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SHIWA Simulation Platform

Friday, 23 September 2011 14:00 (1h 30m)

A large number of research teams creates and runs workflows to support their applications. There are two key players in this process: e-scientists who use workflows and workflow developers who create workflows. Elaborating a workflow may require significant efforts and specific expertise. Workflow developers have to be familiar with both the research area which they address and workflow systems they use. Workflow development, testing and validation is a time consuming process and it requires specific expertise. These constraints limit the number of available workflows, so it is important to reuse them. However, there is a further obstacle to workflow dissemination: there are many workflow systems, and workflows developed for one workflow system is normally not compatible with workflows of other workflow systems. As a result research communities cannot easily use workflows. This situation can be resolved by workflow interoperability according to which publicly available workflows can be and should be used by different research communities on different workflow systems and on multiple distributed computing infrastructures.

The SHIWA Simulation Platform (SSP) was designed to provide a platform through which scientists can share and re-use their workflows.

The production SSP v1.0 is available since mid March. SSP v1 supports coarse-grained workflow interoperability where nodes of a native workflow can be workflows written in other workflow languages and systems and are considered as black boxes. In SSP v1.0 the native workflow system is the P-GRADE workflow system. The coarse-grained interoperability enables either embedding or invoking ASKALON, GWES, Kepler, MOTEUR, Taverna and Triana workflows. SSP v1 allows e-scientists to search workflows uploaded to the SHIWA Repository and use them in their experiments. The workshop will show the concept and technical details of SSP v1.0 as well as some application examples where SSP v1.0 was actively used.

Required Facilities

Access to Internet, projector

Duration (90min sessions)

Concept of SSP (20 min), Components (30 min), usage scenarios (20), applications (20)

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