

WG 14 N1794

WG14 CFP meeting minutes for the meeting of 2014/02/13

2014/02/13, 9:00 PST/12:00 EST:

Attendees: Jim, Mike, Rajan, Ian

New agenda items:

None.

Old action items:

Jim: Look into using the Wiki as a backup for the documents in Word format. - Most current version has been put up with PDF as well. Keep this item open. - Continuing to be done

Jim: Part 4: Look for opportunities for shortening function lists by removing suffixes. - Not done - Close item since there does not seem to be a good way.

Jim: Part 3: Bring up the clause letter numbering issue at the WG14 meeting and get direction on where to put it (since the C Standard editor is normally there). - Done

Jim: Part 3: Page viii: Reword to make the double format types clearer. (Joseph's 2014/01/06 email) - Done

Jim: Part 3: Fix the typo's listed by Joseph. (Joseph's 2014/01/06 email) - Done

Jim: Part 3: Page 3: Add in the macro as suggested. (Joseph's 2014/01/06 email) - Done

All: Part 3: Page 9: Look at this and decide what we should do for decimal floating types. (Joseph's 2014/01/06 email) - Done

All: Part 3: Page 11: Look at this and decide what we should do for the `_FloatN*` types and how to make it clearer what we want. (Joseph's 2014/01/06 email) - Done

Jim: Part 3: Page 32: Item 2: Mark this as an open issue. (Joseph's 2014/01/06 email) - **Not done**

Jim: Part 3: Page 32: Item 3: Check and add if needed. (Joseph's 2014/01/06 email) - Done

Jim: Part 3: Page 34-36: Check and add if needed. (Joseph's 2014/01/06 email) - Done

Jim: Part 4: Create a spreadsheet of log and exp functions and list the alternatives to see which conventions are being broken. - Done

All: Part 4: Group to review the spreadsheet above and choose the best (least worse) naming scheme. - Done

Jim: Part 4: Attempt to make the changes as described in the "General comment" part of the email. (Joseph's 2014/01/07 email) - Done

Jim: Part 4: Fix the typo's listed by Joseph. (Joseph's 2014/01/07 email) - Done

Jim: Part 4: Page 3: Item 2: Look into how to address this. (Joseph's 2014/01/07 email) - Done

Jim: Part 4: Page 14: Add in a footnote to the end of the description saying "cr" stands for correctly rounded. (Joseph's 2014/01/07 email) - Done

Jim: Part 4: Page 16: Item 2: Look into rewording (ex. remove NaN specifications) to make this clearer. (Joseph's 2014/01/07 email) - Done

Next Meeting:

March 18th, 2014, 12:00 EDT, 9:00 PDT

Same teleconference number.

New action items:

Jim: Backup the documents in Word format. - Most recent versions have both PDF and Word versions posted. Keep this item open.

Jim: Part 3: Add explanation of type classification somewhere in the TS or changes to the standard document.

Jim: Page 22: See about breaking the paragraph up to make it clearer (maybe bullets).

Jim: Page 44: Remove dN and dNx since there are no complex decimal types.

Jim: Page 6: Talk to Fred to see if he is OK with the errors.

Jim: Page 15: Move the cr prefix new text to a footnote.

Jim: Page 23: Typos (changes 2 and 3): scaled_prod -> scaled_proddiff, scaled_prod -> scaled_proddiff

Rajan: Ask WG14 why pole errors are specified the way they are in the C meeting.

Discussion:

Part 1: Out for ISO DTS ballot. Ballot ends March 5th, 2014.

No comments so far.

Part 2: Out for first ISO ballot (PDTs). Ballot ends March 10th, 2014.

No comments so far.

Part 3: (<http://wiki.edg.com/twiki/pub/CFP/WebHome/n1789.pdf>)

Page 19-20:

Mike: It would be nice to have a single page lookup for the terms like decimal types and binary types.

Jim: The C standard has a section on terms. We can add them there (Section 3).

Rajan: Maybe put them in the TS terms (Section 4 new subsection for new terms) since the standard doesn't have things like integer types definitions in section 3.

Mike: Just a list of terms and where they are defined would be good.

*ToDo: Jim: Part 3: Add explanation of type classification somewhere in the TS or changes to the standard document.

Mike: Probably too late for Part 1 and 2, but it is reasonable to put them in this part since this is where we introduce most of them.

Jim: Talking about part 3, it has been useful to show the type tree. This could be added to the TS.

Subsequent changes: (<http://wiki.edg.com/twiki/pub/CFP/WebHome/cfp3-20140207.pdf>)

*ToDo: Jim: Page 22: See about breaking the paragraph up to make it clearer (maybe bullets).

*ToDo: Jim: Page 44: Remove dN and dNx since there are no complex decimal types.

Agreed to send to the mailing after the fixes listed above in ToDo's.

Agreed to propose moving this to WG14 review and then PDTs ballot.

Part 4: (<http://wiki.edg.com/twiki/pub/CFP/WebHome/n1790.pdf>)

Page 3: We added logp1.

*ToDo: Jim: Page 6: Talk to Fred to see if he is OK with the errors.

*ToDo: Jim: Page 15: Move the cr prefix new text to a footnote.

Page 16: David and Marius would be good to go over this.

*ToDo: Jim: Page 16: Talk to David, Marius, and Fred to see if they can carefully review the special cases on the functions.

Page 17: Could go either way, but in practice likely not going to make a difference. Note that the compoundn NaN case would quietly return a NaN which is different from IEEE.

*ToDo: Jim: Page 23: Typos (changes 2 and 3): scaled_prod -> scaled_proddiff, scaled_prodsum, scaled_prod -> scaled_proddiff

Subsequent changes: (<http://wiki.edg.com/twiki/pub/CFP/WebHome/cfp4-20140207.pdf>)

Page 3: The WANT macros for DFP require the DFP WANT macro for 32/64/128 and TYPES WANT macro for the extended types. This is awkward.

Page 9: Why did C11 say "may occur" for pole errors? If there is a good reason, we should do the same, if not, should we try to fix this?

The description in 7.12.1p3 says log(0.0) is a pole error, but in the definition of the log function does not say a pole error must occur, only may occur.

Rajan: We should keep the C11 style since may is weaker than must and it won't break anyone.

*ToDo: Rajan: Ask WG14 why pole errors are specified the way they are in the C meeting.

For the draft, we will follow the C11 style.

Page 15: There was a suggestion to add in more functions. This list was basically what was in 754 (except three of the pi functions). Ex. Add in erf.

Don't want scope creep so we will keep the existing list and not add new ones.

Related: Add in correctly rounded reduction functions.

David gave papers which showed reproducibility but not necessarily correctly rounded.

Same argument about scope creep.

Agreed to send to the mailing after the fixes listed above in ToDo's.

Regards,

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