A research software engineering department at a German university: Four years and counting

Thursday 27 February 2025 10:00 (20 minutes)

The Scientific Software Center (SSC), established in fall 2020 at the Interdisciplinary Centre for Scientific Computing of the University of Heidelberg, provides institutional support to researchers of all faculties in software development and software engineering best practices. The SSC promotes reproducibility and sustainability of research software. The support offered by the SSC is based on the three pillars "Development and Sustainability", "Teaching and Consultation", and "Outreach and Communication"1.

In this contribution, we want to share success stories and roadblocks of the first four years of the SSC. The presentation will touch upon the following main aspects: (1) Aspects related to research software engineering; (2) management of RSE groups; (3) administrative aspects; (4) process and people; (5) training and transfer. The SSC employs predominantly "generalist"but also "embedded"research software engineers, where generalists work on RSE projects of all disciplines, and embedded research software engineers are focused on RSE projects in their home domain. Often, the research software engineers work on multiple projects, making effective project and time management essential. Being located at a German university brings its own additional administrative challenges related to the recognition of RSE as academic discipline and academic work contracts. Establishing processes and communication channels is an ongoing effort at the SSC, with the aim to manage time and quality effectively and transparently, while considering mindset, ownership, mental health and personal growth. Transporting the ideals of software engineering best practices into research groups through training and collaboration is another challenge, that on the one hand is met with great enthusiasm, on the other hand with reluctance to deviate from established routines. We will conclude with an outlook and a summary of (anticipated) differences of an RSE group with "traditional"research groups at academic institutions.

1 Keegan, L., Kempf, D., Ulusoy, I. (2024). Scientific Software Center at Heidelberg University: White Paper (v2.0). Zenodo. [https://doi.org/10.5281/zenodo.10867903]

I want to participate in the youngRSE prize

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