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An Overview of the ACTS Collection

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Abstract

Tools to reduce the effort required for the development and testing of scientific and engineering applications can greatly improve productivity. Similarly, mature applications that require large-scale computer simulations can greatly benefit from robust and efficient tools to achieve an optimal use of computing resources, and to simplify porting to new computer architectures. The US DOE Advanced Computational Software (ACTS) Collection comprises a set of DOE-developed software tools, sometimes in collaboration with other funding agencies, and that facilitate the development and deployment of high performance codes for engineering and computational science applications. In this presentation we will describe the functionalities currently available in the collection, applications that have benefited from the tools, and a set of services that aim at enabling the long-term availability, performance and readiness of the tools.