Upgrading Team Practices for Developer Productivity Improvement

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Description:
This poster session will feature a hands-on session where participants are given the opportunity to reflect on existing practices in their current projects and create a plan for improvement. The reflection is facilitated by our Rate Your Project interactive web-based survey tool, and the plans come in the form of PSIP (Productivity and Sustainability Improvement Planning) Progress Tracking Cards (PTCs).

The PSIP Progress Tracking Card (PTC) workflow is intended to be lightweight, common sense, and fit within a project's planning and development process. It is meant to be a team's self-assessment or self-evaluation tool, and to help track progress towards a goal, rather than a formal assessment mechanism. PTCs capture aspects of team collaboration, workflow planning, and progress toward a goal. As such, it can be used in conjunction with project management approaches such as Kanban, Agile, SmartSheets, and more. Currently, PTCs have been demonstrated as GitHub and GitLab issues, milestones, and projects.

The Rate Your Project + PTC workflow is a tool that identifies the target, or goal of the planning activity, title of the topic of improvement, user story, and a step-by-step checklist of activities or outcomes that incrementally lead to improvements in team effectiveness and efficiency. Teams may select PTCs from the PTC catalog, define their own PTC, or modify PTCs found in the catalog. The purpose of the Rate Your Project + PTC workflow is to help teams set and achieve improvement goals. Rate Your Project + PTC is not a tool for external assessment or comparison with other projects. In fact, since projects and PTCs are custom-designed for each project, comparisons are typically not possible.

Goals and Outcomes of the Poster Session:
The outcome of this session will be concrete steps that participants can take to improve their development practices, in the form of a PTC. Participants will learn some of the skills needed to approach their teams and precipitate process improvement from facilitators.

Target audience:
Process improvement is valuable for all teams, but the lightweight, common sense nature of Rate Your Project and PTCs is ideal for scientific software developers. Scientific software teams are typically focused on obtaining scientific results from the software they write. Funding is for generating results, not software. In this poster session, we hope to engage individuals and teams who have little or modest formal software engineering training.

Resource requests:
Our poster session will likely need more than one Zoom meeting link to facilitate small group discussions with our team (or use Zoom Breakout rooms). We intend to utilize several Zoom rooms for small group discussion, and if applicable bring participants together to debrief the experience.

Acknowledgements
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References
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