



Technical Newsletter

2024-03-15

Volume: 12

News from TSC, ARC, ICs, HCs, SIGs and TGs

Architecture Review Committee (ARC)

Meeting Minutes

The latest ARC meeting minutes are available can be found in the links below:

- [2024-03-12](#)
- [2024-03-05](#)
- [2024-02-27](#)

ISA Infrastructure HC

Documentation

Over the past few months an effort has been underway to merge previously ratified ISA specifications into the Unprivileged or Privileged documents. To date the following specifications are now a part of the [riscv-isa-manual](#) GitHub repository and their respective original repositories have been archived.

Unprivileged:

- [Code Size Reduction](#)
- [Wait-on-Reservation](#)
- [Cache Management Operations](#)

Privileged:

- [PMP Enhancements](#)
- [Count Overflow and Mode-Based Filtering](#)

- [State Enable](#)
- [Stimecmp/Vstimecmp](#)

The following will be merged shortly:

- [Bitmanip](#)
- [Vector](#)
- [Scalar-Crypto](#)
- [Vector-Crypto](#)

All future issues with these extensions should be filed against the [riscv-isa-manual](#) GitHub repository.

News from the CTO Office

Groups

Call for Candidates

The following are the open calls for Chair/Vice-Chair candidates:

SIGs

- [Android](#)
- [Blockchain](#)
- [Debug, Trace and Performance Monitoring](#)
- [Documentation](#)
- [Functional Safety](#)
- [HPC](#)
- [HyperVisor](#)
- [Microarchitectural Side Channels](#)
- [Performance Analysis](#)
- [Performance Modeling](#)
- [Runtime Integrity](#)
- [SoftCPU](#)
- [Toolchain](#)
- [Trusted Computing](#)

TGs

- [CoVE \(AP-TEE\)](#)
- [Control Transfer Records \(CTR\)](#)
- [Fast Interrupt](#)
- [Integrated Matrix Extension](#)
- [J Extension](#)
- [IOPMP](#)
- [Microarchitecture Side-Channel Resistant Instruction Spans](#)
- [N-Trace \(Nexus\)](#)

- [Platform Runtime Services \(PRS\)](#)
- [S-Mode Physical Memory Protection \(SPMP\)](#)
- [Shadow Stack and Landing Pads](#)
- [Security Model](#)

Target Dates

Here are the target dates for the election process:

- All calls must have commenced by Friday, February 23rd.
- Closure of Calls: Friday, March 8th.
- Completion of Voting/Selections: Friday, March 29th.

Nominations

If you want to nominate yourself or someone else, please email help@riscv.org.

Extensions

Recently Approved Plans

- Fast-Track: [Ssdbltrp](#), [Smdbltrp](#), [Sddbltrp - Double Trap](#) Plan was approved by Chairs on Mar 13th, 2024. Given the rapid progress in the development of the specification, it is now moving towards the Freeze Phase.

Extensions Under Public Review

- [B Extension Components](#). End date: **2024-03-22**. The link to the announcement can be found [here](#).
- [A Extension Components](#). End date: **2024-03-27**. The link to the announcement can be found [here](#).
- [RAS Error Record Interface \(RERI\)](#). End date: **2024-03-29**. The link to the announcement can be found [here](#).
- [Quality-of-Service \(QoS\) Identifiers](#) and [Capacity and Bandwidth controller QoS Register Interface \(CBQRI\)](#). End date: **2024-04-05**. The link to the announcement can be found [here](#).

Votes

TSC

- **Approve the Profiles SIG Creation.** End date: **2024-03-21**. The link to the text of the voting can be found [here](#). The OpaVote can be found [here](#).
- **Send Supervisor Counter Delegation Extensions to the Board for Ratification.** [Jira](#). End date: **2024-03-18**. The link to the text of the voting can be found [here](#). The OpaVote can be found [here](#).
- **Send the May-Be-Ops Fast Track Extension to the Board for Ratification.** [Jira](#). End date: **2024-03-13** (Still Voting). The link to the text of the voting can be found [here](#). The OpaVote can be found [here](#).

HC & IC Committees

- **Freeze Milestone for Shadow Stacks and Landing Pads.** [Jira](#). End date: **2024-03-19**. The link to the text of the voting can be found [here](#). The OpaVote can be found [here](#).
- **Ratification-Ready Milestone for Byte and Half-word Atomic Memory Ops.** [Jira](#). End date: **2024-03-18**. The link to the text of the voting can be found [here](#). The OpaVote can be found [here](#).

Technical Resources

Active ICs, HCs, SIGs and TGs

You can find the list of active ICs, HCs, SIGs and TGs at tech.riscv.org/groups.

Extensions Under Development

The status of extensions under development is available at tech.riscv.org/extensions.

Software Ecosystem Dashboard

The Software Ecosystem Dashboard is available at tech.riscv.org/software-ecosystem.

Technical Meetings Calendar Adjusted to Your Local Time Zone

The **RISC-V Technical Meetings Calendar** is available in your own timezone [here](#).

One-stop-shop for RISC-V Technical Meetings

The [RISC-V Technical Meetings](#) page is a one-stop-shop for all RISC-V technical meetings. It includes guidelines, tutorials, and more. The page is still under development, so please send us your feedback via help@riscv.org.

Etherpad

Etherpad, a real-time browser-based editor where users can co-edit documents instantly, is available. No login needed. Etherpad should not store permanent content. To access Etherpad, click on the [here](#). Pads are reusable, so feel free to use the same pad for multiple meetings.

Technical Sessions

Invitation

Next Thursday, March 21st, at 7 AM Pacific Time, we will have another RISC-V Technical Session entitled 'A Framework for RISC-V SBI and ISA Extension Validation'.

Register today by [clicking here](#) and don't miss it! Also, share it with your team members and colleagues.

Tech Sessions on YouTube

We are uploading all Technical Sessions to the RISC-V YouTube channel. You can find the playlists for the 2023 Sessions [here](#). The 2024 Sessions are available [here](#).

Upcoming Events

- [Open Source Summit North America](#): April 16-18, 2024, Seattle, Washington.
- [RISC-V Summit Europe](#): June 24-28, 2024, Munich, Germany.
- [Hot Chips 2024](#). The Hot Chips 2024 Call for Presentations info just went live on the Hot Chips web site.

The event will be held as a hybrid conference with in-person attendance at Memorial Auditorium, Stanford University from August 25 to 27, 2024.

The nominal submission deadline (March 22nd) will almost certainly be extended. Please contact Dave Weaver (david.weaver@akeana.com) if you want to specifically request an extension.

Note that **having silicon** is not a requirement for a Hot Chips presentation. In fact, presentations about IP products, cooling technology, software tools, etc, etc are welcome (see suggested topic list, which is not meant to be exhaustive, on the web page). Any topic that "sounds interesting & relevant to the Program Committee" can be accepted.

Glossary

- **TSC:** Technical Steering Committee
- **ARC:** Architectural Review Committee
- **IC:** ISA Committee
- **HC:** Horizontal Committee
- **SIG:** Special Interest Group
- **TG:** Task Group

Newsletter Contributions

To submit a topic for the Technical Newsletter, [click here](#). Be sure to carefully read the submission guidelines!

Contact Information

For any queries, visit help.riscv.org or email us at help@riscv.org.

