

**WG14 N2206**

## **C Floating Point Study Group Teleconference**

March 13, 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 2018-02-20 meeting**

Posted on CFP wiki

#### **Carry-over action items**

Jim: Update the binding table in parts 1 and 2 to handle the new IEEE-754:2018 functions when published. - Keep open.

Jim: Re-update activities list.

#### **Action items from 2018-02-20 meeting**

Rajan: Ask Ian if he knows of someone who can take over the C++ liaison role for him.

Unassigned: C footnote 232 uses the extraordinary roundoff error aspect from IEEE that was taken out in the IEEE 2008 draft. Fix this?

Jim: Add in part of the note for the pow function in part 1 somewhere as a change to F.3 to restate that the specifications should match IEC 60559.

Jim: Get a DR against part 4

for [http://wiki.edg.com/pub/CFP/WebHome/DR\\_for\\_missing\\_specification\\_of\\_preferred\\_quantum\\_exponents.pdf](http://wiki.edg.com/pub/CFP/WebHome/DR_for_missing_specification_of_preferred_quantum_exponents.pdf).

Fred: Put the words for the roundTiesToEven with a change to Annex F as a part 1 DR as per his note on 2018/02/18 with the change of "which could produce" -> "whose nearest neighbors are".

Jim: [http://wiki.edg.com/pub/CFP/WebHome/changes\\_for\\_obsolescing\\_DECIMAL\\_DIG.pdf](http://wiki.edg.com/pub/CFP/WebHome/changes_for_obsolescing_DECIMAL_DIG.pdf): Make the changes to the type\_ to reflect the FLT, DBL and LDBL prefixes.

Jim: TS DR15 ([http://wiki.edg.com/pub/CFP/WebHome/DR\\_for\\_macros\\_for\\_non-arith\\_formats-20180211.pdf](http://wiki.edg.com/pub/CFP/WebHome/DR_for_macros_for_non-arith_formats-20180211.pdf)): Change "Suggested" to "Proposed", "into a proposed" -> "as is into a proposed"

Fred, Rajan: Check if the \_Generic replacement suppress macro expansion.

Jim: Get a new N document for the new proposed TC for TS DR16.

Jim: Write up the TS DR13 2018/02/18 Jim's email as a suggested TC.

David: Look into the IEEE binding differences to see if they are real issues (from Fred's email on 2018/02/18).

## Study group logistics

Next meeting date: Tuesday, April 10?

TS working drafts with integrated DRs and editor fixes

## IEEE 754 revision

## C++ liaison

## Action item details

C footnote 232 and extraordinary roundoff error – Fred and Jim email Feb 21-22 “AI about underflow and extraordinary roundoff error”

Note to emphasize consistency with IEC 60559 – Jim email Mar 4

DR about roundTiesToEven

Changes for obsolescing DECIMAL\_DIG – Jim email Feb 21 “AI changes\_for\_obsolescing\_DECIMAL\_DIG: Make changes to the type\_ to reflect the FLT, DBL and LDBL prefixes”

New TC for TS DR 16 – Jim email Feb 24-27 “AI about revised TC for TS DR 16 about tgmth cbrt macro”

TS DR 13 – Jim email Feb 23 “AI write up new suggested TC for DR13”

IEEE binding issues

## Issues

Does CR\_DECIMAL\_DIG have the same issues as DECIMAL\_DIG?

## 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”