



Contribution ID: 99

Type: **Workshop**

Scientific workflows in Kepler - hands on - HUC/VRC training event

Thursday, 14 April 2011 14:00 (3h 30m)

Overview

The goal of this training, that is part of the EGI HUC/VRC training event, is to teach the usage of the Kepler. Kepler is free and open source, scientific workflow application. Kepler is designed to help scientists, developers create, execute, and share models and analyzes across a broad range of scientific and engineering disciplines. Kepler includes components (actors) that provide support for different grid middleware stacks - e.g. gLite and UNICORE.

During this training it is planned to provide audience with extensive knowledge regarding:

- using basic workflow components (framework, actors and directors)
- building basic workflows
- using relations, paths and synchronization
- building “if-else” structures using workflows, creating loops using standard Kepler components
- using grid actors

Impact

Expected impact:

- Dissemination of the EGI_Inspire SA3 shared tools
- Possible usage of the Kepler workflow system by new users/ new communities

Description of the work

Kepler is free and open source, scientific workflow application. Kepler is designed to help scientists and developers to create, execute, and share models (workflows) that can refer to broad range of scientific and engineering disciplines. Kepler ships with a searchable library containing over 350, ready to use processing components ('actors'). These can be easily customized, connected, and then run (as a workflow) from a desktop like environment. Actors can perform calculations, automatic data management, or even execution of external applications. Kepler workflows can be decomposed into smaller parts (so called composite actors) that allow complex tasks to be divided into simpler one. This feature provide workflow designers with ability to build reusable, modular sub-workflows. These workflows can be saved for latter, and used within any other workflow that applies.

Kepler includes components (actors) that provide support for different grid middleware stacks - e.g. gLite and UNICORE. The extension covers the standard activities related to remote job management: job submission, monitoring, data handling, and so on.

Conclusions

The goal of this training, that is part of the EGI HUC/VRC training event is to teach the usage of the Kepler (creation of the scientific workflows). Support for the Kepler is part of the EGI_Inspire SA3 activity. This training will give the possibility to disseminate the activity and to reach possible new users.

Primary author: Mr PLOCIENNIK, Marcin (PSNC)

Co-authors: Mr GOMEZ, Antonio (CIEMAT); Mr OWSIAK, Michal (PSNC)

Presenter: Mr PLOCIENNIK, Marcin (PSNC)

Session Classification: Tutorials: Users & Developers

Track Classification: Other