C Floating Point Study Group Teleconference

2015-08-25
9 AM PDT / 12 PM EDT

Note taker, mail out notes – Jim

Attendees -- Rajan, Vincent, Ian, David, Blaine, Jim

Approval of agenda
 Defer discussion of implementation status – awaiting more input, Marius expects to attend next month.
 Add discussion of email proposal from Jim about wide evaluation and math functions

David reported on 754 activities
 He has been asked to lead the upcoming review
 Will try to limit changes to corrections, editorial and non-controversial items
 Doesn't foresee changes that would affect us
 Deadline to finish 2018

Notes from 2015-07-07 meeting are posted on CFP wiki

Carry-over action items

Ian: Talk to Michael Wong and Lowell regarding proposing this IEEE-754: 2008 binding to C++ as well -
 Keep open
 Michael Wong meeting deferred until 2 days from now.
 Met with Hubert Tong – strongly opposes synonyms for float, double (our types are separate types)
 Intel has __float128 with different suffix and I/O, AMD has __float16, gcc has these on some machine
Jim: Part 5: Add in examples of ASAP and Delayed Goto pragma's in the same block and in different orders. - CLOSE - removed goto actions in favor of try/catch style ones, added examples for try-catch style actions
Jim: Part 5: Add in a new issue - Is it worth adding expression evaluation methods that widen the library functions as well as the operators (that is already there)? - CLOSE - email proposal sent out
David: Part 5: Provide a mechanism (a new #pragma?) to allow implementations to possibly not propagate constant modes (rounding, exceptions). - Email sent out (May 20th, 2015) – KEEP OPEN

Action items from 2015-06-11 meeting

Jim: Part 5: Page 2: alternate exception handling attribute -> alternate exception handling attribute*s* - DONE

Jim: Part 5: Add in words to make the FENV_ALLOW_* pragma's apply only to the floating types (which includes complex) - DONE

Jim: Part 5: Write up the paired immediate and delayed try/catch's – DONE- in docuemnt

Jim: Contact Marius to see what Intel has done to fill in the Parts 1 and 2 feature list documents - DONE

Rajan: Contact Joseph to see what GCC has done to fill in the Parts 1 and 2 feature list documents - DONE

New Action Items

All to review 7.6.1f.2 (in part 5, Aug 28) and report by email

Jim to change P 14#5 to say something like "for the listed exceptions"

Jim to write up change to disallow exceptions from appearing in more than one catch or delayed-catch list

Jim to try putting the input/results for the examples in a table

Jim to improve wording in last NOTE – change "delayed-catch" to "delayted-try and delayed-catch" – clarify that last statement applies to try-catch – change "should" to something like "might well be able to"

Jim to write up specification from email proposal about evaluation methods and math functions and include it in the draft

Next meeting date: Tuesday, Sep 15

Note: next WG14 pre-meeting mailing is Sep 28

Parts 3, 4 – report publication status

David Keaton reports that the proofs for parts 3 and 4 were registered into the ISO system at the end of July. He will check status with them again on September 1. He wants to make sure they pick up a correction in part 4.

Part 5 – review teleconf-group draft, resolve issues, assess readiness for WG 14 mailing

Referring to July 28 draft …

Switched to ISO style. Font and formatting, boilerplate text.

P 1. Do we really want two levels of conformance? Decided to stay with the two levels and get input from WG14.

P 2. Avoided use of "block"

P 3. Put action before except-list

P 5. Clarified that allow pragmas apply to floating types (including complex). Already in 7.6.1e#1

P 11. List of restrictions on reproducible code needs review

IA: all to review 7.6.1f.2 and report by email

P 14#5 added -- AI: Jim to change specification For the listed exceptions (specified for the pragma)

P 16. Still issues with NO_FLAG and OPTIONAL_FLAG? Discussed but ended with no change.

P 16 (not in distributed draft) Changes in woding for break action – sent by email to teleconference group during meeting

P 16. New text for try-catch style actions, goto removed – walked through new specification

Disallow exceptions in more than one delayed-catch – NOTE to mention to WG14 – IA Jim: write up change to disallow exceptions from appearing in more than one catch or delayed-catch list

IA: Jim try putting the input/results for the examples in a table

IA: Jim fix wording in last NOTE – delayed-try and – last statement applies to try-catch – change "should" to something like "might well be able to"

Email form Jim, Aug 24, about a way for evaluation methods to affect tgmath functions -- IA: Jim write up and include in draft

Meeting ended at 1:58 PM EDT / 11:58 AM PDT