

What is IDEAS-ECP?

The IDEAS team works with the ECP community to improve developer productivity and software sustainability as key aspects of increasing overall scientific productivity.

How can IDEAS help you?

The IDEAS team identifies crosscutting ECP software productivity challenges and opportunities. We work with individual teams to address these challenges and bring methodologies to the broader community.

Does your team do PSIP – Productivity and Sustainability Improvement Planning?

PSIP is a process designed to help scientific software teams improve developer productivity and software sustainability. This framework addresses improvements in software practices, processes, and tools. ECP teams have the unique opportunity to work with a member of the IDEAS PSIP team. This individual will interview your team to understand current software practices, identify practices ready for improvement, and track and assess progress toward improved outcomes.

To request a PSIP review, contact the PSIP Lead: Elaine Raybourn <emraybo@sandia.gov>
More information is available at <https://bssw.io/items/planning-for-better-software-psip-tools>

Community Surveys

The IDEAS team partners with the ECP training team to understand the software challenges facing the community.

Webinars

The IDEAS team, in partnership with DOE computing facilities, coordinates monthly webinars on best practices for HPC software developers.

PSIP

ECP project teams who are interested in working through the PSIP process engage one-on-one with an IDEAS team member.

Public Resources

Lessons learned are shared through tutorials, online content, and more. See the IDEAS and BSSw websites.

Activities Related to Software Productivity & Sustainability at the 2019 ECP Annual Meeting

- Mon, Jan 14** Tutorial: Better Scientific Software [9 am–12:30 pm]
- Tues, Jan 15** Announcement: Better Scientific Software Fellows and Honorable Mentions [lunchtime]
Poster Session: [1:15–2:45 pm]
IDEAS-ECP: Advancing Software Productivity for Exascale Applications (54)
Using PSIPs to Improve Application Development Productivity (51)
Users Stories: Communicating about Software Requirements (52)
Better Scientific Software: So our code will see the future (53)
IDEAS-EXAALT Collaboration: Continuous Integration for Long-Timescale Materials Simulation (7)
Breakout: Making Agile Work for your R&D Software Project [3–5 pm]
Breakout: Contributing to Upstream Software: Why and How [4–5 pm]
- Wed, Jan 16** Breakout: From Good to Great: Getting Started with PSIP [8:30–10 am]
Poster Session: [1:15–2:45 pm]
Improving the Exascale MPICH Onboarding Training Process through ECP IDEAS PSIP (9)
ECP ST Software Development Kits (65)
Breakout: Fostering a Culture of Passion and Productivity in ECP Teams [3–4:30 pm]
Breakout: Software Sustainability for ECP and Beyond [4–5 pm]
- Thurs, Jan 17** Breakout: Toward Common and Interoperable Software Infrastructures [8:30–10 am]
Tutorial: Contemporary Peer Code Review in Scientific Software Development [8:30–12 pm]
Breakout: Software Assurance and HPC [3:30–4:30 pm]

