ISO/IEC JTC 1/SC 22/WG 5

Fortran

Convenorship: BSI (United Kingdom)

Document type:	Other document (Open)
Title:	Summary of voting on PDTS 18508, Additional Parallel Features in Fortran
Status:	
Date of document:	2015-07-29
Expected action:	INFO
Email of secretary:	
Committee URL:	http://isotc.iso.org/livelink/livelink/open/jtc1sc22wg5

Result of voting

Ballot Information

Ballot reference	ISO/IEC PDTS 18508
Ballot type	DTS
Ballot title	Information technology -- Additional Parallel Features in Fortran
Opening date	2015-05-27
Closing date	2015-07-27
Note	Please submit your vote by the due date indicated.

Member responses:

Votes cast (18)

Austria (ASI)
Canada (SCC)
China (SAC)
Denmark (DS)
Finland (SFS)
Germany (DIN)
Italy (UNI)
Japan (JISC)
Kazakhstan (KAZMEMST)
Korea, Republic of (KATS)
Netherlands (NEN)
Portugal (IPQ)
Russian Federation (GOST R)
Spain (AENOR)
Switzerland (SNV)
Ukraine (DTR)
United Kingdom (BSI)
United States (ANSI)

Comments submitted (0)

Votes not cast (0)

Questions:

Q.1	"Does your National Body approve the attached DTS to go forward to publication?"
Q.2	"If you approve the DTS Text with comments, would you please indicate which type ? (General, Technical or Editorial)"
Q.3	"If you Disappove the Draft, would you please indicate if you accept to change your vote to Approval if the reasons and appropriate changes will be accepted?"

Votes by members	Q.1	Q.2	Q.3
Austria (ASI)	Abstention	Ignore	Ignore

Canada (SCC)	Approval as presented	Ignore	Ignore
China (SAC)	Approval as presented	Ignore	Ignore
Denmark (DS)	Abstention	Ignore	Ignore
Finland (SFS)	Abstention	Ignore	Ignore
Germany (DIN)	Approval with comments	All	Ignore
Italy (UNI)	Approval as presented	Ignore	Ignore
Japan (JISC)	Approval with comments	Technical	Ignore
Kazakhstan (KAZMEMST)	Abstention	Ignore	Yes
Korea, Republic of (KATS)	Approval as presented	Ignore	Ignore
Netherlands (NEN)	Approval as presented	Ignore	Ignore
Portugal (IPQ)	Abstention	Ignore	Ignore
Russian Federation (GOST R)	Abstention	Ignore	Ignore
Spain (AENOR)	Abstention	Ignore	Ignore
Switzerland (SNV)	Abstention	Ignore	Ignore
Ukraine (DTR)	Approval as presented	Ignore	Ignore
United Kingdom (BSI)	Approval with comments	All	Ignore
United States (ANSI)	Approval as presented	Ignore	Ignore

Answers to Q.1: "Does your National Body approve the attached DTS to go forward to publication?"		
7 x	**Approval as presented**	**Canada (SCC)** **China (SAC)** **Italy (UNI)** **Korea, Republic of (KATS)** **Netherlands (NEN)** **Ukraine (DTR)** **United States (ANSI)**
3 x	**Approval with comments**	**Germany (DIN)** **Japan (JISC)** **United Kingdom (BSI)**
0 x	**Disapproval of the draft**	
8 x	**Abstention**	**Austria (ASI)** **Denmark (DS)**

		Finland (SFS) Kazakhstan (KAZMEMST) Portugal (IPQ) Russian Federation (GOST R) Spain (AENOR) Switzerland (SNV)

Answers to Q.2: "If you approve the DTS Text with comments, would you please indicate which type ? (General, Technical or Editorial)"		
0 x	**General**	
1 x	**Technical**	Japan (JISC)
0 x	**Editorial**	
2 x	**All**	Germany (DIN) United Kingdom (BSI)
15 x	**Ignore**	Austria (ASI) Canada (SCC) China (SAC) Denmark (DS) Finland (SFS) Italy (UNI) Kazakhstan (KAZMEMST) Korea, Republic of (KATS) Netherlands (NEN) Portugal (IPQ) Russian Federation (GOST R) Spain (AENOR) Switzerland (SNV) Ukraine (DTR) United States (ANSI)

Answers to Q.3: "If you Disappove the Draft, would you please indicate if you accept to change your vote to Approval if the reasons and appropriate changes will be accepted?"		
1 x	**Yes**	Kazakhstan (KAZMEMST)
0 x	**No**	
17 x	**Ignore**	Austria (ASI) Canada (SCC) China (SAC) Denmark (DS) Finland (SFS) Germany (DIN) Italy (UNI) Japan (JISC) Korea, Republic of (KATS) Netherlands (NEN) Portugal (IPQ) Russian Federation (GOST R) Spain (AENOR) Switzerland (SNV) Ukraine (DTR) United Kingdom (BSI)

United States (ANSI)

Comments from Voters		
Member:	Comment:	Date:
Germany (DIN)	*Comment File*	2015-07-20 12:56:11
CommentFiles/ISO_IEC PDTS 18508_DIN.doc		
Japan (JISC)	*Comment File*	2015-07-27 04:45:53
CommentFiles/ISO_IEC PDTS 18508_JISC.doc		
United Kingdom (BSI)	*Comment File*	2015-07-20 14:57:58
CommentFiles/ISO_IEC PDTS 18508_BSI.doc		

Comments from Commenters		
Member:	Comment:	Date:

Template for comments and secretariat observations | Date:2015-07-29 | Document: | Project:

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
GB	2	Introduction	5	ed	The content of the TS should not be added to the full Fortran language until it there is evidence that it can be implemented to work portably and reliably on most of the parallel systems used by the Fortran community. *This comment does not reflect all opinion in the BSI panel but it is strongly held by some members.*	Change "in the next revision" to "in a future revision".	
DE	[p9:3]	5.1	para 1	ed	improve clarity: "both sibling and ancestor" may be misunderstood.	replace "both sibling and ancestor" by "either sibling or ancestor"	
GB	27	5.2		ed	"default-initialized", with hyphen, is a defined term	Change "default initialized" to "default-initialized".	
DE	[p10:17+]	5.3	para 3	ge	the paragraph appears somewhat redundant against [p10:27-28].	Delete [p10:17-18]. In [p10:27+] replace first sentence by "A codimension-decl in a *coarray-association* associates a coarray with an established coarray identified by *coselector-name* during the execution of the block."	
DE	[p10:19+]	5.3	para 4	ge	The first sentence of the paragraph states incorrectly what is stated correctly in the second sentence.	Delete [p10:19-20].	
DE	[p10:37+]	5.3	para 8	te	In [p10:37-38], "of the current team" appears unnecessarily strict, since the later text only prescribes synchronization across the specified team.	Replace the second and third sentence in para 8 [p10:37-40] by "All active images of the team containing the executing image that is identified by *team-variable* shall execute the same CHANGE TEAM statement. When this CHANGE TEAM statement is executed, there is an implicit synchronization of all these images. "	
DE	[p11:13] [p11:17]	5.4	para 3, 4	ed	the mainline standard ISO/IEC 1539-1 has "the image index" in this context, which seems clearer.	Replace "an image index" by "the image index", twice.	
JP1	p.11, line 12	5.4		ed	The definition of "ancestor team" should be in "3 Terms and definitions".		
JP2	p.13, line 6	5.5		te	Explanation in the case of an error condition of detection of a failed image is missing in this paragraph.		
JP3	p.16, line 20	6.4		ed	typo	Replace "image image" with "image".	

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2 **Type of comment:**   **ge** = general   **te** = technical   **ed** = editorial

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
GB	6, 7	7.2		te	"Each component is fully default initialized.". This unnecessarily excludes the possibility that an implementation might use an allocatable component. There is no technical reason to forbid that.	Change "Each component" to "Each non-allocatable component". Also change "default initialized" to "default-initialized".	
GB	8	7.2		ed	The count of an event variable is part of its value. This is not clear from the text.	Change "An event variable has a count that" to "The value of an event variable includes its event count, which"	
GB	15	7.2		ed	Clause 7.2 does not make it clear that the updates to an event variable have their effects in a sequence even when the statements are not ordered. An explicit statement is needed to avoid possible confusion.	Add a new paragraph after line 26: "During execution of the program the event count of an event variable is changed only by execution of EVENT POST and EVENT WAIT statements. Each such change in the event count is associated with the unique statement execution that caused it to change; that is, the updates to the event count are sequentially consistent. Except as otherwise stated, this does not imply any ordering to the statements causing the changes to the event count."	
GB	2-4	7.3		ed	This paragraph is saying nothing that cannot be deduced from the rules on segments.	Delete the paragraph: "If the segment … processor dependent".	
GB	4+	7.3		te	It is the intention of the event feature that after posting an event, an image can continue to execute without waiting for an EVENT WAIT statement to execute on the image of the event variable. The example in Clause A.3.1 relies on this assumption. This should be made definitive.	Add a new paragraph at the end of Clause 7.3: "The completion of an EVENT POST statement does not depend on the execution of a matching EVENT WAIT statement." Delete NOTE 7.2.	
GB	21-24	7.4		te	This paragraph does not explain which segments preceding executions of EVENT POST statements for an event variable precede the segment following the execution of an EVENT WAIT statement. We need some language to "use up" EVENT POSTings in EVENT WAITings.	Replace the paragraph at page 18, lines 21-24 by "An EVENT POST statement execution is initially "unsatisfied". Successful execution of an EVENT WAIT statement with a threshold of k satisfies the first k unsatisfied EVENT POST statement executions for that event variable. This EVENT WAIT statement execution causes the segment following the EVENT WAIT statement execution to succeed the segments preceding those k EVENT POST statement executions."	

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MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
GB	25	7.4		ed	The statement "A failed image might cause an error condition for an EVENT WAIT statement" is vague and unhelpful. It has no place in a standard.	The sentence should be amplified or deleted.	
GB	25+4-25+7	7.4		te	NOTE 7.4 is not adequately supported by normative text, and is unsuitable as a note. If this point is to be made, it should be in normative text.	Replace the last sentence of the new paragraph above by "This EVENT WAIT statement execution causes the segment following the EVENT WAIT statement execution to succeed the segments preceding all the satisfied EVENT POST statement executions (including the k EVENT POST statement executions satisfied by this EVENT WAIT statement execution).". Also delete NOTE 7.4.	
JP4	p.18, line 20	7.4		te	It is not defined what the value of count becomes if an error occurs in execution of EVENT WAIT statement.	Add a definition like "If an error condition occurs, the count is processor dependent."	
DE	[p20:8-9]	8.3	para 2	te	This restriction appears arbitrary, unnecessary, and confusing, especially when considering NOTE 8.4.	Delete [p20:8-9]	
DE	[p20:10-12]	8.3	para 3	ge	The second sentence of the paragraph appears superfluous since [p20:4] already says that the same statement must be executed to invoke the collective.	Delete [p20:10-12]: "If the STAT ... team."	
JP5	p.20, line 8	8.3		te	The A argument of collective subroutines should be a coarray or a subobject of it, so that a processor does not need to implement another communication mechanism for noncoarrays than that for coarrays.		
JP6	p.26, line 38-43	8.4		te	The definition of the term "image-dependent" is not stated. This is the only place it appears.	Replace the following: "If it is a scalar, the computed value is equal to a processor-dependent and image-dependent approximation to the sum of the values of A on all images in the current team. If it is an array it shall have the same shape on all images in the current team and each element of the computed value is equal to a processor-dependent and image-dependent approximation to the sum of all corresponding elements of A on the images in the current team."	

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	Date:2015-07-29	Document:	Project:

MB/ NC[1]	Line number	Clause/ Subclause	Paragraph/ Figure/Table	Type of comment[2]	Comments	Proposed change	Observations of the secretariat
						with the following: "If it is a scalar, the computed value is equal to a processor-dependent approximation to the sum of the values of A on all images in the current team. If RESULT_IMAGE is present, the computed value can depend on the image that the RESULT_IMAGE specifies; otherwise, the computed value is the same on all images in the current team. If it is an array it shall have the same shape on all images in the current team and each element of the computed value is equal to a processor-dependent approximation to the sum of all corresponding elements of A on the images in the current team. If RESULT_IMAGE is present, each element of the computed value can depend on the image that the RESULT_IMAGE specifies; otherwise, each element of the computed value is the same on all images in the current team."	
GB		8.4.1 to 8.4.8		te	The FETCH versions of the intrinsic procedures should be rolled up with the corresponding atomic logical procedures. This would reduce the number of intrinsics by four at the expense of requiring the STAT= keyword to be specified when STAT= but not OLD= is required.	Change the specification of ATOMIC_ADD to ATOMIC_ADD (ATOM, VALUE [, OLD, STAT]) and similarly for ATOMIC_AND, ATOMIC_OR and ATOMIC_XOR.	
GB		8.4.1 to 8.4.9, 8.4.15		te	For consistency with other intrinsic procedures and statements with a STAT= keyword, keyword ERRMSG should be added.	Add optional keyword ERRMSG to the ten procedures specified, as for CO_BROADCAST etc.	
GB	18	8.4.15		ed	typo	Change "no error conditions occurs" to "no error condition occurs".	
GB	19	8.4.15		te	It is inappropriate for COUNT to be set to 0 in the event of an error. It should be set to a value such as -1 or -HUGE (COUNT).	Change "Otherwise, it is assigned the value 0" to "Otherwise, it is assigned the value -1" or alternative.	
GB	22-27	8.4.15		te	The first example is correct only if there have been no successful posts or waits in preceding segments and there are no posts or waits in an unordered segments that might affect the value. A	Line 22: After "posts or waits" add "in preceding segments, and for which there are no posts or waits in an unordered segment".	

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					similar change makes the second example correct if the query is made on EVENT instead of EVENT[2]. There are uncertainties associated with querying the value of a remote event variable that are inappropriate in a simple example.	Line 25: Change "EVENT[2]" to "EVENT". Line 26: After "specification" add "in preceding segments, and for which there are no posts or waits in an unordered segment". Line 27: Change "EVENT[2]" to "EVENT".	
JP7	p.27, line 17	8.4.15		ed	typo	Replace "that that" with "than that".	
DE	[p30:39+]	8.5.2	para 3	ge	The text should provide details on the way the result is modified.	Add a para 4 "The result is the image index in the specified team."	
DE	[p31:3]	8.5.3	para 1	ed	The word "modified" appears unsuitable, apart from being repetitive.	In line 3, replace "modified" by "extended"	
DE	[p31:4]	8.5.3	para 1	ge	"a modified result" is incorrect because MOVE_ALLOC is a subroutine.	In line 4, replace "a modified result" by "modified semantics of execution"	
DE	[p31:39+]	8.5.4	para 3	ge	The text should provide details on the way the result is modified.	Add a para 4 "The result is the number of images in the specified team."	
GB	page 51 lines 47-52	A.3.2			The EVENT QUERY statement at line 47 and the test on its STAT value at line 48 is no longer needed with the removal of the concept of stalled images. There is no harm in creating a work item for an image that might have been detected as failed because it can be treated later in exactly the same way as if the image had failed during work on it. Also, the comment should refer to the master loop and there is no need to mention stalling.	Replace lines 47-52 by: work_item[i] = create_work_item(kk) EVENT POST (submit[i],STAT=status) ! If image i has failed, the failure will be handled on ! the next iteration of the master loop.	

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