

WG21 pre-Belfast tele-con minutes

ISO/IEC JTC1 SC22 WG21 N4838 — 2019-10-25

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Convener: Herb Sutter
SC22/WG21 pre-meeting telecon
Friday 2019-10-25
08:00 N.Am. Pacific Time

1 Opening and introductions

1.1 Roll call of participants

- Herb Sutter (Herb)
- J.C. van Winkel (J.C.)
- Hans Boehm (Hans)
- Tom Honermann (Tom)
- Chandler Carruth (Chandler)
- Hana Dusíková (Hana)
- Hubert Tong (Hubert)
- Jens Mauer (Jens)
- JF Bastien (JF)
- John Spicer (John)
- Nevin Liber (Nevin)
- Nina Ranns (Nina)
- Walter Brown (Walter)
- Mike Miller (Mike)
- Gabriel Dos Reis (Gaby)
- Hal Finkel (Hal)
- Michał Dominiak (Michał)
- Jamie Allsop (Jamie)
- Sophia Poirier (Sophia)
- Howard Hinnant (Howard)
- Lisa Lippincott (Lisa)
- Richard Smith (Richard)
- Olivier Giroux (Olivier)

- Conor Hoekstra (Conor)
- Barry Revzin (Barry)
- Bjarne Stroustrup (Bjarne)

1.2 Adopt agenda

No objections to adopting the agenda.

Agenda adopted.

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 that should be discussed ?
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 dealing with the NB comments and other quality issues for C++20. We will start by looking at the NB comments. There are around 56 comments categorised as CWG. That number will probably increase as other groups process theirs and forward them to CWG. There is also a number of open issues we want to try to address in order to get as high quality product as possible for C++20. There are a few papers listed on the CWG wiki that are for C++20 consideration, and a few more that are

aimed at C++23. The C++23 designated papers will be done at the end of the week if we have the time.

If you have schedule constraints, please get in touch with me and we'll do our best to accommodate you.

2.1.2 EWG, JF Bastien

JF presents.

I've classified papers that we have targeting EWG. There are 27 at the moment, of which 7 are potentially C++20 and 17 would be nice to talk about. I have been aggressive with papers coming in, asking other groups such as EWGI to see them, as I expect we will mostly be dealing with NB comments.

There are 69 NB comments categorised as EWG. I have asked other SGs, especially SG2 and SG12, for opinion on some of these. I will go through all the NB comments and put them in categories so we can tackle them in themes.

2.1.3 LWG, Marshall Clow

No report at this time.

2.1.4 LEWG, Titus Winters

No report at this time

2.1.5. Direction Group

Howard Hinnant presents.

We updated the direction document. The main change is the change in priority from C++20 to what we want to achieve in C++23. We recommended creation of an ABI review board. DG will meet in Belfast, but we don't know when yet.

2.2 Liaison reports

2.2.1 Study Group reports

Note that the following are currently complete and handled in the core subgroups: SG3, File system; SG4, Networking; SG8, Concepts; SG9, Ranges; SG11, Databases

Reports from the following active SGs:

SG1, Concurrency: Olivier Giroux

Olivier presents.

We didn't get many NB comments and several are in agreement with each other. I expect that on Monday SG1 will agree with the NB comments resolutions. It shouldn't be a busy meeting. The schedule is not up yet, but I'll try and put it up early next week. The real schedule is the one on github.

Walter Brown : I would rather see only one schedule. Can you just provide a link from one to the other?

Olivier : I will do that.

Olivier : Bryce wanted to ask if we need to bring projectors ?

Jens : No, you can leave them at home. The hotel will provide them.

SG2, Modules: David Stone

JF : there are a lot of NB comments aimed at modules, I'm hoping we can get through them early in the week.

SG5, Transactional memory: Hans Boehm

Hans presents.

SG5 is not planning to meet in Cologne. We have been meeting over the phone. We have a proposal to be considered, which will be addressed by SG1 in this meeting.

SG6, Numerics: Lisa Lippincott

Lisa presents.

We have about 10 papers aimed at SG6, most of them related to linear algebra. There are 2 other maths papers that we don't need to see. Lawrence is taking those papers to LEWGI and if he wants to bring it to SG6, he will. Regarding formatting of negative zeros paper I'm going to ask the room, but I don't think we're too concerned about that.

Jens : There are some national body comments that may be relevant to you.

Lisa : I will take a look.

Jens : I'll tag them as SG6 and you can check them out.

SG7, Compile-time programming: Chandler Carruth

Chandler : Hana will be chairing SG7, and I will be a back up chair in Belfast.

Hana Dusíková presents.

SG7 is going to meet half-day on Wednesday, we are going to discuss 7 papers: 2 discussing reflection, 2 widening constexpr machinery, and 3 papers which only touches reflection or generative reflection topics but solving specific problems. Only one paper is

R0. There are no NB comments addressing SG7 as far as I know. The agenda is already published on the wiki.

SG10, Feature test: Barry Revzin

Barry presents.

We have several NB comments and two papers to look at, one to address the missing feature test macros and one regarding freestanding. We also need to figure out to handle feature test macros related to constexpr. We will try and meet on Tuesday if we can get enough people.

SG12, Undefined and unspecified behavior: Gabriel Dos Reis

Gaby presents.

SG12 will meet for three days. First two days will be joint sessions with WG23 and MISRA C++, and one day for SG12 specific business. Most of the issues are about the pre processor. We do not have any new papers ready to discuss, but we did have four papers in the past which we plan to revisit.

Jens : I can give you another half a day on Tuesday, if it helps.

Gaby : Thank you.

SG13, HMI and I/O: Roger Orr:

Roger e-mailed the report, Herb reads it out. SG13 will meet on Thursday and has three papers on the agenda.

SG14, Low latency: Michael Wong

No report at this time.

SG19, Machine learning: Michael Wong

No report at this time.

SG15, Tooling: Bryce Adelstein Lelbach

No report at this time.

SG16, Unicode: Tom Honermann

Tom presents.

SG16 had 6 telecons since Cologne. We have one NB comment to look at. Thank you to JF for triaging them. In addition, we have 15 papers to consider, but they have not been scheduled yet. 9 of those are new, but some we discussed in draft form since Cologne. 4 are revision of papers we've seen in Cologne. We will meet for one whole day in Belfast. We will prioritise the NB comment, then revision of previously seen papers, then new papers.

Jens : I believe you have 2 NB comments, I made some changes before this meeting.

Tom : Thank you.

SG17 EWG incubator: Botond Ballo

JF : SG17 will spend most of their time going through some of not fully mature EWG papers.

SG18 LEWG incubator: Bryce Adelstein Lelbach

No report at this time.

SG19 Machine learning: Michael Wong

No report at this time.

SG20, Education: J.C. van Winkel

J.C. presents.

SG20 will meet on Thursday. We had 2 telephone conferences since Cologne. We will be working on our standing paper making a draft of the small modules people should talk about while teaching C++.

SG21, Contracts: John Spicer

John presents.

We had one telephone conference. We collected use cases and conducted a survey about those use cases. We have half a day planned for Belfast and I expect that it will mostly be taken up by the discussion on how to plan our work moving forward.

2.2.2 SC22 report

Herb Sutter presents. There is a CoC update which was already reflected in our slides for Cologne.

In August The SC22 Secretariat issued our C++20 CD quickly after the CD draft was available from the project editor, even though this involved juggling schedules as it happened the same weekend as this year's SC22 plenary in Korea.

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/2019/p1000r3.pdf>

Herb presents. We have two meetings for NB resolution. A great goal would be to have more than 50% comments addressed in Belfast. It was unclear how much of comment volume we should expect, but it's roughly in about the same ballpark as for C++17. We don't know how involved those NB comments are.

3.2 Any other business

Tom : Do we have any update on the migration of reflectors?

Herb : Earlier this year we moved all the groups to isocpp.org, with the exception of 4 or 5 reflectors. We should be able to get the archives too. Otherwise, we will still have the old archives.

Tom: Do we have a timeline for the remaining reflectors ?

Herb : I will check for an update.

JF : I've heard rumours about starting a safety critical group.

Herb : I'm not aware of that. The way we get a new study groups is if we have proposals in a certain area, and then the working group chairs decide if they want to start a separate study group.

4. Review

4.1 Review and approve resolutions and issues

No discussion.

4.2 Review action items

JF : Are we all using github for NB comments ?

Herb : That's my impression.

Gaby : We will also use the wiki as some information may not be for public consumption.

JF : Minutes should be on the wiki, but we should be moving the issues on github.

Jens : I would strongly recommend that you do not put straw poll result on github. You can put a link to the wiki page there because wiki is password protected. Do put a short comment if you reassign issues so we know it is not a mistake.

Jens: What is the procedure for rejecting/accepting NB comments? Can an SG reject it ?

Herb : EWG and LEWG own the decision on a design change, and CWG and LWG would decide on a wording change. Some comments may be delegated to an SG to make recommendations.

Jens : There should be a summary of this.

5. Closing process

5.1 Establish next agenda

John proposes the same agenda.
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 09:06 N.Am. Pacific Time.