preCICE – A Library for Coupled Simulations on Massively Parallel Systems

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ABSTRACT

preCICE is an open-source coupling library for partitioned multi-physics simulations. This includes, but is not restricted to fluid-structure interaction. The software offers methods for equation coupling, communication means, and data mapping schemes. Ready-to-use adapters for well known commercial and open-source solvers, including OpenFOAM, SU2, Calculix, Fluent, and COMSOL, are available. Adapters for in-house codes can be implemented and validated in only a few weeks. In this contribution, we give an overview of the functionality of preCICE and present recent extensions.

REFERENCES

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