

WG21 pre-Kona tele-con minutes

ISO/IEC JTC1 SC22 WG21 N4801 — 2019-02-08

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Convener: Herb Sutter
SC22/WG21 pre-meeting telecon
Friday 2019-02-08
08:00 N.Am. Pacific Time

1 Opening and introductions

1.1 Roll call of participants

- Herb Sutter
- David Sankel
- Bryce Adelstein Lelbach
- Roger Orr
- J. Daniel García
- J.C. van Winkel
- Jens Mauer
- John Spicer
- Ville Voutilainen
- Hubert Tong
- Michał Dominiak
- Mike Miller
- Thomas Schunior Plum
- Titus Winters
- Tom Honermann
- Walter Brown
- Chandler Carruth
- Olivier Giroux
- Barry Hedquist
- Hans Boehm

- Marshall Clow
- Hal Finkel
- Lawrence Crowl
- Nina Ranns
- Michael Wong
- Gabriel Dos Reis

1.2 Adopt agenda

No objections to adopting the agenda.

Agenda approved.

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

- <http://isocpp.org/std/status>

Any changes ?

None.

2. Status, liaison and action item reports

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

2.1.1 CWG , Mike Miller

Mike presents.

CWG will be prioritising papers for C++20. Thank you to Jens for the help with organising the papers. There are 17 papers ready for review, and 8 or so that are in EWG pipeline. That will take most of the time in Kona. CWG will be doing issue processing if there is time. There have been 3 telephone conferences since San Diego and, with the issues that have been processed in San Diego, there are about 30 resolutions ready for this meeting. CWG will try to prioritize the papers that are expected to go through CWG more than once. Please get in touch if you have any requirements for scheduling and review.

2.1.2 EWG, Ville Voutilainen

Ville presents.

There are about 60 papers on the schedule, including those involving contracts, modules and co-routines. Some papers will be sent to the EWG incubator. The schedule is not complete yet, but it should be completed shortly. EWG has a very packed agenda, and the usual prioritisation rules apply. Thank you to Jens for the paper management tool.

2.1.3 LWG, Marshall Clow

Marshall presents.

There are almost 60 papers on the schedule for Kona. The schedule is up on the wiki. LWG will be prioritising those aimed at C++20. There are also several large unknowns like Networking TS, text processing, jthread, and signed vs unsigned issues, which may upset the schedule. There are also fair number of issues to move. LWG is planning to do issues processing on Wednesday evening.

Thank you to Jens for the paper management tool.

2.1.4 LEWG, Titus Winters

Titus presents.

LEWG had a large number of papers in the mailing. If we continue with the same velocity as in San Diego, we should be able to get through all the papers targeted for C++20. Major focus will be on the medium sized features which have been agreed as items to priorities in the previous LEWG meetings, as well as looking into the remaining issues with ranges library, spaceship operator, and text formatting. There is also large amount of work to be done for executors, including a novel customisation property mechanism which is a user-extensible set of properties that are compile time queryable. Thank you to Jens for the paper management tool.

2.2 Liaison reports

2.2.1 Study Group reports

Reports from the following active SGs:

SG1, Concurrency: Olivier Giroux

Olivier presents. Olivier will not be attending the meeting, Michael Garland will be running the group in Olivier's absence. Almost half the normal number of papers to process in Kona, SG1 will probably be adjourning early. There is a number of papers, including synchronisation library and executors, which we are hoping to see progress at this meeting. The wiki page should be ready soon. Thank you to Jens for the paper management tool.

Jens: I have a general remark on the GitHub tool. If you are a subgroup chair and don't have edit access to the GitHub tool, please send me an e-mail. If you forward a paper because you are done with it in your group, please leave a short comment that says that you have approved of that paper, and change the tags to match the new group designation.

Lawrence : there are papers that were not in the last mailing that are still being processed. Have those been assigned issues ?

Jens : some of them have, there may be papers that were missed. If you know of papers that are still in the queue, but have not been assigned issues, please send me an e-mail.

SG5, Transactional memory: Hans Boehm

Hans presents. SG5 has had regular monthly telephone conferences. Due to a small number of participants, the group hasn't made a lot of progress. SG5 will probably not meet in Kona.

SG6, Numerics: Lawrence Crowl

Lawrence presents. There are 13 papers on the schedule, but none aimed at C++20. SG6 will meet for one day, but we may not be able to get through all of them.

Michael Wong : some of those papers are linear algebra and belong in SG14, but need a joint session with SG6. You can forward those papers to SG14.

SG7, Compile-time programming: Chandler Carruth

Chandler presents. The primary priority will be resolving NB comments for the Reflection TS. Project editor and the authors have submitted a paper suggesting resolution for the NB comments, and the group is happy with them. Chandler suggest these are sent directly to EWG and ensuring there is enough SG7 presence when they are discussed. Can they be scheduled early in the week in EWG so those issues can progress through CWG at this meeting ?

Ville : I do not have an early slot in the week.

Chandler: this should not take a lot of EWG time, so if we can look at them as early as possible in the week.

Chandler continues. There is an outstanding design question around constexpr reflection work. This does not affect the TS, but it does need reasonable SG7 discussion time, and we would like to get a clear resolution, but we think it would be much more effective to schedule it later in the week.

Marshall: in the reflection TS there are 2 NB comments that have to do with library. I have some time in LWG first thing Monday morning to deal with them.

Chandler : thank you for scheduling them early

Marshall : Titus, I think CA14 is just LWG and not LEWG.

Titus : Please send me an e-mail so I remember to update the schedule.

Ville : I made a scheduling change, we can discuss the NB comment resolutions on Tuesday morning.

Chandler continues. I think we are in good shape with TS, and hopefully we can find a slot later in the week to have a long-term design discussion.

Jens : I do not have any spare rooms available. If SG1 wraps up early, you can have their room. SG6 numerics can have your Monday slot.

Lawrence : I'll take the Monday slot, but if there is work to be done for C++20, that should have priority.

Jens : I'm talking to Axel Naumann for core wording parts of reflection TS and I hope there will be a draft update to the core wording coming into Kona.

Chandler: Thank you to Jens for help with the wording.

SG12, Undefined and unspecified behavior: Gabriel Dos Reis

Gaby presents. There are three papers aimed at SG12 which we will look into at this meeting. There will also be a two day joint session with WG23.

SG13, 2D graphics: Roger Orr:

Roger presents. SG13 will have an evening, general interest, presentation session about audio. We hope people will come and get educated on the subject matter. We are also having a WG session to look into several papers of which one is a very early proposal of adding audio to C++ in some shape or form.

Bryce : Is there a 2D graphics proposal on the agenda for this meeting ?

Roger : There are currently no new papers related to 2D graphics. Guy Davidson and others have been pulling linear algebra parts out of the 2D graphics paper.

SG15, Tooling: Titus Winters

Titus presents. There are two papers in the mailing aimed at SG15. We are hoping to have an evening session, but we don't have one scheduled yet. We have been having tele-cons between meetings to discuss interaction between tooling and modules, and we are starting to understand everyone's position on the subject.

Bryce : I have scheduled the evening session for Monday, tentatively.

Herb : Who will be chairing that ?

Titus : I will.

Herb : please update the wiki page with that information.

SG16, Unicode: Tom Honermann

Tom presents. SG16 continues to meet two a month. We forwarded on two papers targeted for C++20. One of them, P1041, has been forwarded to CWG. There is also P1423 proposing small changes to the library, but is also on the EWG agenda. Sg16 will meet on Friday morning to discuss the 4 papers from the pre-meeting mailing. Thank you to Jens for the GitHub tool. The wiki is yet to be updated. That will be done soon.

SG17 EWG incubator: JF Bastien

JF unable to attend tele-con, Ville will forward the appropriate EWG papers to the incubator.

SG18 LEWG incubator: Bryce Adelstein Lelbach

Bryce presents. There are about 25-30 papers on the agenda. This is roughly the same number of papers as at the last meeting, so we are likely to meet for the same amount of time as in San Diego. The agenda should be on the wiki soon. None of the papers are C++20 targeted.

SG14, Low latency: Michael Wong

SG19, Machine learning: Michael Wong

Michael presents. SG14 will meet on Friday morning with two papers on linear algebra. Most likely to be a joint session with SG6. It may also involve SG19 because one of the papers in SG19 that suggests what machine learning may need to go on top of linear algebra.

There is currently an evening session scheduled for Monday which I am open to moving if it conflicts with the module session. We will be discussing what to do with free standing as there are currently two opposing directions. I also need a chair for that session who can be impartial.

SG19 has three papers which we will discuss on Friday afternoon. One of the paper involves SG14 and linear algebra, so we will make it a joint session.

Ville : Please move the discussion on free-standing so it does not compete with Modules discussion.

Jens : When ?

Marshall : I would appreciate it if it's not at the same time as LWG issues processing.

Roger : The audio discussion may interest people in the embedded world.
Michael : Whenever we schedule it, it's likely to conflict with something. Let's put a place holder on Tuesday.

Ville volunteers to Chair.

Herb : Michael, I'm ok for you to chair it. Thank you to Ville as a back up.

SG20, Education: JC van Winkel

JC presents. We had one tele-con so far, and we aim to have one a month going forward. We have a mailing list that is pretty active. This is the first time we will meet face to face. We will be meeting on Thursday and we will be talking about the paper aimed at educating C++ novices. We will also be discussing what we mean by intermediate and advanced topics which we hope will kick off papers on how to educate on those topics.

Herb : FYI, we are going to have a co-routines evening informational session on Wednesday evening.

John Spicer : SG10 is not active, but we are able to serve in an advisory capacity if anyone needs it.

Bryce : There was a paper in the mailing about a feature test macro relevant to constexpr. Is that something SG10 will look at?

John : I will look into that.

Marshall : paper number is P1424

Herb : We will move Google groups to isocpp groups. We will have new reflector lists, which will be password protected. There is an additional option to have public lists too. We are doing this because Google groups have made changes that mean e-mails may not be delivering reliably and that is disruptive to the conversations.

Bryce : For the migration of std-proposals, can we migrate the users ?

Herb : Everyone will have to re-subscribe so we don't accidentally subscribe someone who doesn't want to receive those e-mails. We are trying to move the archives too, but there are no promises that will work.

Bryce : Does this mean that all of our mailing lists will be in one place ?

Herb : No, we are going from three places to two places.

Bryce : It would help to have all the mailing lists in one place.

Herb : We may do that in the future.

Hubert: Is there are a way to easily tell which groups are public and which ones are not ?

Herb : Only the public ones are listed on lists.isocpp.org. The internal ones are available on the wiki.

Tom : Can we rename SG16 mailing list as the reference to unicode confuses people ?

Herb : We will migrate the groups first and then will look into renaming the groups. Please send me an e-mail after Kona to remind me

2.2.2 SC22 report

Herb Sutter presents. ISO rules have made us rebase the reflection TS on concepts TS. This is mostly editorial, but still a lot of work.

Thank you to all the editors.

2.2.3 SC22/WG14 (C) report

No report.

3. New business

3.1 Review of priorities and target dates

- <http://isocpp.org/std/status>
- <http://www.open-std.org/jtc1/sc22/wg21/docs/papers/2018/p1000r1.pdf>

Herb : It's a quiet period right now. This meeting is a feature cut off.

Marshall: Status doesn't show the concurrency TS 2.

Herb : At the bottom of the page, it is listed as upcoming, but we have nothing to create an initial draft. We will add it when we open a work item for concurrency TS 2.

Marshall/Bryce: we have papers targeting it.

Herb : we can have papers targeted for a TS that doesn't have a work item.

3.2 Review of current mailings

Herb: I suggest we remove this section from the agenda as there is no longer anything to discuss. Most of it is discussed in the subgroup reports.

3.3 Any other business

Jens : Local high school students will come to visit.

John : We need to remind them of no tweeting and no recording.

4. Review

4.1 Review and approve resolutions and issues

No discussion.

4.2 Review action items

No discussion.

Hubert : can we have an email reminding people of the earlier start time ?

Herb : yes.

5. Closing process

5.1 Establish next agenda

Herb proposes the same agenda, but removing section 3.2.

No objections to the proposed agenda.

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

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

5.4 Adjourn

Meeting adjourned at 9:25 N.Am. Pacific Time.