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Standardizing the preCICE ecosystem

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A rapidly emerging community is developing and publishing several software components and application cases on top of the coupling library preCICE for partitioned simulations. While several community-building measures have led to more users and contributors, the resulting contributions are often not readily findable, accessible, interoperable, and reusable. The DFG project preECO aims to form quality guidelines together with the community, standardizing how these components and application cases work together. A published component should, among other criteria, provide metadata in a machine-readable format, a configuration file adhering to a standard schema, document a minimum set of details, and be ready to interoperate with other standard components and application cases. This brings several benefits for each contributor and the community, providing development guidelines, more streamlined and faster reviews, wider discoverability and impact, and a pool of higher-quality components and reproducible application cases to reuse. This talk will present the planned measures and the results of a first structured discussion with the community at the preCICE Workshop 2024, which in parts led to conflicting views regarding the quality criteria and levels.

See the working draft of these guidelines for adapters (software components) and application cases, developed and discussed (in the preCICE forum) in public, together with the community.

I want to participate in the youngRSE prize

yes

Primary author: Mr CHOURDAKIS, Gerasimos (University of Stuttgart)

Co-author: Prof. UEKERMANN, Benjamin (University of Stuttgart)

Presenter: Mr CHOURDAKIS, Gerasimos (University of Stuttgart)

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