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## RISE: REST-ing Heterogeneous Simulation Interoperability

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**Abstract:** Interoperating heterogeneous simulation models and tools is becoming a necessity in today's cross-enterprise collaboration market. Nevertheless, simulation models and engines have evolved apart in many directions, making their interoperability extremely complex. We present the RESTful Interoperability Simulation Environment (RISE), which provides the means for interoperating simulation heterogeneous assets. RISE uses Service-Oriented RESTful web-services, and it is based on three aspects: the framework architecture, the modeling level and the simulation synchronization level. RISE is independent of any simulation engine, theory or an algorithm. However, it provides different rules for simulation domains with conservative or optimistic synchronization algorithms. Further, RISE does not require any implementation changes related to domain modeling or simulation methods. Furthermore, it hides domain internal specifics, giving freedom to define different internal implementation and algorithms. The presented work here is part of the on-going effort in the DEVS community to interoperate different DEVS-based simulation assets.