C Floating Point Study Group Teleconference

May 22, 2018
9 AM PDT / 12 PM EDT

Conference ID: 82968194
Toll-free Dial-in number: 1-888-426-6840
Other (International) Dial In Numbers:
    https://www.teleconference.att.com/servlet/glbAccess?process=1&accessCode=82968194&accessNumber=2158616239#C3
Screen sharing: https://apps.na.collabserv.com/meetings/join?id=1950-7849, Password: cfeisdygk
  Wiki: http://wiki.edg.com/twiki/bin/login/CFP/WebHome

Draft Agenda

Meeting logistics
    Note taker, mail out notes - Rajan

Introduction of attendees

Approval of agenda

Notes from 2018-04-10 meeting
    Posted on CFP wiki

Carry-over action items
    Ian: See if there is an incompatibility between C and C++ for constants being evaluated to a wider format (Ex. FLT_EVAL_METHOD affects constants in C++, and wider return values) - Keep open (Hubert: Not defined and left up to C)
    Jim: Update the binding table in parts 1 and 2 to handle the new IEEE-754:2018 functions when published.
    Jim: Re-update activities list.
     Fred: http://wiki.edg.com/pub/CFP/WebHome/in_flight-20180313.pdf See where we are for inconsistent spec for infinities.

Action items from 2018-04-10 meeting
    Jim: Look at what is said in exception handling and make sure remainder underflow is addressed as per Jim's/Fred/David's email regarding 18661-1 and 754 (2018/04/09).
    Jim: 754 compatibility: roundeven: Put in the parenthetical (conclusion) into part 1 as per Jim's response to David on the 2018/04/09 email.
    David: Check the min/max C specification to ensure it matches what IEEE has.
    David: Check the augmented* C function specifications to ensure they match what IEEE has.
    David: Evaluate the 18661-4 tanpi and ensure it is not a bad idea. Also ask 754 what we (CFP) should do with it.
    All: Look at Fred's 2018/02/19 email titled "18661-2 and 754".
    Jim: Integrate the 2018/04/05 DR13 change into N2213 and get a new N document so we can talk to that in WG14.

Jim: Part 4: Change the exp10m1 description to allow underflow range errors.

Study group logistics
Next meeting date: Tuesday, June 19?

WG14 Spring 2018 meeting
Rajan's April 26 email "WG14 Spring 2018 meeting summary for C FP"

IEEE 754 revision

C++ liaison

Action item details
Exception handling and remainder underflow
Jim's May 8 email "AI about remainder underflow"

Editorial change for roundeven, in part 1

Min/max C specification matches IEEE?

Augmented* C function specifications match IEEE?

754 input about whether to keep tanpi

Fred's 2018/02/19 email "18661-2 and 754"

2018/04/05 CR13 change and N2213

Change for exp10m1 to allow underflow range errors

Consistency for infinities

Other issues
From WG14: CFP to come back with: a new suggested C11-only change based on CFP DR20 for C DR501; and TS-only changes in CFP DR20.

WG14 process for CFP CRs

Binding for IEEE 754-2018
WG14 paper about updating to IEEE 754:2018
Functions for augmented arithmetic
Min/max functions
Payload functions
Total order functions

C2x integration

Activities
Review activities in progress

Deferred issues
C standard use of "floating" vs "floating-point"