WG14 N2766

C Floating Point Study Group Teleconference

June 23, 2021
11:00 AM EDT, 8:00 AM PDT, 3:00 PM UTC

Join from PC, Mac, Linux, iOS or Android:
https://iso.zoom.us/j/97487352962?pwd=SFE0UnRzdGg0VFdtcmV5VUNMQWczdz09
Password: 984538

Or iPhone one-tap :
US: +16692192599,,97487352962# or +16699006833,,97487352962#
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 669 219 2599 or +1 669 900 6833 or +1 213 338 8477 or +1 408 638 0968 or +1 720 928 9299 or +1 971 247 1195 or +1 206 337 9723 or +1 253 215 8782 or +1 346 248 7799 or +1 602 753 0140 or +1 301 715 8592 or +1 312 626 6799 or +1 470 250 9358 or +1 470 381 2552 or +1 646 518 9805 or +1 646 876 9923 or +1 651 372 8299 or +1 786 635 1003 or +1 267 831 0333 or 877 853 5247 (Toll Free) or 888 788 0099 (Toll Free)
Meeting ID: 974 8735 2962
Password: 984538
International numbers available: https://iso.zoom.us/u/aeB3R2ws49

Or Skype for Business (Lync):
https://iso.zoom.us/skype/97487352962

CFP Wiki: http://wiki.edg.com/twiki/bin/login/CFP/WebHome

Draft Agenda

Meeting logistics

Note taker, mail out notes

Introduction of attendees

Approval of agenda

Notes from 2021-05-19 meeting

Posted on CFP wiki

Study group logistics

Next meeting dates: Wednesday, July 21?

C++ liaison

Inquiry about C++ proposal for “Extended floating-point types and standard names”
Other?

C23 integration

Latest C2X drafts:

http://www.open-std.org/jtc1/sc22/wg14/www/docs/n2596.pdf
http://www.open-std.org/jtc1/sc22/wg14/www/docs/n2573.pdf
http://www.open-std.org/jtc1/sc22/wg14/www/docs/n2478.pdf

Part 1
Part 2
Part 3
Part 4ab
Part 5abcd
IEC 60559:2020 support

Carry-over action items

None

Action items from 2021-05-19 meeting

Fred: WG14 N2714 Add "a" before "NaN" in last bullet.

Fred: Default static init [CFP 1990]: rewrite as:
zero, and if it has DFP type, the quantum exponent is implementation defined;
(not sure about "quantum" here)
(look at C std to see if bullet list ends in ; not .)
Do changes, and submit to WG14.

Fred: cr_ prefix [CFP 1967] N2715: Submitted to WG14. Make sure last sentence of paragraph is kept when discuss with WG14.
N2715 2021/05/09 Tydeman, cr_ prefix

Jim: [CFP 1997]: Range error definition as union of overflow and underflow.
Change "below" in footnote to "In this subclause".
Do that change and submit to WG14.Submit to WG14.
N2745 2021/05/30 Thomas, C23 proposal - range error definition

Jim: [CFP 1997]: Range error definitions of overflow and underflow.
Overflow: "ordinary accuracy" not defined, but OK.
Underflow: exact minimum normal is underflow. Seems wrong. But no better wording.
AI: Jim Submit to WG14.

- [Cfp-interest 2006] Re: AIs related to range errors clarifications *Fred J. Tydeman*
  - [Cfp-interest 2007] Re: AIs related to range errors clarifications *Jim Thomas*
    - [Cfp-interest 2008] Re: AIs related to range errors clarifications *Fred J. Tydeman*
      - [Cfp-interest 2009] Re: AIs related to range errors clarifications *David Chen*
      - [Cfp-interest 2011] Re: AIs related to range errors clarifications *Jim Thomas*
      - [Cfp-interest 2010] Re: AIs related to range errors clarifications *Jim Thomas*
  - [Cfp-interest 2012] Re: AIs related to range errors clarifications *David Hough CFP*
    - [Cfp-interest 2013] Re: AIs related to range errors clarifications *Jim Thomas*

N2746 2021/05/30 Thomas, C23 proposal - overflow and underflow definitions

Jim: [CFP 1997]: Annex F overflow and underflow
Reword footnote 403.

Submit to WG14.
N2747 2021/05/30 Thomas, C23 proposal - Annex F overflow and underflow

Jim: [CFP 1997]: feraiseexcept: traps and alternate exceptions.
Fix “IECC” and submit to WG14.
N2748 2021/05/30 Thomas, C23 proposal - effects of fenv exception functions

Jim: Annex F binding: CFP 1998, CFP 2002
Add 'however' to F.3
Redo 7.31.8 reference: Reserves cr_ prefix names for ...
N2749 2021/05/30 Thomas, C23 proposal - IEC 60559 binding

Rajan: Post to list results of discussion of next steps
w.r.t. shorthand for functions in C standard.

Jim, David, Fred: [CFP 1991]: WG14 N2642. "observation" is weird. Breakup in two sentences.
Finite result is implementation defined - footnote: not specific in 754,
but a possible definition is 0. Rework and resubmit to WG14.

Other issues

Implementation defined macro values

- [Cfp-interest 2024] values of FE_TONEAREST... *Paul Zimmermann*

Others?