WG21 2016-06-10 Telecon Minutes

ISO/IEC JTC1 SC22 WG21 N4595 - 2016-06-15

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Teleconference information:
  Date:     2016-06-10
  Time:     8:00am N.Am. Pacific Time
  Duration: 2 hours
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1. Opening and introductions

1.1 Roll call of participants

- Herb Sutter
- Nathan Wilson
- Clark Nelson
- Tom Plum
- John Spicer
- Barry Hedquist
- Marshall Clow
- Walter Brown
- Mike Miller
- JC van Winkel
- Nevin Liber
- Gabriel Dos Reis
- Bjarne Stroustrup
- Lawrence Crowl
- Jonathan Wakely
- Jeffrey Yasskin
- Daniel Garcia
- Michael Wong
- Ville Voutilainen
- Alexander Kondratskiy
- Hans Boehm
- Rob Douglas

1.2 Adopt Agenda

The agenda in [N4591](#) was adopted by unanimous consent.

1.3 Approve minutes from previous meeting (deferred to face-to-face

meeting)

1.4 Review action items from previous meeting (deferred to face-to-face meeting)

1.5 Review of project editor and liaison assignments

[Current Status](#) shows assignments.

2. Status, liaison and action item reports

2.1 Subgroup status reports (CWG, LWG, EWG, LEWG)

Core report.

Miller reported major impetus is to process proposals intended for C++17, and secondarily any additional TSs. Work queue is on the wiki, 8 papers targetted for C++17 and 3 papers for a TS, ready for core to look at. 7 core issues with Tentatively Ready status to be brought forward for vote, but not a lot of issue processing done between meetings.

Probably spend some joint time with SG1 for forward progress discussion to get some clarification.

Evolution report.

Overall goal to get CD out, improving features and consensus. 25 papers targetting EWG, but very small minority are C++17 related. Small handful of papers from Jacksonville that weren't looked at.

Requests that Miller rein in any design discussions in CWG and sends them to EWG.

Library report.

Clow reports full plate, some papers left over from Jacksonville, listed on the wiki. Roughly 20 papers targetting C++17. Two papers coming straight to LWG without going through LEWG. Might be a small number of papers coming from LEWG during the meeting. About 30 issues that were worked on in Jacksonville and a recent telecon. Five priority 1 issues outstanding that are considered stop-ship issues for C++17. Any time left over will be devoted to issue processing and Networking and Ranges TS.

Voutilainen asked what the backup plan is if not all LWG papers targetted for C++17 are looked at. Clow said that the fall Library-only meeting in Chicago could be used. Voutilainen said that only what's ready should go into the CD, and anything else that people feel strongly about would need to be handled in response to NB comments on the CD. Sutter said that adding major features in response to NB comments is not

Wakely asked whether the Chicago meeting would be an official WG21 meeting or like the Cologne meeting. Sutter pointed out that either way any LWG papers dealt with would have to be queued

for post CD ballot anyway.

Sutter asked about the status of the Networking and Ranges TS, and whether a different process to deal with them would help. Voutilainen and Miller said that a more cursory review for TS material would not be wise. Sutter suggested that assigning one or two people who are responsible for shepherding wording to do a review, rather than a full working group, and get them to bless the wording for acceptance. Yasskin agreed with Sutter that getting defect reports against material that had been published in a TS is expected, and not an indication that the TS review process was not thorough enough. Yasskin was in favor of having one or two people do the thorough review rather than the full group. Stroustrup said that small groups of dedicated experts works better than a full group all trying to get up to speed at a meeting, but said 3-4 works better than 1-2.

Clow would also like to have a discussion in Oulu about a missing step of "integrate the TS into the standard", where existing facilities are reconsidered in light of the new features, rather than treating integration as purely an editorial task of adding wording. There isn't any chance to gain implementation experience with the TS content incorporated into the IS. Yasskin requested that the discussion happens off the call.

Volunteers for reviewers for Networking TS and Ranges TS will be asked for at plenary.

Douglas asked about plans for the Chicago meeting, Sutter requested that he discuss it with Clow after Oulu.

Library Evolution report.

Yasskin said there are 5-10 papers affecting C++17 things, such as how string_view is used in the library. Lots more papers affecting future evolution of the library, for the next version after C++17. One of the papers being looked at as possibly in scope for C++17 is variant.

2.2 Liaison reports

2.2.1 Study Group reports

SG1 report - Boehm reported a couple of things that are unlikely to happen, but need to be looked at. There's a suggestion to temporarily deprecate memory_order_consume, which Voutilainen is not interested in discussing in EWG. Agreed to send it straight to LWG. Also have Voutilainen's paper on thread destruction. Parallelism TS and Concurreny TS both aiming for feature complete in Oulu. Also a late paper submitted regarding memory models for data structures and future directions of SG1 proposals, Yasskin said LEWG would probably want to see it, but that SG1 should come up with suggestions for LEWG to agree with, rather than starting in LEWG.

Wong made some suggestions about scheduling of SG1 discussions and Boehm suggested an evening session on heterogeneous devices.

SG2 Modules inactive

SG3 Filesystem inactive

SG4 Networking inactive

SG5 TM - active, meeting every two weeks, worked slowed down a bit. One new paper adding an API to distinguish whether code is inside a transaction or not. SG5 unlikely to meet in Oulu, no hurry for EWG to consider this for the TM TS v2. Waiting for implementation experience to come from GCC's support in order to determine which features are suitable for the IS.

SG6 Numerics - Crowl not attending Oulu meeting, not expecting SG6 to meet or make any progress in Oulu.

SG7 Reflection - held an evening session in Jacksonville. Voutilainen believes there is a plan to meet in Oulu and work on the preferred proposal, but not likely to send anything to EWG yet.

SG8 Concepts - inactive

SG9 Ranges - inactive

SG10 Feature test - Nelson not expecting to meet in Oulu. Mentioned that SG10 already tracks new features in the standard, so is a useful place to look for lists of new features.

SG11 Database - inactive

SG12 Undefined and Unspecified behaviour - not planning to meet in Oulu.

SG13 HMI - proposal author will be in Oulu, LEWG plan to look at it. Voutilainen noted that SG14 has a number of experts that should be interested in the graphics proposal and should be encouraged to engage.

SG14 Low latency - Wong planning an evening session on SG14 progress. Interest in heterogeneous computing, allocators, and exception handling. Stroustrup says that the material has potential to distract from a CD in Oulu, and people are unlikely to have much time to spend on SG14 material. Been discussing with financial and embedded domains, not just games.

Dos Reis reported a difference in the grammar in the draft Modules TS and the proposal approved in Jacksonville which was an editorial error and has been corrected.

2.2.2 SC22 report

Sutter reports there is nothing major affecting WG21. Some discussion whether the US will continue to hold the secretariat.

2.2.3 SC22/WG14 (C) report

Nelson reported WG14 are seriously discussing a new revision of the C standard.

3. New business

3.1 Review of priorities and target dates

Current Status -- CD this year, maybe DIS out of Kona.

Sutter asked whether any PDTS is expected from Oulu. Voutilainen asked about the status of the LFTSv2 ballot. It's in process, but somewhat delayed as we're focusing on C++17 first.

Sutter reported feedback about reducing the cycle between standards to two years, with a number of people expressing concern about going to two year cycles. Wong expressed the opinion that moving to two years is necessary. Others expressed concern that changing the cycle wouldn't change the culture of the committee. Liber wants to see things in a working paper faster, not see more regular standards. Clow said that the run up to a new standard involves lots of work for LWG, and probably CWG, and that doing that every other year would leave very little time for anything else. Voutilainen gave the opinion that if we had published a CD a year ago it would have had no new features at all, because nothing was ready then. Yasskin ready to drop the proposal for two year cycles.

3.2 Review of current mailings

None.

3.3 AOB

None.

4. Review

No resolutions or action items.

5. Closing process

5.1 Establish next agenda

Sutter to reorder subgroup status reports for next time.

5.2 Future meetings (deferred to face-to-face meeting)

Offer to use Webex for future telecons.

Clow added a library issue processing evening session to the wiki, but mentioned that it's a placeholder and can be moved to another evening in case of conflicts.

5.3 Future mailings (deferred to face-to-face meeting)

5.4 Adjourn

Adjourned at 10:07am.