WG21 2025-10 Kona Admin telecon minutes

ISO/IEC JTC1 SC22 WG21 N5029 — 2025-10-26
Nina Dinka Ranns, dinka.ranns_at_gmail.com

SC22/WG21 pre-meeting telecon
Convener: Herb Sutter
Date : Monday 2025-10-20
Time: 15:00 UTC

1 Opening and introductions

Herb Sutter opens the meeting at 15:01 UTC.

1.1 Roll call of participants

Matthias Kretz
Roger Orr
Ben Boeckel
Hubert Tong
Ville Voutilainen
Erich Keane
Nina Dinka Ranns
Michael Wong
Jeff Garland
Herb Sutter
Barry Revzin
Billy Baker
Nevin Liber
Ruslan Arutyunyan
Andreas Weis
Jeff Snyder
J. D. Garcia
Guy Davidson
Gonzalo Brito
Florian Sattler
Corentin Jabot
Jens Maurer
Inbal Levi
Jonathan Müller
Hana Dusíková
Matthew Butler
Jonathan Wakely
John Spicer

1.2 Adopt agenda

No objections.

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

[Status page](#)

Status page is up to date.

2. Status reports

2.0 Advisory subgroup status reports

• **Meeting logistics**: Jens Maurer

We have a 6pm orientation session on Sunday evening, SG chairs are welcome to join us. We don't have room assignments yet, hotel is not being responsive.
All the chairs, please register interest.

Herb Sutter : I will reach out to the hotel today.

• **AG**, Admin group: Nevin Liber

The pre-Kona mailing happened on October 6th.
The post-Kona mailing is scheduled for December 15th.
An attendance sheet for Kona will be available within the next two weeks and unlocked sometime before plenary on November 3rd.

• **DG**, Direction group: Michael Wong

We planned to issue a new edition of P2000, but it was delayed due to long discussions on Safety/Security, and the recent Convenor re-election where we have been looking carefully at the exact rules to ensure that the election is fair and uncontested. We have inducted 2 additional members and we are all actively engaging with members to improve the function of the DG.

• **ARG**, ABI review group: Daveed Vandevoorde, Jason Merrill

Nothing to report.

2.1 Pipeline stage 1 groups: Specialist subgroup status reports (Sgs)

SGs 2, 3, 5, 8, 11, 12, and 13 are currently dormant and handled in the main subgroups. The active SGs are:

• **SG1**, Concurrency: Olivier Giroux, Hans Boehm, Ruslan Arutyunyan

SG1 did not meet between meetings.
We will meet in Kona to discuss NB body comments and several papers.
Olivier isn't going to be there, Ruslan and Gonzalo will be running things.
SG1 to coordinate room assignment with Jens.

• **SG4**, Networking: Jeff Snyder, Gašper Ažman

We don't have any papers for Kona. We will not be meeting in Kona.

• **SG5**, Transactional Memory: Hans Boehm

SG5 is waiting for the last bits of update to the transactional memory whitepaper, which should hopefully be ready for Kona.

• **SG6**, Numerics: Matthias Kretz, Lisa Lippincott, John McFarlane

SG6 "Numerics" has 11 papers and one LWG issue to review. 1.5 days might provide enough time to get through, but we will need to see about quorum and how long Lisa can run the room (with Matthias being remote).

• **SG7**, Compile-time programming: Hana Dusíková, Jeff Snyder

Hana Dusíková report : SG7 hasn't met since Sofia. We will meet at Kona (hopefully Wednesday morning) and I will be remote, but my awesome co-chair will be on site. We will be doing C++29 papers. Any Reflection NB comments should be handled in EWG or LEWG. Unless we will be asked to provide expert feedback.

• **SG9**, Ranges : Jonathan Müller, Zach Laine

SG9 (Ranges) has not met since Sofia. We have four C++26 NB comments we need to make recommendations on and will then move on to papers targeting C++29 (unless LEWG requires more feedback of course).

• **SG10**, Feature test: Barry Revzin, Jonathan Wakely

We will try to update the features test document for Kona before the meeting.

• **SG14**, Low latency: Michael Wong

We continue to meet monthly. We met at CppCon in conjunction with SG19 AI to induct new memberships and examine floating points. We also have been reviewing an omnibus paper on Games features. Our next meeting will be in December.

• **SG15**, Tooling: Michael Spencer, Ben Boeckel

We haven't met since Sofia. We are likely to meet in Kona, but unsure for how long.

• **SG16**, Unicode: Tom Honermann, Steve Downey

SG16 continues to meet approximately twice monthly. As usual, SG16 will not meet during Kona so as not to contribute to quorum challenges. I will be attending Kona remotely.
SG16 will meet one more time before the Kona meeting, on 2025-10-22, in order to form a recommendation for the following two NB comments.
- [US 189-304](#): 31.12.6.1, 31.12.6.5.6, 31.12.6.5.7, D.22.2 rename filesystem::path methods
- [US 5-018](#): 5 [lex] Define "whitespace character"
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SG16 provided recommendations for the following NB comments during its [2025-10-08 meeting](#).
- [US 8-021](#): 5.5p1 [lex.pptoken] Allow skipping non-preprocessing tokens via #if
- [CA-022](#): 5.5p1 [lex.pptoken] Add example for ill-formed non-preprocessing tokens
- [US 63-115](#): 16.3.3.3.4.1p01.2 [character.seq.general] Move [character.seq.general] to the core wording

SG16 has met 7 times since the Sofia pre-meeting admin telecon on 2025-06-02 and has reviewed the following issues and papers.
- [CWG2843](#): Undated reference to Unicode makes C++ a moving target.
- [LWG4070](#): Transcoding by std::formatter<std::filesystem::path>.
- [LWG4090](#): Underspecified use of locale facets for locale-dependent std::format.
- [P2843R2](#): Preprocessing is never undefined.
- [P3677R0](#): Preserving LC_CTYPE at program start for UTF-8 locales.
- [P3681R0](#): char_traits: Stop the bleeding!
- [P3695R1](#): Deprecate implicit conversions between Unicode character types.
- [P3733R0](#): More named universal character escapes.

We still have not made progress towards publishing proper public SG16 minutes, but rough minutes continue to be posted to the WG21 wiki.
As always, there is no shortage of work ahead of us.

• **SG17**, EWG incubator: Erich Keane, James Touton

SG17, the Evolution Incubator will not be meeting during the Kona meeting. EWGI had a vast majority of its papers seen in EWG in Sofia, so has few papers, however the most pressing reason is a lack of available chairs.

• **SG18**, LEWG incubator: Billy Baker, Nevin Liber

SG18, Library Evolution Incubator, will not be meeting in Kona. SG18 chairs will be assisting in LEWG.

Since we are not meeting, SG1 has been asked to look at [P3832R0](#) Timed lock algorithms for multiple lockables.

• **SG19**, Machine learning: Michael Wong, Phil Ratzloff

We continue to meet monthly. We met at CppCon in conjunction with SG14 Low latency to induct new memberships and examine Statistics. We also have been reviewing a Graph paper. We plan to expand our list when we have more bandwidth to include LLM and Data mechanisms. Our next meeting will be in December.

We won't be meeting in Kona.

• **SG20**, Education: JC van Winkel, Florian Sattler

SG20 will not meet in Kona.
SG20 has met once since Kona, providing paper feedback and approving 2 new teaching topics, and provided feedback to various in-the-works topics, steadily adding more topics to our education guidelines at https://github.com/cplusplus/SG20.

Apart from authoring these teaching guidelines, we have also given feedback to a paper author, and would like to encourage paper authors to run their proposals by SG20 for suggestions regarding teachability.

• **SG21**, Contracts: John Spicer, Timur Doumler

SG21 (Contracts) as the study group has now been made dormant; all Contracts-related matters should go directly to EWG.

• **SG22**, C/C++ liaison: Nina Ranns, JeanHeyd Meneide, Davis Herring

SG22 met once since Sofia to discuss :
P3666 R0 Bit-precise integer
P3540 R2 #embed Parameter offset

We will not meet in Kona

WG14 update, courtesy of Robert Seacord:

Decision log from the 73rd meeting in August 2025 in Brno, Czechia:
https://www.linkedin.com/pulse/decision-log-from-73rd-c-standards-meeting-robert-seacord-v5uhf/

The next meeting is virtual and split into two parts:

  Spring, 2026 Part 1, February 2 - 6 : Virtual
  Spring, 2026 Part 2, March 9 - 13 : Virtual

WG14 has a large backlog of meetings and may add a third meeting in the Summer 2025

• **SG23**, Safety and Security: Roger Orr, Matthew Butler

SG23, Safety and Security, has eight papers to look at and hopes to meet for a day in Kona, ideally later in the week to avoid conflicting with the Contracts discussion in EWG that will take a number of our usual audience.

We have not met since Sofia.

2.2 Pipeline stage 2 groups: Design subgroup status reports

• **EWG**, Core evolution: JF Bastien, Hana Dusíková, Erich Keane

EWG will meet all week with a tricky chair situation: I will be there Monday/Tuesday, Erich and Jeff will be there all week, and Hana will be remote.

We have [60 NB comments currently assigned to EWG](#), 26 of which are related to contracts, 5 reflection, 10 trivial relocation. We expect to spend a significant portion of the week on NB comments, including supporting other WG/SG requests. We've asked NBs for their input regarding scheduling for contracts in particular to make sure that individuals who file comments can be heard, and will soon publish a schedule. We expect to spend 2 days on contracts (Monday and Tuesday).

We will be seeing some papers tied to NB comments. Papers not related to NB comments will be seen time permitting. There are currently [55 papers assigned to EWG and ready to be seen](#).

• **LEWG**, Library evolution: Inbal Levi, Fabio Fracassi, Andreas Weis

Inbal Levi reports : I will be in Kona, and Nevin and Billy will be co-chairing, with additional assistance from Fabio and Andreas remotely.

Attaching our report:

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LEWG have run 9 telecons since Sofia, and seen the following papers:
- P3778R0: Fix for type_order template definition
- P3707R0: A std::is_always_exhaustive trait
- P3774R0: Rename std::nontype, and make it broadly useful (follow-up on P3740R0 seen during Sofia)
- P3794R0: An idea or two on renaming the nontype tag
- P3801R0: Concerns about the design of std::execution::task
- P3796R1: Coroutine Task Issues
- Issues Repo
- P3818R1: constexpr exception fix for potentially constant initialization (fix for 26)
- P3820R1: Fix constexpr uncaught_exceptions and current_exception (fix for 26)
- P3798R1: The unexpected in std::expected (C++29)
- P3505R1: Fix the default floating-point representation in std::format

We have forwarded 2 papers for C++29 by electronic poll (the rest have NB comments for them, so we only gave feedback).

LEWG's schedule for Kona:
https://github.com/orgs/cplusplus/projects/45

First days will be dedicated to the large topics (e.g remove feature X), and with contracts- related comments tentatively set for Wed (after EWG is expected to resolve whether it gets into 26).

Thank you to our paper authors and participants for the great work, and see you in Kona!

Ruslan : We expect to have a joint session between SG1 and LEWG for Senders receivers topic.

2.3 Pipeline stage 3 groups: Wording subgroup status reports

• **CWG**, Core wording: Jens Maurer, Jason Merrill, Jonathan Caves

CWG will focus on NB comments during the week in Kona.
There are currently 57 of such assigned to CWG; most of them will be handled via the issues process, but the ones with larger scope will need volunteers to write papers.

Additional work is expected to arrive from EWG's processing of their comments.

• **LWG**, Library wording: Jonathan Wakely, Jeff Garland, Dietmar Kühl, Bryan St. Amour, Christian Trott

LWG expects to spend all of the Kona meeting working on NB comments, related issues, and papers. We've already been processing NB comments in telecom, so far accepting 16 and rejecting 1, turning a couple into editorial changes and dispatching some to LEWG. We will have one more session before Kona. Currently there are 95 more issues to triage and we expect more to come from LEWG as they process their issues.

Due to the point in the cycle we will be moving all issues to 'immediate' instead of providing the usual one meeting courtesy period for review.

2.4 SC22 report

We have a new WG21 convener - Guy Davidson. Thank you to everyone who volunteered. We will have a convenership team going forward (Guy Davidson, Jeff Garland, and Nina Ranns).

ISO has published AI guidelines: no AI-generated papers; using AI as a writing aid for clarity/copy-editing is fine, do not publish machine-authored content.

2.5 SC22/WG14 (C) report (covered in 2.1 / SG22)

3. New business

3.1 Review of priorities and target dates

• Status page
• P1000

We are in the last two meetings of our cycle. This is normal process. It would be good if we can get through more than 50% NB comments in Kona. If not, we can always do telecons. We will try to process the harder ones early on.

3.2 Any other business

No objections to disabling public access to the calendar
Hana to send out instructions on how to re-subscribe or regenerate links in calendar apps.

When the calendar is no longer public, we can put zoom links and passwords into the calendar.

This is the last meeting when the wiki is hosted on [edg.com](edg.com), including the telecoms.

Plenary zoom info to be put on wiki on the meeting rooms page.
Nina to make changes to wiki to make it obvious.

Hana to add plenary zoom info to the ISO meeting page.

Please register with the ISO link if you are attending the meeting.

Chairs, please rotate the zoom links for the subgroups.

National Body comment can be tagged by subgroups, please coordinate with the relevant evolution group.

Github paper tracker will be made private sometime next week. Please contact Hana/Nina/Inbal to get access.

Some github NB comments have a lot of information.
We should only put polls and summaries in the github. We should try to anonymise the comments.
Maybe we can make the NB comment repo private.
No objections.
NB comment github will be made private forever, revise the decision if there are objections.

Migration to the new wiki is in progress.
Herb to check on the progress.

4.1 Review and approve resolutions and issues

4.2 Review action items

Herb : Check in with the hotel to ensure a response to Jens.

Hubert : Send Nina an email about the WG14 paper that needs attention from SG22.
SG1/SG15/et al: make sure you put a room request in Jens's spreadsheet.

Jens : Put the plenary link and password on the wiki meeting page.

Hana : Make the calendar private. Notify the committee of the change and add instructions on how to update.

Jens/Hana : Add plenary link and password in the wg21 calendar.

Hana : Add plenary link and password in the ISO meeting.

Nina : Add a blurb about the meeting links and github on the main wiki page.

Herb : Ping James about the new wiki.

Jens/Hana : Make the NB comment github private until further notice. Notify the committee.

All chairs : Rotate zoom links for the upcoming meeting (i.e. do not reuse zoom links from the previous meeting).

5. Closing process

5.1 Establish next agenda

Herb Sutter : I propose the same agenda for the next meeting.
No objections.

5.2 Future meetings (deferred to full meeting)
5.3 Future mailings (deferred to full meeting)

5.4 Adjourn

Meeting adjourned at 16:16 UTC.
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