



Contribution ID: 57

Type: **Workshop/Training**

## Kepler Scientific Workflow Tutorial: Hands-On

*Tuesday, 27 March 2012 11:00 (1h 30m)*

Kepler is a free and open source, scientific workflow application.

During this training it is planned to perform the following exercises:

- Usage of basic workflow components (framework, actors and directors)
- Building basic workflows
- Relations, Paths and Synchronization, if-else, loops
- Advance usage of grid actors: different scenarios (simple and complex workflows)

### Description of the Work

Kepler is designed to help scientists and developers creating, executing, and sharing models and analysis across a broad range of scientific and engineering disciplines. Kepler ships with a searchable library containing over 350 ready-to-use processing components ('actors') that can be easily customized, connected and then run from a desktop environment to perform an analysis, automate data management, and integrate applications efficiently. Kepler workflows can be nested, allowing complex tasks to be composed from simpler components, and enabling workflow designers to build re-usable, modular sub-workflows that can be saved and used for many different applications. Kepler includes the Serpens suite - actors and whole complex workflows enabling support for different grid middleware stacks, including gLite and UNICORE. The extension covers the standard activities like: job submission, monitoring, data handling.

### 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 ctivity. This training will give the possiblity to disseminate the activity and to reach possible new users. In order to achieve it different ready to reuse generic scenarios will be presented.

### Impact

- Dissemination of the EGI\_Inspire SA3 shared tools
- Possible usage of the Kepler workflow system by new users/new communities
- Possible re-usage by other users of the proposed genericapplication workflow scenarios

### Overview (For the conference guide)

The goal of this training, that is part of the EGI HUC/VRC training event is to teach the usage of the Kepler and the Serpens suite. Kepler is a free and open source, scientific workflow application. Kepler is designed to help scientists and developers creating, executing, and sharing models and analysis across a broad range of scientific and engineering disciplines. Kepler includes Serpens suite enabling support for different grid middleware stacks, including gLite and UNICORE.

During this training it is planned to perform the following exercises:

- Usage of basic workflow components (framework, actors and directors)
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**Session Classification:** Kepler Tutorial (workshop)

**Track Classification:** Software services for users and communities