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The STAR Unifid Meta-Scheduler project, a front end around evolving technologies for user analysis and data production.

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While many success stories can be told as a product of the Grid middleware developments, most of the existing systems relying on workflow and job execution are based on integration of self-contained production systems interfacing with a given scheduling component or portal, or directly uses the base component of the Grid middleware (globus-job-run, globus-job-submit). However, such systems usually do not take advantage of the presence of Resource Manager System (RMS); they hardly allow for a mix of local RMS and are either Grid or non-grid enabled. We intend to present an approach taking advantage of both worlds.

The STAR Unified Meta-Scheduler (SUMS) project provides users a way to submit jobs on a farm, at a site (multiple pools or farms) or on the Grid without the need to know or adapt to the diversity of technologies and knowledge involved while using multiple LRMS and their specificities. The strategy was adopted in 2002 to shield the users against changes in technologies inherent to the emerging Grid infrastructure and developments.

Java based and taking as input a simple user job description language (U-JDL), SUMS allows connection with multiple (overlapping or not) LRMS and Grid job submission (Condor-G, grid-job-submit, ⋯) without the need for changing the U-JDL. Fully integrated with the STAR File and Replica Catalog, information providers (load and queue information), SUMS provides a single point of reference for users to migrate from a traditional to a distributed computing environment. Results and the evolutionist architecture of the SUMS will be presented and its future, improvements and evolution will be discussed.

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