whether there should be a US TAG meeting held at this meeting.

Straw Vote: Should there be a US TAG meeting (Yes/No/Undecided)?  
Yes / No / Undecided            2 / 8 / 5

Agenda item 3.8 (TAG Meeting) is now stricken from the agenda and subgroup reports will be given at 4:30pm on Wednesday.

The committee recessed at 10:15am for subgroup meetings. Subgroups will report at 4:30pm.

### 1.14 Subgroup Meetings

Meeting reconvened at 4:30pm for subgroup reports.

### 1.15 Subgroup Reports

- /JOR** Nothing for tomorrow. The following are /JOR items, and some may be processed on Wednesday:
- R1: derived-type I/O (97-217r1); specs & syntax
  - R2: async I/O (97-216r2); syntax & uncompleted edits - more edits for this item are currently being investigated.
  - R4: module fix ups for Interval Arithmetic; 97-164, 97-181, 97-224r1 will be progressed by Dick Hendrickson
  - R8: internationalization (97-154); scope of this items will be finalized;
  - M1: increased statement length (97-236); edits
  - M5: MAX/MIN for character strings (97-249); specs
  - M6: extended initialization expressions (97-250); specs
  - M15: renaming derived operators; nothing for this meeting
  - M16: fix-up for derived type assignment; will not be processed at this meeting
  - M17: enhanced complex constants (97-252); specs & syntax.
- INTERVAL** Nothing for tomorrow.
- R4: Interval Arithmetic - A discussion on interline optimization may take place later in the week, and a paper on extending the Fortran character set will appear shortly. Some straw votes on operator precedence may be taken later in the week.
- DATA** Nothing for tomorrow.
- R6b: Polymorphism; A paper giving the syntax for declaring and referencing type-bound procedures should be ready on Wednesday for voting on Thursday.
  - R5: Parameterized Derived-types; A paper containing edits for this item should be ready at the end of the week. We don't intend to move this paper - the edits will be moved at the next meeting.
  - R7: Constructors & Destructors; We expect to move a paper as specs for this item later in the week.
- INTEROP** The first meeting will held tomorrow (Tuesday) to investigate whether any work should be done on this item.
- As /INTEROP is still to have its first meeting it was suggested that agenda item 2.1 be substituted with a committee vote on SD-3 (97-220). There was no objection to this amendment to the agenda.
- INTERP** Interpretation numbers are being assigned. Currently there are eleven interpretation requests:
- #1 97-237; Visibility of a Data Object with Statement Scope
  - #2 97-238; Free source form requirement for blank in PRINT

- #3 97-239; Ability to overload the // operator
- #4 97-240; Value returned by MINVAL/MAXVAL
- #5 97-241; Value returned by SELECTED\_REAL\_KIND
- #6 97-242; Character Length Specification of a Function Result
- #7 97-243; Optional Intrinsic Function Arguments
- #8 97-245; Optional Arguments to MAX/MIN
- #9 97-246; INTENT of MOLD Argument to TRANSFER
- #10 97-253; Embedded Blanks in Namelist Input Name
- #11 97-225; G Editing Typo

Paper 97-165 will be processed for any additional interpretations, and some of the above interpretations may be discussed and voted on later in the week.

## **2. Tuesday, November 11th, 1997**

The meeting was called to order at 8:30am.

### **2.1 Committee Vote on SD-3 (97-220)**

Vote (Dedo/Meissener) "Approve 97-220"

Bierman, Keith	(Absent)
Butler, Tim	Yes
Cuthbertson, John	Yes
Dedo, Craig	Yes
Hendrickson, Dick	Yes
Hirchert, Kurt	Yes
Kearfott, R. Baker	(Absent)
Low, Keng	(Absent)
Maine, Richard (alt. for: Cohen)	Yes
Martin, Jean (alt. for: Smith)	Yes
Meissner, Loren	Yes
North, C. Mallory	Yes
Rolison, Larry	Yes
Snyder, Van	Yes
Wagener, Jerry	Yes
Warnock, Tony	Yes
Whitlock, Stan	Yes
Zongaro, Henry	(Absent)

Result (14-Yes, 0-No, 4-Absent). 97-220 is approved.

### **2.2 Required Items Processing**

### **2.3 MTE Processing**



## 2.4 Interpretation Request Organization & Processing

Meeting recessed until 4:30pm for subgroup meetings.

## 2.5 Subgroup Meetings

Meeting reconvened at 4:30pm for subgroup reports.

## 2.6 Subgroup Reports

**INTERVAL** 97-257; additional requirements associated with implementing interval arithmetic as a derived-type have been identified and some straw votes will be taken tomorrow.

Tomorrow there will also be a discussion and some straw votes on operator precedence.

**DATA** No papers for tomorrow. There was some disagreement in subgroup regarding part of item R6b: overriding type-bound procedures. Subgroup will process edits for R7 tomorrow.

**INTEROP** Met today for the first time and discussed high level design criteria. Concrete low level semantics will be deferred until J3 receives instruction from WG5 on how to proceed; the low level semantics will be equivalent to “specs” in the usual J3 development plan. A tutorial on the high level goals may be given on Thursday.

**JOR** M1: 97-236 increased statement length; vote tomorrow  
 M5: 97-249 MAX/MIN to character strings; vote tomorrow  
 M6: 97-250r1 extended initialization expressions; vote tomorrow  
 M17: 7-252 (not the edits) enhanced complex constants; discussion and possible vote.  
 Currently looking at questions raised by 97-235 regarding Async I/O.

**INTERP** Nothing for tomorrow. Continuing to look at remaining interpretation requests; papers containing edits for some of these may appear later in the week.

## 3. Wednesday, November 12th, 1997

The meeting was called to order at 8:30am.

### 3.1 Required Item Processing

- R4: Extending the Fortran character set (97-257)  
 Straw vote: Add the rest of ASCII ‘95 printable characters to the Fortran character set?

Yes / No / Undecided                      12 / 1 / 3

Straw vote: Would you tolerate C-style trigraph characters?

Yes / No / Undecided      10 / 1 / 5

Note: JLW will send a note to the WG5 convenor regarding any possible international objections on this subject.

- R4: Discussion on Operator Precedence and allowing place holder operators.  
Straw vote: Are you in favor of precedence place holder operators (spelling and syntax not withstanding)?  
Yes / No / Undecided      3 / 6 / 7

### 3.2 MTE Processing

- M5 (97-249) Extend MAX/MIN to Character strings.  
Motion (Whitlock/Meissener) “Move paper 97-249.” Paper 97-249 withdrawn.
- M6 (97-250r1) Extended Initialization Expressions.  
Motion (Whitlock/Meissener) “Move paper 97-250r1.”  
Amendment: Remove the quotation marks around *mathematical* in 97-250r1.  
No objection to amendment.  
Motion passed by unanimous consent.
- M1 (97-236) Increased statement length.  
Motion (Whitlock/Rolison) “Move paper 97-236.”  
Amendment (Meissner/Dedo) “Amend ‘99’ to ‘999’ in edits.”  
Yes / No      5 / 7  
Amendment Fails.  
Amendment (Dedo/Van Snyder) “Amend ‘99’ to ‘449’ in edits.”  
Yes / No      6 / 8  
Amendment Fails.  
  
Motion (Whitlock/Rolison) “Move paper 97-236 as written.”  
Yes / No      14 / 1  
Motion passes.
- M17 (97-252) Enhanced complex constants.  
Motion (Whitlock/Rolison) “Move paper 97-252 as specs & syntax for M17.”  
Yes / No      10 / 3

### 3.3. /JOR report on status of Category B Items

### 3.4 Interpretation Processing

### 3.5 Interval Arithmetic Sub Projects

Meeting recessed until 4:30pm for subgroup meetings.

### 3.6 Subgroup meetings

Meeting reconvened at 4:30pm for subgroup reports.

### 3.7 Subgroup Reports

JOR R2: 97-262 Async I/O; discussion and extension to 97-235, but no vote.  
 M5: 97-249r1 extend MAX/MIN to character strings; vote tomorrow.  
 Interp #4: 97-240; discussion  
 Interp #7: 97-243; discussion on optional intrinsic arguments.

Additionally there will be a formal vote to make item B5 (Command Line Arguments) into a Minor Technical Enhancement (MTE).

DATA R6b: 97-261 Polymorphism; discussion and possible straw vote.  
 R7: 97-256 Initializers/Finalizers; vote tomorrow.

INTERVAL R4: 97-260 Interval Arithmetic; discussion and possible straw votes.

INTEROP Subgroup did not meet today; nothing for tomorrow.

INTERP No papers for tomorrow.

Ballot forms for August '98 meeting venue will also be handed out tomorrow.

## 4. Thursday, November 13th, 1997

The meeting was called to order at 8:30am. The J3 Vice chair gave the committee some disturbing news, and informed the committee that he had to leave urgently. The committee recessed until 9:30am.

### 4.1 Required items processing

- R2: Async I/O (97-262)  
Motion (Bleikamp/Whitlock) "Move paper 97-262 as further edits for Async I/O."  
 Motion passed by unanimous consent.
- R4: Interval Arithmetic (97-260)  
 A discussion about rounding was conducted. No votes were taken.
- R6b: Polymorphism (97-261) .  
 A discussion on paper 97-261 was conducted. No votes were taken and it was suggested that a tutorial on R6b with examples in Ada, Java, with Fortran equivalents (to be given at meeting 144) would help the committee decide the issue described in 97-261.
- R7: Initializers/Finalizers (97-256)

Motion (Hirchert/Cuthbertson) “Approve paper 97-256 as the specification for R7.”  
Motion passed unanimous consent.

#### 4.2 MTE processing

- M5 (97-249r1) Extend MAX/MIN to Character Strings  
Motion (Whitlock/Meissener) “Mover 97-249r1 as additional edits for M5.”  
Motion passed by unanimous consent.
- Command Line Arguments  
Motion (Whitlock/Dedo) “Make item B5 into MTE M18.”  
Motion passed unanimous consent.
- Interp #4 (97-240) Value Returned by MAXVAL/MINVAL
- Interp #7 (97-243) Optional Intrinsic Arguments

#### 4.3 Interpretation Processing

The committee recessed until 4:30pm for subgroup meetings.

#### 4.4 Subgroup Meetings

Meeting reconvened at 4:30pm for subgroup reports.

#### 4.5 Subgroup Reports

INTERP Nothing to bring forward for tomorrow; a new version of standing document 006 will be created for the next meeting.

INTERVAL 97-263 discussion and possible straw vote .

DATA 97-248r2, 97-264 discussion only.

JOR Nothing Further

Meeting recessed until 8:30am tomorrow.

### 5. Friday, November 14th, 1997

Meeting was called to order at 8:30am.

#### 5.1 Required Items Processing

- R4: Interval Arithmetic (97-263)  
A discussion on interline optimization ensued, but no votes were taken. This discussion will be continued at the next J3 meeting (meeting 144).
- Editorial Issue

Richard Maine (the editor) asked: *When should edits for the two Technical Reports (Allocatable Components and Floating Point Exception Handling) be incorporated into the draft F2K standard?* It was suggested that a bullet-point list of changes to 97-007 (the draft F2K Standard) be maintained so that the list of included features and topics may be tracked. The committee's sentiment was for the editor to commence including the edits from the Technical Reports into the draft F2K standard at his earliest convenience. A new revision of the draft standard will be ready for the next J3 meeting.

- Fortran 2000 Work plan (97-010r3)  
97-010r3 was revised and edited with respect to the technical work carried out at this meeting. 98-010 will be available for meeting 144.
- R2: Syntax and Edits for Asynchronous I/O (97-262)  
The edits for this item are still incomplete, and no votes were taken.

## 5.2 MTE Processing

## 5.3 Interpretation Processing

## 5.4 Closing Business

- Administrative Issues  
The former vice-chair voluntarily took responsibility for the preparation of meeting minutes and several other inter-meeting administrative activities. The committee discussed who should organize and be responsible for carrying out these administrative duties. The current J3 chair proposed the following:

Duty	Responsibility of:
Membership Issues (including Appendices E and F of minutes, and NCITS Liaison)	J3 Chair
Assembling meeting minutes	John Cuthbertson
Scheduling Future Meetings	Librarian
Meeting Announcements and Locations	Librarian
Draft Agenda production	J3 Chair
Acting-Secretary Rota	J3 Chair & Librarian

- Next Meeting  
The committee discussed the situation regarding who should chair meeting 144. NCITS have issued a second call for the position of J3 Chair and Tony Warnock indicated his intention to stand; he is likely to be appointed in March '98. The current Chair's term ends in January '98, and the former vice-Chair was scheduled to chair meeting 144. However his absence means that there is no appointed chair for the next meeting.

Motion: (North/Maine) “In the absence of an appointed Chair or Vice-Chair, Jerry Wagener will chair meeting 144 (February ‘98).” Motion passed by unanimous consent.

### **5.5 Review of Action Items**

There were no action items outstanding and no new action items were created.

### **5.6 Future Meetings**

Meeting 144: *February 16-20, 1998* in Lafayette, Louisiana. Hotel Arcadia. Reservation deadline is February 2, 1998. The Treasurer indicated that the committee may have to pay for the meeting room.

Meeting 145: *May 25-29, 1998* in Terra Haute, Indiana. Hotel: The Drury Inn. There are two room rates for this hotel, \$54 and \$67. If ten rooms at the higher rate are reserved then the meeting room will be free; the meeting room will cost \$150 per day otherwise. It was noted that the room rate for Saturday, May 23, has been set at \$89. Flights have recently resumed into Terra Haute airport from Chicago O’Hare.

Meeting 146: *August 10-14, 1998* in either Seattle or San Diego. A hand-count vote resulted in a tie (6-6).

### **5.7 Treasurer’s Report (97-266)**

The treasurer’s report was read. Meeting 143 produced \$850 in income and approximately \$745 in expenses. Meeting fee will continue to be set at \$50.

Motion: (North/Bierman) “Exempt Bill Clodius from the meeting fee.” Motion passed by unanimous consent.

### **5.8 Closing Membership Report**

J3 has 19 members. Adams, Kearfott, and Low were absent and not represented at this meeting; Cohen and Smith were absent but were represented by Maine and Martin respectively. Keng Low is in danger of losing his membership.

### **5.9 Comments from Members**

None scribed.

Meeting 143 adjourned 10:00am.

## Appendix A

### Final Agenda for J3 Meeting 143

<u>1. Monday, November 10, 1997 8:30 am</u>	
1.1 Opening business	J. Wagener
1.2 Meeting objectives (work plan: 97-010r3) and Chair's report	J. Wagener
1.3 Adoption of agenda	J. Wagener
1.4 Approval of Meeting 142 minutes (97-233)	J. Wagener
1.5 Secretarial arrangements (J. Cuthbertson acting this meeting)	J. Wagener
1.6 NCITS/OMC report (if any)	J. Wagener
1.7 Other reports (ISO/WG5)	K. Bierman
1.8 Treasurer's report	M. North
1.9 Beginning membership report	L. Rolison
1.10 Local arrangements	M. North
1.11 Comments from members	
1.12 Discuss second call for Chair and committee leadership planning	J. Wagener
1.13 Subgroup organization	J. Wagener
1.14 Subgroup meetings	
1.15 Subgroup reports (4:30 pm)	
 <u>2. Tuesday, November 11, 1997 8:30 am</u>	
2.1 Vote on SD-3 (97-220)	J. Wagener
2.2 Required (R) items processing (97-010r3: 97-104r2, 97-146, 97-154)	Subgroup heads
2.3 /jor report on Minor Technical Enhancements (MTE) status	S. Whitlock
2.4 Organization of interpretation request processing for this meeting	S. Whitlock
2.5 Subgroup meetings	
2.6 Subgroup reports (4:30 pm)	
 <u>3. Wednesday, November 12, 1997 8:30 am</u>	
3.1 Required items processing (97-010r3, ...)	Subgroup heads
3.2 MTE processing (time permitting)	S. Whitlock
M.1 (96-138), M.6 (97-208r1), M.15 (WG5 #41),	
M.16 (97-197r1), M.17 (96-131r1)	
3.3 /jor report on Category B item status	S. Whitlock
97-126, 97-129r1, WG5 #75, 97-124, 97-159, WG5 #63, 97-163	
3.4 Interpretation processing	S. Whitlock
3.5 Interval arithmetic subprojects	K. Bierman
3.6 Subgroup meetings	
3.7 Subgroup reports (4:30 pm)	
 <u>4. Thursday, November 13, 1997 8:30 am</u>	
4.1 Required items processing (97-010r3, ...)	Subgroup heads
4.2 MTE processing (if any)	S. Whitlock
4.3 Interpretation processing	S. Whitlock
4.4 Subgroup meetings	
4.5 Subgroup reports (4:30 pm)	
 <u>5. Friday, November 14, 1997 8:30 am</u>	
5.1 Required items processing (97-010r4, ...)	Subgroup heads
5.2 MTE processing (if any)	S. Whitlock
5.3 Interpretation processing	S. Whitlock
5.4 Closing business	
Review of action items (if any)	J. Cuthbertson

Future meetings  
Treasurer's report  
Closing membership report  
Comments from members  
Adjournment

M. North  
M. North  
J. Wagener



## Appendix B

### J3 REGISTER OF DOCUMENTS FOR 1997

#### I. Standing Documents

<u>Paper Number</u>	<u>Title</u>
J3/97-000	Register of Documents
J3/97-001	Membership List
J3/97-002	Unassigned
J3/97-003	J3 Member References
J3/97-004	Journal of Requirements
J3/97-005	J3 Resolutions and Responses to WG5 Resolutions
J3/97-006	Defect Report
J3/97-007	Draft Revision to Fortran 95
J3/97-008	Editorial Considerations for 2000 Draft Review
J3/97-009	Technical Proposals for Future Revisions
J3/97-010r3	J3 Work Plan
J3/97-011 - J3/97-100	are unassigned

#### II. 1997 Papers

<u>Paper Number</u>	<u>Date</u>	<u>Submitter</u>	<u>Title</u>
J3/97-101	970117	Bleikamp	Functional Specification for Derived Type I/O (WG5-N1246)
J3/97-102	970115	Bleikamp	Syntax and Edits for Async I/O
J3/97-103	970124	Maine	Specs and Preliminary Syntax for R.3 Procedure Pointers
J3/97-104r2	970114	Maine	Specifications and Syntax for R.5 Parameterized Derived Types
J3/97-105	970118	Kearfott	Interval Arithmetic - The Data Type and Low-Level Operations
J3/97-106	970126	Cuthbertson	A Proposal for OO Features in Fortran (X3J3/96-172)
J3/97-107	961203	Hennecke	Interoperability with C and Binding to POSIX.1 (WG5-N1235)
J3/97-108	961220	Hennecke	Interoperability Technical Report (WG5-N1237)
J3/97-109	970106	Dedo	Variable Format Expressions - Technical Specification (WG5-N1241)
J3/97-110	970106	Dedo	Command Line Arguments and Environmental Variables (WG5-N1242)
J3/97-111	970112	Epstein	Part III, Conditional Compilation
J3/97-112	970117	Rolison	cpp-Like Source Processing (CoCo)
J3/97-113	970124	Kearfott	Interval Intrinsic Functions
J3/97-114r2	970122	Snyder	Proposals for Discussion for Fortran 95, Fortran 2000, and Fortran 2005
J3/97-115	970124	Dedo	Strategic Planning Assumptions for Fortran 2000
J3/97-116	970124	Dedo	General Planning Considerations for Fortran 2000
J3/97-117	970207	Clodius	Parametric Procedures and Modules
J3/97-118r1	970207	Clodius	Example Syntaxes for Parametric Procedures and Modules
J3/97-119	970207	Clodius	Critical Issues for Object-Oriented Fortran
J3/97-120	970210	Snyder	Extended TYPE and SUBTYPE Notation

for Fortran

J3/97-121	970210	Snyder	Impact of Uniform Syntax on Parallel Computation
J3/97-122	970210	Snyder	Comments on SC22/WG5/N1188: Class Inheritance and Dynamic Binding Polyorphism in Fortran 2000
J3/97-123	970210	Snyder	Alternative to N1237 and 97-108
J3/97-124	970211	Cuthbertson	/Data Category-1 Requirements
J3/97-125	970211	Bierman /HPC	Assertions
J3/97-126	970211	Bierman /HPC	IEEE I/O
J3/97-127	970211	Zongaro /HPC	Pointer Association Classes
J3/97-128	970211	Whitlock/MISC	/MISCellaneous Requirements for F2000
J3/97-129r1	970211	van Waveren	Volatile Requirement
J3/97-130	970211	Ellis	Objection to the Proposed Cancellation of Project 1.24.02.09 CD of GKS Fortran 90 Binding
J3/97-131	970211	Cohen	Single Inheritance Model
J3/97-132	970211	Cuthbertson	/Data Category-2 Requirements
J3/97-133	970212	Reid	Schedule for Fortran 2000
J3/97-134	970212	Reid	Strategic Plan for Fortran Standardization (WG5-N1151)
J3/97-135	970212	Hennecke	Required Changes to N1237 (97-108)
J3/97-136	970213	Kearfott	Interval Relational Operators
J3/97-137r1	970213	Dedo	Fortran-Like CoCo Scribe Notes (WG5-N1266)
J3/97-138r1	970213	Ellis	Content of Fortran 2000
J3/97-139	970213	Ellis	Result of SC22 Ballot on Technical Corrigendum 3 to IS 1539:1991
J3/97-140r2	970213	Wagener	Requirements Priorities
J3/97-141	970213	Bierman	Interval Intrinsic (Exceptions)
J3/97-142r2	970213	Muxworthy	Resolutions of the WG5/J3 Joint Meeting on February 10 to 14, 1997, in Las Vegas, Nevada
J3/97-143	970213	Hendrickson	Mixed Mode Interval Calculations Prohibited
J3/97-144	970213	Bleikamp	Copyin/Copyout and Async I/O
J3/97-145	970213	Cohen	Derived Type Encapsulation
J3/97-146	970213	Reid	Internationalization
J3/97-147r1	970213	Maine	Specifications and Preliminary Syntax for R.3, Procedure Pointers (97-103)
J3/97-148	970214	Ellis	WG5 Numbers for J3 Papers
J3/97-149	970214	North	Meeting 140 Treasurer's Report
J3/97-150	970214	Meissner	Meeting 140 Minutes
J3/97-151r1	970221	Dedo	Command Line Arguments and Environment Variables - Technical Specification
J3/97-152	970221	Dedo	Command Line Arguments and Environment Variables - Questions and Answers
J3/97-153	970225	Maine	Proposed Specs and Syntax for System Arguments
J3/97-154	970313	Hennecke	Interoperability of Fortran and C (First PDTR) (WG5-N1277)
J3/97-155	970407	Kearfott	Proposed Syntax - Exceptions for Interval Intrinsic Functions
J3/97-156r1	970409	Meissner	Syntax and Edits for M5: Extend Max and Min Intrinsic to Character

			Type
J3/97-157	970409	Meissner	Syntax and Edits for M6: Extend Initialization Expressions
J3/97-158	970410	Bierman	Compile Time Optimization of Point and Interval Expressions
J3/97-159	970415	Snyder	Access to Status Error Messages
J3/97-160r1	970419	Dedo	SYSTEM_CLOCK Fixup
J3/97-161r2	970419	Dedo	Lower Case and Mixed Case Syntax Elements
J3/97-162r2	970419	Dedo	Named Scratch Files
J3/97-163	970424	Dedo	Command Line Arguments and Environment Variables-Ideas for Straw Votes
J3/97-164	970424	Hendrickson	Preliminary Module Proposal for Interval Arithmetic
J3/97-165	970425	Bierman	RFI's from Robert Corbett
J3/97-166	970429	Wagener	Annual Report
J3/97-167	970505	Snyder	Comment on 97-101 - Functional Specifications for Derived Type I/O
J3/97-168	970505	Snyder	Comment on 97-102 - Syntax and Edits for Derived Type I/O
J3/97-169	970507	Maine	Procedure Variables
J3/97-170	970513	Kearfott	Properties of a good Interval Arithmetic Standard
J3/97-171	970513	Kearfott	Additional Thoughts on Interval Arithmetic
J3/97-172	970513	Kearfott	Handling IEEE 754 Invalid Operation Exceptions in Real Interval Arithmetic
J3/97-173	970513	Kearfott	On Handling of IEEE 754 Exceptions in Interval Relational Operators and Intrinsic
J3/97-174r1	970513	Maine	Procedure Variable/Pointer Examples
J3/97-175r1	970513	Kearfott	Justification for Interval Intrinsic Operators
J3/97-176	970513	Kearfott	Interval Exceptions on Non-IEEE Machines
J3/97-177	970513	/JOR	DT I/O and Async I/O Direction
J3/97-178	970514	Wagener	ISO/IEC JTC 1 N 4562 - Freely Available Access to WD's and CD's (Council Resolution 21/1997)
J3/97-179	970514	Wagener	ISO/IEC JTC 1 N 4564 - Distribution of Electronic ISO Documents
J3/97-180	970514	Kearfott	Direction for Optimal Intervals
J3/97-181	970514	Hendrickson	Module Approach to Intervals
J3/97-182r1	970514	Cohen	Dynamic Binding and Polymorphism
J3/97-183r2	970514	Cohen	Single Inheritance Model - Type Extension
J3/97-184	970514	Bleikamp	Revised Spec. for Derived Type I/O
J3/97-185	970514	Bleikamp	Revised Syntax and Partial Edits for Async I/O
J3/97-186r1	970515	Bierman	Named Expressions
J3/97-187r1	970515	Zongaro	U.S. Comments on Interoperability PDTR Ballot
J3/97-188r1	970515	Zongaro	U.S. Comments on Interoperability PDTR Ballot (III)
J3/97-189	970515	Hirchert	Comments on C Interoperability Report
J3/97-190	970515	Hirchert	Procedure Identities: Variables, Pointers, or Something Else?

J3/97-191	970516	North	Meeting 141 Treasurer's Report
J3/97-192	970516	Bierman	Meeting 141 Minutes
J3/97-193r1	970725	Dedo	Edits - Named Scratch Files
J3/97-194	970709	Snyder	White Paper on Object Oriented Programming in Fortran
J3/97-195	970709	Snyder	Single Inheritance Model - Type Extension
J3/97-196r2	970718	Cohen	Proposed Draft Syntax for Single Inheritance / Type Extension
J3/97-197	970718	Cohen	Derived - Type Assignment Fix
J3/97-198	970723	Chiriaev	Composite Functions in Interval Mathematics
J3/97-199	970723	Chiriaev	Interval Arithmetic Specifications
J3/97-200	970724	Epstein	Conditional Compilation in Fortran (Draft CD)
J3/97-201	970725	Dedo	Command Line Arguments - Technical Specification
J3/97-202r1	970729	Maine	Edits for Subobject Cleanup
J3/97-203	970731	Maine	Command Line Argument Rehash
J3/97-204r1	970801	Maine	Edits for M.2, Intent for Pointer Arguments
J3/97-205	970801	Maine	Pointer Lower Bounds and Zero Size
J3/97-206	970801	Maine	Status of F2K Edits
J3/97-207	970801	Meissner	Edits for M.5: Extend Max and Min Intrinsic to Character Type
J3/97-208r1	970801	Meissner	Syntax and Edits for M.6: Extend Initialization Expressions
J3/97-209r1	970807	Hirchert	Constructors/Destructors
J3/97-210	970807	Hirchert	Non-KIND Parameter Allocation
J3/97-211	970807	Kearfott	Recommendations for the Development of Interval Arithmetic in Fortran 2000
J3/97-212	970811	Wagener	Recommendations for the Development of Interval Arithmetic in Fortran 2000
J3/97-213	970811	Meissner	Announcement Concerning Fortran 90 Interface for OpenGL
J3/97-214	970811	Mitchell	A Fortran 90 Interface for OpenGL
J3/97-215	970811	Maine	Correspondence about F90 OpenGL Bindings
J3/97-216r2	970811	/JOR	Syntax and Edits for Async I/O
J3/97-217r1	970811	/JOR	Specs and Syntax for Derived Type I/O
J3/97-218r2	970812	Snyder	Procedure Pointer Syntax
J3/97-219	970812	Wagener	J3 Response to WG5 Resolution V4
J3/97-220	970812	Wagener	SD-3 for Fortran 2000
J3/97-221r1	970812	Martin	Review of WG5-N1301
J3/97-222r1	970812	/Interval_1	Assignment Operators
J3/97-223r1	970812	Dedo	Interoperability with C - Response to PDTR
J3/97-224r1	970813	/Interval_1	Should Intervals be Specified via a Module?
J3/97-225	970813	Maine	F95 Interp, G Editing Typo
J3/97-226r1	970813	Bierman	Standardization
J3/97-227r2	970814	Maine	Review of NISTIR 5985
J3/97-228	970814	Wagener	J3 Recommendation Regarding Interval Arithmetic
J3/97-229r1	970814	Bierman	Interval Sub-Projects
J3/97-230r1	970814	Cohen	Dynamic Dispatch (Procedure Polymorphism) Specifications and

			Illustrative Syntax
J3/97-231	970814	Wagener	Responses to WG5 Resolutions
J3/97-232	970815	North	Meeting 142 Treasurer's Report
J3/97-233	970915	Rolison	Meeting 142 Minutes
J3/97-234	970910	Wagener	Withdrawal or Reaffirmation of the ANSI F90
J3/97-235	970912	Maine	97-007r1
J3/97-236	971015	Rolison	Increased Statement Length (specs, syntax, edits)
J3/97-237	971015	Rolison	Interpretation Request # 1 Visibility of a Data Object with Statement Scope
J3/97-238r1	971015	Rolison	Interpretation Request # 2 Free Source Form Requirement for Blank in PRINT Statement
J3/97-239	971015	Rolison	Interpretation Request # 3 Ability to Overload the Character Operator //
J3/97-240	971015	Rolison	Interpretation Request # 4 Value Returned by MAXVAL/MINVAL
J3/97-241	971015	Rolison	Interpretation Request # 5 Value Returned by SELECTED_REAL_KIND
J3/97-242	971015	Rolison	Interpretation Request # 6 Character Length Specification of a Function Result
J3/97-243	971015	Rolison	Interpretation Request # 7 Optional Intrinsic Function Arguments
J3/97-244	971019	Clodius	Numeric Type Extensions and Fortran
J3/97-245	971020	Rolison	Interpretation Request # 8 Optional Arguments to MAX/MIN
J3/97-246	971020	Rolison	Interpretation Request # 9 INTENT of MOLD Argument to TRANSFER
J3/97-247	971021	Maine	97-007r2
J3/97-248r2	971023	Snyder	Edits for Procedure Pointers
J3/97-249r1	971029	Meissner	Edits for M.5: Extend MAX and MIN Intrinsics to Character Type
J3/97-250r2	971029	Meissner	Additional Edits for M.6: Extend Initialization Expressions
J3/97-251	971030	Snyder	Alternative Edits and New Syntax for Procedure Pointers
J3/97-252	971106	Rolison	Specification and Syntax for Allowing Named Constants in a Complex Constant
J3/97-253	971110	Rolison	Interpretation Request # 10 Meaning of Imbedded Blanks in NAMELIST Input Name
J3/97-254	971110	Snyder	ADA - C Interoperability
J3/97-255	971110	Bleikamp	Notes on 97-007r1 Async Edits
J3/97-256	971110	Hirchert	INITIAL   FINAL Procedures
J3/97-257	971110	Warnock	Fortran Character Set
J3/97-258	971111	Wagener	More Heat on Command Line Arguments
J3/97-259r1	971111	Dedo	Evaluation of Intrinsic Procedures
J3/97-260	971112	Warnock	Per Operation Rounding Mode
J3/97-261	971112	Hirchert	Polymorphism Issue
J3/97-262	971112	Bleikamp	Further ASYNC I/O Edits
J3/97-263	971113	Warnock	Ruminations on Interline Optimization
J3/97-264	971113	Maine	Partial Edits for R.5, PDTs

J3/97-265	971113	Hirchert	Example of Polymorphism Issue
J3/97-266r2	971231	North	Meeting 143 Treasurer's Report (Revised)
J3/97-267	971114	Cuthbertson	Meeting 143 Minutes

## **Appendix C**

### **Future Meetings and Distribution/Secretarial Assignments**

#### **Meeting conventions**

- 4 meetings per year
- attempt to schedule second full week of month
- attempt to schedule meeting back to back with WG5 annual meeting

#### Future meeting schedule:

- 144 February 16-20, 1998, in Lafayette, LA (B. Kearfott, host)  
Pre-meeting distribution deadline: January 12, 1998  
Pre-meeting distribution: Electronic  
Post-meeting distribution: Electronic  
Acting secretary: C. Dedo
- 145 May 25-29, 1998 in Terre Haute, IN (M. North, host)  
Pre-meeting distribution deadline: May 11, 1998  
Pre-meeting distribution: Electronic  
Post-meeting distribution: Electronic  
Acting Secretary: M. Cohen
- 146 Aug. 10-14, 1998 in Seattle or San Diego (M. North, acting host)  
Pre-meeting distribution deadline: July 27, 1998  
Pre-meeting distribution: Electronic  
Post-meeting distribution: Electronic  
Acting Secretary: D. Hendrickson
- 147 Nov 9-13, 1998 in Las Vegas, NV (M. North, acting host)  
Pre-meeting distribution deadline: October 26, 1998  
Pre-meeting distribution: Electronic  
Post-meeting distribution: Electronic  
Acting Secretary: Van Snyder

#### **Committee materials availability:**

Agenda and meeting notice available at the J3 ftp site.

Sent individually to other interested parties that specifically request to be sent the material either via surface mail or email.

REQUIREMENT: Distribution 4 weeks prior to meeting (SD-2 4.3.3)

Pre and post meeting distribution available at the J3 ftp site.

Sent individually to other interested parties that specifically request to be sent the material either via surface mail or email.

REQUIREMENT: Distribution of pre-meeting 2 weeks before meeting  
(documents for action - two week rule: SD-2 4.3.4:1)

Minutes available at the J3 ftp site.

REQUIREMENT: Distribution 4 weeks following meeting (SD-2 4.2.5, 4.3.6)



## Appendix D Committee Organization

### D.1 Officers

Chair	J. Wagener
Vice Chair	L. Rolison
International Rep.	K. Bierman
Secretary	Open (rotating; J. Cuthbertson acting for this meeting)
Treasurer	M. North
Librarian	M. North
Editor	R. Maine (WG5 appointment)
Maintenance	S. Whitlock
Vocabulary Rep.	K. Hirschert
Future Meetings	M. North
Membership List	K. Hirschert

### D.2 Subgroups

**JOR:** Responsible for the maintenance of the Journal of Development (standing document 004) and managing the following Fortran 2000 requirements: R.1, R.2, R.4f, R.8, and all MTEs.

**S. Whitlock (head), R. Bleikamp (alt. for T. Butler), C. Dedo, D. Hendrickson, L. Meissner**

**DATA:** Responsible for language design topics related to data and data structures, such as procedure variables, parameterized derived types, and object-oriented programming; manages the following Fortran 2000 requirements: R3, R5, R6, and R7.

**J. Cuthbertson (head), M. Cohen, K. Hirschert, K. Low, R. Maine, J. Martin (alt. for B. Smith), V. Snyder**

**INTERVAL:**

Responsible for R.4 (except R.4f) - groundwork needed for making interval arithmetic an intrinsic type.

**K. Bierman, B. Kearfott, T. Warnock**

**INTEROP:**

Responsible for R9 (interoperability with C).

**L. Rolison (head), T. Butler, H. Zongaro**

**INTERP:**

Responsible for evaluating interpretation requests, providing responses to such requests, and maintaining standing document 006. (The following "core" membership of this subgroup all have other subgroup assignments, and other members of the committee may be called upon to provide expertise for specific issues).

**S. Whitlock (head), R. Bleikamp (alt. for T. Butler), M. Cohen, L. Rolison, H. Zongaro**

## Appendix E

### Membership Summary

#### J3 Meeting Attendance (Principal Members)

Meeting #	133	134	135	136	137	138	139	140	141	142	143
Location (state)	HI	CO	CA	NV	NV	NV	NV	NV	NV	CO	NV
Date (month year)	04 95	08 95	11 95	02 96	05 96	08 96	11 96	02 97	05 97	08 97	11 97

<u>Name</u>	<u>Affiliation</u>											
Adams, Jeanne	self	RP	RP	RP	RP	RP	RP	RP	RP	P	V	A
Bierman, Keith	Sun	V	V	V	V	V	V	V	V	V	V	V
Butler, Tim	HP	A	RP	A**	R	RP	RP	RP	RP	RP	V	V
Cohen, Malcolm	NAG						P	E	V	V	V	R
Cuthbertson, John	EPC	RP	A**	RP	V	V	A	V	V	V	A	V
Dedo, Craig	self	V	V	V	V	V	V	V	V	V	V	V
Hendrickson, Dick	self	A**	V	V	V	V	V	V	V	V	A	V
Hirchert, Kurt	U of IL	V	V	V	V	V	V	V	V	V	V	V
Kearfott, Baker	self				P	V	V	V	V	V	V	A
Low Keng	Salford								P	V	A	A
Meissner, Loren	self				P	V	V	V	V	V	V	V
North, Mallory	Rose-Hulman	V	V	V	V	V	V	V	V	V	V	V
Rolison, Larry	SGI/CR	V	V	V	V	V	V	V	V	V	V	V
Smith, Brian	U of NM	V	A	A**	R**	R	A	R	R	R	R	R
Snyder, Van	JPL/Caltech								P	V	V	V
Wagener, Jerry	Zvyvogs	V	V	V	V	V	V	V	V	V	V	V
Warnock, Tony	LANL	A	V	V	A	V	V	V	V	V	V	V
Whitlock, Stan	DEC	V	V	V	V	V	V	V	V	V	V	V
Zongaro, Henry	IBM	V	RP	RP	A	V	V	A	V	V	V	V

V present and voting

R absent but represented

other voting attendees

R Maine represented M. Cohen

RP represented by a previous member  
 A absent and not represented  
 P present but not voting  
 E excused  
 Q resigned  
 \*\* missed two of last three meetings  
 \*\*\* lost membership

J Martin represented B. Smith

non-voting attendees

R Bleikamp, alternate for T. Butler  
 W Clodius, visitor from LANL

Total Membership at beginning of Meeting 143 19  
 Majority 10  
 Quorum 7  
 Total Membership at end of Meeting 143 19  
 Total Members Attended or Represented at 143 16  
 Total Attendees at Meeting 143 18

membership changes since last meeting  
 none

## Appendix F J3 Membership

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### PRINCIPALS

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